

11. The Architectural Development of the Theatre from the Hellenistic to the Byzantine Period

The first chapter above outlines the complex research history of the theatre at Ephesus. The editor's foreword addresses the lengthy investigation period, as well as the methods and modifications on the original architectural structure, which were sometimes not comprehensible, during former restoration-works. The finds and results described in this fascicle cannot provide a complete picture of the theatre's structural changes, or its chronological development. Building research of the last decades has, however, brought new information to light and from today's perspective has made it possible to confirm construction phases of the entire *koilon* and to reconstruct the stage building. This goes beyond the subject of the current volume and for this reason it was considered practical and important to present a brief overview of the theatre's architectural development. The reader is made aware of the key issues, discoveries, and interpretations without the lengthy detailing of the finds and their critical analysis, which are being prepared for the future fascicles.

11.1 THE HELLENISTIC PERIOD THEATRE

11.1.1 The Hellenistic Stage Building

Based on the excavation results of rooms D3¹ and D8², the theatre terrace and the *skene* structure were erected in the 1st half of the 2nd century BC. Despite this, no firm date can be determined for the construction of the *koilon* or the *orchestra*. One can expect, however, that the building site and a preliminary design of the theatre were already established at the time of planning Lysimachus' new city. Because the excavations did not yield precise chronological evidence, the temporal connection between the construction of the stage building and *koilon* cannot be determined. We know that the first major structure in the Hellenistic town was the approximately 8 km long city wall. On the other hand the excavations at the Tetragonos Agora, the market situated near the harbour, indicate that it was erected soon after the city was founded, although its monumental design is obvious part of a later construction phase³. Similarly, one could possibly imagine this for the construction of the theatre. Taking the building sequence into consideration, it seems probable that the preparation of the slope for the *koilon* and the construction of the *orchestra* preceded the construction of the monumental stage building. It cannot be confirmed how far back such reconstructions can be dated. As well, the question as to whether this was used as a provisional theatre before the construction of the monumental stage building in the 1st half of the 2nd century BC remains open.

A terrace measuring 75 m long and nearly 20 m wide was constructed west of the *orchestra* in order to accommodate the stage building. The preserved remains protrude approximately 4.50 m on the northwest corner of today's Byzantine street level, while towards the south they converge with the gradually ascending road. The terrace wall consists of large ashlar limestone blocks without a mortar bond (Pl. 17 Fig. 27). The two-storey stage building rose above the theatre terrace (Pl. 424 Fig. 745). Measuring 41.65 m long and 10.77 m wide, it was one of the largest Hellenistic stage buildings in Asia Minor. Its orientation and dimensions are clearly linked with the terrace wall to the north. The west facade also runs parallel to the western wall of the terrace, but is set back by 6 m toward the east. It is therefore based on a uniform construction process. The walls are on average 0.78 m thick and constructed in double-walled pseudoisodomes masonry

¹ Cap. 3.1.1.1.

² Cap. 3.1.1.2.

³ The fittings of the Agora correspond to the bare necessities: an area with a dirt floor and initially a simple structure made of wood and mud brick. Gradually during the course of the 3rd century BC these were replaced by stone buildings. See SCHERRER – TRINKL 2006, 15–17.

(Pl. 425 Fig. 746). Building materials were predominantly yellow-brown limestone (»Poros«), reddish breccia and blocks of shelly limestone. Marble was occasionally used for door lintels. As with the terrace wall, the *skene* walls were constructed without mortar. The use of clamps occurs only at the corners of structure. In some areas, the preserved height of the stage building walls measures 7.78 m above the foundation. On the upper floor, in particular, numerous additions and modifications, dating to later periods, can be recognized.

LOWER FLOOR

The lower floor remains, with the exception of the northwest corner, completely intact today. Although large sections of wall are concealed by Roman age masonry (Pl. 3 Fig. 3; 12 Fig. 20; 430 Fig. 758), the layout is clear. The interior is divided in two, lengthwise (Pl. 10 Fig. 17). The rectangular Corridor A of the stage building spans the entire length of the eastern half. Its width of 4.20 m is the same as the interior width of the row of eight chambers (D1–D8), which comprise the western half. The 2.80 m wide central passage C lies between chambers D4 and D5; its orientation is east-west and it separates the space. Chambers D2 to D7 are similar in size, measuring on average 4.20×4.12 to 4.15 m. They are accessible from corridor A by doors situated in the middle of their east walls and measure ca. 1 m wide and 2.46 m high. The lintels of all chamber doors are made of the same material as the walls. The outer chambers, D1 and D8, were considerably smaller at only 3.15 m wide; they were accessed through openings in the west wall, by way of the theatre terrace. The foundations of the south wall and traces of the false ceiling in chamber D8 indicate that the upper floor was attainable through these chambers by way of stairs⁴. The chambers and the passage C had timbered ceilings (Pl. 425 Fig. 746). This can also be presumed for the corridor A, although no beam holes remained visible in the Imperial Era walls that served as arch supports in front of the Hellenistic longitudinal walls. There are no windows at any point, but the six inner chambers (D2 to D7) each have tiny openings on the west wall (Pl. 425 Fig. 746), directly under the wooden ceiling.

Corridor A was accessible through doors located on its north and south sides. The southern door was 1.27 m wide is preserved, although it was walled in at a later date. The north door no longer exists, but can be identified by way of two ca. 2.40 m long stone blocks located *in situ* that were likely situated above the lintel. To the east, two doors are detected in the middle and in the northern half, which led to the *proscenium* and *orchestra*. In the southern half, one of the northern doors is interpreted as a third passage. The middle door had a clearance of 1.92 m. It had a marble lintel, which is now broken, and a limestone threshold⁵, which was partially destroyed by the subsequent installation of a channel⁶, so that only the southern part of the hinge holes for the doors are preserved. The northern door has both a marble lintel, and threshold. The middle passage C extends in a north-south alignment to Corridor A and is spanned by flat transverse arches of limestone (Pl. 426 Fig. 747). Holes are visible on the underside; according to W. Wilberg, these were probably used to accommodate a grille⁷. Across from the west wall, the remnants of a 0.40 m high wall are still in existence. Opposite the arches, the remains of a 0.40 m high marble lintel are still visible on the west wall (Pl. 426 Fig. 748).

UPPER FLOOR

Considerably less remains of the original structure on the upper floor. Numerous changes carried out later on have led to questions regarding the original structure. The plan published by W. Wilberg (Pl. 11 Fig. 18) indicates that the layout of the upper level largely followed that of the lower level⁸. Eight chambers and a central passage C' also comprise the western half of corridor A'. The doors are the only features that are not

⁴ Cap. 3.1.1.2.

⁵ HEBERDEY u. a. 1912, Fig. 11.

⁶ Cap. 3.2.2.1.

⁷ HEBERDEY u. a. 1912, 6.

⁸ This view was reflected so far in all publications following W. Wilberg and also applies to the article of the author (HOFBAUER 2002, 180).

consistent with the layout of that level. None of the doors are situated in the middle of the chambers' east walls, rather, they are mainly placed towards one of the corners. This unusual feature resulted in several interpretations⁹, and was clarified during our investigations in the summer of 2006. It was then revealed that four of the Hellenistic walls identified in the lower level did not exist in the upper level (Pl. 11 Fig. 19). The walls in question are between chambers D'2 and D'3 (no longer extant), chambers D'6 and D'7, as well as the walls between passage C' and chambers D'4 and D'5. These walls were added much later. Thus, three rooms existed between stairways D1 and D8 in the original construction phase. Based on the little evidence available, large doorways to corridor A' have been reconstructed in the middle of the east wall, as they appear in the lower level (Pl. 11 Fig. 19). Both the stairs located in the two outer chambers, which connected the lower and upper levels, as well as the layout of the upper level floor in the form of a continuous corridor with a suite of chambers lying behind it seem to be unique solutions in Hellenistic theatre¹⁰.

As well, no evidence of windows on the upper level exists. Due to the conserved height of the walls, larger windows are ruled out. On the other hand, small openings are conceivable as these are known to have existed on the lower level. One exception is a large opening in the west wall of the middle chamber; a vault¹¹ is preserved in parts directly above the opening to passage C' and a portion of the arch was found on either side of this opening (Pl. 426 Fig. 748; 427 Fig. 749). On the south side, the wedge-shaped limestone blocks reach a height of T^a 15.857 m, which corresponds to 5.35 m above the upper level of the foundation. The height of the completed arch apex lies at 6.04 m above the foundation (T^a 16.55 m), which results in a room height of 2.94 m. Blocks protruding from the northern and southern window soffits, respectively, lie directly on top of the marble joist above passage C, which makes it clear that at least at a lower level, the west wall has passed over the width of the window. The finishing of the stone blocks points to a double-faced masonry wall, as well as to the subsequent removal of a once-existing parapet or balustrade. Recesses for the attachment of shutters or a grating are unknown.

THE EAST FACADE

As indicated by W. Wilberg¹², the east side of the upper level underwent modifications. Limestone was used for the original construction, and marble for the remodelling. In addition to the use of different materials, the north door »e« which originally connected corridor A with the *proscenium*, was sealed shut (Pl. 10 Fig. 17; 427 Fig. 750; 428 Fig. 751). This is based on the fact that a marble pillar, dating to the second phase¹³ of the *proscenium*, was placed above the doorway. Because the passageway was still required, a new opening, situated between the phase 2 columns was created just 1 m south of the original opening.

The appearance of the east side of the older *skene* facade is unknown. The possibility of a continuous wall with door openings was only suggested by A. von Gerkan¹⁴. Broad suggestions regarding older »*thyromata*« are already presented in W. Wilberg¹⁵ and also found support in the works of E. R. Fiechter¹⁶ and A. Frickenhaus¹⁷.

⁹ DE BERNARDI FERRERO 1970, 50 tries to explain this peculiar arrangement of doors in that they were obscured by the *thyromata* and would not have been seen through the doorways of the *skene*. In my opinion, however, this explanation is unsatisfactory. The »invisibility« of these doors can only be assumed for a certain number of seats in the central area of the *koilon* and not for the vast majority of seats. Moreover, this argument is based on the »*thyromata*« pillars of the second phase and therefore does not apply to the first phase.

¹⁰ Here the results of the research can only be briefly presented. A detailed discussion and the architectural-historical evaluation of the findings will be given in the volume outlining the construction history of the stage building, see also M. Hofbauer in: ÖZTÜRK (in preparation). These results were already presented in HOFBAUER 2007, 46–58; HOFBAUER 2012.

¹¹ HEBERDEY u. a. 1912, Fig. 9.

¹² HEBERDEY u. a. 1912, 13. 18–19.

¹³ Compare below: periodization.

¹⁴ VON GERKAN 1921, 90.

¹⁵ HEBERDEY u. a. 1912, 12–13.

¹⁶ FIECHTER 1914, 35.

¹⁷ FRICKENHAUS 1917, 38.

EXCURSUS REGARDING THE *THYROMATA*

In connection with a theatre we find the term ›thyromata‹ appearing once in an inscription on the upper floor of the theatre at Oropos¹⁸. W. Dörpfeld applies the term to the *parodos* gates, but, according to E. R. Fiechter¹⁹, that could also belong to the Roman period. Fiechter does not employ the term ›thyromata‹, but refers to openings in stage building. On the other hand R. C. Flickinger²⁰ considers Dörpfeld's argument as a misinterpretation and applies the term ›thyromata‹ explicitly to describe the wall openings of *skene*. Recently ›thyromata‹ has developed into a frequently-used term for gate-like openings in the stage building and have led to identifying them as certain stage types, namely, ›thyromata stage‹, or ›thyromata-facade‹. Some authors are somewhat more mindful of the so-called *thyromata* and put the term in quotes²¹. Fundamental to the issue of the term, including a more elaborate discussion, can be found most recently in J.-Ch. Moretti²²; he considers it desirable to dispense entirely with terms like ›thyromata-facade‹ or ›thyromata-stage‹.

If not being integrated citation the author considers it beneficial to employ quotation marks with the traditional research term ›thyromata‹ in those cases where more neutral terms such as ›wall openings‹ or ›pillar wall‹ are not used.

Nevertheless, the term ›thyromata‹ is now considered to provide a special understanding of a structural element of the Hellenistic stage. In reference to the Ephesian *skene* facade, A. von Gerkan²³ only accepted ›thyromata‹ for the late Hellenistic period. On the other hand, H. Lauter²⁴ and H. Froning²⁵, and most recently S. Gogos²⁶, consider it not unlikely that the ›thyromata‹ for the theatre at Epidauros dates to the late 4th century BC. Therefore it seems all the more logical to make a connection in Ephesus with the stage building which dates to the 1st half of the 2nd century BC.²⁷

The marble pillars from the rebuilding phase have been preserved in the masonry of the imperial-era *scaenae frons* and based on which a pillar wall with seven openings has been concluded (Pl. 428 Fig. 752; 429 Fig. 754–757). Mounted on the two outer marble pillars was a list of agonothetes²⁸; these provide, at least, a *terminus ante quem* of 51/50 BC for the rebuilding. The list ends in 18/17 BC and confirms the existence of the Hellenistic *skene* into the Augustan era.

THE THEATRE TERRACE WEST OF THE STAGE BUILDING

The west side of the stage structure presents the most problems. W. Wilberg intended to reconstruct a portico on the 6 m wide strip of land between the west wall of the *skene* and the terrace wall (Pl. 17)²⁹. There is, however, neither architectural nor archaeological evidence to support this. So far, no architectural elements have emerged that could be clearly assigned to such a stoa, if one disregards one Ionic capital, which was the basis for W. Wil-

¹⁸ DÖRPFELD – REISCH 1896, 109; PETRAKOS 1997, No. 435.

¹⁹ FIECHTER 1930, 27. Also FIECHTER 1914, 35.

²⁰ FLICKINGER 1918, 109.

²¹ For example, LAUTER 1986, 169 (for the first naming) or GOGOS 2009, 86. 114 (glossary).

²² MORETTI 1997, 35–37.

²³ VON GERKAN – MÜLLER-WIENER 1961, 72–73.

²⁴ LAUTER 1986, 169–170.

²⁵ FRONING 2002, 58.

²⁶ GOGOS 2011, 64 is of the same opinion: »Demnach wäre davon auszugehen, daß in Epidauros die ›Thyromata‹ bereits seit dem frühen Hellenismus, und nicht erst später, dem zeitgenössischen Theaterspiel entsprechen, den architektonischen und szenisch notwendigen Hintergrund der erhöhten Bühne (Logeion) bildeten«.

²⁷ Also DE BERNARDI FERRERO 1970, 50 likely in an attempt to justify the unusual door arrangement on the upper level suggested by W. Wilberg, thought of large door openings because the door arrangement in a closed wall with three (?) doors seemed hardly necessary.

²⁸ IVE 9.

²⁹ W. Wilberg, in: HEBERDEY u. a. 1912, 15–16: »Denkbar wäre, daß an dieser Stelle eine Halle sich erhob, die für das Wort ἀντίσκηνος der Inschrift Nr. 41 (= IVE 2041) eine Erklärung geben würde«. Also see Cap. 8.6.1, No. 11 and Cap. 8.6.2.

berg's portico reconstruction theory³⁰. The preserved masonry of the stage building also bears no traces to support this. The walls on the front faces of the hall, indicated by W. Wilberg, lack the anticipated connection traces to the *skene*. The terrace wall's upper layer of stones was probably removed even before the establishment of the Byzantine city wall³¹, so here, too, there is no indication of columns. The only possible evidence is an approximately 5 cm wide, but very shallow notch embedded in the south wall at the southwest corner of the Hellenistic *skene*. It may be connected with an enclosure, but seems unlikely to be connected with a possible portico.

PROSCENIUM

As could be seen from all previous excavations³², nothing of the Hellenistic *proscenium* remains intact. This seems to have been completely removed by the construction of the *scaenae frons*. W. Wilberg dates the Roman stage front of the *proscenium* to the second Hellenistic phase (Pl. 428 Fig. 753)³³. With this he also explains the two-time installation which had been established by the lack of intact doweling found when the logeion pillars were removed in 1900³⁴. He suggests a wooden structure for the older phase, but von Gerkan³⁵ vehemently disagrees with this. He recognizes the ›Late Hellenistic‹ *proscenium* as imperial era, and refutes the idea of a wooden *proscenium*; subsequently he also argues against the two-phase theory suggested by Wilberg. A. von Gerkan advocates an original stone construction. He interpreted his version of the Hellenistic *proscenium*³⁶ based on two bar holes with a center distance of 1.56 m located above the lintel of the northern door from the corridor A to the East, as well as on a circuit which corresponds to the outer edge of the ring-channel corresponding circle, which he inscribes as a square, according Vitruvius.

As noted above, the first imperial era *proscenium* was identified as that of the second Hellenistic phase by W. Wilberg. Wilberg's reconstruction of the Hellenistic stage has two peculiar recesses on both sides of the *proscenium* facade and the *parodos* gates by using the two side sections that were necessary in the Flavian era construction to allow the stage front over the former *analemmata* P and Q to project eastwards³⁷. Realizing that the preserved architecture dates to the imperial era frees his reconstruction of these peculiar recesses at the corners. The layout of Hellenistic theatre is based on the characteristically trapezoidal shape of theatres in Asia Minor (Pl. 11 Fig. 19)³⁸.

PERIODIZATION

The first Hellenistic phase:

The construction of the theatre terrace and stage building date to the early 2nd century BC, based on the excavation results of chambers D3 and D8 in the Hellenistic stage building. This limestone structure can be described as typical for Hellenistic theatres in Asia Minor: a long, rectangular building comprised of two levels, and whose east wall was likely equipped with large wall openings (›*thyromata*‹) from the very beginning. Although none of the *proscenium* has been preserved, one can assume, in good conscience that it took on the ubiquitous trapezoidal shape of theatres in Asia Minor. A portico is suggested for the area west of the stage area based on the theatre terrace. Yet, due to a lack of evidence, its reconstruction is hypothetical.

³⁰ HEBERDEY u. a. 1912, Fig. 22; ALZINGER 1961, 110 assigns a much earlier date to this capital and indicates an identical example which was found at the ›Lukasgrab‹ grave.

³¹ Cap. 3.1.2.3.

³² Cap. 3.2.1.

³³ HEBERDEY u. a. 1912, 21–29.

³⁴ HEBERDEY u. a. 1912, 33.

³⁵ VON GERKAN 1921, 92.

³⁶ VON GERKAN 1921, 91.

³⁷ HEBERDEY u. a. 1912, Fig. 56. This reconstruction was also repeated by FRICKENHAUS 1917, Pl. 1.

³⁸ ISLER 1994, 105; MORETTI 1992, 13.

Second Hellenistic Phase:

It seems that the *skene* was not affected by substantial changes until the end of the Hellenistic period, rather the transformation seems only to have affected the east wall. The erstwhile limestone pillars were replaced by marble ones, which also contained the list of the agonothetes as of 54/53 BC. The conversion must have been completed by this time at the latest. Whether or not the *proscenium* was affected is somewhat of a pointless question, as no evidence prior to the Flavian reconstruction exists. The stage building of the theatre retained its Hellenistic ›thyromata-type‹ characteristics until the last decade of the 1st century BC.

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11.1.2 The Hellenistic Orchestra

Central to the Hellenistic building is a circular *orchestra* (Pl. 12 Fig. 20; 13 Fig. 21; 77 Fig. 151; 78 Fig. 152), which was customary since the 2nd half of the 4th century BC.³⁹ The diameter is 12.35 m, taking the inside of the circular channel into consideration. This channel is affected towards the west in the stage building, near the area of the central door's threshold (Pl. 430 Fig. 759). The threshold of the stage building's central door overlaps the circular channel 0.34 m to the east; this corresponds to almost half the wall thickness of the east *skene* wall. The *proscenium* would have overlapped the *orchestra* circuit by ca. 3 m. The width of the ring channel gradually increases from 0.45 m at the south end to 0.59 m at the north end and has a distinct north-south orientation. In the northwest, the channel curves gently around the end of the *analemma* wall P and then turns, at a right angle, towards the north in order to follow the northern part of the *parodos*, presumable to a street sewer. The same yellowish brown limestone was used here, as in the stage building. The course of the Hellenistic channel was uncovered throughout the *orchestra* area. Stone slabs were used in the axes of the twelve steps of the *koilon*; these formed little ›bridges‹ over the channel. The stone slab pavement of the *parodos* covered the channel completely from the north part of the *analemma* onward.

Less than 1 m from the inner edge of the annular channel there is a circular foundation U. It is largely preserved in its eastern half with well prepared surface (Pl. 82 Fig. 162; 90 Fig. 180) on the edge of the actual ›dancing ground‹, which, according to W. Wilberg, has parallels in the theatres of Epidauros and Oiniadai⁴⁰. Wilberg presumed, on the basis of their slightly bent long sides, that six stone slabs located under the *logeion* pillars of the imperial stage are erstwhile slates of the stone setting⁴¹. At the most recent excavations remains of these foundations in S 3/2004 (Pl. 84 Fig. 166) and in S 1/2005 (Pl. 89 Fig. 177, 178; 90 Fig. 179, 180) could be uncovered again.

No datable finds linked to the Hellenistic building could be found due to the massive imperial-era configuration of the *orchestra* and large-scale excavations. The preserved annular channel seems to form a single unit with the stage building and elements of the *koilon* and for this reason is thought to date to the same time.

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11.1.3 Hellenistic Koilon

As seen with the stage building, sections of the Hellenistic auditorium have been preserved⁴². Although the exact date and shape of the Hellenistic *koilon* cannot be determined, some conclusions can be drawn as to its

³⁹ ISLER 1994, 97.

⁴⁰ HEBERDEY u. a. 1912, 14; POWELL 1904, 188–190 Fig. 19 Pl. 8. The plan recorded in FIECHTER 1931, Pl. 1 is more detailed; see also GOGOS 2009; GOGOS 2011.

⁴¹ HEBERDEY u. a. 1912, 14 with Fig. 16.

⁴² The results of construction research in the present text describe the essential phases in the auditorium. Its presentation is to be understood as an overview and is therefore limited to providing only those details necessary for understanding the issues. A full and detailed discussion of the whole evidence appears in STYHLER-AYDIN (in preparation).

size and appearance based on the architectural remains. The considerable size of the 42 m long *skene* make it one of the largest Hellenistic stage buildings in Asia Minor, and one can therefore expect a similarly sized *koilon*⁴³. Differing perspectives regarding the original shape of the auditorium and its structural development exist in the research literature. For example, R. Heberdey and W. Wilberg hypothesized a three-tier Hellenistic theatre with a capacity of 23,000 spectators⁴⁴, whereas D. De Bernardi Ferrero and later St. Karwiese and I. Ataç considered an extended auditorium⁴⁵.

What follows is a synthesis of results based on the actual architectural evidence regarding the shape and extent of the Hellenistic *koilon*.

Direct evidence of the Hellenistic *koilon* is found at the bottom of the rows of seat in the *orchestra*. In 1899, during the third excavation season, Hellenistic precursors were found beneath the imperial era *orchestra* channel⁴⁶. This first channel measured between 0.55 and 0.60 m wide with an internal diameter of 24.66 m, equivalent to 84 Attic feet, and ran around the *orchestra* as an open channel⁴⁷. On this basis R. Heberdey and W. Wilberg already determined the level of the corresponding Hellenistic *orchestra* floor and were also able to draw conclusions regarding the location of the lower rows of *koilon* seats that had been removed⁴⁸. In their reconstruction in 1912 the seats bordered on the opening beside the edge of the Hellenistic channel, with the lower seats arranged at the *prohedrie* (Pl. 431 Fig. 760)⁴⁹.

These considerations remained hypothetical, due to the absence of further structural evidence yet, for example, might be presumed with regard to the formation of the only preserved, three-sided *prohedrie* chair (Pl. 431 Fig. 761)⁵⁰. However, a further argument for the said reconstruction was found during excavations at the base of the currently visible *orchestra* wall X. It shows that the imperial era retaining wall was built directly upon the rock which was possible due to the removal of the tiered seating⁵¹. Another indication for the situation at the foot of the *koilon* are traces in the wall of the Hellenistic channel which are recesses that accommodated stepping stones. These 0.15 m thick slabs acted to bridge the canal as a direct extension of the twelve *klimakes* in the lower row (Pl. 432 Fig. 763, 763)⁵². The lower row's resulting division into eleven *kerkides* has survived until today. Only the outer *kerkides* were modified as a result of the later installation of the *scaenae frons* and the imperial era *logeion* (Plan 1). However, here again the most northwesterly stepping stone on the Hellenistic *orchestra* channel as well as the contact surfaces of the outer *klimakes*' stone steps are the only *in situ* components of the Hellenistic *analemmata*.

The lowest tier of the Hellenistic *koilon* had an angle of ca. 217°. The circular *orchestra* was accessible by 3.5 m wide *parodoi* located to the south and north (Pl. 442 Fig. 783, 784)⁵³. Because the surrounding topography at the foot of the Panayırdağ sloped from south to north, the northern *parodos* was higher than the road

⁴³ For comparison, the theatre of Miletus was cited. Here, F. Krauss reconstructed the first Hellenistic stage building (*skene* I) as 15.175 m long (KRAUSS 1973, 8) and the associated *orchestra* with a diameter of 21.46 m (KRAUSS 1973, 46) on the basis of an audience space of ca. 73 m in diameter (KRAUSS 1973, 60 text fig. e). The quantity of seats determined by him was comparable with that of the theatre in Priene (KRAUSS 1973, 46). The late Hellenistic great stage (*skene* IV) measuring 39.89 m long and the 26.24 m diameter *orchestra* likely had at least a remodeled auditorium (KRAUSS 1973, 51). Kraus also does not deny the possibility of a completely new construction during this phase.

⁴⁴ HEBERDEY u. a. 1912, 16.

⁴⁵ DE BERNARDI FERRERO 1970, 49–66; also SCHERRER 1995, 160; ATAÇ 1999b, 3.

⁴⁶ HEBERDEY 1900; HEBERDEY u. a. 1912, 14 Fig. 20; 15 Fig. 21.

⁴⁷ HEBERDEY u. a. 1912, 8 Fig. 6. For the foot unit at the stage building compare BAMMER 1961, 152. The *orchestra* channel does not always follow the circular shape uniformly, but shows some variation in the radius. This may account for why the radius measurements differ in the literature. R. Heberdey and W. Wilberg note a radius of 12.33 m; M. Hofbauer notes a measurement of 12.35 m (Cap. 10.1.2).

⁴⁸ HEBERDEY u. a. 1912, 13–15; HOFBAUER 2007, 13 f.

⁴⁹ HEBERDEY u. a. 1912, 44 Fig. 86.

⁵⁰ HEBERDEY u. a. 1912, 16–17 with Fig. 27; today in the Ephesos Museum in Vienna, compare OBERLEITNER u. a. 1978, 64 Cat. No. 50. Seats from the *prohedrie* have also been preserved at the theatre in Metropolis. Their position is reconstructed in front of the lower row of seats in a single formation, each centered in front of a *kerkis*. The theatre of Priene also shows *prohedrie* seats at the edge of the *orchestra* spaced at even intervals. Here the gaps between them were later filled with benches.

⁵¹ Cap. 3.3.2.1 and 10.2.4.2.

⁵² HEBERDEY u. a. 1912, 13 Fig. 17; 14 Fig. 19.

⁵³ HEBERDEY u. a. 1912, 7 Fig. 5; HOFBAUER 2007, 59.

and would have been accessible by a ramp or additional steps (Plan 3. 7)⁵⁴. Based on current assessments, the access from the *parodos* to the *orchestra* was almost level (Plan 3. 8).

Initial indications regarding the construction of the upper rows were gleaned from the analysis of the tiered seating substructure. In considering the preserved rows, a selection of materials were used for the framework of the rows of seats and the radial stairs. Ashlar blocks of grey marble and reddish breccia were used on the slope as well as on the lower rows. In some cases the solid rock was used as the substructure for the marble clad tiered seating. However, the seating areas added during the imperial era consisted of *opus caementitium* and were built on a stepped substructure of rubble masonry. The two different construction techniques are also evident in the *diazoma* walls, particularly in the substructure of the supporting walls with some variations in the foundations⁵⁵. This state, however, is based solely on the historical pictures of the original theatre excavation⁵⁶. The current appearance is the result of restoration work done since the 1960s, in which areas of *opus caementitium* were imitated using quarry stones.

The different construction techniques employed in the substructure of the seating tiers provide a first indication of the *koilon*'s expansion. In addition to the lower tier of eleven *kerkides*, it also indicates a middle and upper tier, at least in the area of the hillside. This is also suggested by the finds of the lower *diazoma* as well as the visible retrofitting of the Aristion aqueduct on the slope side of the terrace⁵⁷.

Another distinctive feature in regard to the auditorium's construction phases comes to light in the analysis of the theatre's outer walls. Here, in both the north and south, respectively, there is a noticeable change in the facade construction caused by a 82° to 83° angle in relation to the central axis of the building (Pl. 433 Fig. 765; Plan 4. 5). Further up the slope the outer wall consists of horizontal grey marble ashlar block, whose surface are slightly rounded and cushion-shaped. Horizontal offsets are arranged at intervals. The facing blocks display vertical, orthogonal, as well as trapezoidal and parallelogram-shaped cuts. The wall construction to the north displays two ashlar rows erected mortarless behind one another and that were interlocked with tie-rows. Sections of the facade of the north and south walls are similar in design and building materials to the terrace wall of the stage building (Pl. 434 Fig. 766. 767; 435 Fig. 768; Plan 3). R. Heberdey had already associated the top portion of the cushion-ashlar-facade with the Hellenistic *koilon*⁵⁸. The upper access ES3 in the south, which dates to the Augustan or early Tiberian era, was a subsequent installation in this cushion-ashlar-facade and proves that the outer wall was already in existence, even if the section of wall cannot be more securely dated⁵⁹.

The substructure of the tiered seating behind both north and south sections of the cushion-ashlar-facade consists of *opus caementitium* (or its modern quarry stone restoration) and indicates the spatial superimposition of construction phases. Particularly in the north wing it is apparent, from their uniform orientation that the subsequently added *vomitorium* EN2 and the adjacent substructure chambers were built as part of the late-Flavian era expansion of the auditorium behind the existing wall⁶⁰. The original substructure behind the cushion-ashlar-facade sections cannot be reconstructed. At other Hellenistic theatres dating to the 2nd century BC, such as at Termessos, Oinoanda and Arylicanda⁶¹, the wings of the structure protruding from the mountainside were associated with massive deposits of quarry stones. In regard to the structural dimensions of the Hellenistic *koilon* of the theatre at Ephesus, a glimpse of the substructure of the northwest wing is visible on the outer side of the slope, and it consists of several layers of massive, roughly-cut ashlar (Pl. 435 Fig. 769).

Although the original western boundary of the upper rows of the cushion-ashlar-facade cannot be accurately traced, the results indicate that by Hellenistic or Augustan times, at the latest, the wings of the building existed beyond the slope of the mountain but did not reach the full extent of the lower tiers. Creative solutions to this situation are the so-called recessed *analemmata*. Examples are found at the theatre at Epidauros (early

⁵⁴ The small Hellenistic fountain house on the northwest corner of the theatre terrace gives an indication of the Hellenistic period street level. It is more than 5.00 m lower than the Hellenistic *orchestra*.

⁵⁵ Cap. 3.4.2.5.

⁵⁶ Compare DE BERNARDI FERRERO 1970, 58 Fig. 55; 59 Fig. 61; 60 Fig. 62. 64.

⁵⁷ hap. 10.2.4.2.

⁵⁸ HEBERDEY u. a. 1912, 15; 12 Fig. 15.

⁵⁹ Cap. 10.2.4.1.

⁶⁰ Cap. 10.2.4.2.

⁶¹ CIANCIO ROSSETTO – PISANI SARTORIO 1994, Vol. 3, 370. 443. 452.

3rd century, with extensions in the 1st half of the 2nd century BC)⁶² and at Alinda (2nd century BC)⁶³. Such a design limited the height of the structure built on the other side of the slope and may be interpreted as a response to the technical possibilities available at that time.

According to current knowledge it cannot be determined whether the portions of cushion-ashlar-facade and the seating which lay behind it were the first expansion of the Hellenistic *koilon*. The results of its greatly restored state also do not allow for a more precise temporal limit of the facades to be determined. Corresponding questions also exist in connection with the second Hellenistic construction of the stage building as established by the incorporation of the marble ›thyromata‹. These must, however, remain unanswered for the time being⁶⁴.

Apart from the *parodoi*, other possible and perhaps topographically favourable, entrances to the *koilon* are not known, but cannot be ruled out⁶⁵.

The design of the *koilon*'s upper part also remains unknown. R. Heberdey and W. Wilberg reconstructed a hall in the area of the slope and associated it with information from an inscription located in the south *an-alemma*⁶⁶. Architectural components found during the current building research in the area of the portico are of a much later date. Discoveries made as a result of the archaeological excavations in the upper *diazoma* indicate building activity in some areas during the late Hellenistic or early imperial periods⁶⁷. No conclusions, however, could be made in regard to the erection of the supporting wall.

The seating areas in the theatre were clad with white marble slabs, of which a very small number have been preserved. In addition, any remaining components have changed place often enough that no clear spatial allocation is possible. The style and manufacture of the marble cladding does not provide any clear chronology. An inscription, which R. Heberdey dates to the 3rd century BC and which is located on the face of a marble slab on the *diazoma* wall, could indicate an early date for the installation of the marble cladding⁶⁸. A parallel for this cladding technique occurs at the Hellenistic theatre at Metropolis and which dates to ca. 150 BC.⁶⁹ Both the large theatre on the acropolis at Pergamon, with its andesite tuff cladding, and the theatre at Herakleia on the Latmos date to the Hellenistic period and evidence found in the substructure of the latter may allude to similarities in the cladding techniques at the Ephesian theatre⁷⁰.

G. STYHLER-AYDIN

11.2 THE THEATRE IN THE ROMAN IMPERIAL PERIOD

11.2.1 Imperial era theatre facades

According to the architectural evidence the stage building was erected in the Hellenistic period and underwent major rebuilding in Roman times⁷¹. A richly decorated imperial era theatre facade replaced the Hellenistic ›thyromata‹⁷². This facade was comprised of a stage podium (*proscenium*) and a *scaenae frons*, which rose over the *proscenium* and formed a three storey so-called tabernacle-facade⁷³.

⁶² VON GERKAN – MÜLLER-WIENER 1961; CIANCIO ROSSETTO – PISANI SARTORIO 1994, Vol. 2, 208–210; GEORGIOPOULOS – GOGOS 2002; GOGOS 2011.

⁶³ CIANCIO ROSSETTO – PISANI SARTORIO 1994, Vol. 3, 463–464.

⁶⁴ Cap. 3.4.3.1; 11.1.1 and 11.1.2.

⁶⁵ On this topic see also: BURMEISTER 2005, 160.

⁶⁶ IvE 2041. Compare HEBERDEY u. a. 1912, 15. 163–164. The inscription, however, is dated no earlier than the end of the 2nd century/beginning of the 3rd century AD. R. Heberdey himself suggests the later decades of the 3rd century AD. See also Cap. 8.6.1, No. 11 and Cap. 8.6.2.

⁶⁷ Cap. 3.4.3.1.

⁶⁸ IvE 2087. Compare HEBERDEY u. a. 1912, 18. 186. See also Cap. 8.6.2.

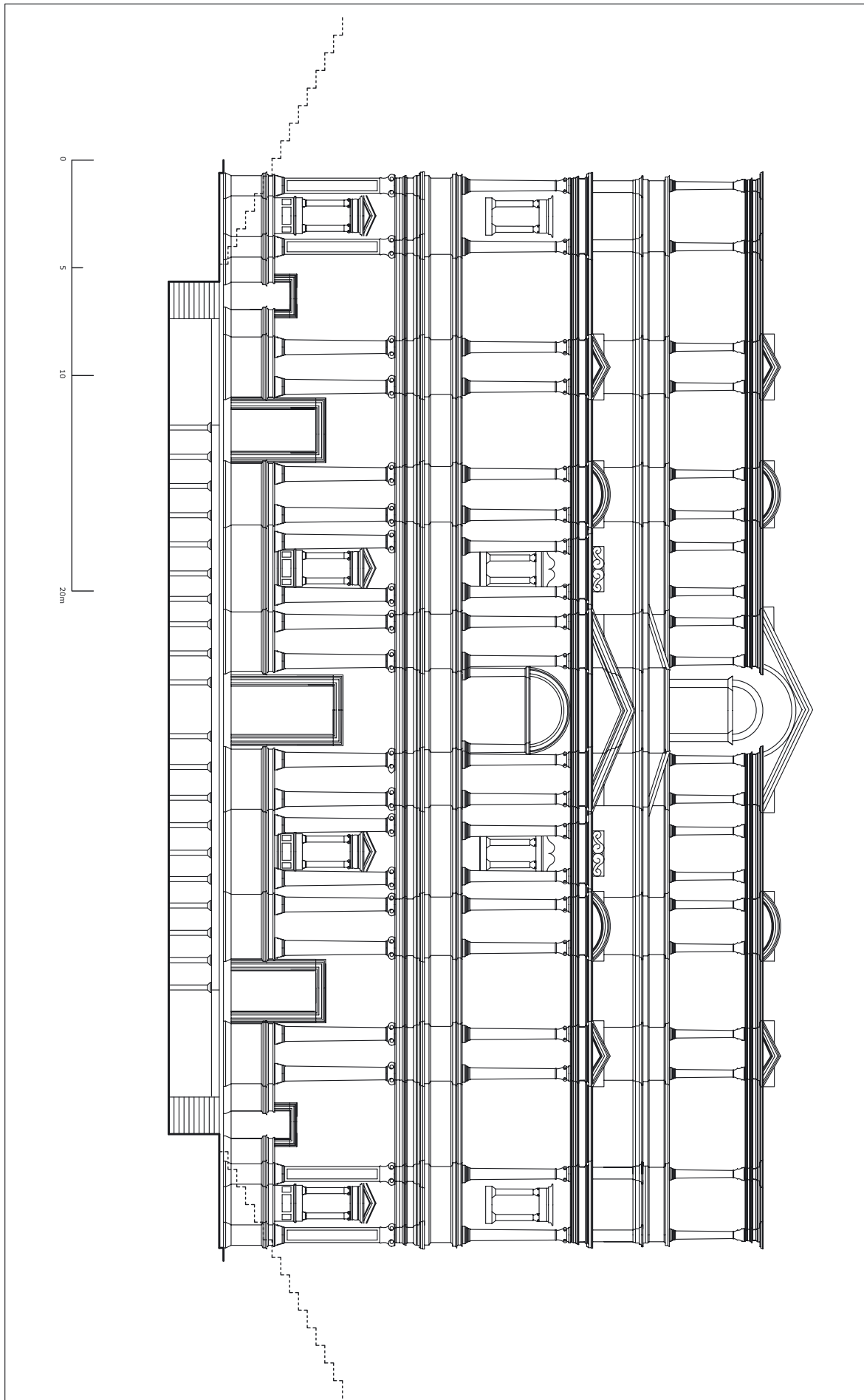
⁶⁹ MERİÇ 2004, 85.

⁷⁰ RADT 1988, 287–292; CIANCIO ROSSETTO – PISANI SARTORIO 1994, 396–398. 459.

⁷¹ HEBERDEY u. a. 1912, 5–52. Also Cap. 3.1.

⁷² Research at the site was concluded in 2005. The first results were presented in the following: ÖZTÜRK 2005a; ÖZTÜRK 2005b; ÖZTÜRK 2006a; ÖZTÜRK 2006b; ÖZTÜRK 2010.

⁷³ For terminology see ÖZTÜRK 2006b, 205–206; see also ÖZTÜRK 2009, 11–12.

Text fig. 15: Reconstruction of the *scenae frons* (by A. Öztürk)

PREVIOUS INTERPRETATIONS

Proscenium: After the first excavations the *proscenium* area was published by W. Wilberg in connection with the Hellenistic facility. Accordingly, the *in situ* supports and the triglyph entablature of the Roman era stage originally belonged to the stage of the Hellenistic *proscenium*⁷⁴. During the construction of the Roman *scaenae frons*, they were dismantled and partially reinstalled further forward in the front wall of the stage. According to Wilberg, the characteristic shape of Greek *proscenium* supports was achieved by adding engaged columns to the front of the *in situ* supports⁷⁵. A. von Gerkan did not interpret the supports and the triglyph entablature as parts of the Hellenistic *proscenium*, but as part of the early imperial stage⁷⁶. Moreover, H. von Hesberg suggested that the shape of the entablature was dated to the 1st century AD because the frieze was for the most part styled as a continuous band⁷⁷.

Scaenae frons: G. Niemann suggested the following reconstruction for the Roman era stage: the *scaenae frons* was placed in front of the Hellenistic *skene*⁷⁸. A third storey, rising above the *attica*-parapet wall, was later added to its original two-storey design. These two versions, which were both drawn up by Niemann, differ mainly in relation to the second floor. Version 1 sees the tabernacles replaced with five arched niches⁷⁹. A straight entablature was placed over the central niche, whereas the side niches had concave colonnades. In the second version, the center tabernacles are connected with a discontinuous pediment⁸⁰. There is no provision for a concave column.

Because of the architrave inscription on the first floor, the lower two floors of the *scaenae frons* were dated to 66 AD⁸¹, and the construction of the third floor is therefore set at the beginning of the 3rd century AD.

Another attempt at reconstructing the Ephesian *scaenae frons* was presented by H. Hörmann⁸². He based his reconstruction partially on G. Niemann's second version, but differed in the following ways: the smaller side doors located on the first floor were integrated in concave colonnades, and on the second floor a plinth frieze of erotes hunting was suggested. The concave colonnades of the third floor were arranged over the axes of the central door and the larger side doors. Hörmann assumed that the *scaenae frons* was raised by one level in the middle of the 2nd century AD, and not at the beginning of the 3rd century AD.

CONSTRUCTION OF THE IMPERIAL ERA THEATRE FACADE (LATE FLAVIAN PERIOD)

Proscenium: The first imperial period *proscenium* can be reconstructed based on *in situ* remnants such as its stylobate, upon which traces of former pillars still exist.

An arrangement of three doors made up the front of the *proscenium*; the middle door, centred on the building's axis was particularly large. It was flanked on each side by eleven pillars, namely one corner pillar and ten engaged pillars, which were followed by an entablature with triglyphs.

Based on current archaeological investigations the axial arrangement of the supports for the first imperial period stage could be dated to the Flavian era⁸³. It was therefore necessary to determine whether this date could also apply to the construction of the *proscenium*. The entablature is partially preserved, *in situ*, on the walls of the side entrances to the *parodoi*; these were built on the Hellenistic foundations with very little alteration. The entablature consists of a Doric architrave, a frieze of triglyphs and metopes, and a console geison (Pl. 436 Fig. 770). The architrave and triglyphs largely correspond to the Doric order, although unusually, the

⁷⁴ HEBERDEY u. a. 1912, 17 Fig. 5.

⁷⁵ HEBERDEY u. a. 1912, 21 Fig. 38–40.

⁷⁶ VON GERKAN 1921, 91.

⁷⁷ VON HESBERG 1980, 56.

⁷⁸ HEBERDEY u. a. 1912, 53–94.

⁷⁹ HEBERDEY u. a. 1912, Pl. VII.

⁸⁰ HEBERDEY u. a. 1912, Pl. VIII.

⁸¹ HEBERDEY u. a. 1912, 52.

⁸² HÖRMANN 1923/1924, 275–345.

⁸³ Cap. 3.1.2.

architrave consists of an unprofiled band instead of a *regula*. A console geison was used in the Doric entablature of the *proscenium*. H. von Hesberg assigned the date of 1st century AD based on the stylistic execution⁸⁴.

In Ephesus the Doric order was employed both in Hellenistic and imperial period buildings. The proportions of the Hellenistic examples and that of the Augustan era Prytaneion are initially quite similar⁸⁵. In other imperial period buildings, such as the Hall of Nero, the style varies, yet the height proportion of architrave and frieze remains 1 : 1.

The console geison of the *proscenium* has its closest parallel in the *attica* of the *scaenae frons*, which dates to the late Flavian era (Pl. 436 Fig. 771; 437 Fig. 772). The period and style of the *proscenium* and the *attica* cornice are closely related. This applies particularly to the profile design, the motifs used in the coffers, as well as the very flatly rendered ornamentation. One difference is in the profile of the console in the *attica* cornice and can be explained by the size variation and placement of the elements.

The shape of the supports also provides further justification for an imperial period date the *proscenium* remnants. Contrary to the opinion of W. Wilberg, the engaged pillars of the Ephesian *proscenium* differ from the characteristic form of Greek *proscenium* supports in that they are narrower and greater in depth⁸⁶. The first phase of the imperial *proscenium* can therefore be dated to the Flavian era.

Scaenae frons: The *scaenae frons* can be largely reconstructed due to the investigation of the building elements and of those structures which were still found *in situ* (Text fig. 15)⁸⁷. The architraves, in particular, were thoroughly researched and largely identified in their original position. Due to this, the arrangement of the *tabernacles* could be determined. The Ephesian *scaenae frons* consisted of a three-storey *tabernacle*-facade⁸⁸. The back wall of the first floor was divided by five doors and four niches; two larger ones flanked the sides of the central door. As well, four aedicules are also known in the back wall. The eight cranked *tabernacles* on the first storey stood on an undecorated plinth. The diagonally wrought Ionic capitals carry an entablature, that was concave shaped over the big niches. On the second level the rear wall was interspersed by four niches with aedicula framing, and a central arched niche that was crowned with a half cupola. In general, the second floor shows the same axial arrangement as the first floor. The second-floor columns stood on a plinth that was decorated with a frieze of erotes hunting. The pillars rested on Attic bases. The capitals were either Corinthian or of a composite order⁸⁹. The entablature of the second storey proceeds straight and was cranked over the pedestals. Apart from this the entablature had projections which lined up in symmetrical axis over the major niches on the first floor. The middle part of the second floor was completed with a discontinuous pediment. The middle *tabernacles* were fitted with alternating triangular and segmented pediments. A block decorated with S-shaped volutes lay on the protruding entablature beside the axis. The third storey was set back and rested on the *attica*-wall of the second storey. A small, half-domed niche was probably situated in the middle *tabernacle*. The third storey columns rose above a basement decorated with a garland frieze. The Corinthian order columns bore a concave entablature. The three center intercolumniation were likely spanned by a ›Syrian pediment‹. The lateral *tabernacles* were topped with round and triangular gables.

Dating: According to the results of the excavators, the *scaenae frons* was originally constructed as a two-storey facade, to which a third storey was later added⁹⁰. As previously indicated, a dedication inscription on the architrave of the first floor provides a date of 66 AD for the first building phase⁹¹. The second phase,

⁸⁴ VON HESBERG 1980, 50.

⁸⁵ See ÖZTÜRK 2010, 337 Fig. 8 for the Doric order in Ephesus.

⁸⁶ See ÖZTÜRK 2010, 337 Fig. 7 for a comparison of Ephesian engaged columns and Greek *proskenion* supports.

⁸⁷ Here, the new reconstruction will be only briefly addressed. A stone-by-stone reconstruction using all preserved architectural elements, and a comprehensive comparison of all reconstructions of the Ephesian stage front are planned for the final publication. The main arguments for the reconstruction of the Ephesian *scaenae frons* can be found in ÖZTÜRK 2010, 338–339.

⁸⁸ The stage facade was situated on the east side of the stage building. The structural findings of G. Niemann (HEBERDEY u. a. 1912, 84 Illus. 171) and M. Hofbauer (Cap. 3.1.4) show that the *scaenae frons* was continued toward the north and south. The final publication will also include a closer examination of the reconstruction of the stage building's sides. Compare ÖZTÜRK (in preparation) with contributions by M. Hofbauer.

⁸⁹ A capital of both types was found whose dimensions and decoration fit well with the column shafts of the second storey. This problem could not yet be solved.

⁹⁰ HEBERDEY u. a. 1912, 47–52.

⁹¹ HEBERDEY u. a. 1912, 157–160.

during which the third storey was added, was dated to the end of the 2nd century to the early 3rd century AD because of the connection made by former research with an epigram from the time of Commodus⁹². It turned out, however, that this inscribed block was added during later repairs and can therefore not provide any concrete evidence for the construction date of the third storey. For this reason, the dedication inscription on the architrave which was dated to 66 AD will undergo further verification by the examination of architectural ornamentation styles, below.

The name of the emperor was removed from the architrave inscription; the title »Neokoros«, however was preserved. Based on the consideration that the name removed was that of Nero, R. Heberdey concluded that the two lower stories were completed by 66 AD. As early as 1919, however, J. Keil proved that Ephesus received its first imperial neocorate under Domitian. Thus, it stands to reason that the name removed from the inscription must be that of Domitian. The inauguration of the *scaenae frons* is now therefore dated to 85 AD, since the inscription indicates that the emperor was in his eleventh consulship⁹³.

Egg and dart, as well as acanthus leaf ornamentation will be consulted for the stylistic analysis of the first two floors (Pl. 437 Fig. 773; 438 Fig. 774). On the first floor the design of the egg is fairly consistent, yet there are three recognizable types in regard to the design of the cup surrounding the egg, and the alternating dart. One type features a distinct separation, in high relief, between the egg and the cup and is in striking contrast the low relief between the edge of the cup and the leaf. The cornice on the second floor also displays this type. An egg and dart decoration of this type is also found on the Laecanius Bassus Nymphaeum, whose inscription dates it to 79 or 80 AD (Pl. 438 Fig. 775. 776)⁹⁴.

The consoles in the second floor cornice are each underpinned by an acanthus leaf (Pl. 438 Fig. 774). The lobes of the acanthus leaf are not in one even plane, rather, they are staggered in a zig-zag fashion. The drill holes on both sides of the midrib do not continue to the base, but are replaced with shallower grooves. Two other Flavian period buildings in Ephesus (Laecanius Bassus Nymphaeum and the Fountain of Domitian) display this type of leaf⁹⁵.

The pilaster capitals and lotus-palmette frieze on the third floor must also be examined (Pl. 439 Fig. 777. 778; 440 Fig. 779. 780). Before this, however, the one composite-capital that G. Niemann attributed to the third floor needs to be considered⁹⁶. Niemann's assignment to the third floor, however, proved to be incorrect. Due to its size this capital cannot be assigned to the columns of the third floor. Furthermore, it can be dated to the Antonine period, based on its favourable comparison with capitals of the Vedius Gymnasium⁹⁷. Crucial for the reconstruction and dating of the third floor are a number of Corinthian capitals which, because of their size and shape, very likely come from the third floor. The late Flavian capitals from Ephesus display certain characteristics; for example, the acanthus leaves do not extend past the lower half of the capital⁹⁸. The bract only starts above mid-height of the leaves of the crown and a large and broad involucre grows from an undecorated stem. Because all the capitals on the third floor display these characteristics, they can be dated to the time of Domitian⁹⁹.

The lotus-palmette frieze consists of five-petalled lotus flowers alternating with seven-leaved palmettes, which are joined together by tendrils. The tips of the flower petals touch the closed palmettes and the flower itself has serrated side leaves. The hollows of the leaves are further recessed by drilling. The closest parallel to this frieze can be seen on top profile of the architrave on the first floor; both are closely related in terms of the style of the period and workmanship.

This brief stylistic analysis has shown that both the second and third floors date to the time of Domitian. It can therefore be concluded that all three floors of the *scaenae frons*, as well as the elevated stage with its Doric order (*proscenium*) originated during the late Flavian period.

The *scaenae frons*, as well as the magnificent facade of the Laecanius Bassus Nymphaeum, is the first examples of tabernacle facades in Ephesus; furthermore, they are also some of the first three-storey facades in the city.

⁹² HEBERDEY u. a. 1912, 109–112.

⁹³ I thank F. Dönmez-Öztürk for her information to that inscription.

⁹⁴ RATHMAYR 2011, 131 Note 4.

⁹⁵ Based on an inscription, the Fountain of Domitian is dated to either 92 or 93 AD, BAMMER 1978/1980, 67.

⁹⁶ HEBERDEY u. a. 1912, 86. 88 Fig. 188.

⁹⁷ STROCKA 1981, 128.

⁹⁸ PLATTNER 2003, 51–54.

⁹⁹ PLATTNER 2003, 51–54.

MODIFICATION OF THE IMPERIAL PERIOD *PROSCENIUM* (ANTONINE PERIOD?)

At the time of the first Austrian excavations the *proscenium* was partially preserved *in situ*¹⁰⁰. The square pillars of the facade were largely standing upright and remains of a wall were found between them. Relicts indicate that the facade, towards the *orchestra*, was clad in marble. This preserved feature does not show the original facade, rather, it is associated with a later modification: Originally, during the Flavian period) the engaged-column pillars carried a Doric entablature. At the time of installing the marble cladding it seems that the engaged-column-facing of the pillars, and the Doric entablature were removed. After these alterations, the Doric entablature remained only at the side entrances of the *parodoi* as the sides of the facade were not clad in marble.

The archaeological investigations show that the two rows of pillars, which were preserved in the *logeion* and which are just east of the massive substructure of the *scaenae frons*, date to the Antonine period¹⁰¹. It is obvious to connect the extensive rebuilding in the *logeion* area with the Antonine period alterations of the *proscenium* facade.

A. ÖZTÜRK

11.2.2 Imperial period stage building

As a result of the large-scale transformation of the theatre in the Flavian period not only the splendid three-storey facade was added to the stage building in the east (Text fig. 15), but it was enlarged by the addition of a suite of rooms (Tab. 127; Pl. 12 Fig. 20; 13 Fig. 21; 430 Fig. 758)¹⁰².

In the process, the eight-room Hellenistic structure with its corridor was included in the centre. With the exception of the outer chambers D1/E1 and D8/E8 there is, however, no connection between the Hellenistic structure and the newly constructed chambers of the Flavian period (Pl. 3 Fig. 3). This applies to both the lower floor and the upper Hellenistic floor. Neither the room height of the attached chambers nor the shape of their ceilings as flat or vaulted construction could be determined. Clearly evident is only that the height of the chambers considerably dominated the height of the Hellenistic lower level.

M. HOFBAUER

11.2.3 Imperial Era *Orchestra*

The *scaenae frons* incorporated the older Hellenistic *proscenium*. The result was that the 6 m deep imperial era stage extended far into the original *orchestra*, causing it to be diminished in size (Pl. 78 Fig. 153). During the reconstruction the old *analemmata* P and Q were abandoned (Pl. 12 Fig. 20; Plan 10. 18). The *parodoi* was relocated due to the new *analemmata* which was set back further to the east. Since then, the now covered entrances are located on the east side of walls P and Q. Presumably the lowest rows of seating were also removed. Less easy to understand is the extent of the remodelling and it remains unclear whether, in Flavian times, these structures were removed up to the still-visible *orchestra* wall X (Pl. 444 Fig. 789; 445 Fig. 790). Regarding the Flavian *orchestra*, however, it is expected that the profile ring J was located outside the *orchestra* channel. Nothing was changed at the level of the *orchestra*, and even the Hellenistic channel remained. The interior was sealed with *opus signinum* and was covered, as indicated by the processing marks of the upper edges of the channel walls. Nothing remains of the channel floor coating. Virtually the entire area of the *orchestra* was subsequently raised and the new foundation for the floor established.

An inscription of the 2nd century AD mentions a reconstruction of the *proscenium* and *logeion*¹⁰³. It is therefore likely that a major remodelling was carried out that affected not only the entire stage, but the *orchestra* as

¹⁰⁰ HEBERDEY u. a. 1912, 30–34.

¹⁰¹ Cap. 3.2.2.

¹⁰² See for the imperial era modification of the stage building the contribution by M. Hofbauer in the final publication ÖZTÜRK (in preparation).

¹⁰³ IvE 2039. Also Cap. 8.6.1, No. 9 and Cap. 8.6.2.

well. The Doric *proscenium* with its engaged columns and metope-triglyph frieze (Pl. 81 Fig. 159–161; 436 Fig. 770) was removed, creating a continuous wall with three entrances and two niches. The entire face was clad in marble, some of which still remains *in situ*. There is no epigraphic evidence to confirm the simultaneous remodelling of the stage and *orchestra*. It seems likely, however, that raising the *orchestra* level by ca. 0.30 m belongs to the same phase as the reorganization of the stage, leading to the small reduction in size of the stage front. The old *orchestra* channel was finally abandoned and a new, shallower, uncovered channel was constructed in its place, albeit at a higher level (Pl. 88 Fig. 174; 89 Fig. 177. 178; 90 Fig. 179). The *orchestra* was, by this time at the latest, extended up to the *orchestra* wall X, had this not already taken place in the Flavian period.

M. HOFBAUER

11.2.4 Imperial Era Cavea

11.2.4.1 CONSTRUCTION MEASURES IN THE EARLY IMPERIAL PERIOD

The first traceable modification to the *koilon* concerns the structure of access ES3 for the development of the upper tiers (Pl. 66 Fig. 127)¹⁰⁴. It was subsequently incorporated into the southern outer wall of the theatre as the continuation of the ›Akademiegasse‹ (Plan 5). The entrance measures 4.10 to 4.20 m wide and is covered with a vault of white marble blocks. The front view the archivolt shows an outline containing three fascia. The side walls are clad with orthostat panels. An inscription, originally located on the inner archivolt of the entrance, names Hieron Aristogiton as the donor; this led to the building project being dated to the Augustan to early Tiberian periods¹⁰⁵. A disturbance in the pseudo isodome ashlar masonry facade of the theatre's southern exterior wall indicates the incorporation of this entrance (Pl. 441 Fig. 781). Moreover, the excavation trench in B1/C1 uncovered the original course of the outer wall, and that the alignment of the entrance deviates by ca. 12° to the north¹⁰⁶. Further structural anomalies occur in the interior of the stepped seating structure because the accessibility was not guaranteed by a horizontal orientated infrastructure as it usually would be. By the continuation of the street level at the *koilon*, a podium, three rows below the *diazoma* was accessible by an arrangement of additional ascending steps (Pl. 441 Fig. 782). Overall, it seems that the entrance to the theatre was neither functionally nor aesthetically pleasing, judging by the evidence of constraints. Based on the state of conservation of the north wall and the collapsed architecture in front of it, it is currently not possible to determine whether a comparable access existed on the north side¹⁰⁷.

On the basis of archaeological find complexes, construction of the upper *diazoma* as well as the central platform in the area south of the *vomitorium* EN1 can be dated to the early Imperial period or into the 1st half of the 1st century AD, although the scope of which cannot be understood at present¹⁰⁸. It therefore remains unclear whether these measures were part of a major reconstruction plan in the theatre. The nature and circumstances of the aforementioned installation of the southern access ES3 more likely indicates a unique measure.

11.2.4.2 THE EXTENSION OF THE AUDITORIUM DURING THE REIGNS OF DOMITIAN AND TRAJAN

According to epigraphic evidence, the most extensive modification to the theatre occurred during the reign of Domitian¹⁰⁹. These include the expansion of the stage building with the construction of the *scaenae frons*, as well as the imperial era *logeion* which extended far into the Hellenistic *orchestra*. In addition, these changes necessitated structural adaptations in the area of the *parodoi*, and the lower rows of seating around the

¹⁰⁴ Cap. 11.1.3.

¹⁰⁵ IVE 2033. Compare HEBERDEY u. a. 1912, 15. The ashlar of the archivolt are mostly no longer *in situ*. R. Heberdey and W. Wilberg found the inscribed three middle ashlar in the rubble on the inside of the portal. Today, the ashlar rest on the restored seats beside the entrance. For dating also see MAYER 1995, 68.

¹⁰⁶ Cap. 3.7.1.1.

¹⁰⁷ Cap. 2.4.

¹⁰⁸ Cap. 3.4.3.1 and 3.5.1.

¹⁰⁹ IVE 2034. See also Cap. 8.6.1, No. 2; Cap. 8.6.2 and 10.2.2. The possibility of the construction already having started under the emperors Vespasian and Tiberius has been suggested in the literature; compare DRÄGER 1993, 154.

orchestra. In the auditorium the upper area to the west was added to, and a new circulation system for the visitors was integrated at the same time. As a result of this building phase, the Ariston aqueduct, one of the four aqueducts supplying Ephesus, was preceded through the theatre (Tab. 127; see below). Work was completed in the south wing of the auditorium during Trajan's rule. The following section describes each of the key measures undertaken in the auditorium.

Orchestra, parodoi, and ima cavea

The large-scale expansion of the Hellenistic stage building during the Flavian period inevitably had structural consequences for the *orchestra*, the Hellenistic *parodoi*, as well as the lower area of seating in the *koilon*. The principle modifications of the stage and *orchestra* areas have already been described by R. Heberdey and W. Wilberg (Pl. 442 Fig. 783. 784). Current research has allowed their information to be supplemented and, in some cases, clarified. The focus, here, is on the adaption to the *koilon*. With regard to the modification of the *skene*, *proscenium*, and *orchestra* areas, please refer to the chapter on the archaeology of the stage and *orchestra* complex¹¹⁰. One fundamental modification affecting the *parodoi* was important regarding the possibility of access to the Hellenistic theatre.

The construction of the *scaenae frons* and the stage of new imperial period *logeion*, which encroached the *orchestra* by ca. 6 m, blocked the north and south *parodoi*¹¹¹. In order to maintain even limited access to the *orchestra*, new, covered entrances measuring 2.00–2.10 m in width were established east of the existing *parodoi* by which (as indicated in the original publication) »die unteren Enden der äußersten Sitzstufenkeile um etwa 1,50 m verschmälert (wurden)«¹¹². For this purpose the inner portions of the Hellenistic *analemmata* with the adjoining stepped benching had to be removed. Marble components from these facades were re-used in the construction of the new *parodos* walls, as is indicated by some *spolia* with visible contact surfaces used in the stairs covering the former western *klimakes* (Pl. 433 Fig. 764). In the *logeion* area the original *analemmata* constitute the western boundary of the new *parodoi*. However, only a few components remained *in situ*, for example at the start of the *orchestra* side of the Hellenistic north *analemma*¹¹³. Apart from that, the removed parts of the *analemma* foundations were used to re-erect the *orchestra* side parts of the new west walls of the *parodos*. After a few meters, however, the orientation of the *parodoi* veers slightly to the west. In so doing they veer off the course of the original *analemma*, eventually heading west after an obtuse angle set them parallel with the end-walls of the stage building. As a result, the north *parodos* is crossed by a part of the drainage channel which leads out of the theatre along the Hellenistic *analemma* and around the *orchestra*. How the surface water was henceforth drained is not understood at this time¹¹⁴.

The *parodoi* were covered with segment-arched vaults, made of quarry stone, which lie on a marble abutment. At the western entrances as well as to the *orchestra*, the covering is a vault constructed of white marble ashlars consisting of *spolia* (Pl. 442 Fig. 785; 443 Fig. 786). The great difference in materials used – from quarry stone arches to marble wall surfaces, to a partial cut-stone vault – might suggest that a plaster coating had been planned for the areas with quarry stone arches. A platform was located above the vault and the level with the surface of the *logeion*; it was covered in white marble slabs and could be accessed by ramps located at the north and south ends (Ramps N and S) (Pl. 2 Fig. 2; 443 Fig. 787). Towards the east a new facade was required to complete the ascending rows of seats. However, the ground-plan of the innermost wall areas of the currently preserved *analemmata* differ in orientation from the eastern *parodoi* walls below. Parts of the innermost *analemmata* walls rest on the vault of the *parodos* covering, which indicates that they could only have been built after the completion of the vault, or the platform (see below the illustrations for the north and south wings of the theatre). The joints between the platform and the north and south ramps occurred outside

¹¹⁰ Cap. 3.2.2 and 3.3.2.

¹¹¹ HEBERDEY u. a. 1912, 31.

¹¹² HEBERDEY u. a. 1912, 39.

¹¹³ Cap. 3.2.2 and 3.3.2.

¹¹⁴ Cap. 3.2.2.4.

the *parodos* floor plan (Pl. 444 Fig. 788). Another adaptation, which was triggered by the changes in the *parodoi* concerned the lower rows of seats of the Hellenistic *koilon*. The original position of the entrance to the *orchestra* was closed off, due to the construction of the new stage. As a consequence thereof, the radial stairs of the lowest rows were inaccessible from the *orchestra*. Some modification to the lower rows of seats must have taken place in order to remedy these spatial constraints. Already R. Heberdey and W. Wilberg presumed that the *prohedria* was completely, or at least partially, removed at this time. In so doing an additional approach beyond the Hellenistic drainage channel skirting the *orchestra* could be created that would make the area accessible¹¹⁵. They associated the removal of the lower rows of seats to the level of the *logeion* and the construction of *orchestra* wall X with post-Trajanic times, and justified this due to the unfavourable viewing conditions that would have been created with the increased level of the *logeion*¹¹⁶. A gradual alteration of the lower rows of seats cannot be reconstructed. It is noticeable, however, that the *orchestra*-side entrances to the covered *parodoi* – which had, as described above, stone vaults of white marble *spolia* – are close to the western terminations of the currently visible *orchestra* wall X. That the entrances to the *parodoi* originally presented a visible surface is also shown in the profile of the archivolt's structure at the *orchestra* (Pl. 442 Fig. 785). This spot was subsequently rebuilt several times, as the abutting portions of walls of the *orchestra* side of the *parodoi* indicate. Even in today's restored state, *orchestra* wall X shows that the radial stairs initially opened to the *orchestra*. Here, the start of the stairs at the bottom is similar to that of the *diazomata*, in that it was bordered by lateral orthostat slabs whose front sides were a design element of the wall (Pl. 444 Fig. 789). The top of the wall was crowned with a profile (Pl. 445 Fig. 790a. b)¹¹⁷. On the basis of the aforementioned evidence one would question whether the removal of the lower seating levels occurred in several phases, or if the currently visible *orchestra* extension was already produced as a result of modifications to the stage and *parodoi* during the rule of Domitian. Gladiatorial contests and animal hunts are indicated in the honorary inscription for Titus Flavius Montanus¹¹⁸, that was attached on the south *analemma*, and which dates to 102–112 AD; this presupposes an intention which corresponds to the arena-like configuration of the *orchestra*. In subsequent periods further conversions and adaptations occurred¹¹⁹.

North Wing of the Theatre

As can be determined, the north wing of the auditorium was started with the extension of the auditorium (Pl. 66 Fig. 127). Several construction projects are evident here. Firstly, a portion of the existing upper level of the northern outer wall was opened to the middle *diazoma* in order to incorporate a high, barrel-vaulted *vomitorium* EN2 (Pl. 2 Fig. 2; 146 Fig. 294). A staircase in the *vomitorium* bridged the ca. 6.4 m difference between the floor level outside the theatre and the entrance to the middle *diazoma* (Text fig. 16)¹²⁰. The aqueduct of Claudius Aristion enters the building below the stairs and runs directly along the eastern wall of the *vomitorium* toward the south. It is clear from this and from profile studies of the aqueduct and the *vomitorium* that these projects were carried out as a joint project (Text fig. 17). It is conceivable that the level of the route coming from the north, as well as an effective course of the aqueduct in the theatre were crucial for the arrangement and orientation of *vomitorium*. This could also explain why the access – which was dissimilar to the other *vomitoria* in the theatre – was oriented toward the *orchestra*.

The seating areas in the north wing of the Hellenistic *koilon* were situated beyond the usable portion of the hillside. It is no long possible to reconstruct the original slope of the seating tiers. As is known from other Hellenistic theatres, massive layering or landfills were common¹²¹. Still visible today are the vaulted chambers of the substructure built in *opus caementitium* which were erected in connection with the installation of

¹¹⁵ HEBERDEY u. a. 1912, 31–32 Fig. 57; See also Cap. 3.3.

¹¹⁶ HEBERDEY u. a. 1912, 44–45 Fig. 86.

¹¹⁷ HEBERDEY u. a. 1912, 45 Fig. 93.

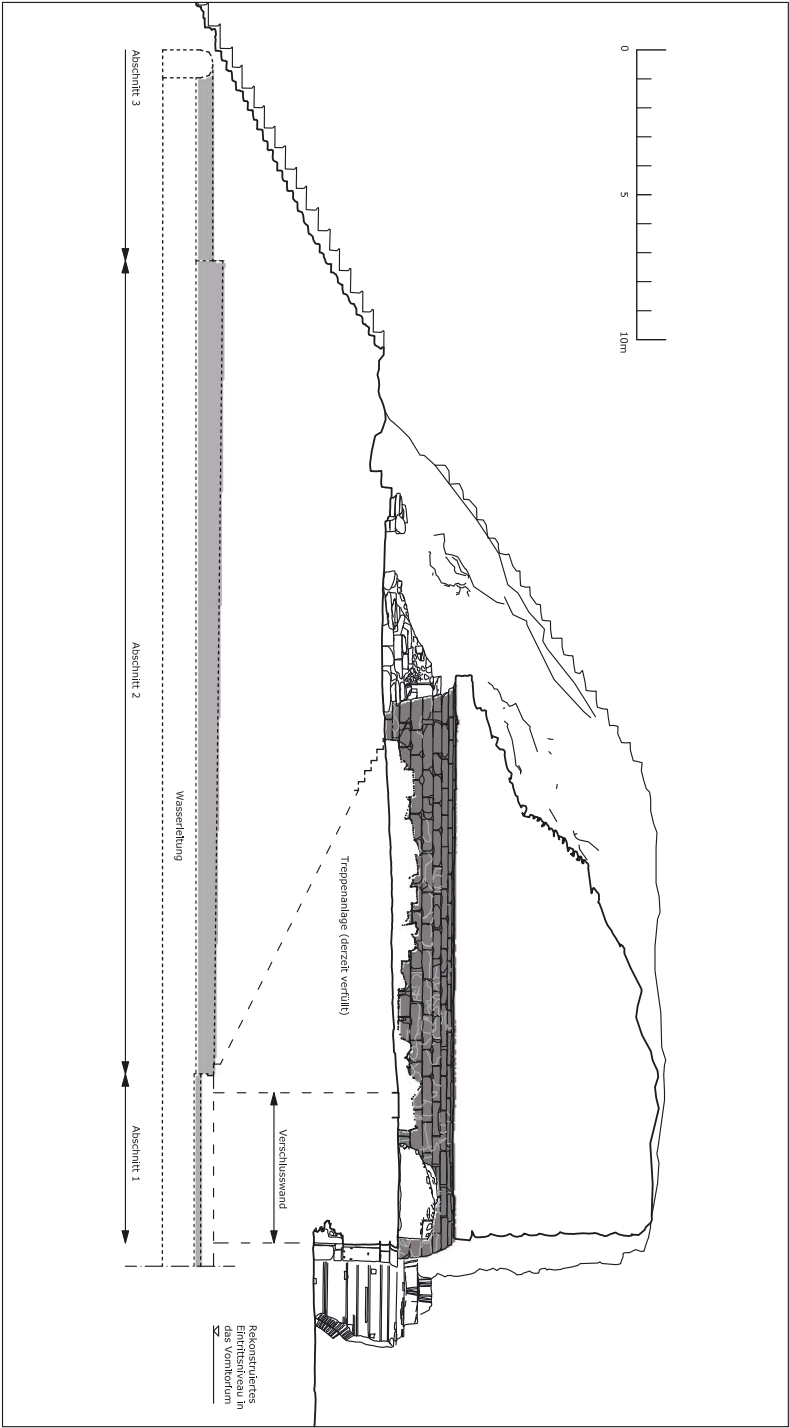
¹¹⁸ IvE 2061. See also Cap. 8.6.1, No. 6 and Cap. 8.6.2.; SCHERRER 1997, 114.

¹¹⁹ Cap. 11.2.4.3.

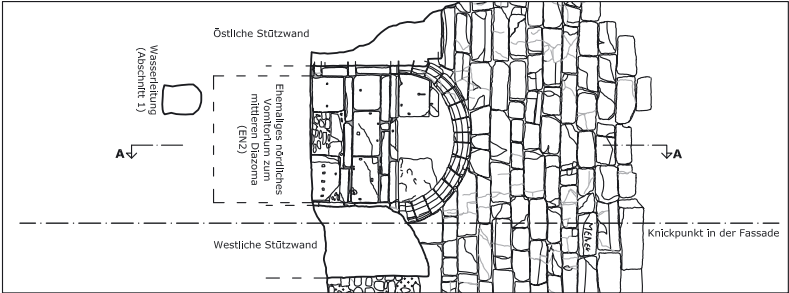
¹²⁰ Today, the stairway in the *vomitorium* EN2 is filled up to the *diazoma*'s exit. St. Karwiese exposed the upper steps of the stairway in an excavation see Cap. 3.5.2.1.

¹²¹ Cap. 11.1.3.

Text fig. 16: Section A-A (north-south) through the *vomitorium* EN2 with stairs, whose course can be reconstructed from the finds at the top of the trench and its start at the bottom (aqueeduct) (as-built drawing)



Text fig. 17: North view of the sealed access area EN2, showing the entrance area which was covered in earth, and the aqueeduct running below it (as-built drawing)



the *vomitorium* EN2, in place of the previous structure. The superimposed cavities were built a short distance from the inside of the theatre's exterior wall. The interstices were eventually filled with a loose packing. An example of this can be seen somewhat to the west and above *vomitorium* EN2. Here, the stone blocks of the older surrounding wall are visible on the inside for a long stretch and show no signs of contact with other building components or attachments made of other materials (Pl. 445 Fig. 791)¹²².

Another construction work can be detected west of entrance EN2. This is where the structural extension of the auditorium begins. This is recognizable through a change in material used on the northern perimeter wall of the theatre (Plan 4). The existing cushion-shaped ashlar of grey marble of the older exterior wall of the theatre were interlocked with smooth white limestone blocks which continued westward. Since a large part of this wall was preserved behind a reinforcement wall, dating to the 4th century AD, the interlocking of their facades is still noticeable (Text fig. 19; Pl. 472 Fig. 844).

A doorway (EN2) to the lower *diazoma* was incorporated in the new structure at a distance of almost 20 m from the *vomitorium*. It was almost 40 m long and was constructed as a high vaulted passageway with several utilizable chambers (Plan 1) on its west side, which were also accessible from the passageway. Another entry (EN1 West) to the *vomitorium* provided access from the west by way of stairs¹²³.

As with the upper entrance EN2, all walls and vaults that bounded the *vomitorium* were white marble. In contrast, the partition walls between the adjacent chambers KN1 to KN3 were constructed of white limestone, as was the northern outer wall. In its course the *vomitorium* was divided into three parts, which are distinguished from one each other by both their linear arrangement, as well as their width and height. In addition, the southern and central parts were divided by a comparatively low rising passage, whose structural elements display many anomalies which do not correspond to the other parts of the *vomitorium* (Text fig. 18). The overall impression is that the construction of this large-scale access corridor, particularly the area below the former middle tier, must have taken existing building structures into consideration. Another possible indicator in this regard was the excavation of the middle staircase platform in the southern sector of the *vomitorium* (Trench S 2/98). Two levels were detected here whereby the foundation work of the first phase can be dated to the 1st half of the 1st century AD. The finds of the more recent foundation, however, is not significant enough to determine a specific date other than it belonging to the imperial period¹²⁴.

Part of the northern outer wall of the theatre – between the lower access EN1 and the corner between it and the neighbouring *analemma* in the west – is just about completely buried. Some ashlar in the upper courses of the wall are visible. While the smooth, white limestone ashlar masonry is visible north of the outer chamber KN1, grey, cushion-shaped marble ashlar with a curved surface, were used closer toward the adjoining corner with the *analemma*. Because of the marginally exposed wall surface in this area it cannot currently be determined if the cushion shaped ashlar were the commonly used building component, or if they were employed solely for reparations (Pl. 446 Fig. 792, 793).

The western end of the auditorium's north wing expansion resulted in an addition to the northern *analemma*. The facade was extended towards the north by a portion of wall measuring almost 17 m long; towards the west, the lower courses of ashlar blocks were stepped, thereby widening the wall by 0.50 m. As with other exposed surfaces of the *analemmata*, the flat ashlar of the facade were made of white marble. A detailed outline of the structural findings of this facade follow, in order to clearly explain the changes that were made to the northern *analemma* for the enlargement of the auditorium (Plan 7). The terrace in front of the north *analemma* with its staircase and various fountain basins is not dealt with here¹²⁵.

The north *analemma* is approximately 57 m long, when measured from the first row of *orchestra*-side seating above the *orchestra* wall X to the base of the building's northern corner; it was divided into three main parts. They can be identified by differences in wall design and slight variations in the floor plan. Thus, the plan indicates that the course of both *analemmata* are not quite linear, but characterized by different sections, each with its own alignment.

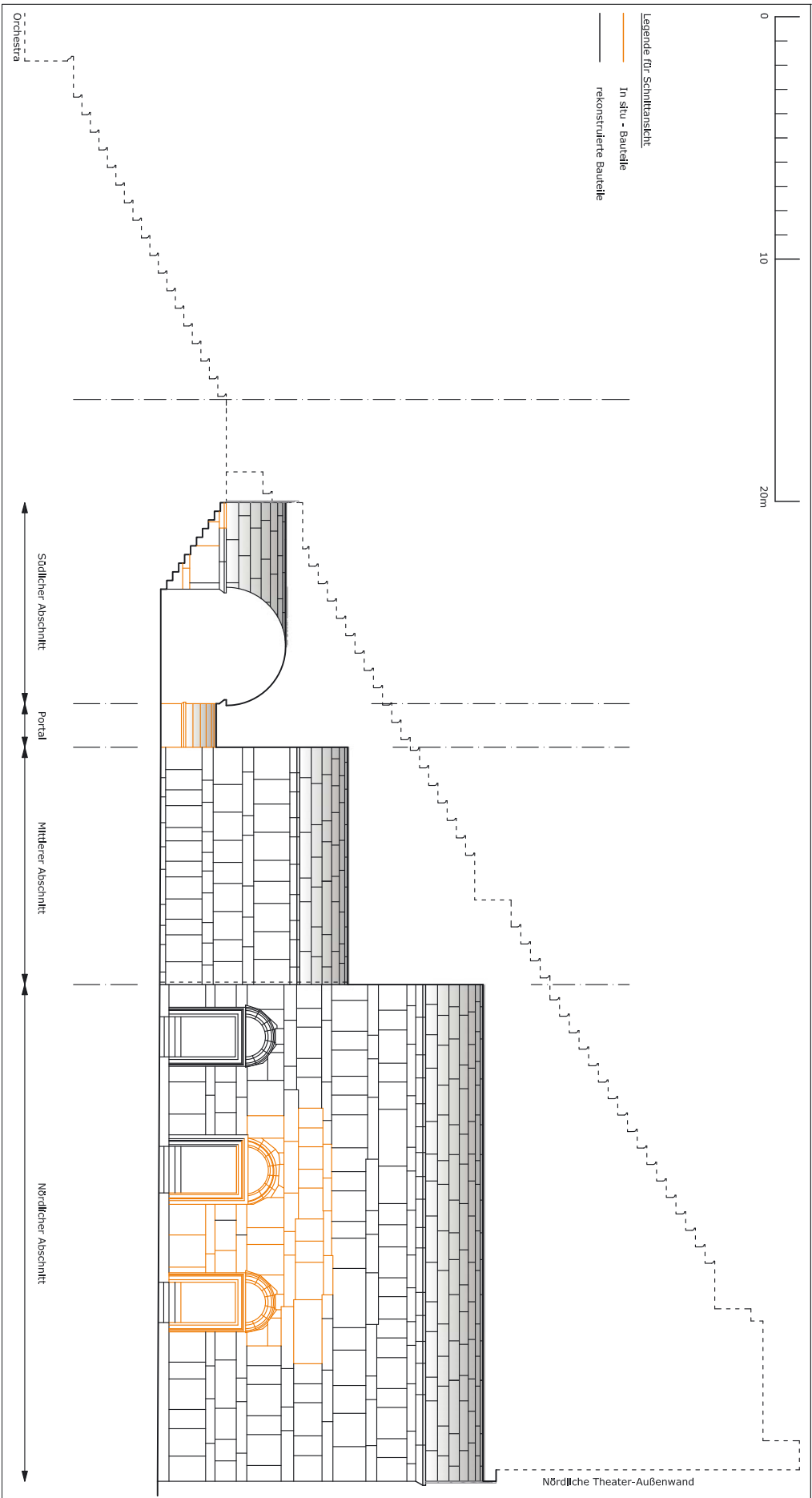
¹²² The restored step treads are a modern measure undertaken during consolidation work from 1994–1998. According to the former excavation director, St. Karwiese, loose rubble was found below. A documentation of the original state is unknown.

¹²³ Further stairs from the west, as reconstructed by St. Karwiese and I. Ataç could not be confirmed (KARWIESE 1997, 44–48; KARWIESE 1998, 24–26; also HEBERDEY u. a. 1912, 36).

¹²⁴ Cap. 3.5.1.4.2.

¹²⁵ Compare with the planned volume on building research by STYHLER-AYDIN (in preparation).

Text fig. 18: North-south section through the three sections of the *vomitorium* EN1 (proposed reconstruction)



The southern inner portion of wall of the north *analemma* extends to the staircase EN1. Here the facade is constructed of successive rows of orthostats and small header courses. The wall veers to west by 0.50 m, approximately 9.50 m from its start at the *orchestra* (Pl. 447 Fig. 794). Until this projection the inner wall rises to the *parodos* covering and is connected with the structural changes of the *parodoi* as a result of the modification of the stage and *orchestra* complex (see above). The backfill of the orthostats and headers, as well as the substructure of the adjacent radial staircase T1 to the east consist of *opus caementitium*.

In contrast, grey marble ashlar were used behind the outer shell of orthostats and headers. More than half of the depth of the facade headers extend into the ashlar behind. The base of the wall area is covered by the surface of the restored ramp to the north. Perhaps the slight undercut of the respective lower construction components indicate the surface of the floor slabs belonging to the original surface of the ramp (Pl. 447 Fig. 795). The visible surfaces of the orthostats and headers were apparently roughly smoothed with picks and chisels. A finer surface treatment was not carried out.

The second part of the facade begins north of the stairway EN1 West and is articulated by the design of two closed arches. Here the facade ashlar were smoothed with a chisel; in some areas traces of chisel-draft are still visible on the heavily worn marble surfaces. It is particularly visible at the contact areas of the facade ashlar that the buttresses and their fill resulted from the same building process. The ashlar of the core masonry are visible at some damaged parts of the wall; it can be seen that they partly continue behind the facade side of the arch reveals (Pl. 448 Fig. 796). This suggests that the closed arches were a design element rather than being real openings¹²⁶. Particularly striking is the base of the second facade section where it connects with the upper terrace. It is clearly visible that the *opus caementitium* core of the terrace was only later added in front of the facade section and consequently its original lower-lying base point is hidden behind the *opus caementitium* (Pl. 448 Fig. 797; Plan 7). The noticeably compact proportions of the two arches can also be explained in this way. The transition from the middle to the northern parts of the facade coincides with the ground plan of the most southerly wall of white limestone which divides chambers KN2 and KN3. The two other partition walls located behind the middle facade section (between KN 3 and KN 4, and between KN4 and staircase EN1 West) were constructed of roughly finished grey marble ashlar (Text fig. 19). In sum, the results indicate that the part of the facade containing the two apparent arches was an older part of the northern *analemma*. This is also confirmed by an inscription mounted in the tympanum of the southern arch. It describes a decree of the governor Paullus Fabius Persicus to the authorities of Ephesus and is dated to 44 BC (Pl. 449 Fig. 798a, b; 799)¹²⁷. Further clearing and archaeological excavations would be necessary for a more detailed classification of the facade section and the building processes at the theatre, particularly in the areas of the central area of the collapsed *vomitorium* EN1 and the adjacent chambers KN3 and KN4.

The third part of the facade was adjacent and to the north of the arches; it represents the western boundary of the extended upper tiers. The lower ten courses of the facade are largely preserved. It was constructed of smooth pseudoisodome ashlar masonry. In the upper wall area some of the front ashlar are missing, or fragmentary in the wall bonding (Pl. 450 Fig. 800). It is also visible here that the core of the wall consisted of rough hewn ashlar and that the front ashlar were integrated about every two bloc course. Stone chips and mortar were used to correct and horizontal unevenness and to fill any gaps between the ashlar of the wall core.

The third portion of the facade rises above the terrace in front of it. The surfacing on the terrace is slightly undercut beneath the facade ashlar, which points to simultaneous construction (Pl. 448 Fig. 797). Both the construction of the terrace, as well as the stepped widening in the lower part of the facade were likely based on structural considerations. The northern wing of the theatre presented the largest facade of this building.

¹²⁶ Even R. Heberdey and W. Wilberg recognized the two arches as virtual arches (HEBERDEY u. a. 1912, 36). St. Karwiese and I. Ataç interpreted the arches as ›twin staircases‹ to the lower northern *vomitorium* EN1. Consequently, the lower *diazoma* should have been reached through the southern arch. Those using the neighbouring northern staircase would have had to turn north in the *vomitorium* use the presumed northern external staircase that accessed the middle *diazoma* (compare KARWIESE 1997, 44–48; KARWIESE 1998a, 24–26; KARWIESE 1998b; ATAÇ 1999a, 6; HOFBAUER 2007, 12). In consideration of the results described above, this interpretation can no longer be sustainable, see also Cap. 3.5.1.2.

¹²⁷ IVE 2021. Compare HEBERDEY u. a. 1912, 36. 112–116. Remnants of the Latin equivalent of the text were found in two copies (IVE 2022). R. Heberdey suspected that, based on the find circumstance, one copy was linked to the theatre, possibly south of staircase EN1 West (HEBERDEY u. a. 1912, 116–119). See also Cap. 8.6.2.

Text fig. 19: Floor plan of the north wing of the theatre (detail) with material mapping (as-built drawing)



Due to the sloping topography to the north, it was approximately 35 m high when measuring from the base of the terrace to the surface of the portico. The step-like widening of 0.50 m over a 17 m distance and the enlargement of the terrace in front from 2.90 to 3.30 m made it possible to increase the footprint and the load transfer capacity of this highest portion of the facade in order to gain more stability.

The stairway EN1 West which leads to the lower *vomitorium* shows another structural connection with the upper terrace. Its former 11 m high, barrel-vaulted west portal was laterally framed by massive marble ashlar¹²⁸. The lowest step at the foot of the stairs lies on the surface of the terrace. The upper end of the flight of stairs on the central platform is, among other things, identified by remnants of preserved floor slabs and presumably were part of the surface of *vomitorium* EN1 (Pl. 450 Fig. 801; 451 Fig. 802). Additionally, the position of the former marble steps can be reconstructed due to the still visible contact surfaces on the sides walls (Pl. 14 Fig. 23). Since the flight of stairs was not arranged orthogonally to the north *analemma*, the side walls differ in length. This difference of approximately 0.40 m compensated for by a slightly conical arrangement of the lower marble stairs.

The lower staircase EN1 and the southern portion of *vomitorium* EN1 along with the flight of stairs leading to the lower *diazoma* present a uniform construction measure and were built in connection with the structure of *vomitorium* EN1. The need for stairs on the west side might be partly due to the expansion of the west facade of the theatre. Because of the now very long *analemmata*, the main public entrances to the north and south stands could only be reached from the west over longer distances. In the south, accessibility was even more difficult due to the terrain. With the placement of steps on the west side (EN1 West, ES1 West) direct access to the streets and to the facilities west of the theatre was established.

Completion of the north wing by Emperor Domitian in 92 AD is known through fragments of a ca. 12 m long building inscription which were found on the upper terrace in front of the north *analemma*, as well as west of it¹²⁹. R. Heberdey was already able to group the dislocated and inscribed ashlar from running as well as tie courses and realized their connection with the course of ashlar on the north wing of the *cavea*, although the exact position of the inscription on the facade could no longer be determined (Pl. 451 Fig. 803).

For subsequent periods of use of the theatre, various structural measures and alterations, which are detectable on the north wing, were the result of reduced stability in the region of both *vomitioria* and the external northern wall¹³⁰.

South wing of the theatre

As with the north facade of the theatre, similar structural evidence indicating an expansion of the upper tiers in the south wing are evident (Tab. 127). The more recent portion of the outer wall starts here, just east of the *vomitorium* ES2 (Pl. 2); as in the northern wing the facade is characterized by a modification in material and appearance (Pl. 433 Fig. 765; 452 Fig. 804). Following the slope upwards the older facade consisted of grey marble ashlar with the cushion shaped surface; the facade heading west and downwards consisted of white limestone ashlar with a smoothed surface (Plan 5). Both facade segments are interlocked. West of the access ES2 to the middle *diazoma* a detail has been preserved on an extended portion of the facade: the combat area cornice of the barrel vault was apparently continued as a horizontal profile on the south facade of the theatre (Pl. 452 Fig. 805).

The slope of the Panayırdağ is higher in the south half of the theatre; consequently the area was more extensive and could be used for seating. However, for the Hellenistic *koilon* a substructure was necessary for the upper tiers of the west wing, for which no information has been recovered. As part of the expansion of the tiers hollow chambers made of *opus caementitium* replaced the substructure. In comparison with the north

¹²⁸ Two corner ashlar of the portal on the south side was a decree dating to the time after the accession of Antoninus Pius in 138 AD and also indicates the approval decision of the proconsul (IvE 21; compare HEBERDEY u. a. 1912, 36, 107–108). The lower of the two ashlar is still located *in situ*; the other, originally upper ashlar can now be found in the rock garden opposite the northern *analemma*. I thank H. Taeuber for the oral translation of the inscription and for the clarification of its content. See also Cap. 8.6.2.

¹²⁹ IvE 2035. Compare HEBERDEY u. a. 1912, 36–37, 160–161. See also Cap. 8.6.1, No. 3 and Cap. 8.6.2.

¹³⁰ Cap. 11.3.4.

wing, however, the south wing shows that an inner wall of *opus caementitium* was added to the existing outer wall of cushion shaped ashlar (Pl. 453 Fig. 806).

With the installation of the *vomitorium* ES2 to provide access to the middle *diazoma* the south wing of the theatre starts to the west and was constructed by an arrangement of a series of superimposed substructure chambers. Large and only coarsely dressed ashlar were used for the supporting walls under the chambers, which at the same time exhibit the greatest height. R. Heberdey and W. Wilberg suggested that these ashlar could have been reused from the Hellenistic structure¹³¹. *Opus caementitium* was first used for the barrel vault, the partition walls, as well as the higher chambers (Pl. 453 Fig. 807).

As described for the north wing, above, two barrel-vaulted entrance corridors (ES 1, ES 2) were integrated into the new construction to the south. Outside the theatre, they are connected by an external staircase measuring up to 8.90 m wide, and are also connected to the upper access corridor ES3 (Plan 1). More equal access to the *vomitioria* was possible by way of the stair landings. The lower *vomitorium* ES1 was created as a high, barrel-vaulted passage measuring ca. 42 m in length and 4.70–4.90 m in width. In contrast to that in the north (EN1), however, the corridor ran in a linear fashion behind the southern *analemma* and was characterized by only two segments with differing vault heights. In the 20 m long southern section the spring of the stone vault's arch lay 5.70 to 5.80 m above the surface in the *vomitorium*. The access was flanked by three chambers on the west side. The chambers were accessed by doorways leading from the corridor. However, all that remains *in situ* are the lower courses of the ashlar walls as well as fragments of the profiled marble door frames¹³². The northern section of the *vomitorium* arched over a staircase whose western access opened onto the so-called Marmorstraße (ES 1); the starting point of the stone vault is offset downwards by ca. 5.70 m. In order to reconcile the differing crown heights of the higher and lower vaults in the *vomitorium*, a shield wall was necessary. The stones supporting the shield wall which were orthogonally oriented to the corridor wall are still found *in situ* (Pl. 454 Fig. 808). A similar structural solution to reconcile different crown heights of vaults is also known at the theatre in Miletus (Pl. 454 Fig. 809).

As mentioned above, the three southern entrances to the theatre were interconnected by a monumental staircase along the outer wall. R. Heberdey and W. Wilberg assumed that the access ES1 (and therefore the lower landing of the outside stairs) was connected to a road proceeding through the southern urban area, whose supporting western wall is constructed in combination with the southern corner of the theatre building¹³³. Findings in connection with the most recent archaeological excavations of the external staircase reinforce this assumption, although structural confirmation is still lacking¹³⁴. The upper end of the stairs and the platform in front of the access corridor ES 3 was connected to the remaining street system by the ›Akademie-gasse‹ which joined the theatre from the south. In contrast and according to current knowledge, the entrance (ES 2) to the central *diazoma* had no direct connection to the road network south of the theatre; rather, it could only be reached indirectly by the staircase. On the exterior archivolt of the *vomitorium* T. Flavius Montanus is named as the sponsor of the construction work¹³⁵.

Another feature of the exterior stairs concerns the change in material in the stair covering, which corresponds with the two previously mentioned portions of the southern exterior wall. Thus, treads of the upper flight of stairs between entrances ES3 and ES2 consist of the same grey marble as the cushion-shaped ashlar of the facade (Pl. 434 Fig. 766). White marble was used for the lower stairway between entrances ES2 and ES1 which is divided into two flights of stairs by a narrow landing (Pl. 455 Fig. 810). The Aristion aqueduct exits the building at a distance of approximately 4.40 m east of the entrance ES1 running underneath the exterior staircase and through the urban area to the south until it reached the Nymphaeum Traiani. Directly at its exit from the facade, the aqueduct was apparently covered with the stone treads of the staircase (Pl. 163 Fig. 333; 276 Fig. 562; Plan 5).

As was the case in the north, the addition of the theatre's south wing in the upper levels can be traced to the *analemma*. However, the ca. 58.20 m long southern *analemma* is divided into two main sections which display different facade construction and slight variations in the linear alignment of the wall sections, whereby the inner portion is subdivided again, as seen in the north (Plan 8).

¹³¹ HEBERDEY u. a. 1912, 39.

¹³² Cap. 3.6.2.

¹³³ HEBERDEY u. a. 1912, 40.

¹³⁴ Cap. 3.7.1.5.

¹³⁵ IVE 2037. See also Cap. 8.1, IN 1 (Pl. 411); see also Cap. 8.6.1, Nr. No. 5 and Cap. 8.6.2.

The inner northern wall segment of the south *analemma* also commences at the first row of *orchestra*-side seating above *orchestra* wall X and extends to the southern limit of stairway ES1 West, which represents an extension close to the support wall of the central *diazoma*. Here the facade is similar in design to the inner southern wall portion of the north *analemma*, namely, successive rows of alternating orthostats and small header courses. Although the size of the blocks do not quite match, the uniformity of the walls' design is obvious¹³⁶. Also similar to the northern *analemma* is how the facade veers to west by 0.50 m, approximately 9.90 m from its start at the *orchestra*. The large inscription which dates to 104 AD and describes – in six columns – the donation of C. Vibius Salutaris was located on this inner wall area which rests on the *parodos* covering and which was consequently rebuilt after the relocation of the south *parodos*¹³⁷. Only the lower orthostat and header courses remained *in situ* after the inscribed blocks were removed by J. T. Wood sometime between 1866 and 1868 (Pl. 455 Fig. 811; 456 Fig. 812). The missing blocks were replaced with quarry stone masonry during a restoration phase. The original wall core, and substructure of the radial staircase T11 to the east are currently not visible. As well, documentation of the wall area before its restoration does not exist. In a few areas, however, it is apparent that *opus caementitium* was used, as was seen in the north wing. It is striking that the horizontal joints dividing the adjacent wall area to the north and south are different in the areas situated above the *parodoi*, although the wall construction of orthostats and header blocks is the same. In the wall area just south of the south *analemma* the outer shell of orthostat and header courses meshes with a masonry core of grey marble ashlar, which in turn is backfilled with *opus caementitium* (Pl. 456 Fig. 813)¹³⁸.

In the area of the western staircase leading to the lower *vomitorium* a row of header blocks can be seen with dowel holes arranged on its top surface for attaching the next course of orthostats; this indicates that the facade of the *analemma* originally continued here (Pl. 457 Fig. 814). The installation of the stairway ES1 West is first known in connection with the extension of the southern wing of the building and the establishment of the *vomitorium* ES1. For the later installation of the massive, vertical ashlar bordering the opening in the facade of the staircase on the north side, it was necessary to incorporate them into a course of header blocks (Pl. 457 Fig. 815). It can no longer be confirmed whether the southernmost preserved ashlar was part of the former building's corner, or if this section of the facade extended further to the south. After the construction of the stairway, the remaining ashlar of the header course served as the foundation for the no longer preserved marble treads. As in the north, the original height of the steps is still visible by way of the contact surfaces seen on the side walls (Pl. 458 Fig. 816).

The second facade section to the south consists of nearly consistent ashlar masonry erected on a vaulted cushion-shaped base. This part of the facade is divided by three pilasters which protrude a maximum of 0.60 m from the facade surface. While the two northern pilasters are almost equally broad (3.28 and 3.32 m), the southernmost one was more solidly built (3.75 m) and served as the corner of the theatre structure. The pilasters, however, did not extend all the way to the top of the *analemma*'s wall. Various architectural fragments were found in front of the facade by R. Heberdey and W. Wilberg, and indicate an upper pilaster crown ahead the rearward ascending wall (Pl. 458 Fig. 817)¹³⁹. An honorary inscription which was probably located on the central pilaster suggests that statues of L. Vibius Lentulus and T. Flavius Montanus were situated above the pilaster terminal¹⁴⁰.

As was evident in the north wing, a change of construction material is evident from the beginning of the second facade section on the south side-wall of the staircase ES1 West. All architectural components which were visible in very public areas, such as the *analemma*, or the upper levels of the *vomitioria*, were made of white marble. There are, however, differences in the internal construction. As described above, the core masonry of the south part of the first facade section consisted of grey, large-scale ashlar. Mainly white lime-

¹³⁶ On the similarity of the *orchestra*-side north and south portions of the *analemma* already indicated in DE BERNARDI FERRERO 1970, 59–60.

¹³⁷ IVE 27, 167–222. For the arrangement of the inscription and wall articulation compare HEBERDEY u. a. 1912, 128. See also Cap. 8.6.1, No 4 and Cap. 8.6.2.

¹³⁸ During the consolidation work carried out in 1995 and 1996 ashlar protruding from this core masonry were supported by quarry stones (»Mauerplomben«) (KARWIESE 1996, 29–31 Fig. 17; KARWIESE 1997, 47 Fig. 32).

¹³⁹ HEBERDEY u. a. 1912, 38.

¹⁴⁰ IVE 2061. Also Cap. 8.6.1, No. 6 and Cap. 8.6.2.

stone, however, was used for in the second facade section, for the partition walls of chambers KS1 to KS3, which flanked the corridor, as well as the inner wall face of the *analemma* (Pl. 459 Fig. 818).

In a later phase, foundation ashlar of the southern portion of the facade were partially removed, and in addition to the tread in front of the south *analemma* it matched the currently still visible level of the so-called Marmorstraße (Pl. 459 Fig. 819).

That construction of the south wing of the theatre was completed in the period between 102 and 112 AD is known through several inscriptions and falls within the reign of the emperor, Trajan. A building inscription is located on the outer archivolt of the central *diazoma*'s *vomitorium* ES2 and remains partially *in situ*¹⁴¹. Another block which evidently repeats the building inscription came to light during the most recent investigations in the theatre¹⁴². Fragments from two inscriptions linked to the completion of the theatre were also found in front of the south *analemma*, at the foot of the middle pilaster as well as in front of the southern corner of the theatre (Pl. 460 Fig. 820, 821)¹⁴³. In all these inscriptions Titus Flavius Montanus is named as the sponsor of the south wing construction and as the ›completer‹ of the theatre. The text of the inscription presumably attached to the middle pilaster of the southern *analemma* indicates that the building was inaugurated during his priesthood and that gladiatorial contests, as well as animal hunts were organized¹⁴⁴. Also from this time period is the inscription, dated to 104 AD, on the south *analemma* naming C. Vibius Salutaris as sponsor and describes, among other things, an elaborate procession from the Artemision to the theatre for the purpose of donating votive offerings. This could also be an indication that the re-dedication of the theatre after the completion of the extensive expansion more likely dates to the first decade of the 2nd century AD¹⁴⁵.

Further Changes in the auditorium – lower diazoma and the Aristion aqueduct

In addition to the enlargement of the *koilon* towards the west by the above-mentioned extension of the north and south wings, other structural alterations can also be confirmed; these also can be dated to the major reconstruction phase that took place from the time of Domitian to Trajan (Tab. 127). These include the widening of the lower *diazoma*, as well as the relocation of part of the Aristion aqueduct through the stepped benches.

In considering the *diazomata*, it is noticeable that the appearance of the three circuits differs from one another. The lower *diazoma* has its own character, in terms of the wall decoration and the horizontal ›zoning‹. In analyzing the individual finds, two building phases for the circuit can be identified¹⁴⁶.

In its first phase the *diazoma* had an average clear breadth of 1.80 m. The passage width would have been reduced to ca. 1.00 m, if the lower row contained seating. This situation was modified by reusing base ashlar to offset the *diazoma* wall by ca. 0.50 m against the upper tier. At the same time the surface of the approach was raised (Pl. 97 Fig. 192; 460 Fig. 822). Overall, a clear width of ca. 2.30 m (average) up to the *ima cavea* could be achieved by this enlargement¹⁴⁷.

Various considerations exist for the second phase in regard to the presentation of the *diazoma* at its transition to the lower tiers. In addition to the arrangement of the seats¹⁴⁸, particular mention should be made regarding the erection of statue bases in connection with C. Vibius Salutaris' donation, as outlined in the

¹⁴¹ IVE 2037. Compare HEBERDEY u. a. 1912, 40–41, 161. Also Cap. 8.6.1, No. 5 and Cap. 8.6.2.

¹⁴² Cap. 8.1.

¹⁴³ IVE 2061, 2062. Compare HEBERDEY u. a. 1912, 41, 174–176. Also Cap. 8.6.1, No. 6, 7 and Cap. 8.6.2.

¹⁴⁴ P. Scherrer concludes that Montanus may have directed the fifth (105 AD) or sixth (109 AD) *Balbilleia*, Compare with SCHERRER 1997, 114. I extend my thanks to H. Taeuber for the oral translation of the inscription and clarification of its content.

¹⁴⁵ As part of the Trajanic construction activities in Ephesus, SCHERRER 2008, 53 dates the completion of building work at the theatre from 104–105 AD.

¹⁴⁶ For a detailed description and evaluation of the results see LIEBICH – STYHLER 2009, 469–481. The results of the archaeological test trench undertaken by St. Karwiese in 1998 at the entrance platform of the *vomitorium* EN1 at the lower *diazoma* yielded no connection with the construction phases. The whole area is strongly reshaped by modern restorations and reconstructions see Cap. 3.5.1.4.

¹⁴⁷ Cap. 3.4.1.2 and 3.4.1.3.

¹⁴⁸ A row of benches on the lower *diazoma* is indicated by St. Karwiese, but not described in detail (SCHERRER 1995, 162). As part of the current building research of the auditorium, more bench fragments were found and attributed to the theatre. Varying prefabrication of building components indicates differing placements that cannot be clearly determined at this time.

above-mentioned inscription¹⁴⁹. Verifications of the above considerations are currently not possible due to the high level of modern remodelling and the existence of only a few *in situ* areas at the inner edge of the *diazoma*. Another design option is indicated by the modern reconstruction of the *diazoma* by the direct connection to the entrances of the north and south *vomitorium* (EN1, ES1). Here, it is presumed that the relocation of the tiered seating slabs is connected with a recessed, rearward receiving area by the erection of balustrade panels. As discussed, a lack of *in situ* elements prevents the situation from being fully understood. At least the seating slabs used indicate the features of a regular connection to the panel cladding with the vertical facing to the seats above, and not for the bedding of a balustrade¹⁵⁰.

Two aspects of the lower *diazoma* finds are revealing in regard to the issues regarding the extension and transformation of the auditorium. First, the continuous base ashlar of the *diazoma* wall functioned as the lowest step in the *klimakes* area; the signs of wear at the step edges indicate that a two-level auditorium (at least) existed in the first building stage.

The second aspect concerns the extent of the broadening measures that were undertaken. In the most south-westerly part of the *diazoma* – more specifically, in the area immediately following the entrance of the *vomitorium* ES1 to the former *analemma* – the preserved state suggests that the above mentioned relocation of the *diazoma* wall could not have occurred (Pl. 461 Fig. 823)¹⁵¹. This provides a spatial reference for the broadening of the *diazoma* in the entry area of the lower southern *vomitorium* ES1. If one considers that the visitors coming from the north and south from the two large corridors (EN1, ES1), and the stairways (EN1 West, ES1 West) first had to reach the radial staircase via the approach, it shows the increased functional relevance of the lower *diazoma* in terms of public access. The widening of the space drew on the limited spatial possibilities of this space.

Another major construction project involved the relocation of the aqueduct through the auditorium (Pl. 152 Fig. 309; 154 Fig. 314. 315; 155 Fig. 316. 317; 158 Fig. 322–325; 159 Fig. 326; 160 Fig. 327. 328; 161 Fig. 329; 162 Fig. 330). The section in the theatre is part of the 40 km long Aristion aqueduct which, among others, supplied the Nymphaeum Traiani, dating to before 114 AD¹⁵².

The subsequent installation of the trench is visible through a change in materials in the substructure area around the eighth row of seats (Pl. 461 Fig. 824)¹⁵³. Here, two entrance openings into the aqueduct are almost symmetrical to the central axis of the theatre: in the north and south of the four *kerkides*, respectively. A full cross-section of the aqueduct is only visible in the southern part of the building, at the collapsed vault of the *vomitorium* ES1 (Pl. 462 Fig. 825). As a result of the current investigations of the theatre the entire course of the aqueduct is known, including its entrance in the north and its exit through the southern exterior wall of the theatre. While the exit of the aqueduct became visible after the 2009 excavation of the adjacent exterior stairs just south of the building, its entrance in the north remains buried just outside the building¹⁵⁴. In the area of the wing built on top of the substructure chambers the route is spatially and structurally connected with the *vomitioria* EN2 in the north, and ES1 in the south.

The aqueduct runs through the building with a fairly constant interior width of ca. 1.00 m. There are differences with regard to the tunnel height (which varies between 1.25 and 2.13 m), and the construction of the channel vault. Four sections with three differing cross-sections can be defined over the aqueduct's 178 m length beneath the stepped benches of the theatre¹⁵⁵. The walls of the trench are clad in *opus signinum* in varying heights (Pl. 462 Fig. 826).

At the axis of the two central radial stairs of the middle tier (T11, T13 Pl. 2) two clay pipes branch-off close to the above mentioned entrance openings in the ground just above the water line toward the *orchestra*; their interior diameter measures 0.225 m (Pl. 463 Fig. 827). The distance between the entrance openings and

¹⁴⁹ IVE 27. 28–35. Compare HEBERDEY u. a. 1912, 203; also KOLB 1999, 101–103. See also Cap. 8.6.1, No. 4 and Cap. 8.6.2.

¹⁵⁰ For cladding techniques in the bench structure see also STYHLER 2010.

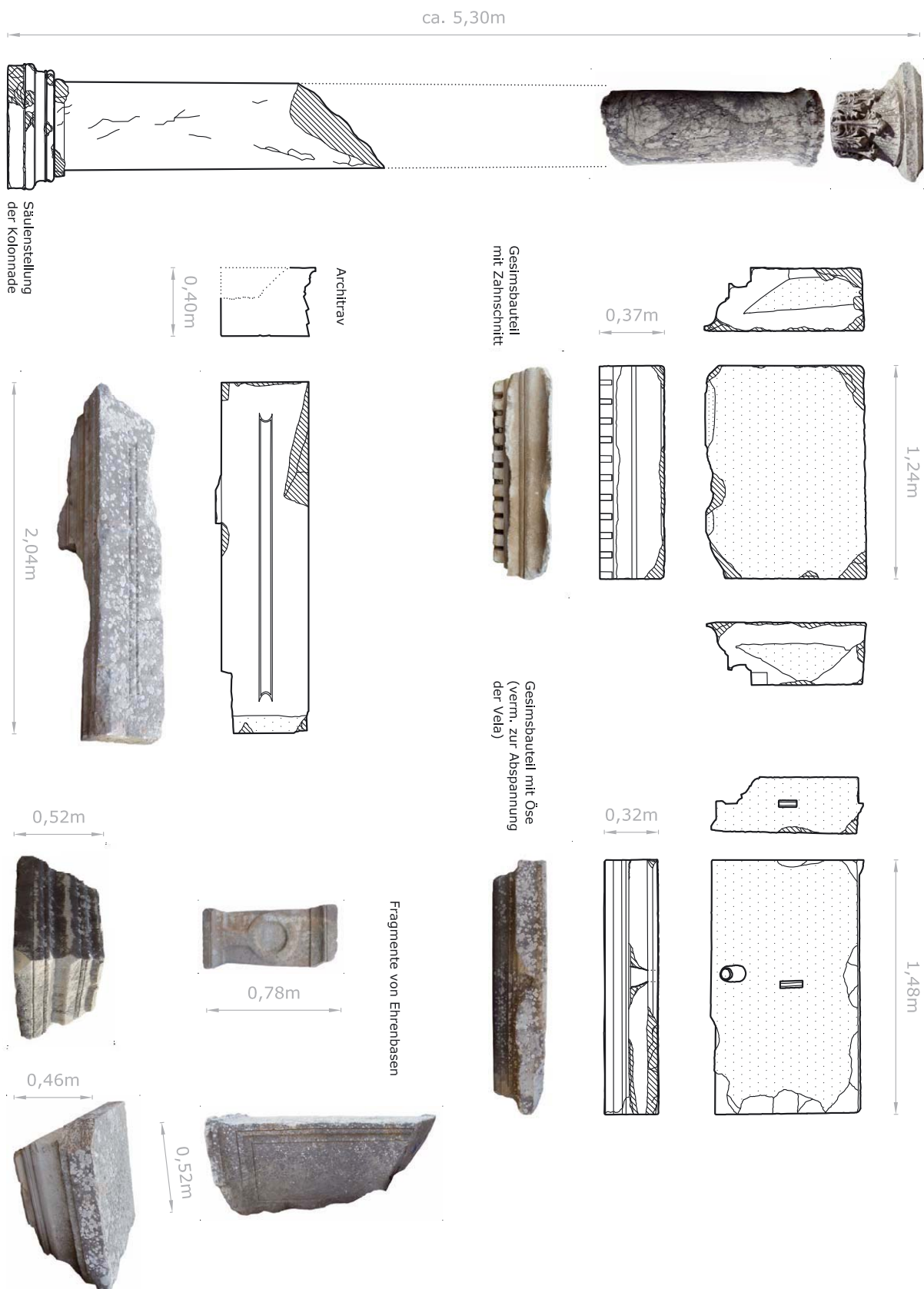
¹⁵¹ An archaeological test trench was dug for clarification of the spatially comparable situation in the north. However, due to the state of preservation and modern restorations, the original construction could hardly be traced, see Cap. 3.4.1.7.

¹⁵² For aqueducts in Ephesus see FORCHHEIMER 1923; ALZINGER 1987; ÖZIS – ATALAY 1999; WIPLINGER 2006a; WIPLINGER 2006b. An up-to-date summary of the research history is in WIPLINGER 2006a, 15–17. With regard to the identification of the section of water line as part of the aqueduct of Tiberius Claudius Aristion compare WIPLINGER 2006a, 19–35. Regarding the Nymphaeum Traiani compare QUATEMBER 2011.

¹⁵³ Compare also WIPLINGER 2006a, 34–35; WIPLINGER 2006b, 29–30.

¹⁵⁴ Cap. 3.6.1.

¹⁵⁵ For descriptions of the individual segments of the water line see STYHLER-AYDIN 2010, 79–81.



Text fig. 20: Structural elements from the porticus architecture and furnishing fragments

the branching-off of the clay pipes 2.25 m and 2.65 m. The course of the clay pipes could also be detected at the intersections with the lower *diazoma*, where, in one case, a wall fragment of the pipe came to light under the steps of the *klimax*. Archaeological excavations of the lower *diazoma* confirmed the continuation of these clay pipes in the direction of the *orchestra*¹⁵⁶. These, however, are not necessarily architectural evidence of the nautical games suggested in former research¹⁵⁷. What currently remains unknown is where the lower exit points of the clay pipes are located, and how the water flowed from the Aristion aqueduct into these pipes. It is possible that a connection exists between the aqueducts entrance openings and the branching-off of the clay pipes for the necessary closing and unclosing of access.

As was visible through the archaeological excavation of the stepped alley in front of the southern exterior wall of the theatre, the water line exiting the building was only minimally disturbed beneath the stairs. The results of the archaeozoological analysis of the finds from this southern exit of the trench showed that at least the aqueduct course was abandoned from the south facade of theatre toward the Nymphaeum Traiani in the 5th/6th century AD¹⁵⁸.

Porticus in summa cavea

The upper part of the theatre formed a portico. Spatially, it can still be recognized on the slope side of the theatre, above twelve of the original twenty-two *kerkides* of the *summa cavea* (Plan 1). Because of its state of preservation, its western end toward the *analemma* can no longer be traced. The hall at the auditorium was designed with a colonnade, but whose architectural elements have only been preserved in fragments (Text fig. 20). Among the identified architectural components of the portico were columns with Attic bases, smooth, monolithic shafts at least partially composed of coloured marbles, and crowned by leaf capitals. Furthermore, fragments of architraves and dentils from the entablature as well as cornice fragments from the colonnade's entablature could be identified. Considering the large amount of architectural components that must have been used in the construction of the portico, the amount of components found on location is so low that a theoretical reconstruction is not possible. Overall, the current architectural investigations have brought new insights about the portico's spatial arrangement, and how it was decorated. It was confirmed that the colonnade was not erected on the upper *diazoma* (as originally indicated in the first publication¹⁵⁹), rather that it was erected ca 2.50 m above the *diazoma* wall, as indicated by the foundation (Pl. 463 Fig. 828; 464 Fig. 829). In addition, analyzing the architectural fragments that were found has resulted in determining that the columns rose to a height of about 5.30 m. This measurement is also consistent with the results of the original height of the ›blind‹ chambers located on the slope, behind the lower area of the porticus wall (Pl. 464 Fig. 830). Finds of another order of columns that were lower in height, bases with lateral grooves, and matching fragments of broken barrier plates could indicate an upper level of the hall¹⁶⁰. This is confirmed by the rooms which were located above the ›blind‹ chambers and along the slope side of the rear portico wall; they would also have opened onto an eastbound passage (Tab. 127)¹⁶¹. In any case, the hall was likely much higher in contrast to the proposed reconstruction of R. Heberdey and W. Wilberg; these new proportions changed our understanding of the overall appearance of the theatre.

The plan of the porticus gives the impression that to the north and south the structures on the bordering east wall were taken into consideration. Only the two middle quarters of the hall had a uniform width of 5.35 to 5.40 m (Plan 1). The size of the outer slope-side quarters were smaller, or affected by the projecting walls. Two small staircases connecting the hall and the *cavea* have been preserved; they were arranged parallel to the upper *diazoma* wall. Further possibilities of access to the auditorium do not seem to have existed.

However, on the slope side, multiple openings were created in the rear wall of the portico¹⁶². The entrance located close to the central axis of the theatre may have been the main entrance based on the size of its

¹⁵⁶ Cap. 3.4.1.1 and 3.4.1.5.

¹⁵⁷ Compare DE BERNARDI FERRERO 1970, 63; DE BERNARDI FERRERO 1974, 150; compare Cap. 3.4.1.1 and 3.4.1.5.

¹⁵⁸ Cap. 3.6.1 and 10.3.4.

¹⁵⁹ HEBERDEY u. a. 1912, 48 Fig. 96.

¹⁶⁰ Cap. 7.1.6.

¹⁶¹ Cap. 3.8.

¹⁶² All of the access openings through the rear wall of the hall were secondary closed. A comparison of historical photos from the pe-

opening and its central location. The staircase constructed of *spolia* that one currently sees here is secondary (Pl. 465 Fig. 831. 832). The entrances to the south and north of it are associated with a structure behind the rear wall of the portico that has, as yet, not been investigated further. Evidence gleaned from the 2009 excavations, however, may have provided some clues as to their possible function. The space exposed behind the rear wall of the portico has been identified as a *thermopolion*¹⁶³. A use for supply purposes in connection with the portico is also conceivable for the chamber structure in the north and south slope areas.

As indicated by small remnants of preserved marble or tufa slab pavements, the walking surface in the hall lay approximately 0.50 m above the top edge of the (restored) supporting wall of the upper *diazoma*. Another indication is the terraced cliff of the slope which acted, in large areas, as the floor's substructure; its level corresponds to the bottom edge of the floor paving (Pl. 466 Fig. 833. 834).

The rear wall was essentially made of dressed stone in a mortar bond and was decorated with a marble incrustation; some marble fragments have survived, as well as metal anchors used for attaching the slabs to the wall. Cladding slabs measuring from 1.0 to 3.5 cm thick, and assorted horizontal profiles and rails were found among the fragments. Some slab fragments also show remnants of lettering¹⁶⁴. In total, more than ten different types of marble – and especially coloured marble – were identified (Pl. 467 Fig. 835). As well, tragic masks were apparently attached to the wall; some of these came to light during work done at the museum in Selçuk between 1966 and 1972¹⁶⁵. In a later phase the anchors used for fastening the marble slabs to the wall were struck off and the wall was plastered. Plaster fragments, some of which with traces of colour, come from this phase.

During the investigation of the portico, a high number of certain architectural fragments, such as the crowns of tripartite bases, pedestals, including some with victory wreaths, were found¹⁶⁶. Some of the components are only worked in raw form. Other fragments bear honorific inscriptions. A spatial allocation of the remnants is no longer possible, yet, their great number suggests that they were part of the portico's decor. In this context the balustrade pillars, decorated with gladiatorial reliefs, should also be mentioned; they were discovered during the excavations in the north part of the theatre¹⁶⁷, as well as along the south facade¹⁶⁸. St. Karwiese already interpreted the pillars as decoration of the upper section of the theatre¹⁶⁹.

Some considerations exist regarding the possible extension of the portico to the west. J. T. Wood reconstructed a row of columns around the entire sector (Text fig. 9), which was rejected by R. Heberdey and W. Wilberg because of space constraints¹⁷⁰. Instead, they suggest a colonnade which would have occupied the section of widened floor plan in the area of the slope¹⁷¹. This reconstruction, however, is also founded on idealized assumptions. Thus, the 1912 floor plan with a recess on the south side of the slope is incomprehensive (Text fig. 11). In considering the actual floor plan of the portico gives more the impression that the unified front of the *cavea* relativized in irregularities in the course of the portico's back wall. From this perspective, one could imagine the continuation of the colonnade to the western *analemmata*, if the actually useable area of the hall was only on slope. These considerations, however, cannot be verified due to a lack of further evidence.

The question regarding the establishment of the portico cannot be answered clearly. Clues indicate that the first building activity on the upper *diazoma* occurred during the early imperial period or the 1st century AD; as well, the first building phase of one of the two excavated areas east of the portico's rear wall can also be

riod during which the portico excavation took place (DE BERNARDI FERRERO, 1970, 58 Fig. 55. 56; 63 Fig. 73) with how it appears today suggests that some of the former access openings were re-opened in the 1960s/early 1970s, or that only fragmentary closing walls were reinstated at that time.

¹⁶³ Cap. 3.8.

¹⁶⁴ Cap. 8.

¹⁶⁵ ATALAY 1972, 47. 51 f.; KAYAN 1972, 56–64; see also Cap. 7.1.6 and the contribution of M. Aurenhammer in: STYHLER-AYDIN (in preparation); compare in general with MORETTI 1993a, 207–217.

¹⁶⁶ All architectural and decoration/furnishing fragments from the portico are dispersed. While the excavation and restoration of the inner edge of the portico and on the upper *diazoma* was carried out by the museum in Selçuk they were apparently stored. Proper documentation of this work is not known.

¹⁶⁷ Cap. 3.5.

¹⁶⁸ Cap. 3.

¹⁶⁹ KARWIESE SCHLUSSBERICHT; see also Cap. 3.5.1; 7.1.6 and Cap. 8, IN 7 (Pl. 413).

¹⁷⁰ WOOD 1877, reconstruction of the floorplan opposite p. 68; HEBERDEY u. a. 1912, 16.

¹⁷¹ HEBERDEY u. a. 1912, 15–16. 50 Fig. 98.

dated to the 1st half of the 1st century AD¹⁷². How the area of the portico was configured at this time remains an open question.

The inscriptions referring to the major expansion of the theatre from the time of Domitian to Trajan do not indicate that the portico was completed. As part of an extensive construction program for the Romanization of the theatre, one could however expect the corresponding usual design of a portico completing the upper part of this structure. The fact that the previously mentioned space adjacent to the rear wall of the portico was used as a *thermopolion* since its second building phase (late 1st or early 2nd century AD) points to the likelihood of an architectural setting and usage of space in the upper part of the theatre¹⁷³. The tragic masks found among the architectural fragments of the portico and which are presumed to have been attached to the rear wall date from the late 1st century to the 1st third of the 2nd century AD¹⁷⁴. Various inscriptions, which can be dated to 140 to 144 AD as well as to the 3rd century AD, refer to the reparation of the *petasos* – a broad-rimmed hat – in the theatre, which is thought to have referred to a lightweight canopy¹⁷⁵. Mounting lugs, as used for guying ropes, can actually be detected on cornice fragments from the portico and the middle *diazoma*. The stylistic characteristics and quality of workmanship of the few preserved architectural elements, such as capitals and dentilled cornices, however, suggest a production date towards the middle of the 2nd century AD¹⁷⁶; these elements could also have come from a reparation phase. The inscriptions found range in date from the 2nd century to the 1st half of the 3rd century AD¹⁷⁷.

Only a few preserved theatres in Asia Minor show evidence of a *porticus in summa cavea*. These include the theatres in: Perge (dated to 120 AD, and the portico presumably around 200 AD¹⁷⁸); Aspendos (dated to 161–168 AD, secondary portico is undated); and Termessos (dated to the early 2nd century BC and converted in the imperial era)¹⁷⁹. Parallels for the currently determined information on the width and reconstructed height of the portico can be found in the theatres at Perge and Aspendos. Their halls were between ca. 5.20 and 5.70 m wide and ca. 8.00 and 7.50 m high, respectively¹⁸⁰.

As described above, the most recent excavations just east of the Ephesian theatre uncovered a small section of a structure that is regarded as the *thermopolion* and whose function is thought to be connected with that of the *porticus in summa cavea* and the theatre¹⁸¹. Such examples in the context of antique theatres are rare. This is especially true for the area near the *porticus in summa cavea*. It is apparent here, that a promising possibility exists for future archaeological and structural-historical research that will uncover new insights about the function and utility of these spaces in the context of ancient theatres.

¹⁷² Cap. 3.4.3 and 3.8.6.

¹⁷³ Cap. 3.8.6.

¹⁷⁴ I thank M. Aurenhammer for this information. A detailed presentation of the results by M. Aurenhammer in STYHLER-AYDIN (in preparation).

¹⁷⁵ IvE 2039–2041. See also Cap. 8.6.1, No. 9–11 and Cap. 8.6.2. R. Heberdey interpreted the term *petasos* as ›canopy‹ that was made up of individual webs and that could be mounted on ropes (HEBERDEY u. a. 1912, 162). R. Graefe also followed this interpretation in his investigation of canopies of Roman theatres and also made suggestions as to how the canopies were erected in the theatres of Asia Minor (GRAEFE 1979, 15. 174 Fig. 196; 175 Fig. 197). Conversely, J.-Ch. Moretti denies that the term actually denotes a canopy, and also denies the existence of a velum in the theatre of Ephesus, as no relevant evidence is detectable (MORETTI 1993b, 137–140; compare also GREEN 1995, 32). The upright ashlar on the edge of the *orchestra* and in the center of the lower tiers described by R. Heberdey and W. Wilberg who connected them with the erection of a canopy (›baldachins‹) over the place of honour and not with a canopy (HEBERDEY u. a. 1912, 45 with Fig. opposite p. 17). Compare Cap. 10.2.4.3. Recently further evidence regarding the setting up of posts in the lower *diazoma* have been confirmed. The results will be presented in STYHLER-AYDIN (in preparation).

¹⁷⁶ I would like to thank G. Plattner and H. Thür for their information.

¹⁷⁷ Cap. 8.2.

¹⁷⁸ SEAR 2006, 372–373; CIANCIO ROSSETTO – PISANI SARTORIO 1994–1996, Vol. 3, 357–357; DE BERNARDI FERRERO 1974, 241; DE BERNARDI FERRERO 1970, 146–157 Pl. 28–30.

¹⁷⁹ Aspendos: SEAR 2006, 366–367; CIANCIO ROSSETTO – PISANI SARTORIO 1994–1996, Vol. 3, 393–394; DE BERNARDI FERRERO 1974, 241; DE BERNARDI FERRERO 1970, 173; Termessos: SEAR 2006, 378 f.; CIANCIO ROSSETTO – PISANI SARTORIO 1994–1996, Bd. 3, 443; DE BERNARDI FERRERO 1974, 241; DE BERNARDI FERRERO 1969, 32 f.

¹⁸⁰ DE BERNARDI FERRERO 1970, Pl. 28. 31; 32A.

¹⁸¹ Cap. 3.8.

Summary

After the completion of the extensive renovation and expansion, the theatre presented itself as follows: at the foot of the Panayırdağ, the semi-circular, three-tiered auditorium rose 30 m over the *orchestra*. Its maximum diameter was approximately 150 m. The massive stepped structure is bounded on the west by the *analemma-ta*, which each measured approximately 60 m in length. Between them lay the three storey, almost 42 m long stage building.

The still traceable layout of the auditorium consisted of eleven wedge-shaped sectors in the lower tier, and in twenty-two for both the middle and upper tiers. The number of seating steps varies in each tier; after the imperial era conversions including the *diazoma*, there were eighteen in the lower, and twenty-two for the middle and twenty-one for the upper tiers. Based on the existing seating, a theoretical determination of the theatre's capacity numbers 20,000 spectators¹⁸².

In consideration of its functionality, the auditorium in this phase is characterized by a clearly organized access system: the two lower tiers were accessible both to the north and south by vaulted corridors. Additionally, the lower tier could also be accessed from the staircases to the west. An older portal in the south is located on the top tier. On the south side a wide external staircase connects the three entrances with one another. A similar solution is presumed for the northern entrances. The upper end of the theatre is defined by a portico, that extended at least to the slope area.

11.2.4.3 MODIFICATIONS AND REPAIRS DURING THE ANTONINE PERIOD

Two copies of an inscription¹⁸³, dating to 140–144 AD, were embedded in the upper area of the ramps (Ramp N, Ramp S). Based on this inscription, the first Austrian researchers were able to attribute a number of architecturally traceable alterations in the *orchestra* area to the Antonine period, which may also be understood as modernization¹⁸⁴. These alterations include a (safety) barrier in the *orchestra*, the building-over of the Hellenistic *orchestra* to accommodate a new drainage channel at a slightly higher level, combined with increasing the level of the *orchestra* floor, and a new marble cladding¹⁸⁵. In the *orchestra* wall X, almost all access points to the radial staircase were sealed. Only the middle stairs could still be used, with access to the place of honour in the central *kerkis* of the lower tier, as was established by R. Heberdey and W. Wilberg. At the time of their research the remnants of a marble pavement and ashlar bearing post holes – possibly for the erection of a canopy (>baldachins<) – were still preserved¹⁸⁶. These can no longer be traced in today's restored condition.

Further modifications occurred at the *parodoi* entrance areas in the *orchestra*, and at the front of the *proscenium*¹⁸⁷. The structural changes described above have been interpreted as proof for the performance of gladiatorial, as well as nautical games in the theatre¹⁸⁸. As the most recent research indicates, two clay pipes branch off toward the *orchestra* from the Aristion water line (see above; Pl. 93 Fig. 184, 185; 94 Fig. 186). Since the outlets into the *orchestra* are no longer preserved, no further hypotheses can be made. In general, the use of water in the *orchestra* would also be conceivable for cleaning. Using the *orchestra* as a basin would have justified the closure of some existing openings, but this cannot be traced in the structure itself¹⁸⁹. The inscriptions indicate building activities for the creation or renewal of the *petasos* (Tab. 127)¹⁹⁰.

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¹⁸² A width of 0.44 m per spectator was used for the calculation; compare CIANCO ROSSETTO – PISANI SARTORIO 1994, Vol. 1, 65.

¹⁸³ IV E 2039. Compare HEBERDEY u. a. 1912, 162–163. See also Cap. 8.6.1, No. 9 and Cap. 8.6.2.

¹⁸⁴ HEBERDEY u. a. 1912, 44–47.

¹⁸⁵ The removal of the seats up to the level of the *logeion*, and associated with the erection of the *orchestra* wall, was also attributed to this phase in the first publication (HEBERDEY u. a. 1912, 44–45, 52). However, given the current state of the architectural findings, it seems this measure was more likely to have occurred during the extensive expansion phase from the time of Domitian to Trajan; see above: *orchestra*, *parodoi* and *ima cavea*; Cap. 3.3.

¹⁸⁶ HEBERDEY u. a. 1912, 45, 47 Fig. 95.

¹⁸⁷ Cap. 3.2.3 and 10.2.1.3.

¹⁸⁸ DE BERNARDI FERRERO 1970, 63.

¹⁸⁹ Cap. 3.3.1 and 3.3.2.

¹⁹⁰ IV E 2039 (see above for discussion).

11.3 THE THEATRE IN THE LATE PERIOD

11.3.1 The Theatre Facade in the Late Period

SUBSEQUENT USE (5TH AND 6TH CENTURIES AD)

Numerous graffiti are preserved on the base of the first floor, and in which performances are partially referenced¹⁹¹. These can be dated to the 5th and 6th centuries AD, based on the actors' clothing. This proves that the stage was still being used for events in late antiquity.

REPAIRS TO THE *SCAENAE FRONS* (IN ANTIQUITY)

Repairs, dating to antiquity, are preserved in the *scaenae frons* structure. Parts of the cornice of the *attica* have been fashioned out of coffers, traces of which can be seen on the upper side of the cornice (Pl. 468 Fig. 836. 837). A concave architrave of the third storey is broken into three parts (Pl. 469 Fig. 838). Three architrave fragments which fit together bear clamp holes near the breaks, indicating that they were already repaired with clamps in antiquity. Thus, a repair phase – at least for the third floor – took place, but cannot yet be dated.

A. ÖZTÜRK

11.3.2 The Stage Building in the Late Period

Beam holes can be observed in practically all of the chambers. They occur at different heights and are not the same size. The holes are located throughout the east and west walls. Preserved beam holes to the right and left of the entrance door correspond to their counterparts on the east wall. The distances do not follow a regular pattern. It seems these holes may be associated with shelf-like structures, for storage purposes, placed on either side of the door.

Traces of usage were detected during the clearing of two chambers (E3 and E5) located between Chambers E1 and E8 (Pl. 3 Fig. 3). In chamber E3 two *pithoi* that had been set in the ground, were excavated (Pl. 24–26). They were filled with large ceramic fragments of tableware dating to the Neronian period¹⁹². The *pithoi* were covered by a layer of debris (SE 30) below the mortar bed for the brick tile pavement. Pottery and a coin from the time of Marcus Aurelius provide both a *terminus ante quem* for the filling of the *pithoi*, and a *terminus post quem* for the installation of the brick tile floor, in the late 2nd century AD¹⁹³.

A three-part basin in chamber E5 possibly dates to the 4th century AD (Pl. 28–30; 31 Fig. 52). It was formed of half-format bricks, covered both inside and out with a fine white plaster coating. The bottom of the basin consisted of a layer of clay tiles. This was abandoned in the 5th/6th century AD, at the latest, and a new floor level of brick slabs was constructed over the remains of the pool. Repairs cannot be identified on the walls of the western extension. But traces of a different type of usage, or perhaps even function, in the late period are evident. Immediately south of the entrance to chamber E5 is a gateway of the Byzantine city wall, which was presumably constructed in the 6th century AD. The theatre structure between this gateway and the entrance E3 acted as part of this fortification. It is very likely that the entrances to chambers E6, E7, and E8 were sealed in context with this change, and for Chambers E6 and E7 what might also have been associated with a general abandonment. There is a reinforcing wall along the west wall of chambers E7 and E8 (Pl. 32 Fig. 54. 55; 33 Fig. 56). This factor also seems to be associated with the construction project. A chronological connection for the reinforcing walls and the city fortification wall cannot be established based on the finds from the backfill layers of the reinforcing wall in Chamber E7 alone. The finds (some of which dating into the 3rd century AD) from the backfill of the reinforcing wall may be linked to a building project that had nothing to do with the construction of the Byzantine city wall and gate (Pl. 51 Fig. 97); rather, it could represent reparation work

¹⁹¹ ROUECHÉ 2002b, 257.

¹⁹² Cap. 4.1.2.2.

¹⁹³ For dating see Cap. 4.1.2.2.

following the earthquake of 262 AD (Tab. 127). In any case, the entrances were closed off by the retraction of the reinforcement wall. A step constructed of bricks in front of the entrance to E5 is attached to the city wall and bears witness to the use of entrances now located within the walled area of city. This was temporary as the entrances to chambers E1 to E5 were also eventually closed with *spolia*. In the area between the chambers E4 and E5 (not between the Hellenistic chambers D4 and D5), *spolia* were used to convert passage C into a narrow corridor, measuring 0.75 m. Remains of a massive *opus caementitium* fill were preserved in the upper area. Given its location, in close proximity to the Byzantine city wall and the gate, this fill could be linked to the remains of walls of a secondary structure – such as a tower – which was erected over the western part of passage C.

M. HOFBAUER

11.3.3 Changes to the *Orchestra* and Stage Front

By and large the *orchestra* remained as it had existed since the 2nd century AD. The passages in the Antonine-era stage front were walled. The course of the two aforementioned pipelines, supplied by the Aristion aqueduct, could be traced in 2006 to the lower *diazoma* (Pl. 93 Fig. 184. 185; 94 Fig. 186). Based on structural findings, a connection with a filling of the *orchestra* with water cannot, at present, be verified¹⁹⁴. The pipelines may have been associated with fountain fixtures, as is known in the middle *diazoma*; they could also have served for cleaning in connection with gladiatorial games.

M. HOFBAUER

11.3.4 Alterations in the Auditorium

NORTH WING OF THE THEATRE

The first identifiable intervention in the north wing of the theatre took place in the entrance corridor EN1¹⁹⁵. In its northern part, the barrel vault with the 11.0 m high sidewalls and an apex of ca. 13.35 m – and surely one of the highest vaulted areas in the theatre – there was a second lower vault or ceiling for reinforcement purposes¹⁹⁶. Indented apparently somewhat from the north facade, the structure rested on presumably four arcades which were placed immediately in front of the side walls of the *vomitorium* (Pl. 470 Fig. 840). On the west side, the profiled doors and fanlights of the chamber entrances were partially obscured by this addition and may have been partially dismantled; yet, the chambers continued to be accessible and useable (Pl. 470 Fig. 841). One can reconstruct, from the still *in situ* parts of the arcade structure, that the peak height in the northern portion of the *vomitorium* would have been reduced by about one-third due to the additional barrel vault; it would also have corresponded, approximately, with the vault height of the central corridor section (Text fig. 21). Due to the high quantity of rubble, the arcade structure is only fragmentarily identifiable in the *vomitorium*¹⁹⁷. The preserved visible parts of pillar bases and capitals and the impost area are worked in rough shape, their profiles had not been rendered. Although some signs of processing exist in the better preserved west wall of the *vomitorium*, these are not proof of anchoring points for the arcade in front of it. Based on the findings, it cannot currently be concluded whether the construction project was fully completed¹⁹⁸. There is currently no direct evidence for dating this modification. St. Karwiese and I. Ataç took the 3rd century AD into consideration and associated the described construction measures and later subsequent changes in the lower

¹⁹⁴ Cap. 11.2.2.2.

¹⁹⁵ Cap. 11.1.3.

¹⁹⁶ St. Karwiese assumed that the secondary construction was connected with a further level, see KARWIESE ARCHIV ÖAI, 5; KARWIESE 1999, 26.

¹⁹⁷ Cap. 3.5.1.

¹⁹⁸ An analysis of structural elements that were excavated (1993–1998) from the debris in the *vomitorium* (currently stored north of the theatre) in conjunction with further excavations could provide more detailed insight in the future.

corridor with the historically attested earthquakes of 262 AD and 359–366 AD (Tab. 127)¹⁹⁹. Also relevant is that the analysis of pottery finds from the theatre can be addressed as rubble from the earthquake in the 3rd quarter of the 3rd century AD²⁰⁰. The structural evidence, however, cannot confirm at present whether the subsidiary arcade construction was the result of actual damage, or a preventive measure against the threat of instability in the highest part of the *vomitorium*.

The subsequent use of the northern and central corridor sections as a cistern may be considered, as evidence of the covered space still existed in the 5th–6th centuries AD (see below), although at the moment no further explanations are possible.

In the 4th century AD extensive stabilization measures were undertaken on the northern exterior wall of the theatre (Tab. 127). Former research literature assumed that a number of historically attested, severe earthquakes occurred in the 3rd quarter of the 4th century AD in the eastern Mediterranean, that also shook Ephesus and affected the theatre²⁰¹. Due to a lack of unequivocal archaeological evidence here, and for other Ephesian monuments, recent research seeks more concrete evidence and is critical of the overall findings regarding the earthquakes²⁰². Crack patterns in the ashlar masonry of the northern facade, however, indicate forceful impact such as those caused by earthquakes. The massive consolidations were obviously trying to prevent parts of the outer theatre wall from collapsing.

Initially, the sensitive areas of the high facade openings of the *vomitioria* EN1 and EN2 in the exterior wall were secured. The entrance to the central *diazoma* (EN2) was sealed with a massive wall measuring 5 m thick (Pl. 146 Fig. 294; Text fig. 16). In addition, the outer wall was supported, on both sides, by buttresses orthogonally arranged on the north facade (Pl. 148 Fig. 299, 300; Text fig. 17)²⁰³. There are indications in the lower *vomitorium* EN1 that at least the eastern opening soffit was reinforced for approximately 7 m. It is possible that a narrow entrance is still preserved here (Plan 4).

Finally, a 2.00–2.60 m thick wall is thought to have been superimposed on facade between the two *vomitioria*. That this measure was planned at the beginning of the consolidation efforts indicates a connection with the western counterfort wall. The corner is already linked in the formation (Pl. 471 Fig. 842, 843). However, it seems that different materials were foreseen for the construction of this front facade, because the joints to the corner are comprised of rubble stone. The wall was, however, constructed with an outer masonry of marble *spolia*²⁰⁴. At the interface with the lower *vomitorium* EN1, the new anterior facade already connected with the reinforcing wall at the eastern opening soffit, as is evident in the negative imprint visible in the core masonry composed of *opus caementitium* (Pl. 472 Fig. 845). The consolidation work can be dated by two building inscriptions; one was found in the closure wall of the *vomitorium* EN2, the other in the eastern counterfort wall²⁰⁵. The governor, Messalinos, is accredited with having restored the theatre's semi-circle (Pl. 66 Fig. 127). All newly created facades in the north were built with white marble *spolia* and thereby reinforcing its representative character. Overall, these measures can also be seen as an indication for the efforts made to preserve the building.

Another security measure could be related to the extensive consolidation measures on the northern facade. Low, brick vaults were incorporated in the chambers KN1–KN3 which flanked the lower *vomitorium* EN1 on its west side (Pl. 2 Fig. 2; 127 Fig. 254, 255). They rested on the 0.90–1.00 m thick wall-facings that were constructed directly in front of the original chamber partition walls (Text fig. 19). The doorways between the corridor and the chambers were still in use, thus confirming the accessibility of these chambers²⁰⁶. Around

¹⁹⁹ KARWIESE ARCHIV ÖAI, 5; KARWIESE 1998, 25; SCHERRER 1995, 162; ATAÇ 1999b, 431; ATAÇ 1997. Based on the finds, current research in Ephesus assumes that the city was devastated by a severe earthquake in the 3rd quarter of the 3rd century AD. It is still unclear as to which buildings were directly affected from damage or destruction (LADSTÄTTER – PÜLZ 2007, 397; LADSTÄTTER 2002, 26–29).

²⁰⁰ Cap. 4.5.1.3; 4.6.2 and 4.7.

²⁰¹ In summary LADSTÄTTER 2002, 29–31; SCHERRER 1995, 162.

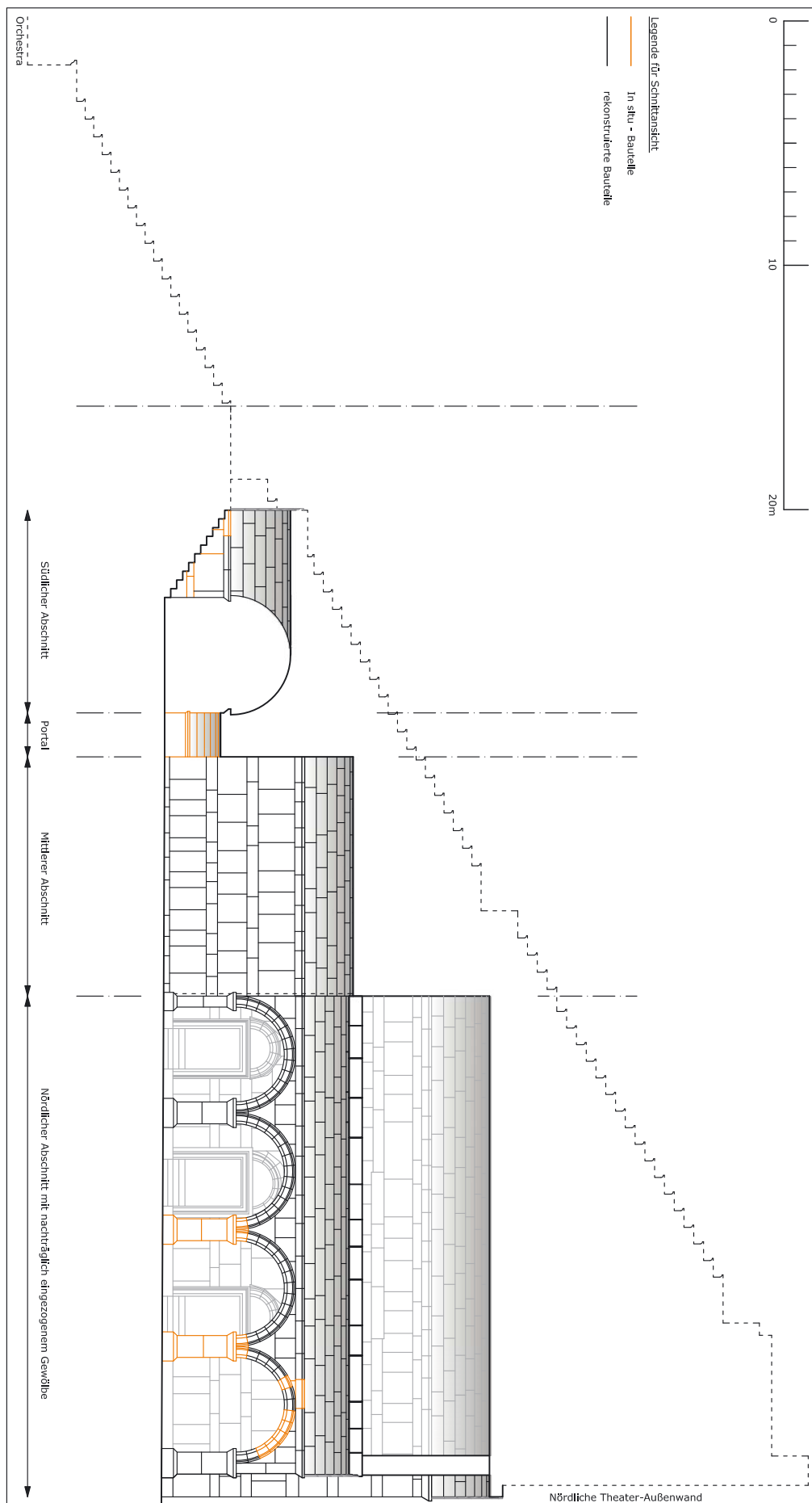
²⁰² LADSTÄTTER 2002, 29–31.

²⁰³ Cap. 3.5.1.3.

²⁰⁴ Three structural elements with visible inscriptions were found amongst the *spolia*; compare Cap. 8.3, IN 12, 13 (Pl. 415); IN 14 (Pl. 416).

²⁰⁵ IVE 2043, 2044. Compare WOOD 1877, 69; HEBERDEY u. a. 1912, 52, 164–165. See also Cap. 8.6.1, No. 12, 13 and Cap. 8.6.2. Both inscriptions are no longer *in situ*.

²⁰⁶ Cap. 3.5.1.3.

Text fig. 21: North-south trench through the *vomitorium* EN1 with subsidiary barrel vaults from Phase 2 (Suggested reconstruction)

the middle of the 5th century AD, northern and central parts of the *vomitorium* EN1 were transformed into a cistern with a capacity of more than 350 m³ (Pl. 128 Fig. 256, 257)²⁰⁷. It was very likely fed by clay pipes leading from the Arision aqueduct, that ran in front of the northern outer theatre wall.

Various modifications were required for converting a portion of this corridor into a cistern. The doors to the adjacent chambers, the portal to the southern part of the corridor and the north side of the *vomitorium* had to be massively blocked (Pl. 129 Fig. 260). All of these changes were done in mortar bonded masonry walls consisting of *spolia* and bricks; all walls orientated to the cistern were coated in a waterproof plaster. However, the original white marble corridor walls constructed in the orthostat/header style technique remained unplastered. The former marble floor of the *vomitorium* was deepened – in part to the level of the foundation of the corridor walls. A new floor of large format brick slabs with a gradient from south to north was installed. Both the aforementioned supply pipe from the east, as well as the cistern's drainage and the cleaning access are situated in the northern wall (Pl. 472 Fig. 845)²⁰⁸. Trenches in KN1 and KN3 showed that these adjacent chambers were intentionally filled with earth after their abandonment (Pl. 134 Fig. 270, 271). It cannot be confirmed whether this coincided with the sealing of the doors, or whether it was carried out at a later date²⁰⁹.

The cistern was likely in use until the last quarter of the 6th century AD, based on the archaeological finds. From the early 7th century AD the basin was filled by debris from the collapse of the *vomitorium*, or the tiers situated above it²¹⁰.

With the modifications to the *vomitorium* EN1, direct access to the lower tiers from the north, as well as the usage of the chambers west of the corridor, was abandoned. The accessibility of the *cavea* in the north wing was henceforth limited to the L-shaped staircase which led from the west to the lower *diazoma* (via EN1 West).

SOUTH WING OF THE THEATRE

On the south facade, as well, the original entrances into the auditorium were later sealed (Tab. 127), although the character of the two lower *vomitioria* (ES1, ES2) differs from that of the upper corridor ES3 in terms of their closure (Plan 5).

The coverings of the southern staircase were dismantled and incorporated into the masonry of the outer wall of ES1 and ES2. The thickness of these closure walls corresponds to those of the neighbouring sub-structure chambers. In so far as can be determined from the preserved remains, the white marble ashlar blocks from the lower stairway were re-used for the lower *vomitorium* ES1 (Pl. 286 Fig. 582; 473 Abb. 846). The grey ashlar from the upper part of the staircase were used for the closure of the central *diazoma* (ES2) (Pl. 473 Fig. 847). The evaluation of the excavation on the ›Stiegengasse‹ indicates the walling-up of both entrances in the late 5th to early 6th centuries AD²¹¹. The pottery finds from the debris of chambers KS1 to KS3, which flanked the west side of the southern corridor (Pl. 172 Fig. 352), date to the 3rd century AD, but mainly to the 5th and 6th centuries AD. The abandonment of these chambers is thought to date to the late 6th century AD. The importance of the *vomitorium* is thought to have diminished through its closure.

Moreover, the upper access corridor ES3 was sealed (Pl. 219 Fig. 451; 441 Fig. 781). The wall was approximately 3.75 m thick and constructed of mortar bonded masonry made of quarry stones, bricks, and marble *spolia* – amongst which were many column fragments, possibly from the portico architecture. In addition to the recesses between the *spolia* and larger quarry stones, a thin layer of mortar was spread on the wall surface, with a slight horizontal concave moulding. Imprints in the mortar, sintered layers, and fragments of clay pipes on the facade near the portal indicate continued use of the platform in front of the former entrance²¹².

²⁰⁷ Cap. 3.5.

²⁰⁸ Further possible drains cannot currently be identified because of the massive debris in the cistern.

²⁰⁹ Cap. 3.5.1.2 and 3.5.1.3.

²¹⁰ Cap. 3.5.1.

²¹¹ Cap. 3.7.2.1; 3.7.2.3 and 3.7.3.

²¹² Cap. 3.7.1.1 and 3.7.2.1.

So far, the walling-up of the theatre's slope-side entrances is thought to be associated with its fortifying function in the Byzantine period (Pl. 1)²¹³. The most recent investigations have shown that these measures should be evaluated differently. Protective measures in the south, or at least for the lower *vomitorium* ES1, cannot be ruled out. Particularly in the area around the southern facade opening, all of the preserved ashlar in the outer wall are badly damaged. Strong shocks are indicated by the vertical cracks and fractures, which in part led to the loss of some ashlar (Pl. 455 Fig. 810). These findings also fit well with the broad range of pottery from the theatre excavation, as well as the uncovering of the exterior staircase, which has been interpreted as rubble due to the earthquake in the 3rd quarter of the 3rd century AD (Tab. 127; Plan 15. 16)²¹⁴. In contrast, the preserved part of the closure wall shows no damage.

The walling-in of the southern entrances to the theatre reduced the possibility of access to the *cavea* in the south wing (Plan 17), essentially to the western entrance (ES1 West). In addition, the southern exterior staircase became unusable in some parts through the removing of the covering blocs of the steps²¹⁵.

EAST END OF THE THEATRE

Structural changes can also be determined in the area of the portico during the late period, and can be traced particularly at the entrance openings. Although presumably dismantled to a large extent during the restoration work, some *in situ* settings, as well as historical photographs indicate that here, too, the entrances were walled-in with a mortar bonded masonry consisting of quarry stone, brick, and fragments of marble²¹⁶.

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²¹³ HOFBAUER 2007, 74.

²¹⁴ Cap. 4.5.1.3; 4.6.2 and 4.7.

²¹⁵ Cap. 3.7.2.

²¹⁶ DE BERNARDI FERRERO 1970, 58 Fig. 55. 56; 63 Fig. 73.