

7. BUILDING TYPOLOGY AND DATE

7.1 Architectural Context and Date

A *terminus ante quem* for the pre-Vedius building phase is provided by the Hadrianic letter of A.D. 128/129 which was carved on the scene wall and covered by veneer in the Vedian phase.²⁶³ A date *post quem* is more difficult to arrive at, depending as it does largely on its perceived position in the architectural development of a general type.

As the original building was constructed sometime before 128/129, but after the layout of the “Staatsmarkt” under Augustus,²⁶⁴ it rests within two overlapping areas of uncertainty in the history of Roman architecture which limit our ability to connect it with a specific time. The first is the origin of the Roman Odeion, the small covered theater that blended the semicircular plan of the open theater, reduced in scale, and covered with a wooden roof.²⁶⁵ The second is the development of the columnar façade in Roman Asia Minor, as it appeared not only in theatrical contexts, but in other types of public monuments including *nymphaea*, gates and grave monuments.²⁶⁶ Examination of the building in both contexts will produce a range of possibility centering on the turn of the 2nd century, a date which is confirmed both by internal evidence, as well as comparanda from Ephesos and from other sites.

7.2 Semicircular Odeia and Bouleuteria

The monuments most closely resembling our Bouleuterion in size and the organization of its component parts belong to a distinct class of buildings designated “monuments non-inscrits” by J. Ch. Balty to distinguish them from the earlier type of roofed theater in which the *auditorium* was set within a rectangular outer wall,²⁶⁷ but which are here called semicircular to reflect the overall shape of the buildings. Examples in Asia Minor offering particularly close parallels are the Bouleuteria at Aphrodisias²⁶⁸ (pl. 54) and Cibyra²⁶⁹ (pl. 55). Each measures between 45 and 46 m across the front and follows the Vitruvian canon for the Roman theater in which a semicircular *cavea* is joined to a rectangular stage building.²⁷⁰ Both were entered through multiple doorways in the *scaenae* wall, and at Cibyra, as at Ephesos, direct access to the *diazoma* was provided by *vomitoria* consisting of vaulted staircases rising in two flights from the *parodoi*. The buildings at Aphrodisias and Cibyra should be dated to the end of the 2nd or the beginning of the 3rd century,²⁷¹ and are thus of little use for dating the original phase at Ephesos. But they are of some interest here because they illustrate the development of a form which may have been initiated at Ephesos and – due to her enormous prestige as the capital and gateway to Asia – disseminated to the east where we find the type fully developed in Roman cities like Philippopolis (el-Subha)²⁷², Pella²⁷³, Gadara²⁷⁴ and Philadelphia (Ammon)²⁷⁵. There were, however, semicircular roofed theaters being built already in the 1st and early 2nd century which provide a partial context for the Bouleuterion at Ephesos. All were built as *odeia*.

²⁶³ See below chap. 8.2.1, inscr. 4 on the letter.

²⁶⁴ KENZLER 2006, 169–181; most recently THÜR 2007, 77–90.

²⁶⁵ See MEINEL 1980, *passim*.

²⁶⁶ See below. For a summary on the development of early aedicular faades see BERNIS 2002, 159–174.

²⁶⁷ BALTU 1991, 511–551. MEINEL 1980, 35 defines the Ephesian Bouleuterion as “Mischtyp”.

²⁶⁸ BIER 2008, 144–168; BALTU 1991, 515–519; MEINEL 1980, 321–327. 347–352.

²⁶⁹ BALTU 1991, 519–521.

²⁷⁰ The circles described by the seating in both bouleuteria actually extend beyond 180°.

²⁷¹ Aphrodisias: BIER 2008, 144–168, esp. + 156–161 on the chronology; Cibyra: BALTU 1991, 519–520.

²⁷² MEINEL 1980, 329; but see BALTU 1991, 439–443.

²⁷³ BALTU 1991, 545–547.

²⁷⁴ BALTU 1991, 541.

²⁷⁵ BALTU 1991, 538–540; MEINEL 1980, 292–294.

The earliest were great Imperial foundations of the Flavian period which are known almost entirely from literary sources. The 6th century chronicler John Malalas reported that Vespasian had ordered an Odeion built at Caesarea on the spot where a Jewish synagogue had stood, and remarked on the great diameter of the auditorium.²⁷⁶ Towards the end of the 1st century in the reign of Domitian another enormous Odeion was built in Rome specifically to accommodate musical competitions connected with the Capitoline games.²⁷⁷ This has left some traces so it is possible to envision a vast building with a semicircular *auditorium* of about 110 m in diameter.²⁷⁸ A third building of this class rose in Corinth at about this time.²⁷⁹ Philostratus' well-known description refers to a costly refurbishment paid for by Herodes Atticus, but excavations conducted in the 1930's by O. Broneer proved that the building existed in its full diameter of 67 m before the end of the 1st century.²⁸⁰ This series of *odeia*, characterized by their sheer size, sumptuous interior decoration and scenic apparatus, continues into the 2nd century; two large *odeia* were built at Vienne (Colonia Iulia Augusta Florentia Vienna)²⁸¹ and at Lyon (Lugdunum)²⁸² in Roman Gaul probably during Hadrian's reign, and Herodes Atticus presented his great Odeion to the city of Athens under the Antonines.²⁸³ All were eclipsed by the colossal Odeion built at Carthage in 207 for the Pythian games.²⁸⁴ It had a diameter of 96 m and a seating capacity of over 10 000!

7.3 The Smaller Non-Inscribed Roofed Theaters

The class of monuments to which the Bouleuterion at Ephesos in its first phase belongs represents a parallel but separate development that can be traced back with certainty no further than the late 1st century A.D. It consists both of Odeia and Bouleuteria (i. e. roofed theaters) of more modest dimensions, in no case exceeding 50 m in width. The great *odeia* were clearly built as *tours de force* and duly became objects of wonder to ancient authors like Pausanias²⁸⁵ and Philostratus²⁸⁶, who described them in enthusiastic terms. These writers tended to limit their remarks to brief *ekphrasis* emphasizing costly materials and lavish decoration. Roofs are briefly mentioned as spectacular features which testify to the sumptuousness of the project and the generosity of the patron but few technical details are provided and little information is given regarding their actual appearance. R. Meinel's confidence in restoring enormous trusses over these vast spaces seems overly optimistic especially considering that the single engineering analysis he offers deals with the much smaller building at Aphrodisias.²⁸⁷ The roof of cedar wood mentioned by Philostratus for Athens may have been limited to only a portion of the building; whether it covered the entire interior space remains an object of dispute.²⁸⁸ The Bouleuterion at Ephesos and its immediate successors in Asia Minor²⁸⁹ and possibly in the eastern provinces of Syria and Jordan²⁹⁰ represent a more realistic approach to providing an indoor theatrical space. The uniformity of their spanning distances varies from 15.50–54 m but the figures cluster around 26 m. The dimension is significant because it matches the widths of the largest ancient basilicas like *San Paolo fuori le mura* in Rome²⁹¹ that were

²⁷⁶ THURN 2000, 197 (X 46; Dindorf 261,13). See FRÉZOULS 1961, 55 and note 4. 5.

²⁷⁷ MEINEL 1980, 298–299.

²⁷⁸ PLATNER 1929, III 71; COARELLI 1977, 807–846; GROS 1996, 311–312.

²⁷⁹ MEINEL 1980, 59–80. 247–252. 287–288.

²⁸⁰ BRONEER 1932, 144.

²⁸¹ MEINEL 1980, 309–310.

²⁸² MEINEL 1980, 304–309.

²⁸³ MEINEL 1980, 25–26. 80–117. 280–282. 285–287.

²⁸⁴ MEINEL 1980, 312–313.

²⁸⁵ Paus. 7, 20, 6 on the Odeion of Herodes Atticus in Athens.

²⁸⁶ Philostr. *soph.* 2, 1, 5 (Odeion of Herodes Atticus in Athens and Odeion in Corinth); Philostr. *soph.* 2, 5, 4 and 2, 8, 4 (Odeion on the Agora in Athens).

²⁸⁷ MEINEL 1980, 323–326. 342–352. 373–416.

²⁸⁸ See the contribution of M. KORRES in: A. von KIENLIN (ed.), *Holztragwerke in der Antike*, Byzas 11 (forthcoming).

²⁸⁹ Bargylia: BALTU 1991, 531. 579 (diam. 15.5 m; dated to the 1st or 2nd century A.D.); Magnesia on the Meander: BALTU 1991, 524–526 (diam. 40 m; dated to 147 A.D.).

²⁹⁰ Gadara: BALTU 1991, 541 (diam. 54 m; dated to the 2nd century); Pella: BALTU 1991, 545–547 (diam. 39 m, dated to the 2nd century); Amman: BALTU 1991, 538–539 (diam. 38 m, dated to the second half of the 2nd century); Gerasa: BALTU 1991, 541–545 (diam. 58.60 m, dated to 155/156 A.D.).

²⁹¹ MEINEL 1980, 343 fig. 144, 4.

covered with great trussed roofs, and must represent known or perceived limits in wood truss construction in antiquity.

7.4 The Bouleuterion in its First Phase (pl. 45)

All but one of the very few monuments of this class that have been dated prior to the Antonine period, are located in the Balkans and show a later stage of development than the original Bouleuterion at Ephesos. The *odeia* at Nikopolis (Epirus)²⁹² and Patras²⁹³, which were probably built in the first or early 2nd century A.D. (Nikopolis) and in the second quarter of the 2nd century A.D. (Patras), differ from it in the greater complexity of their plans, especially in the area of the stage, as, for example, in the use of *paraskenia* and vaulted *parodoi*. The Odeion at Nea Paphos in Western Cyprus, built probably in the reign of Trajan, seems to have had a *scaenae frons* resembling the one at Ephesos, but in its second (i. e. Vedius) phase, rather than in its first.²⁹⁴

The original phase at Ephesos has its closest parallel in the earliest known instance of this class of monuments “non-inscrits”, a building excavated at Gortyn on Crete by an Italian mission in 1921 under the direction of L. Pernier.²⁹⁵ In 2004 several trenches were laid out in the building to clarify its history (pl. 56, 1).²⁹⁶ The foundation inscription, datable to 100 A.D., identified it as a rebuilding under Trajan of an *odeum ruina conlapsum*.²⁹⁷ Its great circular retaining wall, with a diameter of 32.40 m and a thickness of almost 2 m, was reused from a building of Augustan date, which was built over an earlier Hellenistic structure of square plan.²⁹⁸ In the late 2nd century A.D. the Odeion was completely rebuilt in *opus caementicium* reusing blocks of the first Roman Imperial phase.²⁹⁹

The circular seating was preserved only in its lower rows. The outer wall, which carefully incorporated on its inner face earlier blocks bearing the text of the archaic Gortyn law code, extended about 33° beyond a semicircle on each side so as to bracket a raised stage with correspondingly rounded sides. This stage could be entered through three doorways in the *scaenae* wall and by lateral doorways from the ends of the outer corridor. A paved orchestra extended to the base of the *pulpitum* and was likewise accessible from the outer corridor by *parodoi* and by two stairways from the stage.

The relatively small size and unusual shape of the plan at its southern end resulted from the constraints imposed by the preexisting building site and should not obscure important analogies which can be drawn with the pre-Vedius Bouleuterion at Ephesos. The stage of the Gortyn Odeion had rows of beam holes cut in the foundation of the *scaenae* wall and in the back of the *pulpitum* wall opposite,³⁰⁰ which indicates that, at least in the initial phase, a wooden floor extended for the entire length of 26 m. Neither traces of doorway thresholds nor tongue walls were found to indicate that the arrangement included *paraskenia (versurae)*, and as these projections would have been necessary to anchor vaults for supporting extensions of the upper *cavea*, with or without *tribunalia*, the *parodoi* must have been open as at Ephesos.

²⁹² MEINEL 1980, 259–267; VOGIATZES 2006, 496–501.

²⁹³ MEINEL 1980, 267–280 with bibliography.

²⁹⁴ Little documentation has been published and heavy restoration work was carried out even as excavation proceeded. BALTY 1991, 547–549 has placed this building in the reign of Trajan when the city was rebuilt. According to the published documentation, the building had a semicircular *auditorium*, 48 m in diameter, whose lower *cavea* was divided by radial stairways into five *cunei*. The diagrammatic plan (BALTY 1991, 548 fig. 268) appears to indicate broad pedestals projecting from a front wall that is pierced by doorways connecting the stage area to a narrow backstage corridor. There is no indication in the brief reports as to whether traces of additional segments of stage wall were found (or might have existed), but a gap in the center of about 4 m that corresponds to the width of the orchestra could have accommodated two additional “piers,” adding three doorways. The *scaenae frons* would then have had four broad pedestals for paired columns. The plan seems to indicate smaller pedestals at either end for single columns.

²⁹⁵ PERNIER 1914, 373–376; PERNIER 1925/26, 1–61, esp. 35–57; MEINEL 1980, 177–178, 183–187, 253–259; BALTY 1991, 437–439.

²⁹⁶ DI VITA 2004, 671–702.

²⁹⁷ GUARDUCCI 1950, 355 no. 331. The Trajanic building may actually have been a second rebuilding after a great earthquake in A.D. 46. See MEINEL 1980, 254, note 707 and 258–259.

²⁹⁸ Also MEINEL 1980, 253–254 considers this building with the round outer wall which conformed to the circular seating as an innovation which set the standard for the fully developed Roman Odeion.

²⁹⁹ DI VITA 2004, 689–697.

³⁰⁰ PERNIER 1925/26, 45.

The articulation of the scene wall offers another point of comparison with the Bouleuterion at Ephesos in its pre-Vedius phase. Projecting into the stage from the brick *scaenae frons* were eight “pilastrî” built up of single blocks of stone about 1 m wide and 2 m deep.³⁰¹ L. Pernier suggested in his excavation report that stone voussoirs found on the stage may have belonged to arches that connected these piers.³⁰² He does not, however, provide dimensions, and they may, instead, have covered wall niches set into the walls between the piers, whose existence is suggested by statues of draped and undraped figures found in the debris.³⁰³ It seems most probable that the “pilastrî” functioned in the same manner as the piers that articulated the stage wall at Ephesos (pls. 32, 2–3; 33); they must have supported single columns arranged in two stories that helped to support parallel roof beams.³⁰⁴

The Odeion at Gortyn and the Bouleuterion at Ephesos, in its original phase, had a similar *scaenae frons*, whose design was entirely independent of the aedicular façade as it developed through the 1st and 2nd centuries A.D. in the Greek east. These displays incorporated projecting platforms in two or three stories which produced “cages of space”³⁰⁵ defined by paired columns and pilasters, and the entablatures they carried.

The design, which was used not only in theaters but in all kinds of public monuments, offered space for the display of honorific portrait statues of the local elite in well-organized and highly visible ensembles which typically included other family members, as well as Imperial portraits, personifications and deities.³⁰⁶ By the high Imperial period it had become standard in Asia Minor, but had appeared already fully developed under the Flavian emperors, as we know, for example, from the Domitianic stage building of the Great Theater at Ephesos (pl. 56, 2)³⁰⁷, the Nymphaeum of C. Laecanius Bassus in Ephesos (pl. 49, 1)³⁰⁸ and the Nymphaeum at Miletus (pl. 57, 1)³⁰⁹.

The failure of the architects of the Odeion at Gortyn and the original Bouleuterion at Ephesos to take advantage of a system that offered such possibilities for display must be attributed to practical considerations. The “Tabernakelfassade,” whether it appeared inside a building, as in the “Kaisersaal” of the Harbour Gymnasium at Ephesos (pl. 57, 2)³¹⁰, or in the open air, was essentially a decorative screen attached to the stage wall. It usually terminated in a series of low pediments,³¹¹ which were unsuitable as members of support. The buildings at Gortyn and Ephesos, that deployed a series of true supporting members across the entire width of the scene wall, must represent the first tentative attempts to come to terms with the technical problems of roofing these large, irregular spaces. It is possible that the Bouleuterion at Ephesos, which must, like the Odeion at Gortyn (pl. 56, 1), date around the turn of the 2nd century, was the first building to achieve this. In subsequent roofed theaters like the Bouleuterion at Aphrodisias (pls. 46, 1; 54), or the one resulting from Vedius’ renovation, the column display was detached from the roof. It was relieved of its support function to become a purely decorative device.

The disposition of single, column bearing piers across the façade gives the original Bouleuterion at Ephesos a decidedly archaic aspect. As an important visual attribute of the building, as well as a structural one, it may be seen as continuing a tradition begun in the Council Houses of the Hellenistic cities.³¹² The lower walls of these buildings were normally plain without projecting elements of any kind, aside from an occasional speak-

³⁰¹ PERNIER 1925/26, 45–46.

³⁰² PERNIER 1925/26, 46. 51–54.

³⁰³ PERNIER 1925/26, 46, left open the possibility that they belonged to niches in the *scaenae frons*.

³⁰⁴ MEINEL 1980, 258 is certainly correct in suggesting that this was the case at Gortyn.

³⁰⁵ MACDONALD 1986, 245.

³⁰⁶ BERNS 2002, 167–170.

³⁰⁷ HEBERDEY et al. 1912; HÖRMANN 1923/24, 275–345; most recently ÖZTÜRK 2005, 4–14 with bibliography.

³⁰⁸ FOSSEL – LANGMANN 1972–75, 301–310; FOSSEL – LANGMANN 1983, 53–55; DORL-KLINGENSCHMID 2001, 186–187 (cat. 24) with bibliography; JUNG 2006, 79–86; AURENHAMMER – JUNG (in preparation).

³⁰⁹ On the architecture see HÜLSEN 1919 and also DORL-KLINGENSCHMID 2001, 215–216 with further references; on the dating see most recently ALFÖLDI 1998, 367–399.

³¹⁰ Cf. the reconstruction drawing in MILTNER 1958, 44 fig. 35; BENNDORF – HEBERDEY 1898, 64–66; KEIL 1933, 19–21; cf. also QUATEMBER 2007, 103–104 with further references.

³¹¹ Alternatively, a pediment spanning several bays could be used, cf. the Nymphaeum of Laecanius Bassus, JUNG 2006, 84 fig. 6. 7 or the Market Gate of Miletus, see KNACKFUSS 1924, 69–155, esp. 142–148. Nonetheless, such a solution seems far less probable for the interior of a building because of the height of such a pediment.

³¹² MEINEL 1980, 159–187.

ers' platform placed against the front wall on the central axis. The upper walls, however, could be articulated with pilasters which rested on a continuous molding and extended around the hall's interior. Such a scheme was used, for example, in the Bouleuterion at Miletus,³¹³ and the Odeia at the Agora in Athens³¹⁴ and in Pompeii.³¹⁵ At all of these buildings, the case has been made for roof trusses set upon the tops of the walls, either along the longitudinal or lateral axis, whose ends rested on facing pairs of pilasters. The projecting piers at Ephesos, with their columns in two stories, must certainly mark the position of the roof trusses, as they are not equidistant but aligned with the radial buttresses of the outer retaining wall. Much deeper and imposing than mere pilasters or engaged columns, they served, above all, the structural function of shortening (by 1–1.20 m) what must have appeared at this early stage, formidable spanning distances. But they would have produced at the same time a similar visual impression to that of the Hellenistic buildings, since they subdivided the front wall vertically, and emphasized the structural connection between the roof and its supporting walls across the entire width of the building.

Seen in this light, other archaic aspects of the Ephesian Bouleuterion appear more integral to the building's style. The extension of the seating beyond a half-circle, combined with *analemma* walls positioned obliquely so that they form angles with the stage wall, is a standard feature of Greek theater architecture through the Classical and Hellenistic periods.³¹⁶ A variation on this arrangement can be seen in the Hellenistic Bouleuteria at Miletus and Athens, where the seating described more than 180° of a circle, but abutted *analemmata* that ran parallel to the stage.³¹⁷ The intention at Ephesos seems to have been to produce a plan of the first type, as the eastern *analemma* wall is angled (plan 1). The western wall, however, is parallel to the façade, suggesting either an error in laying out the ground plan, or (less likely) a change of plans after construction had already begun. The angle of the east *analemma* wall, in any case, is slight in comparison with all other buildings of this type. The use of open *parodoi*, as opposed to vaulted ones, is likewise characteristic of Greek theaters, having developed before the Roman period when *auditorium* and stage building were joined to produce a single, closed unit.³¹⁸

An early date for the original phase of the Bouleuterion at Ephesos is supported by a detail of technique. The style of the masonry at the base of the curved wall of the Ephesian Bouleuterion (pls. 16, 1–2), as described above, has precise parallels in the Roman scene of the great theater, dated by inscription to A.D. 66 (pl. 58, 1),³¹⁹ and the so-called Sockelbau (pl. 58, 2), dated to the time of Nero.³²⁰ This is particularly interesting as it raises the possibility that the Bouleuterion was part of the great building program undertaken at Ephesos under the Flavians.³²¹ It does not in itself, however, provide decisive evidence for a Flavian date,³²² and all that can be said for the time being is that a broad date of construction between the late 1st century and A.D. 128/129 seems likely on architectural and epigraphic grounds.³²³

7.5 The Vedius Phase (plan 6–7)

By the time Vedius decided to undertake renovations in the Bouleuterion, both the *scaenae frons* and the open *parodoi* must have looked decidedly archaic. This must have led to the decision to alter the building. The *scaenae frons* was detached from the roof and modernized, partly reusing architectural pieces from the earlier phase.³²⁴ Its characteristic features include in the lower story four pairs of columns on high pedestals, framed by a detached column on either side. One can assume that the alteration of projecting *aediculae* and receding

³¹³ KNACKFUSS 1908; KRISCHEN 1941, 7–12; TUCHELT 1975, 91–140; MEINEL 1980, 167–169.

³¹⁴ THOMPSON 1950, 31–141; MEINEL 1980, 44–56.

³¹⁵ MEINEL 1980, 36–42.

³¹⁶ On the history of Greek and Roman theater in general see recently BURMEISTER 2006 with bibliography; GROS 1996, 272–307.

³¹⁷ TUCHELT 1975, figs. 4, 1.2.

³¹⁸ See GROS 1996, 272–307.

³¹⁹ On the theater of Ephesos see HEBERDEY et al. 1912; HÖRMANN 1923/24, 275–345; recently ÖZTÜRK 2005, 4–14 with bibliography.

³²⁰ Inscription: IVE 410; SCHERRER 2000, 88–90 with further references.

³²¹ SCHERRER 1997, 93–112; HALFMANN 2001, 39–44.

³²² For example M. Waelkens indicated that Hellenistic masonry continued into the high Roman period, cf. WÆLKENS 1989, 77.

³²³ See below chap. 8.2.1, inscr. 4.

³²⁴ See above chap. 3.3.

bays was shifted in the upper story, which is the case in most façades of this kind contemporary with the Vedius *scaenae frons*. This leads to the reconstruction of a small pediment on top of each *aedicula*, probably alternating triangular and rounded in shape. The *aediculae* housed the statues of a rich sculptural program.³²⁵

Although details of the reconstruction of the Vedius *scaenae frons* have to remain hypothetical, it certainly represents an aedicular façade of the type known throughout the Roman Imperial period in Asia Minor. As has been mentioned above, examples such as the *scaenae frons* in the theaters of Aphrodisias (pl. 59, 1)³²⁶ and Stratonikeia³²⁷ date back to the late 1st century B.C. or the early 1st century A.D. In Ephesos, the earliest examples appear in the Flavian period and include the Nymphaeum of Laecanius Bassus (pl. 49, 1)³²⁸, the stage building of the theater (pl. 56, 2)³²⁹ and the so-called Marmorsaal in the Harbor Gymnasium (pl. 57, 2)³³⁰. Their utilization in different building types continues throughout the 2nd century A.D. and includes *nymphaea* such as the Nymphaeum Traiani (pl. 59, 2)³³¹ and the “Straßenbrunnen” (Street Fountain) (pl. 49, 2)³³² as well as rooms attached to gymnasia, for example in the Vedius Gymnasium³³³ and the East Gymnasium³³⁴ and the well known Library of Celsus (pl. 50, 1)³³⁵. Considering these numerous examples, the renovation of the Bouleuterion’s interior in the time of Vedius seems only appropriate.

Parallels for the secondary vaulting of formerly open *parodoi* can be found in Termessos (only in the south *parodos*)³³⁶ and in Perge (on both sides).³³⁷ Due to this construction, the *auditorium* was linked to the stage and the seating capacity was enlarged. The newly gained space was used for places of honor.

(L. Bier)

³²⁵ See below chap. 9.

³²⁶ REYNOLDS 1991, 15–28; BERNS 2002, 159–174.

³²⁷ MERT 1999; MERT 2002, 187–196, esp. fig. 11.

³²⁸ FOSSEL – LANGMANN 1972–75, 301–310; JUNG 2006, 79–86; AURENHAMMER – JUNG (in preparation).

³²⁹ HEBERDEY et al. 1912; HÖRMANN 1923/24, 275–345; recently ÖZTÜRK 2005, 4–14 with bibliography.

³³⁰ QUATEMBER 2007, 103–104 with further references.

³³¹ QUATEMBER, FiE (forthcoming).

³³² QUATEMBER, 2008c, 219–264; on summaries see also QUATEMBER 2008a, 129–134; QUATEMBER 2008b, 243–249.

³³³ STESKAL – LA TORRE 2008, 19–24, 295–296.

³³⁴ KEIL 1932, 25–51; KEIL 1933, 6–14; ALZINGER 1970, 1613–1615; SCHERRER 2000, 70–71; AUINGER – RATHMAYR 2007, 242.

³³⁵ WILBERG 1943; STROCKA 1978, 893–899; HUEBER 1985, 175–200; DORL-KLINGENSCHMID 2001, 191 (cat. 29).

³³⁶ DE BERNARDI FERRERO 1969, 11–34.

³³⁷ DE BERNARDI FERRERO 1970, 148–157; ÖZTÜRK 2009, esp. 23 pl. 2, 1.