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Inhalt

Vorwort . . . . . **VIII**

Programm der Tagung . . . . . **XIII**

Einführung

Katja **Piesker**, *Um-Bauforschung*. Der Beitrag der archäologischen Bauforschung zum Verständnis von Umbauprozessen in der Antike **1**

Beiträge

Moritz **Kinzel** – Güneş **Duru** – Marek Z. **Barański**, Modify to Last. A Near Eastern Perspective on Rebuilding and Continuation **9**

Peter R. **Fuchs** – Renate **Patzschke**, Umgebaut. Zweitausend Jahre Baugeschichte in Sechin Bajo **23**

Felix **Arnold**, A Temple Built Anew. Reasons for Replacing the Temple of Satet on Elephantine (Egypt) **37**

Hüseyin **Cevizoğlu**, Die baulichen Veränderungen des Stadttores in Klazomenai während der Bronze- und frühen Eisenzeit **45**

Christiane **Brasse**, Transformations- und Umbauprozesse an den Stadtmauern von Pompeji **55**

Nils **Hellner**, Wiederverwendete und umgestaltete Bauteile am archaischen Tempel auf der Trapezá Aigiou **73**

Elisavet P. **Sioumpara**, Zerstörung und Wiederherstellung der Ordnung. Wiederverwendung von Baumaterialien in attischen Heiligtümern nach den Perserkriegen **91**

Alexandra **Tanner**, Erneuerungsstrategien bei der Platzgestaltung mit Säulenhallen in Eretria und Amarynthos . . **111**

Hans Rupprecht **Goette**, Umbauten und Umwertungen griechischer Theater unter besonderer Berücksichtigung des Dionysos-Theaters in Athen **127**

Uta **Dirschedl**, ›Zeitlos schön‹, ›Perserkriege-Denkmal‹ oder *pars-pro-toto*-Wiederaufbau? Zur Wiederverwendung eines monumentalen archaischen Kymation im spätklassisch-hellenistischen Apollonheiligtum von Didyma **137**

Inhalt

Monika **Trümpe**r, From Republican Baths to Casa della Calce. A Radical Transformation Process in Pompeii **155**

Dorian **Borbonus**, Bauliche Eingriffe in den frühkaiserzeitlichen Kolumbarien Roms **177**

Heinz-Jürgen **Beste**, Umbauten im sog. Residenzgebäude der Domus Aurea nach Neros Tod **191**

Karoline **Manfrecola**, Aus zwei mach eins. Der Zusammenschluss zweier Villen zum Albanum des Domitian . . . **205**

Tobias **Busen**, Des Kaisers neue Räume. Umbauten am Odeion der Villa Pausilypon **221**

Martin **Tombrägel** – Julian **Bauch**, Die Umbaumaßnahmen der Villa Metro Anagnina in bautechnischer Perspektive . **235**

Nicole **Röring**, Von einer Basilika (?) zu einem rezipierten Augustusforum. Das ›Marmorforum‹ von Mérida **249**

Janine **Lehmann**, Material und Symbol. Zum neuartigen Marmorglanz augusteischer Bauten und Plätze in der Lusitania **267**

Eric **Laufer**, Vom Wehrgang zum Wandprofil. Eine Serie von Spolierungen älterer Stadtbefestigungen im kaiserzeitlichen Städtebau der Region Lykien-Pamphylien **283**

Claudia **Mächler**, Das Leonidaion in Olympia. Umbaustrategien in panhellenischem Kontext **299**

Tommaso **Ismaelli**, The Late Severan Reconstruction of Temple A in the Sanctuary of Apollo in Hierapolis in Phrygia. Architectural Design and Building Practices at a Turning Point in the City's History **313**

Hilke **Thür**, Von der Bibliothek zum Brunnen. Umnutzung und Umbau in hydrotechnischem Kontext. Ein Bauprogramm im spätantiken Ephesos? **333**

Martin **Hofbauer** – Gudrun **Styhler-Aydın**, Vom Bühnenspiel zur fortifikatorischen Nutzung. Der Umbau des Theaters in Ephesos zu einem Teil der byzantinischen Stadtbefestigung **349**

Marina **Döring-Williams** – Luise **Albrecht**, Die Nordapsis der Maxentiusbasilika. Eine Neuinterpretation der Baubefunde **365**

Axel **Gering**, Zum Aussagewert umgenutzter Bauteile des Roma- und Augustustempels für die Bau- und Verfallsgeschichte Ostias. Ergebnisse der Spoliensurveys 2016–2018 des Ostia-Forum-Projekts (OFP) . . **383**

Clemens **Brünenberg**, Ausgebadet. Bauliche Transformation an den Thermen von Baalbek/Heliopolis **403**

Ursula **Quatember**, Vom Rathaus zur Palästra. Das Bouleuterion von Aphrodisias **415**

Emanuela **Borgia**, A Building Site From a Ruin. The Early Byzantine Ecclesiastical Complex Within the Roman Temple of Elaioussa Sebaste (Cilicia) **423**

The Late Severan Reconstruction of Temple A in the Sanctuary of Apollo in Hierapolis in Phrygia. Architectural Design and Building Practices at a Turning Point in the City's History*

Tommaso Ismaelli

Dieser Beitrag ist dem spätseverischen Umbau des Apolloheiligtums in Hierapolis gewidmet. Das wichtigste Heiligtum der Stadt wurde in der Zeit zwischen 220 und 235 n. Chr. massiv umgestaltet, wobei alle drei Tempel umfassend erneuert wurden. Die Umbaumaßnahme begann mit dem südlichen Tempel A, der ursprünglich in späthellenistischer Zeit entstand und unter Augustus oder Tiberius schon einmal grundlegend umgebaut worden war. Die sorgfältige Untersuchung dieses Bauwerks, basierend auf einer detaillierten Aufnahme des *in situ* erhaltenen Podiums und aller *ex situ* erhaltenen Bauglieder (ca. 500 Stück) erlaubte die zeichnerische Rekonstruktion des hexastylen korinthischen Prostylos einerseits und ein vertieftes Verständnis der spätseverischen Baustelle andererseits. Die vier wesentlichen Merkmale des spätseverischen Umbaus waren: 1. Der Entwurf spiegelte einen Wechsel der Vorbilder von westlichen und italischen zu zeitgenössischen kleinasiatischen und sogar syrischen Bauten. 2. Die umfangreiche Wiederverwendung von Baugliedern verschiedener Bauten des Heiligtums, vor allem des Haupttempels des Apollon *Archegetes*, bedingte eine sorgfältige Planung der gesamten Baumaßnahme und beeinflusste das severische Projekt nachhaltig, z. B. hinsichtlich der von den verfügbaren Blöcken abhängenden Dimensionen. 3. Die Verwendung von Spolien war durch ein hohes Maß an Rationalisierung gekennzeichnet und diente der Begrenzung der Material- und Arbeitskosten. 4. Hochtrabende stilistische Entscheidungen wurden durch bedenkliche statische und pragmatische Lösungen erreicht. Dies gilt im Hinblick auf die Verbindungen der Blöcke mit Klammern und Dübeln, die Abmessungen der Blöcke und die Fertigstellung der Oberflächen. Der Beitrag diskutiert die spezifischen Eigenheiten des spätseverischen Tempels im Kontext der Entwicklung von Hierapolis im 3. Jh. n. Chr.

INTRODUCTION

When Septimius Severus came to the throne, Hierapolis in Phrygia was one of the most flourishing cities in Asia Minor[1]. The city's solid economic structure, the municipality's brimming coffers, the commitment of the city's elites to the system of euergetism and the spirit of competition with neighbouring cities all contributed to its development. The city also benefited in this regard from various other aspects such as the access to the Imperial court enjoyed by eminent local figures, including the sophist Aelius Antipater[2], and the possible visit to the city by Caracalla (214 A.D.) on the occasion of his journey to the front during the campaigns against the Parthians. The city was granted the *neokoria* of the provincial Imperial cult in recognition of its key position in south-western Asia Minor[3].

In terms of urban development, it should be noted that Hierapolis had been the object of uninterrupted building activity since the days of the Augustan principate. The building sites of the Theatre[4] and the Central Agora had been opened at the beginning of the 1st century A.D.[5], while the two main

* For stimulating discussions and helpful advice, I thank the organizers of the 13th Diskussionen zur Archäologischen Bauforschung, Ulrike Wulf-Rheidt and Katja Piesker. With this memory, I would like to express my sorrow at the sudden loss of Prof. Wulf-Rheidt, who was such a great and productive scholar. The research has been conducted thanks to the generous support of the Italian Archaeological Mission of Hierapolis. I would also like to express my gratitude to Francesco D'Andria and Grazia Semeraro, the Mission's Directors, for their support and suggestions.

1 On the Severan phase of the city, see Scardozzi 2015, 47 f.

2 Ritti 2017, 511–514.

3 Ritti 2017, 520–523.

4 On the first phase of the Theatre and its dating to the Augustan period, see Ismaelli et al. 2016, 307–310.

5 Ismaelli et al. 2017.

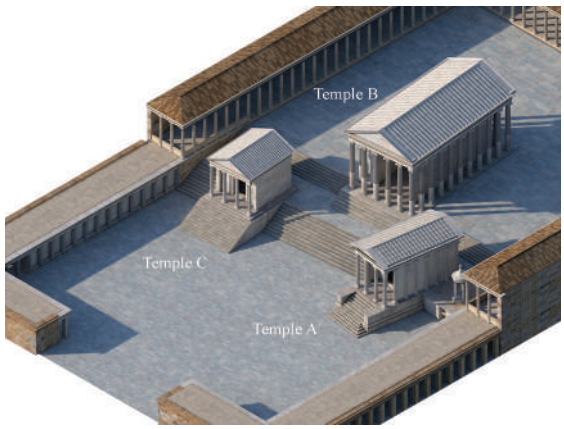

Fig. 1 Hierapolis, Sanctuary of Apollo, virtual reconstruction of the early Imperial phase

sanctuaries, that of Hades (*Ploutonion*)[6] and the *hieron* of Apollo, the Phrygian city's main divinity, were redesigned and rebuilt. Under the Flavians a major urban development project which saw the city expand northwards and southwards was launched. This new Hierapolis, completed in the Antonine era, included shops along the *plateia*[7], a second theatre[8], a large bath and a further gigantic square[9].

In contrast, the Severan era saw a new phenomenon in terms of urban planning: in addition to *ex-novo* constructions such as that of the Nymphaeum of the Tritons, built under Elagabalus and Severus Alexander[10], the municipality of Hierapolis undertook the rebuilding of the most ancient monumental complexes. Huge financial resources were allocated to the radical refurbishment of the Theatre and the Sanctuary of Apollo, whose monumental appearance had been established by the building projects of the early 1st century A.D. As well as reflecting new religious ideas, this radical reconstruction of the city's most venerable complexes was driven by a new idea of public space, new aesthetic values and an urgent need for a fitting representation of the relationships between Hierapolis and the Severan *domus*[11].

In this framework, this paper focuses on the transformations affecting the Sanctuary of Apollo, the object of recent research[12]. The previous monumental project of the *hieron* of Apollo is dated to the late Augustan era but it was completed only at the end of the 1st century A.D. if not the beginning of the 2nd century[13]. It envisaged a sacred space organised on terraces descending towards the *plateia*, and Doric and Corinthian porticoes around the perimeter. At the centre, a large peripteral temple (B), with 6 × 11 columns (13.40 m × 25.50 m) of Ionic order, was used for the cult of Apollo *Archegetes* (fig. 1)[14]. Positioned symmetrically on each side stood a small temple with an underground chamber (Temple C), today almost entirely destroyed, and Temple A, plausibly associated with the oracular divinity Apollo *Kareios*[15]. Temple A, first built in the late Hellenistic period, had already been reconstructed in the first quarter of the 1st century A.D., between Augustus and Tiberius. On that occasion, the primitive travertine sacellum (ca. 4.25 m × 5.40 m on the inside), with a *bothros* for libations[16], had been transformed into a prostyle tetrastyle *pseudomonopteros* in marble (7.49 m × 14.20 m), whose structural characteristics and formal language deliberately sought to evoke the temple architecture of Augustan Rome[17].

THE LATE SEVERAN RECONSTRUCTION

While work continued on the construction of the Nymphaeum of the Tritons and the third order of the *scaenae frons* and *logeion* of the Theatre, the late Severan period also saw the reconstruction of Temple A. The dating of the monument to 220–235 A.D., on a stylistic basis, is confirmed by the more recent inscribed materials, recycled

6 D'Andria 2013; Ismaelli 2017b, 322–326.

7 Ismaelli 2009, 171–346. 384–400. 434–438. 445–454.

8 Scardozzi 2012.

9 D'Andria – Rossignani 2012; Ismaelli – Scardozzi 2016b.

10 Campagna 2018.

11 On the frieze above the *porta regia* of the Theatre, see Di Napoli 2002, 383. 385.

12 Ismaelli 2017a. On the Sanctuary of Apollo, see also Ismaelli 2016; Semeraro 2016; Ismaelli 2017b.

13 On the dating of the upper portico to the Flavian period, see Ismaelli 2016, 334. On the possible late completion of Temple B, see Ismaelli 2017a, 270 f. 443.

14 On the architecture of Temple B, see Sacchi – Bonzano 2012; Semeraro 2016, 195–197; Ismaelli 2017a, 268–273. 443 f.; Ismaelli 2017b, 318–320. On the attribution of the three temples, see Ismaelli 2017a, 439–442; Ismaelli 2017b, 320–322.

15 Ismaelli 2017a, 49–55. 87–110. 315–333.

16 On the Hellenistic phase, see Ismaelli 2017a, 47–49. 83–87.

17 On the models of the Augustan-Tiberian Temple A, see Ismaelli 2017a, 427–431.

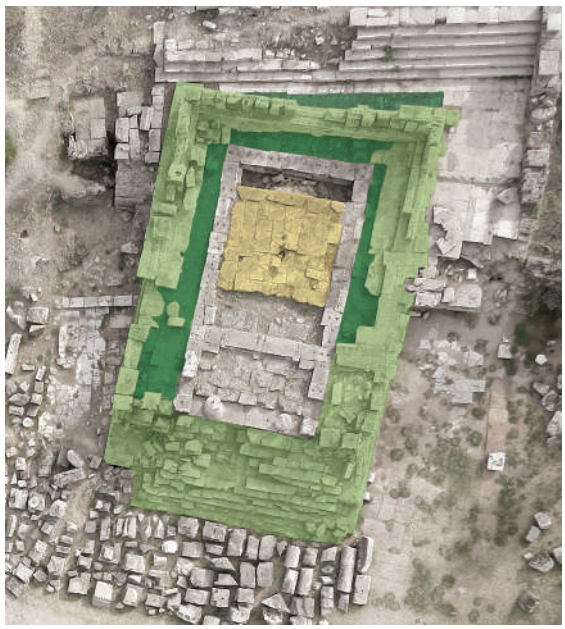

Fig. 2 Hierapolis, Temple A, aerial view of the in-situ structures (yellow: Hellenistic cella; light green: late Severan reconstruction; dark green: cement filling)

Fig. 3 Hierapolis, Temple A, virtual reconstruction of the late Severan phase

from other structures, that were used to build it (late 2nd–early 3rd centuries A.D.[18]).

The podium

The Severan building site began its work with the controlled demolition of the Julio-Claudian Temple A, which entailed the removal of the blocks of the walls and the recovery of the related metal dowels[19]. In contrast to the walls, the new Severan building conserved the pavement of the Hellenistic cella, the 1st-century stylobate-toichobate and the podium[20]. A new broader podium with wings (14.22 m wide at the cornice) was constructed around the old one, made up of a nucleus in large blocks of travertine (fig. 2). It had a marble socle with smooth bands (about 40 cm high) that never received the intended decoration, above which it had a facing of slabs (133–134 cm high). At the top was a highly jutting marble cornice, 44–47 cm high, with a sequence of smooth mouldings. In the space between the old and the new podium, the geophysical investigations confirmed the presence, to a certain depth, of loose infill material, visible on the surface (from 1.10 to 2.00 m wide), made up of mortar and marble chips and fragments[21].

In the sector to the east of the Julio-Claudian temple, the marble paving slabs of the median terrace were removed and a trench (from 2.70 to 3.50 m wide) was dug down to the bedrock in order to lay the foundations of the eastern wall of the new cella. After the building of the foundation and the *euthynteria*, the trench was filled in with cement (figs. 2. 3). Since the *euthynteria* and the cornice of the Severan podium (ca. 356 m a.s.l.) partly rested on the more ancient structures, they were higher than the paving of the median terrace (ca. 355.68 m a.s.l.), creating a rather incongruous visual effect (fig. 12). Lastly, on the west side, the Julio-Claudian steps were replaced with a new, larger staircase, with 13 steps, 3.18 m high.

The cella

The new cella[22], roughly square, was preceded by a prostyle hexastyle pronaos, of Corinthian order, in line with widespread practice in the temple architecture of Asia in the Antonine and Severan epochs (fig. 3)[23]. The shallow pronaos had Ionic-Attic bases (40.7 cm high), smooth

18 Ismaelli 2017a, 409–414. On the late Severan phase of the Theatre, see Ismaelli et al. 2016, 316 f.; Ismaelli 2017a, 411–413.

19 Ismaelli 2017a, 309 figs. 93. 95.

20 On the Severan podium and its reconstruction, see Ismaelli 2017a, 60–73. 76–79. 110–118.

21 Leucci et al. 2016, 649 fig. 19.

22 On the parts of the cella remaining in their original position and the reconstruction of the monument, see Ismaelli 2017a, 55–60. 66 f. 74–76. 118–233.

23 On prostyle temples in Asia, see Pohl 2002, 9–11. 38–50.

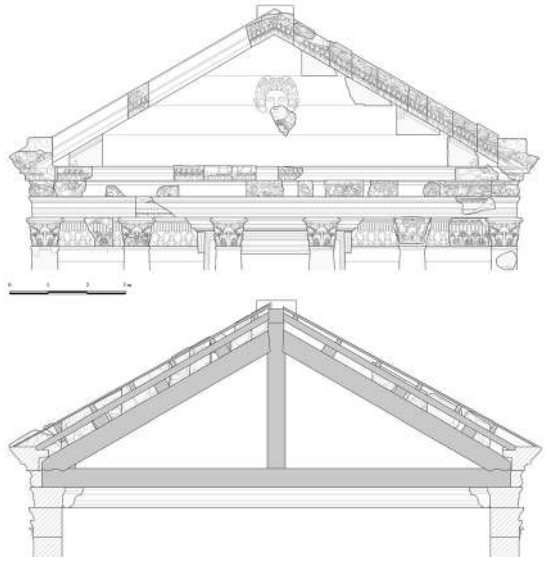

Fig. 4 Hierapolis, Temple A, pediment of the façade (top) and section of the cella with the truss roof system (bottom) (scale 1 : 200)

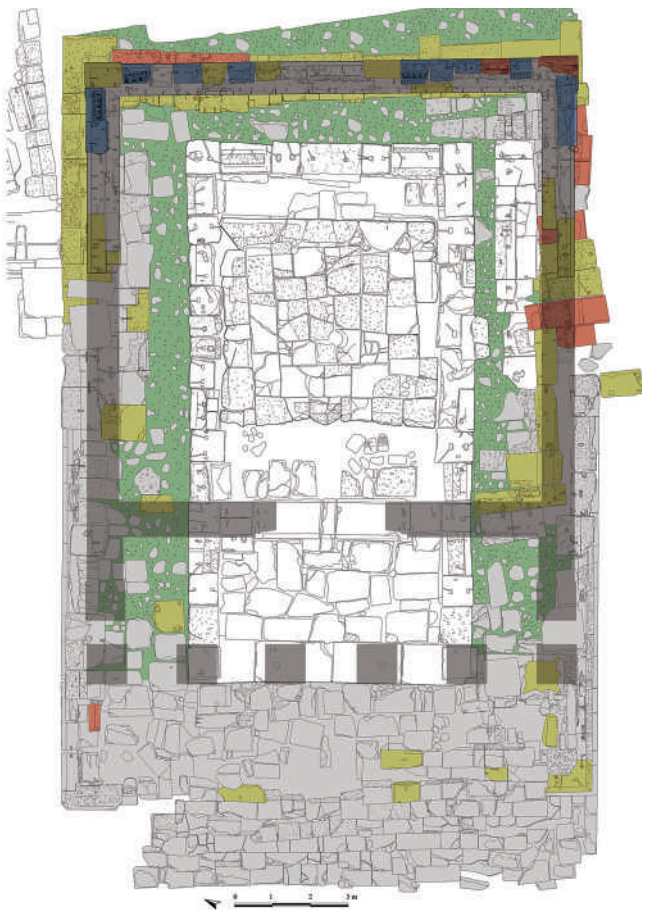

Fig. 5 Hierapolis, Temple A, plan, uncoloured: pre-Severan structures; light grey: late Severan structures; dark grey: reconstruction of the late Severan plan; green: Severan cement filling; red: blocks from the Julio-Claudian Temple A; blue: blocks from Temple B; yellow: other re-employed blocks (scale 1 : 200)

monolithic shafts (reconstructed height 7.30 m) and very traditional capitals.

The cella was composed of a socle that was never finished (41.5–42 cm high), a row of orthostates (average height 102 cm) and a baroque crown or *Zwischengesims* (average height 45 cm). On this arrangement stood the walls (75 cm thick at the base, 70–73 cm at the top), which had slightly protruding panels: the corner lesenes and the pilasters of the antae are thicker than the wall (by a maximum of 4 cm), and the orthostates and the *Zwischengesims* below them are correspondingly wider. A row with two crowns of acanthus leaves and flutes (average height 73 cm) continued the decoration of the capitals along the perimeter of the cella and inside the pronaos, enhancing its decorative character. This was followed by a typical entablature, characterised by an architrave (average height 54 cm) with three bands, a highly convex acanthus frieze (average height 42 cm) topped with a jutting cornice (average height 56 cm) with dentils.

The original features of the monument include 1) the tympanum, 2) the roofing of the cella, and 3) the decoration of the lower portion of the walls, as follows:

1) The temple has an unusual pediment, 4.10 m high, between the summit of the finial and the horizontal *geison*, with raking cornices at 30° (fig. 3)[24]. This angle is considerably steeper than those of the Classical and Hellenistic tradition (ca. 13°)[25], and even those typical of Rome at that time (ca. 20°)[26]. Marc Waelkens has suggested that the steep slope of the raking cornices, exceptionally documented in mid-Imperial Asia Minor (Perge, Gate C2: 24°; Blaundos, extra-urban temple: 25°; Sagalassos, temple of Apollo *Klarios*: 26°; Aphrodisias, *tetrapylon*: 26°; Kremna, small Hadrianic temple: 26°, large *propylaeum*: 27° and temple with Syrian pediment: 27°)[27] is linked to Syrian models[28].

2) The roofing of the large room of the cella (11.14 m wide) undoubtedly represented a challenge for the architect (fig. 4)[29]. This was resolved with the truss system, which is documented for the Hellenistic and Imperial

24 Ismaelli 2017a, 158–161. 188 f. 433.

25 Vitr. 3, 5, 12; Gros 1990, 187 f.; Hellmann 2002, 285 f.

26 von Hesberg 1976, 447 note 40 (20–25°), highlighting the Etruscan and central Italic tradition.

27 Ismaelli 2017a, 158–161. 188 f. with bibliography.

28 Waelkens 1993, 46 and note 108; Vandeput 1997, 200.

29 Ismaelli 2017a, 221–228. The construction of large roofs enhanced the prestige of the architect, as in the case of Dionysus who boasted of having built the roof over the *odeion* of Patara; see TAM II, 2 417; Gros 1983, 427 f.

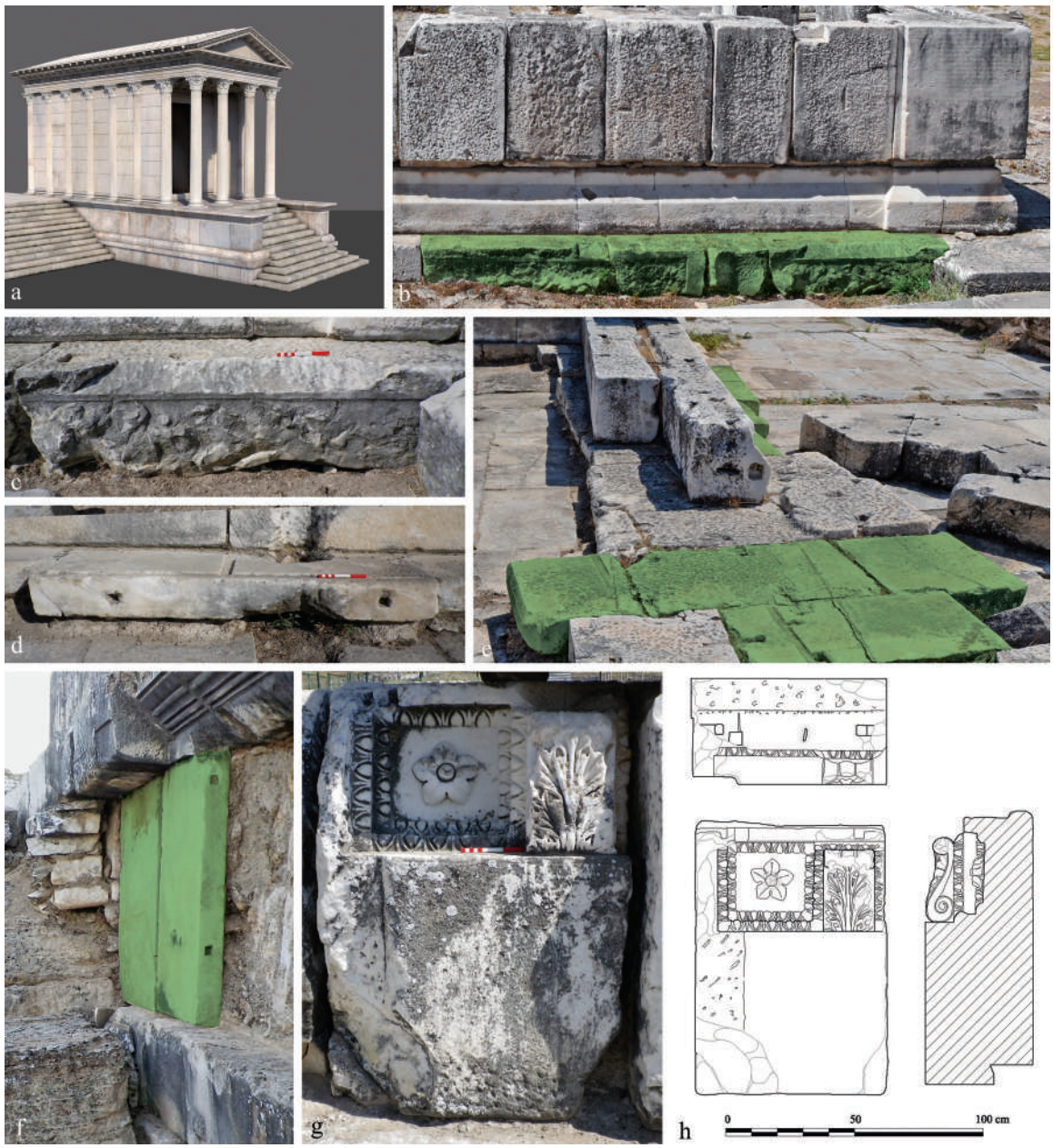

Fig. 6 Hierapolis, Temple A, reemployed blocks from the Julio-Claudian Temple A, coloured green in overview shots, friezes (b. c), marble slabs (d–f), cornices (g. h)

architecture of Asia Minor[30]. To reduce the width of the cella, five architraves per side had inward-facing modillions (56–70 cm wide, jutting 55–67 cm). On top of the modillions, the tie beams of the roof were deeply embedded in the friezes, so that the walls would also bear the load. Resting on these tie beams were the rafters, fitted into diagonal recesses carved in the internal face of the cornices. Above the rafters there are believed to have been two orders of minor beams and then wooden planks. The final covering seems to have consisted of

30 On its distribution, see, most recently, Hellmann 2002, 288–291; Giuliani 2010, 89–94; von Kienlin 2011, 81–84.

Fig. 7 Hierapolis, Temple B, plan of the architraves reemployed in the late Severan Temple A: bottom face with simple convex band (grey), with overlapping leaves between astragals (green), with the bottom face not conserved (light blue), with bands separated by bead-and-reels and the bottom face decorated with tendrils between Lesbian *cymae* (yellow) (scale 1 : 200 [above] and 1 : 40 [below])

metal sheets, fitted into small recesses at 10–15 cm from the front edge of the sima[31].

3) In the lower portion of the cella, Temple A has decidedly original features[32]. The surface of the orthostates, which jut out a long way with respect to the socle below them and the *Zwischengesims*, appears unfinished (fig. 3). The considerable thickness of the stone to be carved (at least 14 cm) suggests that the original design included a continuous decoration in relief. Decisive confirmation of this hypothesis is provided by the similar arrangement of the stage building of the theatre of Myra, which has jutting orthostates on the socle whose visible face is left unworked[33]. As is usual in theatres, this is believed to have envisaged a figurative frieze. Indeed, the use of continuous friezes is seen to have a range of applications in Asia Minor, including funerary monuments and altars, as well as the

31 The same solution has been hypothesised for the *propylon* of the *Nordostbezirk* in Miletus (Knackfuß 1924, 254. 257 f. figs. 260–263), the temple of Hössn Niha (Krencker – Zschietzschmann 1938, 130 fig. 178 pl. 59) and the temples of Zeus (Schulz – Winnefeld 1921, 67 figs. 35. 39) and Bacchus (Krencker et al. 1923, 45 fig. 91) in Baalbek.

32 Ismaelli 2017a, 118–149.

33 Knoblauch – Özbek 1996, 199. 203 figs. 13. 27.

podia of the *scaenae frontes* in theatres[34]. As will be seen below, the above-described distinctive morphological features of Temple A recall a large number of temples built in the ancient province of *Syria* in the mid-Imperial period.

THE LATE SEVERAN BUILDING SITE

The most significant aspects of the reconstruction process are: 1) the choice of materials and reuse purposes and strategies, 2) the quality of procedures in the late Severan building site, 3) continuity and transformation with respect to the Julio-Claudian phase.

The choice of materials: reuse

The systematic analysis of the monument has made it possible to highlight the extensive recourse to reused architectural materials[35]. With the exception of the cornices, for which elements of special dimensions were necessary, and the monolithic columns of the pronaos, it is believed that most of the materials were taken from pre-existing structures (fig. 5).

Indeed, the census of the 505 conserved marble elements shows that 160 blocks, 31 %, are clearly reused. This is even more significant if the phenomenon is examined from the point of view of the volume of marble. Indeed, of the total volume conserved (99.48 m^3), almost half (47 %, i. e. 47.18 m^3) is reused. It should be pointed out that these figures represent the minimum value, since in many cases, evidence of the original phase may no longer be visible today. It is indeed clear that some pieces were reworked to some degree, such as those that were transformed into fluted friezes, orthostates and architraves: these elements required two blocks – one internal, one external – per row and the non-visible face could remain as it was. In other cases, as in the crowning blocks of the cella, derived from much larger pieces, the reduction with respect to the original format erased the signs of their initial function.

As for the origin of the blocks, examination of the reused material demonstrates first of all that a large number of materials are from the Augustan-Tiberian phase of Temple A, such as friezes, cornices and slabs with slightly protruding panels (fig. 6). A second group, the largest, includes materials from the entablature of Temple B. It is composed of cornices with the typical palmette decoration on the front of the *geison* and acanthus leaves on the sima[36], and similar-sized architraves with three smooth bands (max. height 53–55 cm; upper face max. 87 cm, lower face max. 69–71 cm), characterised by different renderings of the soffit (fig. 7): indeed, the specimens have either a simple convex band or overlapping leaves between the astragals[37]. The presence of architraves of similar dimensions (56 cm high, upper face max. 73–75 cm, lower face 71 cm), but with bands separated by bead-and-reels and the soffit decorated with tendrils between stirrup Lesbian *cymae*, suggests that they are from an important sector of Temple B, such as the main façade or the pronaos[38].

Moreover, a cornice from the upper portico of the Sanctuary, two columns with Ionic shafts and two Ionic cornices can be recognised, while in other cases the original type cannot be identified. It does appear significant, however, that all the recognisable *spolia* are from the Sanctuary of Apollo, demonstrating that other monuments in the surrounding areas were not used as a source of materials.

The purposes of reuse

From the point of view of construction, it is important to stress that the purpose of reuse was not to present the original decoration in the new Severan building[39]: indeed, the decorative carvings of the blocks' more ancient phase were all facing inwards, remaining visible in only a few cases (inscriptions on blocks St85 and CE2-1), because the visible faces had never been finished. Rather, it is more likely that reuse had a dual practical function: firstly, to save money on the quarrying and transport of new blocks from the extraction areas[40] and secondly as a way of disposing of large quantities of marble left over from previous constructions, which would have otherwise littered the centre of the settlement. Indeed, it should be emphasised that as

34 Ismaelli 2017a, 144 f. with bibliography.

35 Ismaelli 2017a, 263–273. On the use of *spolia* in the Imperial buildings of Asia, see Piesker – Ganzert 2012, 241 f. with bibliography.

36 On the attribution, see Sacchi – Bonzano 2012, 341.

37 On the attribution, see Sacchi – Bonzano 2012, 338 f.

38 Of the various specimens, Fb2, Fb5 and Fb6 are dated to the early 2nd century A.D., while St8 is compatible with a dating to the Julio-Claudian or even Flavian period. See Ismaelli 2017a, 266–268. A variant (A3+37) has overlapping leaves between two Lesbian *cymae*, while A27 is decorated with overlapping leaves delimited by plain *cymae*.

39 Only architraves A26 and A38 maintained the original soffit visible. In contrast, in the theatre of Nysa, many pieces of the Hadrianic phase were reused with the decoration visible in the late Antonine and Severan phases (see Kadıoğlu 2006).

40 Of the same opinion is Pfanner 1989, 229. On the extraction of the marble in Hierapolis in the Severan period, see Scardozzi 2016, 428–430.

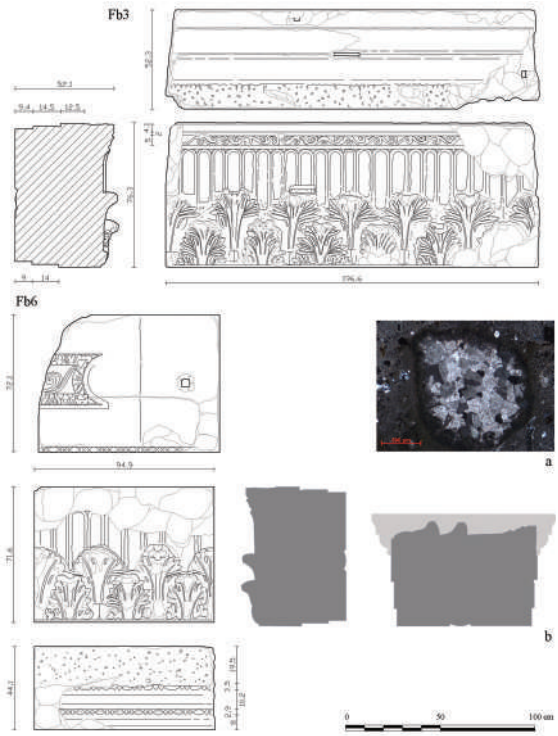

Fig. 8 Hierapolis, Temple A, architraves of Temple B reworked as fluted friezes; bedding mortar, detail seen under a polarised light microscope of an under-burnt marble fragment (a); the process to obtain a fluted frieze from an architrave of Temple B (b) (scale 1 : 40)

in the refurbishment of the *scaenae frons* of the Theatre[41], the Severan building site entailed working on already existing buildings in the heart of the city, and the disposal of the original structures must have represented a considerable logistical problem[42].

As well as the quantitative aspect, it should be stressed that the reconstruction of Temple A entailed the dismantling of much of the entablature of the peristasis of Temple B. Indeed, if all the above-described architraves are attributed to Temple B, this means that the latter building was deprived of 9.31 m of cornices and at least 37.31 m of epistyle (tabs. 1. 3), i. e. one long side and one short side[43] (fig. 7).

This estimate is extremely important for the general historic reconstruction. Since it is unthinkable that the city had decided to go without the temple of its main divinity, Apollo *Archegetes*, the entire Sanctuary of Apollo must have been the subject of a major rebuilding project. Seen from this viewpoint, the renewal would logically have started with the dismantling of the entablature of the largest temple (B)[44], whose blocks would then have been used in the smallest building (A). It is plausible that a subsequent phase would have involved the rebuilding of the peristasis (or at least the entablature) of Temple B, but this stage of the works was never undertaken. Indeed, the building work stopped on completion of Temple A, without however finishing the socle of the cella and the sculptural decoration of the orthostates[45].

A more difficult question concerns the deeper motives behind this project for the modernisation of the Sanctuary of Apollo[46]. Comparison with the Severan reconstruction of the Theatre demonstrates above all that the local community was willing to invest considerable resources in the representation of the central themes of the collective memory by means of new, more emphatic and baroque forms[47]. First and foremost, this entailed celebrating the city's religious identity, centred on Apollo[48]. In this sense, it was essential to refurbish that sacred space that constituted the heart of the *Apolloneia Pythia*, the games in honour of the poliadic god that enjoyed immense prestige in

41 Among the reused pieces are the wedges of the Severan *proscenium* (Mighetto 2012, 238 fig. 4), elements of the podia (D'Andria – Ritti 1985, 4–7), the entablatures of the first order (Masino – Sobrà 2012, 217 fig. 16) and the wall friezes (Ismaelli – Bozza 2016, 447 f. fig. 14).

42 Significantly, extensive recourse to reused materials is documented in the structures that were built or rebuilt after earthquakes, as can be seen in the foundation of the Flavian *Tholos* and the Ionic Nero-era portico of the *Ploutonion*, built immediately after the earthquake of 60 A.D. See Ismaelli – Bozza 2016, 447 fig. 12.

43 Semeraro 2016, 195–197, with sides of 13.40 and 25.50 m.

44 The dismantling of Temple B was not completed, as indicated by the fact that its Ionic columns and capitals were found by Gianfilippo Carettoni in Byzantine layers to the east of Temple A (Ismaelli 2017a, 18. 21 f.), while others were used in the Byzantine phase of the Large Baths (Sacchi – Bonzano 2012, 327–329).

45 The process of applying the finishing touches to the mouldings had been started from above, i. e. from the entablature, with the intention of then moving downwards; the sculptural decoration is believed to have represented the final stage of the work, which would have been entrusted to a specialised craftsman.

46 On the religious, civic and social functions of the Sanctuary of Apollo, see Ismaelli 2017a, 450–455.

47 For example, the figures of the Attalid kings (Romeo 2010, 141 f. with bibliography), Amazons, associated with Anatolia (Genovese 2013, 124–126. 129), and the local myths of Niobe and Marsyas: D'Andria – Ritti 1985, 49–66. 123–142. 181.

48 Ismaelli 2017a, 450–454.

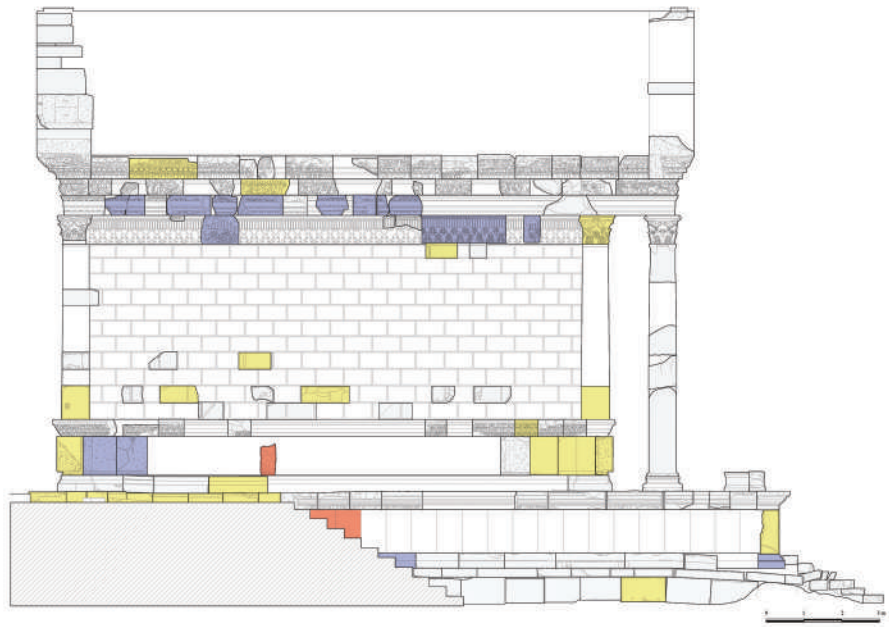

Fig. 9 Hierapolis, Temple A, north side, light grey: conserved blocks; red: blocks from the Julio-Claudian Temple A; blue: blocks from Temple B; yellow: other reemployed blocks (scale 1 : 200)

the 3rd century[49]. Moreover, a possible link between the late Severan reconstruction of Temple A and the conferral on the city of the *neokoria* of the provincial Imperial cult, dated to the final years of the reign of Caracalla, could be suggested[50]: it is possible that the cult was installed in the temple by Elagabalus and Severus Alexander (220–235 A.D.) only after the interlude of Macrinus. Regarding this hypothesis however, it is also necessary to assess the presence, among the *spolia*, of important epigraphical texts[51]. These include texts of a religious nature: a pair of bases for statues of Herakles (Ca1, Ca3), the alphabetical oracle of Apollo *Kareios*, the text with the response of Apollo of Klaros to the Antonine plague (CE2-1) and a *lex sacra* concerning the right of asylum in the sanctuary (St85). Other texts are honorary dedications to citizens of Hierapolis (St63) and figures of senatorial rank (PE1-6). Of great interest is the reuse of the base of a statue of Trajan, dated to between 102 and 116 A.D. Since damaging or destroying Imperial statues constituted sacrilege[52], it is perhaps possible to imagine that the reuse had been enabled by damage to the statues – and perhaps to Temples A and B – resulting from a natural event such as an earthquake.

Reuse strategies

Whatever the motive for the reconstruction, it is essential to reflect on the strategies governing reuse. Observation of the materials indicates that the dimensions of the Severan sections of the building were stipulated by the architect only after a careful assessment of the lots of reusable materials. Thus it can be assumed that the height of the fluted friezes was determined by the depth of the upper face of the architraves of Temple B, from which they were mostly obtained: once dismantled, the procedure consisted merely of turning the elements 90° and carving the decoration of the new visible face on the original upper face, thereby minimising the reworking of the blocks and limiting waste (fig. 8). In the same way, the height of the orthostates is the same as the depth of the cornices of the Julio-Claudian Temple A, from the rear side to the front face of the *geison* (fig. 6 g. h)[53].

49 The crown awarded as a prize in the *Apolloneia Pythia* appears in a coffer of Temple A, see Ismaelli 2017a, 179 f. fig. 296; 410–411. On the *Apolloneia Pythia*, see most recently Ritti 2017, 174–176 with bibliography.

50 I owe this suggestion to Alister Filippini, whom I thank.

51 Ismaelli 2017a, 269; Nocita 2017, nos. 7. 11. 22. 27. 36–39. 42 and Appendix I.

52 Price 1984, 194 f.

53 This measurement also corresponds roughly to half the length of the architraves of Temple B itself and to the depth of the cornices of the same Temple B, without the sima. See *infra*.

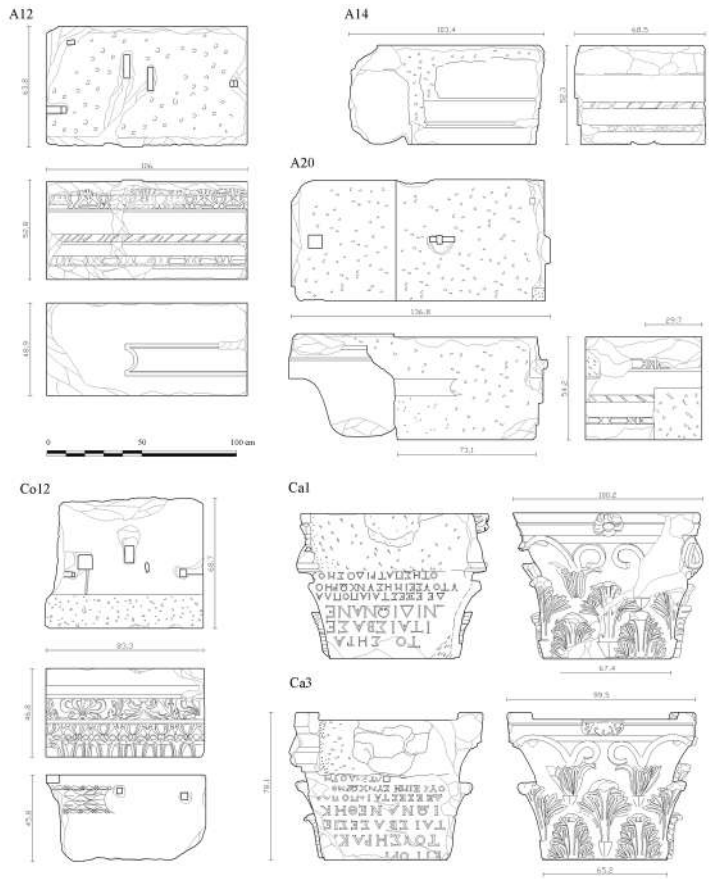

Fig. 10 Hierapolis, Temple A, architraves of Temple B reworked as wall architrave (A12), as architraves with internal modillion (A14. A20) and crowning block (Co12); pair of bases for Heracles' statues reemployed as anta capitals (Ca1. Ca3) (scale 1 : 40)

A second strategy was concerned with how to make the best possible use of the *spolia*: depending on the shape and dimensions of the original blocks, each category was broadly transformed into a single type of element. The friezes of the Augustan-Tiberian Temple A were used only in the *euthynteria*, since they were too low (33.6 cm) to be used in the wall of the cella or in the entablature (tab. 2). The cornices of Temple B and Temple A were used only as orthostates in the cella, in a vertical position, so as to make the best use of their original considerable depth (tabs. 1. 2). In contrast, the marble slabs of the Julio-Claudian Temple A, only 16–17 cm thick, could serve as the paving of the cella. More versatile were the architraves of Temple B, which were converted into orthostates, fluted friezes and above all epistyles (tab. 3; fig. 9. 10).

Once the final function of the most ancient pieces had been decided, they were transformed, in accordance with a fixed procedure, which indicates that the building site was characterised by precise organisation. Thus, the Julio-Claudian cornices of Temple A were simply rotated so that the original internal side was now the lower face;

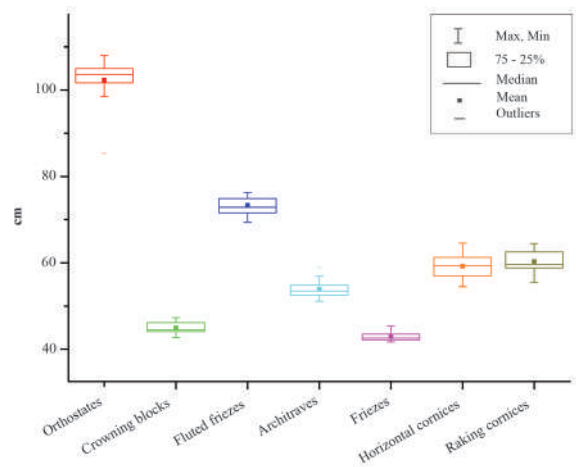

Fig. 11 Hierapolis, Temple A, diagram showing the dimensional variability of the blocks (median: the value separating the higher half of a data set from the lower half; mean: the sum of a collection of numbers divided by the number of data in the collection)

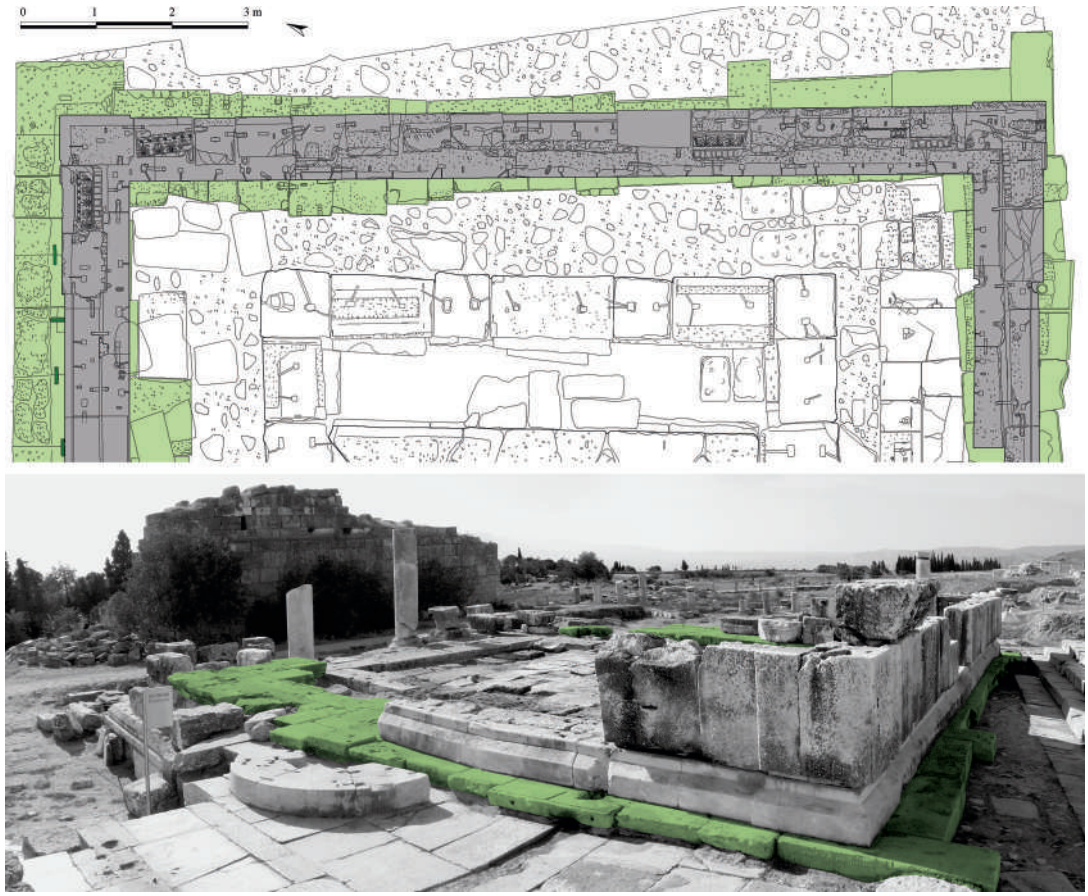

Fig. 12 Hierapolis, Temple A, detail of the *euthynteria* (light green) not corresponding to the orientation of the cella wall (grey), and the metal clamps (dark green) outside the cella socle (on the left) (scale 1 : 100)

the front of the *geison*, with the sima removed, was the new upper face (tab. 2; fig. 6 g. h). The same approach was applied to the cornices of Temple B, which, however in some cases, rest on the front of the *geison* (tab. 1). The architraves of Temple B were treated differently depending on their new function (tab. 3): those that were reused as orthostates were cut roughly in half and then placed on one of the short sides. In the cases of pieces used as architraves even in the Severan phase, the original function of the lower face, which was the most carefully finished horizontal surface, and therefore did not require further treatment, was maintained. Where the architraves were positioned on the wall of the cella and the antae (fig. 10: A12), a third of the original depth was eliminated and the blocks were cut in half about halfway along the length (106–119 cm, from an original length of 222.3 cm). Instead, in order to transform the blocks into architraves with modillions, the epistyles of Temple B were simply turned 90° to the wall of the cella, removing the decoration on their sides in order to render them vertical (fig. 10: A14. A20)[54]. For the architraves converted into fluted friezes, the standard procedure has already been described (fig. 8 b), but it should be stressed that the operation had an important consequence: since the new lower and upper faces had a reduced area of contact with the wall below and the architrave above (corresponding to the original architraves' upper band), mortar was used to fill the spaces corresponding to the other bands. Lastly, for the conversion into acanthus friezes and crowning blocks, the only recognisable strategy was to maintain the function of the original lower face (fig. 10: Co12).

Finally, the presence of a consistent work strategy is indicated by the two capitals of the anta pillars, carved from the twin bases for statues of Herakles (fig. 10: Ca1.

54 Only in exceptional cases (A20) did the lower face become a lateral face (fig. 10).

Ca3), which were treated the same way, turning the blocks 180° and positioning the inscription on the internal face: thanks to this deliberate approach, the two pieces could be reworked in accordance with the same steps, reducing the risk of error[55].

The recarving of the more ancient blocks must have produced a large quantity of marble chips, but even these were reused in the building site: they were fired in kilns to make lime, used for making mortar, as the archaeometric analyses have shown (fig. 8 a)[56]. Indeed, the presence of large empty spaces between the blocks of the cella, due precisely to the adoption of reused pieces, required a constant and abundant supply of mortar on the building site.

To summarise, the extensive programme of reusing more ancient blocks points to a building site characterised by a high level of rationalisation, which can be seen in all the operations, from the planning down to the assembly and definitive reworking. This consistency and rationality plausibly indicate the intervention of specialists, or at least stonemasons with sufficient experience in the transformation of pre-existing pieces.

Quality of procedures in the late Severan building site

With respect to the Augustan-Tiberian Temple A, with its finely worked surfaces and precise assembly of pieces, the late Severan building site was characterised by radically different procedures.

1) Dimensions of the blocks: Within the single rows of blocks there is clear variability in the size of the pieces[57]. In general, we know that the different heights of the capitals served to compensate for the small differences in the monolithic shafts, which reached the building site already cut[58]. In the case of Temple A, the column capitals (Ca2 and Ca5), today fragmentary, if reconstructed on the basis of what remains of each, have a height of 73 cm, as does the north-east corner capital (Ca4). The anta capitals Ca1 and Ca3 are higher, 77–78 cm, but the specimen of the south anta had 4 cm cut off the top after it was finished, leaving a height of 74 cm (fig. 10). Clearly its upper face, once assembled[59], was too high with respect to those of the pronaos, and it was thus impossible to ensure that the epistyle was horizontal.

This lack of uniformity is also found in the blocks with slightly protruding panels used in the walls, where the top row of blocks, recognisable from the astragal, varies between 40.2 and 44.0 cm, while the architraves vary between 51.0 and 58.9 cm, the friezes between 41.7 and 45.4 cm, the crowning blocks between 42.7 and 47.3 cm and the fluted friezes between 69.4 and 76.3 cm. As shown in the diagram (fig. 11), the differences are clear, above all in the orthostates (between 85.3 and 108 cm) and the cornices, both horizontal (from 54.5 to 64.6 cm) and raking (from 55.4 to 64.5 cm). Striking differences, even between clearly contiguous blocks, can be seen with the cornices in particular, especially on the long north side and on the raking cornices, which means that the joins between the mouldings are not always perfect. This phenomenon, observed in other coeval monuments[60], obviously implies less care and precision in the initial phase of carving on the ground. Although the achievement of perfectly horizontal planes and continuous mouldings was no longer a priority in the building site, the assembly of such different blocks must have been no easy task. Indeed, the stonemasons and the site foreman needed to simultaneously assess the measurements of the overall project and those of the materials ready for assembly, and then compensate for any differences between individual blocks in the same row (for example using bedding mortar) (fig. 13 a–c) or between one row and the one above.

2) Precision of assembly: The assembly procedures sometimes appear incongruous. At the level of the *euthynteria*, for example, the blocks were assembled without respecting either the precise dimensions of the overlying socle of the cella or the overall orientation of the floor plan (fig. 12). Consequently, the *euthynteria* takes the form of an irregular band, much wider than the wall, while the blocks show a range of orientations on the same side. The metal clamps of the *euthynteria* were arranged without taking account of the exact position of the socle and thus are visible in many places (fig. 13 d. e)[61].

55 The same craftsman (R) chiselled the acanthus leaf decoration of the two capitals (Ismaelli 2017a, 289) but may not have been responsible for the rough hewing of the two pieces. On the identification of the craftsmen in the decoration of Temple A, see Ismaelli 2017a, 279–295.

56 Cantisani et al. 2016, 602 fig. 21; Ismaelli 2017a, 541.

57 Ismaelli 2017a, 275 f.

58 The existence of these differences is quite common. See for example Öztürk 2009, 100.

59 Ismaelli 2017a, 169 f. The capitals are believed to have been already completed on the ground, as suggested by the example of Euromos, see Pülz 1989, 14 f.

60 Hierapolis: Pensabene 2007, 248 note 108; Nysa: Kadıoğlu 2006, 34. 36 f. 71. 84. 86.

61 Ismaelli 2017a, 55–57. 64–66. 71–73. The clamps are composed of a bar 2–2.5 cm wide, with the length varying from 22 to 24 cm in the socle and from 21 to 28 cm in the *euthynteria*, similar to clamps seen in the coeval theatres of Perge (Öztürk 2009, 104) and Nysa (Kadıoğlu 2006, 149).

Fig. 13 Hierapolis, Temple A, bedding mortar used to fill the space between the orthostates (a. b) and the socle blocks (c); metal clamps not covered by the cella socle (d. e); two contiguous dowel recesses (f); dowel recesses close to the already placed clamps (g. h)

Further irregularities arise from the use of older blocks of different sizes, which mean that during the assembly phase it was difficult to avoid the contiguity between the clamps already placed on the lower row of blocks and the dowels of the one above. In some cases, therefore, the vertical dowels were very close to the clamps or even in direct contact with them (fig. 13 g. h)[62]. The use of metal dowels and clamps in turn gave rise to more anomalies[63]. In line with common practice, the system for connecting the blocks in the horizontal plane envisaged the use of

62 Ismaelli 2017a, 67 fig. 135; 75 f. figs. 160–162.

63 For a summary of the use of metal clamps and dowels in Hierapolis, see Ismaelli – Bozza 2016, 452–456.

Π-shaped clamps, which were used in the wall of the cella and in the entablature. They were not used, however, for the horizontal and raking cornices, or to join the fluted friezes to the capitals of the antae. The elements of the vertical supports are attached to each other with dowels (from the base to the capital), but not to the overlying architraves[64]. In the walls of the cella the dowels are used right up to the height of the *Zwischengesims*, but they become sporadic in the sector above[65]. In addition, the architraves are not connected to the friezes, nor are the latter connected to the cornices[66]. Interestingly, the socles of the cella are not fixed to the *euthynteria*.

Continuity and transformation with respect to the Julio-Claudian phase

With respect to the early Imperial configuration of Temple A, the elements of continuity are few but significant from both a structural and a functional point of view. First and foremost, the colonnade of the pronaos remained exactly in its original position, on the massive Julio-Claudian foundation (fig. 5). In addition, the wall dividing the pronaos from the cella was repositioned above that of the 1st century[67]. These structural considerations exerted a strong influence in the planning phase and are responsible for the very short cella and particularly shallow pronaos.

A key aspect is the structure of the Severan paving inside the cella, which was largely removed in the Byzantine period[68]. The Severan paving, supported by a thick layer of mortar and fragments of marble, was on the same level as the paving of the pronaos. Therefore, to cross the threshold it was necessary to step up and then down again, unlike the usual solution, which was for the cella to be on a higher level than the pronaos. It is possible that this lower level of paving was chosen in order to leave the Hellenistic flooring visible, at least in the central part. If this is the case, it would indicate continuity in the use of the *bothros* for libations, which had constituted the focal point of the ritual ever since Hellenistic times.

Much more obvious are the differences between the two phases, in terms of the general arrangement of the sacred space and the architectural configuration of the temple. First and foremost, it is clear that the internal equilibria between the Sanctuary's buildings changed significantly in favour of Temple A. The virtual reconstruction shows that the optical prominence of Temple A was much greater with its Severan configuration[69]. On a perceptive level, the broadening of the façade and the greater height and inclination of the tympanum made it nearly equivalent to the central peripteros. The more advanced the demolition of Temple B, the more pronounced this effect must have been (fig. 14)[70].

Regarding aesthetic values, the two phases of Temple A appear markedly different. The earlier building sought plastic and chiaroscuro effects by means of semi-columns along the walls, it limited the decoration to the entablature alone, and its execution was sober and naturalistic. In contrast, the Severan project sought to enhance the monumental nature of the façade, increasing the number of columns and installing an extremely high pediment. In addition, the plastic decoration extended from the entablature to the sector between the capitals and was even introduced to the lower part of the cella. The decoration became extremely baroque and emphatic, with multiple horizontal sequences of mouldings and strong chiaroscuro effects, but the execution appears uneven, especially in the sections furthest from the observer[71].

The late Severan version is also revolutionary in terms of its models of reference. The Augustan-Tiberian temple was inspired by Augustan Italic models, but the late Severan version, with the continuous figurative frieze on the walls of the cella, exceptionally extending along the antae and into the pronaos, appears to find a parallel in the mid-Imperial temples of *Syria*[72], such as the *Bacchustempel* in Baalbek, which had a continuous sculptural decoration that was completed only in the pronaos. In other

64 As is the case in the theatre and the *Gerontikon* of Nysa (Kadıoğlu 2006, 149; Kadıoğlu 2014, 127).

65 Compare Ismaelli 2017a, figs. 238. 250 with Ismaelli 2017a, figs. 280. 281.

66 Ismaelli 2017a, figs. 286. 292. An exception is the north-west corner of the pronaos, where cornice C18 and frieze F13 were attached with dowels. To the rear of the temple, a vertical connection is seen between architrave A15 and frieze F6-F7 on the north-west corner, but not between the frieze and the cornice.

67 Ismaelli 2017a, 137–140.

68 Ismaelli 2017a, 149. 151.

69 Limoncelli 2017, 528–531 figs. 6–8.

70 It should be highlighted that only the entablature of Temple B was reused in the Severan reconstruction of Temple A, so that the cella and columns of Temple B would have remained visible by the side of Temple A.

71 Ismaelli 2017a, 293–295. 418.

72 For a detailed discussion, see Ismaelli 2017a, 145–149.

Fig. 14 Hierapolis, Sanctuary of Apollo, virtual reconstruction of the early imperial phase (top) and the late Severan reconstruction (bottom)

cases, such as the *Tychetempel* of Baalbek[73], the temples of Hössn Niha, Niha, and Hössn Sfiri[74], the continuous band is a roughly carved *Wandgürtel* extending over the same spaces as Temple A. In the transfer of the Syrian prototype however, this figurative band around the cella underwent an original modification in line with the local architectural language: it was shifted downwards, to the socle, and acquired an elaborate crowning block, in accordance with the model of the figurative podia of the theatrical *scaenae frontes* that was extremely widespread in Asia Minor. The case of Temple A thus provides exemplary testimony of interaction and creative dialogue between the architecture of Asia Minor and that of Levant in the course of the mid-Imperial period[75].

The monumental biography of Temple A appears to exemplify the architectural, technological, art-historical and cultural macro-phenomena that characterised the transformations of monuments at that time. First and foremost, it reveals a clear desire to conserve the most ancient structures within the new building, meeting the need for economy in the building site while – it is believed – ensuring the continuity of ritual practices centred on the

73 *Bacchustempel*: Krencker et al. 1923, 12–14. 60 figs. 5. 23–25. 43 pls. 7–9. 21. 22. 24–26. 53; Freyberger 2000, 123 f. fig. 4 b pl. 27. On the date, see Freyberger 2000, 107–118: Antonine period; van Ess – Rheidt 2014, 154–156: Severan period. *Tychetempel*: Krencker et al. 1923, 99. 109 pls. 57–62. 65. 66; on the date, see van Ess – Rheidt 2014, 84. 157: early 3rd century A.D.

74 Temple A in Hössn Niha: Krencker – Zschietzschmann 1938, 123 f. figs. 168. 171 pls. 58. 59; Temple A in Niha: Krencker – Zschietzschmann 1938, 107 fig. 156 pl. 55; Hössn Sfiri: Krencker – Zschietzschmann 1938, 33 fig. 53, pls. 13. 17. On the dating of this group of temples to the 2nd century or the first half of the 3rd century A.D., see Krencker – Zschietzschmann 1938, 275. 296.

75 See Ismaelli 2017a, 432–437, which proposes to recognise an architect of southern Anatolia and discusses the connections between Asia Minor and Syria in the 2nd and 3rd centuries A.D.

Hellenistic *bothros*. Secondly, the well-planned, rational and highly specialised approach to the reuse of materials has been reconstructed with great clarity. This approach required an integrated assessment of the project and the material resources available, which influenced the choices made by the architect during the progression from the idea to its physical specifications. Thirdly, the choice of reused materials and the construction work on the pre-existing buildings, in an architectural context whose limits, accesses and volumes were already determined, must have required careful assessment of the available space and exact coordination of the operations to be implemented, from the dismantling of Temple B to the creation of stations for the reworking of the blocks and the reassembly of the pieces. Fourthly, the reuse of materials was configured in accordance with well-defined procedures, designed to optimise the time available and reduce the chances of error. Lastly, it is fundamental to reflect on the concept of novelty and the modernisation of the city's image. The transformation of the sacred space of the Sanctuary of Apollo was profound, and this radical change, which also concerned the models of reference, perhaps shows that the inhabitants of Severan Hierapolis perceived an unbridgeable gap between Augustan and contemporary aesthetic standards, and wanted the *kosmos* of the city to reflect the most up-to-date and current formal values and architectural language[76].

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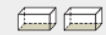
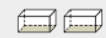
76 Pont 2010, 56 f. On this positive assessment of the *new* elements in the Theatre, see Di Napoli 2002, 399.

Reused blocks: **cornices** from **Temple B**								
Block	Quantity	Length	Reused as orthostate	Reused as architrave	Reused as fluted frieze	Reused as crowning block	Other use	Original and secondary position
CE2-2	1	75.2	X					
CE2-10	1	74.5	X					
CE2-14	1	56.0	X					
CN2-1	1	88.5	X					
CN2-2	1	81.0	X					
CS2-2	1	89.1	X					
St26	1	109.5	X					
St64	1	102.2	X					
St93	1	48.5	X					
CS2-1	1	97.6	X					
CE2-11	1	63.5	X					
St37	1	97.5	X					
Total	**12**	**983.1 cm**	12					

Tab. 1 Cornices from Temple B reused in the late Severan reconstruction of Temple A (in the last column, the blocks are shown in their original position, to the left, and in the late Severan reuse, to the right).

Reused blocks: **friezes** from the Julio-Claudian **Temple A**					
Block	Quantity	Length	Reused as orthostate	Reused in the *euthynteria*	Original and secondary position
PE1-2	1	114.0		X	
PE1-3	1	40.0		X	
PE1-4	1	64.9		X	
PE1-5	1	129.0		X	
Total	**4**	**347.9 cm**		**4**	
Reused blocks: **cornices** from the Julio-Claudian **Temple A**					
Block	Quantity	Length	Reused as orthostate	Reused in the *euthynteria*	Original and secondary position
St68	1	112.0	X		
St86	1	40.6	X		
CE2-16	1	104.9	X		
St104	1	66.9	X		
Total	**5**	**295.1 cm**	**5**		
Reused blocks: **slabs** from the Julio-Claudian **Temple A**					
Block	Quantity	Length	Reused in the *euthynteria*	Reused as podium revetment	Original and secondary position
PN4-16	1	116.0		X	
PN4-17	1	116.0		X	
PS1-8	1	127.4		X	
PS6-7	1	102.0	X		
PS6-8	1	66.0	X		
PS6-11	1	125.5	X		
PS6-12	1	38.0	X		
PS6-13	1	132.4	X		
PS6-27	1	151.0	X		
Total	**9**	**974.3 cm**	**6**	**3**	

Tab. 2 Architectural material from the Julio-Claudian Temple A reused in the late Severan reconstruction (in the last column, the blocks are shown in their original position, to the left, and in the late Severan reuse, to the right).

Reused blocks: **architraves** from **Temple B**								
Block	Quantity	Length	Reused as orthostate	Reused as architrave	Reused as fluted frieze	Reused as crowning block	Other use	Original and secondary position
CE2-4	1	106.4	X					
CE2-6	1	105.0	X					
A1	1	119.3		X				
A3+A37	1	108.6		X				
A4	1	63.4		X				
A4	1	63.4		X				
A6+A16	1	106.0		X				
A12	1	106.2		X				
A17	1	116.2		X				
A18	1	88.9		X				
A22	1	84.3		X				
A26	1	102.9		X				
A27	1	163.9		X				
A30+40	1	103.4		X				
A38	1	109.2		X				
A2	1	79.7		X				
A10	1	155.0		X				
A14	1	68.5		X				
A20	1	136.6		X				
Fb1	1	67.9			X			
Fb2	1	60.3			X			
Fb3	1	197.2			X			
Fb4	1	102.6			X			
Fb5	1	56.4			X			
Fb6	1	95.5			X			
Fb7	1	222.3			X			
Fb9	1	100.5			X			
Fb11	1	101.1			X			
Fb13	1	72.8			X			
Fb14	1	43.5			X			
Co6	1	155.1				X		
Co12	1	83.6				X		
Co28	1	181.0				X		
PN3-7	1	122.0					X	
St8	1	146.6					X	
Total	**34**	**3731.9 cm**	**2**	**16**	**7**	**3**	**2**	

Tab. 3 Architraves from Temple B reused in the late Severan reconstruction of Temple A (in the last column, the blocks are shown in their original position, to the left, and in the late Severan reuse, to the right).

BIBLIOGRAPHY

Campagna 2018
L. Campagna, Il Ninfeo dei Tritoni, Hierapolis di Frigia 11 (Istanbul 2018)

Cantisani et al. 2016
E. Cantisani – S. Vettori – T. Ismaelli – G. Scardozzi, Imperial Age Mortars at Hierapolis. Raw Materials and Technologies, in: Ismaelli – Scardozzi 2016a, 589–608

D'Andria 2013
F. D'Andria, Il Ploutonion a Hierapolis di Frigia, IstMitt 63, 2013, 157–217

D'Andria et al. 2012
F. D'Andria – M. P. Caggia – T. Ismaelli (eds.), Le attività delle campagne di scavo e restauro 2004–2006, Hierapolis di Frigia 5 (Istanbul 2012)

D'Andria – Rossignani 2012
F. D'Andria – M. P. Rossignani, La stoa-basilique de Hiérapolis de Phrygie. Architecture et contexte urbain, in: L. Cavalier – R. Descat – J. des Courtils (eds.), Basiliques et agoras de Grèce et d'Asie Mineure, Ausonius Mémoires 27 (Bordeaux 2012) 127–152

Di Napoli 2002
V. Di Napoli, Il fregio a tema agonistico del teatro di Hierapolis (Frigia). Iconografia e iconologia nell'arte romana imperiale, ASAtene 80, 2002, 379–411

Freyberger 2000
K. S. Freyberger, Im Licht des Sonnengottes. Deutung und Funktion des sogenannten Bacchus-Tempels im Heiligtum des Jupiter Heliopolitanus in Baalbek, DaM 12, 2000, 95–133

Genovese 2013
C. Genovese, Rilievi figurati dei Ninfei di Hierapolis di Frigia. Il tema dell'amazonomachia nella decorazione architettonica dell'Asia Minore, QuadAMess (N. S.) 3, 2013, 123–130

Giuliani 2010
C. F. Giuliani, L'edilizia nell'antichità, Manuali universitari 27 (Rome 2010)

Gros 1983
P. Gros, Statut social et rôle culturel des architectes (période hellénistique et augustéenne), in: Architecture et société de l'archaïsme grec à la fin de la République, Actes du colloque de Rome, 2–4 décembre 1980, CEFR 66 (Rome 1983) 425–452

Gros 1990
P. Gros (ed.), Vitruve, De l'architecture. Livre 3. Texte établi, traduit et commenté (Paris 1990)

Hellmann 2002
M. C. Hellmann, L'architecture grecque I. Les principles de la construction (Paris 2002)

von Hesberg 1976
H. von Hesberg, Zur Entstehung des Gebälkes der römischen Repräsentationsarchitektur, in: P. Zanker (ed.), Hellenismus in Mittelitalien, Kolloquium in Göttingen vom 5. bis 9. Juni 1974, AbhGöttingen 97 (Göttingen 1976) 439–449

Ismaelli 2009
T. Ismaelli, Architettura dorica a Hierapolis di Frigia, Hierapolis di Frigia 3 (Istanbul 2009)

Ismaelli 2016
T. Ismaelli, The Sanctuary of Apollo. A Stratified Monumental Context and Its Materials, in: Ismaelli – Scardozzi 2016a, 329–338

Ismaelli 2017a
T. Ismaelli, Il Tempio A nel Santuario di Apollo. Architettura, decorazione e contesto, Hierapolis di Frigia 10 (Istanbul 2017)

Ismaelli 2017b
T. Ismaelli, Hierapolis di Frigia in età augustea e giulio-claudia. Spazi sacri ed immagine urbana tra radici anatoliche e modelli romani, in: L. Cavalier – M.-C. Ferriès – F. Delrieux (eds.), Auguste et l'Asie Mineure, Scripta Antiqua 97 (Bordeaux 2017) 309–329

Ismaelli – Bozza 2016
T. Ismaelli – S. Bozza, Ancient Construction Sites in Hierapolis. New Data on Strategies, Materials and Techniques, in: Ismaelli – Scardozzi 2016a, 437–458

Ismaelli – Scardozzi 2016a
T. Ismaelli – G. Scardozzi (eds.), Ancient Quarries and Building Sites in Asia Minor. Research on Hierapolis in Phrygia and Other Cities in South-Western Anatolia. Archaeology, Archaeometry, Conservation, Bibliotheca archaeologica 45 (Bari 2016)

Ismaelli – Scardozzi 2016b
T. Ismaelli, G. Scardozzi, The North Agora. The Building Site and the Provenance of Marbles, in: Ismaelli – Scardozzi 2016a, 277–286

Ismaelli et al. 2016
T. Ismaelli – G. Scardozzi – G. Sobrà, New Data on the Building Site of the Theatre of Hierapolis, in: Ismaelli – Scardozzi 2016a, 305–328

Ismaelli et al. 2017
T. Ismaelli – G. Scardozzi – S. Bozza, L'Agorà Centrale di Hierapolis di Frigia, Mare Internum 9, 2017, 113–141

Kadıoğlu 2006
M. Kadıoğlu, Die Scaenae frons des Theaters von Nysa am Mäander, Forschungen in Nysa am Mäander 1 (Mainz am Rhein 2006)

Kadıoğlu 2014
M. Kadıoğlu, Das Gerontikon von Nysa am Mäander, Forschungen in Nysa am Mäander 3 (Darmstadt 2014)

von Kienlin 2011
A. von Kienlin, Überlegungen zur Entwicklung weitspannender Dachtragwerke in Anatolien, in: A. von Kienlin (ed.), Holzwerke der Antike, Internationale Konferenz 30. März – 1. April 2007 in München, Byzas 11 (Istanbul 2011) 81–92

Knackfuß 1924
H. Knackfuß, Der Südmarkt und die benachbarten Bauanlagen, Milet 1, 7 (Berlin 1924)

Knoblauch – Özbek 1996
P. Knoblauch – H. Y. Özbek, Neuere Untersuchungen an der *scaenae frons* des Theaters von Myra, in: K. R. Krierer – F. Blakolmer – F. Krinzinger (eds.), Fremde Zeiten. Festschrift Jürgen Borchhardt I (Vienna 1996) 189–207

Krencker – Zschietzschmann 1938
D. Krencker – W. Zschietzschmann, Römische Tempel in Syrien, DAA 5 (Berlin 1938)

Krencker et al. 1923
D. Krencker – T. von Lüpke – H. Winnefeld, Baalbek 2 (Berlin 1923)

Leucci et al. 2016
G. Leucci – T. Ismaelli – G. Scardozzi, Geophysical Surveys at Hierapolis. New Data on Monuments and Tectonic Context, in: Ismaelli – Scardozzi 2016a, 635–656

Limoncelli 2017
M. Limoncelli, Il contributo dell'Archeologia Virtuale allo studio dell'architettura nell'area del Santuario di Apollo. La simulazione dello spazio e della percezione visiva, in: Ismaelli 2017a, 525–533

Masino – Sobrà 2012
F. Masino – G. Sobrà, Ricerche e interventi nel Teatro, in: D'Andria et al. 2012, 207–233

Mighetto 2012
P. Mighetto, Il cantiere del nuovo palcoscenico del Teatro, in: D'Andria et al. 2012, 235–247

Nocita M. 2017
M. Nocita, Le iscrizioni dagli scavi Carettoni – Fabbrini, in: Ismaelli 2017a, 457–509

Öztürk 2009
A. Öztürk, Die Architektur der Scaenae Frons des Theaters in Perge, DAA 20 (Berlin 2009)

Pensabene 2007
P. Pensabene, Gli elementi marmorei della scena. Classificazione tipologica e inquadramento nella storia della decorazione architettonica in Asia Minore, in: D. De Bernardi Ferrero – G. Ciotta – P. Pensabene (eds.), Il Teatro di Hierapolis di Frigia. Restauro, architettura ed epigrafia (Genoa 2007) 229–388

Pfanner 1989
M. Pfanner, Über das Herstellen von Porträts. Ein Beitrag zu Rationalisierungsmaßnahmen und Produktionsmechanismen von Massenware im späten Hellenismus und in der römischen Kaiserzeit, JdI 104, 157–257

Piesker – Ganzert 2012
K. Piesker – J. Ganzert, Das Theater von Patara. Ergebnisse der Untersuchungen 2004 bis 2008, Patara 2, 2 (Istanbul 2012)

Pohl 2002
D. Pohl, Kaiserzeitliche Tempel in Kleinasien unter besonderer Berücksichtigung der hellenistischen Vorläufer, AMS 43 (Bonn 2002)

Pont 2010
A.-V. Pont, Orner la cité. Enjeux culturels et politiques du paysage urbain dans l'Asie gréco-romaine, Scripta antiqua 24 (Paris 2010)

Price 1984
R. F. Price, Rituals and Power. The Roman Imperial Cult in Asia Minor (Cambridge 1984)

Pülz 1989
S. Pülz, Untersuchungen zur kaiserzeitlichen Bauornamentik von Didyma, IstMitt Beih. 35 (Tübingen 1989)

Ritti 2017
T. Ritti, Storia e istituzioni di Hierapolis, Hierapolis di Frigia 9 (Istanbul 2017)

Romeo 2010
I. Romeo, La memoria dei re. Ascendenze dinastiche nei monumenti figurati dell'Asia Minore romana, ScAnt 16, 2010, 137–162

Sacchi – Bonzano 2012
F. Sacchi – F. Bonzano, L'ordine del Tempio di Apollo a Hierapolis. Prime acquisizioni, in: D'Andria et al. 2012, 325–357

Scardozzi 2012
G. Scardozzi, New Data on the North Theatre in Hierapolis in Phrygia. Archaeological, Topographical and Geophysical surveys, in: F. Masino – P. Mighetto – G. Sobrà (eds.), Restoration and Management of Ancient Theatres in Turkey. Methods, Research, Results, Archeologia e storia 11 (Galatina 2012) 218–235

Scardozzi 2015
G. Scardozzi, Lo sviluppo storico di Hierapolis, in: G. Scardozzi (ed.), Nuovo Atlante di Hierapolis di Frigia. Cartografia archeologica della città e delle necropoli, Hierapolis di Frigia 7 (Istanbul 2015) 35–57

Scardozzi 2016
G. Scardozzi, Marble Supply Strategies in the Building Sites of Hierapolis, in: Ismaelli – Scardozzi 2016a, 421–435

Schulz – Winnefeld 1921
B. Schulz – H. Winnefeld, Baalbek 1 (Berlin 1921)

Semeraro 2014
G. Semeraro, Archaeology of the Cult in the Sanctuary of Apollo in Hierapolis, ScAnt 20, 2, 11–29

Semeraro 2016
G. Semeraro, Ricerche nel Santuario di Apollo (2007–2011), in: F. D'Andria – M. P. Caggia – T. Ismaelli (eds.), Le attività delle campagne di scavo e restauro 2007–2011, Hierapolis di Frigia 8 (Istanbul 2016) 191–222

Vandeput 1997
L. Vandeput, The Architectural Decoration in Roman Asia Minor. Sagalassos. A Case Study, SEMA 1 (Turnhout 1997)

van Ess – Rheidt 2014
M. van Ess – K. Rheidt, Baalbek – Heliopolis. 10.000 Jahre Stadtgeschichte, AW Sonderband (Darmstadt 2014)

Waelkens 1993
M. Waelkens, Sagalassos. History and Archaeology, in: M. Waelkens (ed.), Sagalassos I. First General Report on the Survey (1986–1989) and Excavations (1990–1991), ActaALovMono 5 (Leuven 1993) 37–81

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