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2003

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saygıyla anıyoruz...

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İçindekiler/Contents

ROMAN INFLUENCE IN CILICIA THROUGH ARCHITECTURE

(LEV. 1-5)

Marcello SPANU*

ÖZET

Bu çalışmanın hedefi, Kilikia'nın Roma'ya bağlanmasının mimarideki etkileri konusunda bazı ön değerlendirmeler yapmaktır. "Romanizasyon" aslında sadece yeni yöneticilerin atanması anlamına gelmemekte; bunun ötesinde, birçoğu mimariye yansıyan derin değişimlere tanıklık etmektedir.

Askeri birliklerin ve ticari malların sevkini sağlayacak bir yol ağının ve limanların oluşturulmasının yanısıra, Romalılar'ın gelişi ile birlikte bir bayındırlık programı da başlatılmaktadır. İ.S. 1. yüzyılın sonlarından başlayarak, su kemerleri, hamamlar, zafer takları ve benzeri anıtlar yapılarak, bunlarda yeni inşaat teknikleri uygulanmaktadır. *Opus caementicum* ve tuğla yerel kabul görmekte ve bölgede bulunabilirliği oranında kullanılmaktadır. Bunun ötesinde, İmparatorluk Dönemi içinde bazı yeni malzemeler de Kilikia'ya getirilmektedir: bölgede bulunmamakla birlikte, mermer tipleri ve granit tanınmaya başlanmakta ve yaygın biçimde kullanılmaktadır.

Biçimsel olarak, Kilikia kentleri tonoz ve kubbe formunu hızla kendi mimarilerine uyarlamakta ve bu da kentlerin genel görünümünü değiştirmektedir. Bununla birlikte, yenilikler karşısında gösterilen bu kabul, örnek alınan modellerin donuk bir taklidini ya da edilgen bir kabullenişi yansıtmazlar: gerçekte, yerel mimarlar yeni çözümlemelerle deneyim sahibi olma şansına sahip olmaktadırlar.

Cilicia differs from the other Asian provinces on many aspects. Its peripheral location, its geographical separation from the inland –due to the Taurus range– and the lack of important natural harbours influenced the historical events of the region, thus fostering the survival of local linguistic, onomastic and religious elements until the beginning of the Imperial age[1].

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1 On this cf. Houwink Ten Cate 1961; Jasink 1991; Borgia 1999.

These features (together with others of different kind) strongly affected also the archaeological studies in the region. Despite the state of preservation of many monuments and the renown of some cities (such as Tarsos) –at odds with many other provinces in Asia Minor–, the 19th century travellers were not so numerous (and unfortunately not aimed by the desire to supply with detailed documentary evidence the ruins visible at the time)[2] and still today a substantial lack of extensive excavations as well as of topographical surveys is reported[3].

Regardless of the scarcity of data available at present, this account aims at providing some considerations about the effects of Roman annexation of Cilicia on architecture, or rather, it tries to point out the changes introduced as well as how they were locally welcomed and interpreted[4].

* * *

A first general consideration concerns the type of settlements in the region. Compared to others regions of Asia Minor, Cilicia –before the Roman involvement– was scarcely urbanized. For the Achaemenid period, there are only a few cities but their number grows in the early Hellenistic age thanks mainly to the Seleucids[5]. The Ptolemeans played a marginal role, as they only founded Arsinoe[6] and probably Berenike (whose location is still uncertain)[7].

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2 For a picture on early travellers in Cilicia see the paper by E. Borgia in these proceedings.

3 Excavations and surveys concerning the Hellenistic and Imperial periods are still scarce with regards to the important and rich archaeological heritage of the region. The different buildings mentioned refer to the main topographical editions of the sites: Gough 1952 for Anazarbos, Huber 1967 for the sites in Rough Cilicia.

4 For the above mentioned reasons studies on architecture and Roman influence in Asia Minor have only marginally treated Cilicia. See, for example, Ward-Perkins 1958, pp. 82-95; Ward-Perkins 1978; Yegül 1991. Due to the lack of data, this article will focus only on "monumental architecture" since at present information on domestic architecture is extremely scarce.

5 In general, on the building activities carried out by the Seleucids see Cohen 1978; Cohen 1995. In particular on Cilicia, Sayar 1999.

6 For the well-known inscription on the relationships between Arsinoe and Nagidos now at the Museum of Mersin see Opelt, Kirsten 1989; Jones, Habicht 1989; in general Cohen 1995, pp. 363-364.

7 On Berenike, see Cohen 1995, p. 364 and, most recently, Zoroğlu 1999 who places the city near Büyükeceli.

Apart the uncertain foundation of Aigeai (which claimed Alexander the Great's foundation[8]), the urbanistic activity of the Seleucids resulted into the foundation of Seleukeia pros Kalykadno[9] and –doubtingly– Alexandreia kat'Isson[10] by Seleukos I Nikator. Besides these brand new foundations, there are also the renamings occured under the rule of Seleukos I (Tarsos-Antiocheia on the Kydnos[11] and perhaps Magarsos-Antiocheia on the Pyramos[12]) and under that of Antiochos IV Epiphanes (Adana-Antiocheia on the Saros[13] and –probably– Epiphaneia-Oiniandos[14], Kastabala-Hierapolis[15], Mopsuhestia-Seleukeia on the Pyramos[16], with the recent addition-thanks to some numismatic evidences of Seleukeia near Issos[17]).

On the occasion of such numerous changes of name, in all probability also some architectural interventions, or better, some proper urbanistic programmes were carried out. Such activity most likely involved other Cilician cities as well, thus leading to a widespread Hellenization of the region, even under an architectural point of view. Unfortunately, on the whole, we cannot put forward any detailed hypothesis on this aspect, as in fact we do not know nearly anything about the Hellenistic phases of these cities, with regard to both their internal organization and the appearance as well as the typology of the single monuments.

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8 The only -late- source in this sense is the Romance of Alexander: Bergson 1965, sec. 2,23, pp. 123-124; van Thiel 1974, p. 104.

9 Founded by Seleukos I Nikator: App., *Syr*. 57; FrGrHist 273 f 132; Amm. Marc. 14,8,2; Cohen 1995, pp. 369-371.

10 On this, see perplexities in Jones 1971, p. 197.

11 See, most recently, Cohen 1995, pp. 358-361.

12 Steph. Byz., *s.v*. "Antiocheia"; Cohen 1995, pp. 365-366.

13 Cohen 1995, pp. 362-363

14 Pl., *NH*, 5,93; Cohen 1995, pp. 365-368.

15 Robert, Dupont-Sommer 1964, pp. 17-18; Cohen 1995, pp. 366-368.

16 See, most recently, Cohen 1995, p. 371.

17 Cf. Ziegler 2001.

In fact, strange but true, the only Hellenistic monuments of which some evidences remain in Cilicia, are some temples (the temple of Zeus Olbios at Diokaisareia[18], the one near the Korykion Antron[19], and the temple of Hermes in Çatı Ören[20]), funerary mausolea[21], watch-towers and strongholds[22]. We know nothing about proper urban monuments.

However, on the whole, during the early Hellenistic age there were not so many cities, and they were mainly located in Plain Cilicia. In fact, in Rough Cilicia, the "urban phenomenon" remained unknown for a long time (due to both the geographical features of the region and its role of frontier it played for a long time). Throughout the Hellenistic period the typology of the settlements corresponded to small inhabited areas spread over the territory, whether they were located near important crowd-pulling sanctuaries or rural villages exploiting local agricultural resources.

A new urbanistic activity with some significant changes began under Pompey the Great's conquest, with land distribution to pirates, recorded by the literary sources at Adana, Mallos and Epiphaneia[23] and mainly at Soloi –renamed Pompeiopolis on that very occasion[24]. The data available cannot establish whether this "urbanism" (perhaps involving also Zephyrion, Mopsuhestia and Alexandreia since their coins bear the year 65 b.C. as their urban era) went along with some kind of town planning and architectural projects. Undoubtedly from this period onwards, a change in the

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18 The datation of the temple has been broadly discussed: among the others see Keil, Wilhelm 1931, p. 47; Börker 1971; Williams 1974; MacKay 1990, pp. 2082-2113; Wannagat 1995, p. 145; Wannagat 1999. A chronological evidence of the complex is provided by the inscription of Seleukos I Nikator: see Heberdey, Wilhelm 1896, pp. 85-86, nr. 166.

19 The temple is generally ascribed to the mid 2nd century b.C.: cf. Weber in Feld, Weber 1967, pp. 256-268; Börker 1971, p. 45; MacKay 1990, pp. 2103-2110, Wannagat 1995, p. 145.

20 Bent 1891, pp. 210-211.

21 Due to heavy plunder and to the scarcity of dedicatory inscriptions the datation of Hellenistic mausolea relies strongly on the building technique which is, above all, the *opus polygonalis*. For some examples and the related problems, see Machatschek 1967, pp. 65-67.

22 For this type of buildings and their building techniques, see (among others) Heberdey, Wilhelm 1896, pp. 52-53 (Kanytelleis), Durugönul, Gabelmann 1997; Durugönul 1998; Durukan 1999. Besides such settlements, there is the recent discovery of the Seleucid stronghold on Mount Karasis, to the north of Anazarbos: Sayar 1995.

23 App., *Mithr*. 96.

24 Dio Cass., XXXVI,37,6; cf. Boyce 1969.

attitude towards the "city" is recorded. These earlier, faint signals took shape in the following century, with the foundation of a large number of new cities. In Plain Cilicia, Anazarbo a minor centre until that moment- was probably re-organized in 19 b.C. under Tarkondimotos II and renamed Kaisareia pros to Anazarbo[25] while in 20 A.D. the era of Augusta[26]–very probably Neronias-Irenopolis[27] (51-52 A.D.) began under Antiochos IV of Commagene. During this period in Rough Cilicia the controversial foundation of Titioupolis[28] took place, while under the rule of Antiochos IV of Commagene[29] Iotape and likely Antiocheia epi Krago[30] were founded. Also Elaiussa –becoming Sebaste[31] under Archelaos of Cappadocia– can be added to this list.

It is noteworthy to observe that nearly in all cases, we cannot really talk about Roman complexes, but of urbanistic projects carried out by client-kings ruling over the most part of the region. Certainly, these works were fostered by the *pax romana*, by the time spread all over the Mediterannean. The only exception was Klaudiopolis, a colony founded by the Romans at least starting from Claudius' rule[32].

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25 For a historical picture of the city, see Gough 1952, pp. 91-98 and, most recently, Sayar 2000, p. 5.

26 For the city's era recorded on coins cf. last, Karbach 1990, p. 36. The foundation of the city, which took place after the death of Philopator II, is controversial. In fact, it remains uncertain whether the city's territory underwent direct Roman control.

27 Jones 1971, pp. 204-205.

28 Jones 1971, p. 195; Levante 1982.

29 Also the foundation of Philadelpheia -probably located near Germanikoupolis in Rough Cilicia- might be attributed to Antiochos of Commagene.

30 Cohen 1995, p. 357.

31 Cf. Strabo XII,2,7; XIV,5,6; Jos., *Ant*J XVI,131. The amount of works carried out by Archelaos -maybe limited only to the ancient island- is totally uncertain as pointed out by Kirsten 1974, p. 782 (*contra* Berns 1998, pp. 144-145, but without strong evidences). Building activity in the city under Antiochos of Commagene is now proved by the finding of a dedicatory inscription on an architrave belonging to a monument of large dimensions.

32 Amm. Marc. XIV,8,1-2. Mitchell 1979, pp. 426-435. Partially different are the cases of cities renaming during the imperial age (for example: Epiphaneia-Traianoupolis, Zephyrion-Hadrianoupolis): surely, they were embellished but without the arrival of new citizens and a direct western architectural influence.

Beside this single episode, in which Rome was directly involved with the foundation of one of the few colonies of *cives Romani* in Asia Minor, the urbanization occured between the mid-1st century b.C. and the mid-1st century A.D. is undoubtedly very important. Obviously, this is not the only case in Cilicia (compare with what happens in Judaea[33] at the same time), but it is noteworthy to observe how this episode occurred in not so large kingdoms, in a short lapse of time and in a large number of cities. In this period, in fact, the region reached the highest density of cities during the course of its history. Therefore we have to lament that at present we do not know anything about the appearance and the features these cities had when they were founded. Thus we cannot evaluate whether they were based on town-planning programmes following the Hellenistic tradition or if these new cities were somehow influenced by Rome.

As to the influence during the Imperial age, the definitive Roman annexation of the entire Cilicia under Vespasian did not modify the pre-existing settlements. In fact, only a new city name appears, that of Flavioupolis, which is not clear whether it is a brand new foundation or, more likely, a title conferred to a pre-existing inhabited site[34]. The lack of new foundations does not correspond, in any case, to the lack of interest of the conquerors who started, instead, a systematic plan of building large structures[35].

In the years immediately following the Roman conquest the construction of a road network and structures connected to it was carried out. The disappearance of client-kingdoms called for better and smoother communication routes, in order to link the different cities and facilitate the movement of troops as well as of goods. Some epigraphical evidence –such as the milestones at Yeğenli (along the road connecting Diokasareia and Olba)– at Yenisu (along the road connecting Seleukeia and Klaudiopolis)[36] and the inscription of the bridge over the Kalykadnos river in Seleukeia[37],

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33 On the urbanistic programmes carried out under Herod the Great, in general see: Roller 1998; Lichtenberger 1999; Japp 2000 (with earlier bibliography).

34 Data on this settlement are still extremely fragmentary: cf. Bossert, Alkim 1947; Gough 1952, p. 94.

35 On urban development in Cilicia during the Imperial age: Kirsten 1974; Hellenkemper 1980.

36 French 1988, nr. 461, pp. 162-163; Sayar 1992.

37 Hagel, Tomaschitz 1998, nr. 54, p. 357.

reveal that these works were among the earliest to be carried out under Vespasian's rule.

As Cilicia increased its importance as a region of transit towards the further Eastern provinces, these early works were followed by a constant interest on the part of central power in structures connected with transportations. The maintenance of the road network had regularly been carried out under the care of the emperors throughout Cilicia and such activitities are recorded on several milestones found in the region[38]. Obviously, the works undertaken were not only limited to the maintenance of the roads, but they also included the care of the structures connected to them, among which, above all, the restauration or the construction of bridges, as clearly recorded by the inscriptions found by Harper at the *pylai Kilikiai*[39].

Historical events led Cilicia to become more and more a region of transit by land and –above all– by sea. In fact, the harbour of Soloi-Pompeiopolis –still under– estimated despite its dimensions and technical features –represents one of the most impressive constructions belonging to the mid-imperial age. It was one of the largest harbour basins of the Eastern Mediterranean, intended to receive both commercial ships and the imperial navy[40]. The central power unquestionably intervened in financing, planning and carrying out the construction of the complex. Roman concern in structures related to sea transportations –both of commercial and of military type– is evidenced by the Aigeai lighthouse and by the entire harbour of this important naval base serving the imperial navy. There are no monumental evidences for the lighthouse, yet reproduced on coin issues[41] (fig. 1.1).

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38 For a picture on milestones found in the region: French 1988; Sayar 2002.

39 Harper 1970. The two inscriptions lie outside the borders of Imperial Cilicia but it seems obvious that works involving the *Via Taur*i under Caracalla's rule had to include also the section inside the region.

40 On the harbour of Soloi-Pompeiopolis, besides travellers' descriptions, see Boyce 1958; Vann 1993a; Vann 1995. The harbour basin (of elliptical shape, more than 500 m long, tightly connected with the great columned street which crossed the city) was probably begun under Hadrian and completed under Antoninus Pius. Surely, other works were carried out to develope other sea harbours (for example, Elaiussa Sebaste) and river harbours (for example, Tarsos), too.

41 Cf., for example, SNG France, nr. 2344 (Macrinus) and SNG Switzerland, nr. 1784 (Decius); for a comparison with representations of other lighthouses see Reddé1979.

Romans attention on road networks and structures in order to facilitate the displacement of troops and patrol the territory is easily comprehensible, but architectural changes are also recorded inside the cities where, from the early years of the Roman annexation, a programme of urban refurbishing was carried out.

A significant evidence is offered by the aqueduct at Anazarbos, whose early construction –carried out under Domitian in the years 90/91 A.D.– is proved by its dedicatory inscription[42]. Although this structure was located in the extra-urban area, it was radically to change the city's everyday life.

There are no other evidences for the construction of similar structures but all the cities in the region –although such works required great efforts and expenses[43]– in a short period of time were furnished with aqueducts of which substantial ruins survive. This is the case of Elaiussa Sebaste and Korykos (this aqueduct is generally ascribed to the Flavian period)[44], Selinus, Anemurion, Seleukeia, Mopsuhestia[45], Epiphaneia[46] and Rhosos about which there are not precise chronological data.

Such an early interest in the construction of aqueducts –grown soon after the Roman conquest– leads to some considerations. Firstly, a new typically Roman conception of the city began to spread. This more practical view – aiming at realizing both an aesthetical and functional urban refurbishing corresponds to the *utilitas necessaria* peculiar to

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42 Of the aqueduct of Anazarbos the last arches near the city still remain. The structure is made of *opus caementicium*, with piers and arched lintels made of larger blocks, with buttressing walls of smaller rubbles pierced by arched windows. This was a fine technique which provided major static elasticity and the spare of materials. For the inscription mentioning the aqueduct as σεβαστον υδραγωγειον see, most recently, Sayar 2000, p. 30 no. 20; for the description of the ruins, see Gough 1952, pp. 109-110; Verzone 1957a, pp. 12-13; Hellenkemper, Hild 1986, pp. 1128-1129.

Significant seems the comparison with other more important cities: Miletos had its first great aqueduct probably in the mid 1st century A.D. (it was then replaced by that built in the years 79-80 A.D. under the proconsulate of emperor Trajan's father: ILS 8970); Alexandreia Troas began the construction of an aqueduct only under Hadrian (Philostr., *VS* 2,1, p. 548).

43 Cf. the sum -badly invested- spent for the aqueduct of Nikomedia (3,318,00 + 200,000 sesterces) in Pl., *Ep*, X,XXXVII1.

44 Cf. Hellenkemper, Hild 1986, pp. 123-127.

45 Cf. Hellenkemper, Hild 1986, p. 127 (where it is regarded as "spätromisch-frühbyzantinische").

46 Cf. Hellenkemper, Hild 1986, pp. 127-128.

Roman architecture. Secondly, the construction of both extra-urban road networks (including infrastructures such as bridges and harbours) and the aqueducts involve a great deal of technical skills for their planning as well as for their execution. In this respect, it is difficult to think they were carried out only by local workanmanships. Given the dimensions of the structures, the partecipation of local manual skills had to be massive[47], but the planning and the supervision must be ascribed to foreign highly trained, experienced technicians.

With regard to this, we can quote Pliny the Younger's requests to the emperor Trajan[48] in order to obtain technicians (such as a*quileges, architecti or libratores*) for his province of Bithynia and Pontus. It is well known that the administrator's requests were not fulfilled. What matters is that, according to Pliny, such skilled technicians came from Moesia, where the Roman army was quartered, because military technicians could guarantee discipline, accuracy as well as a proved (reliable) experience.

In addition to Pliny's evidence, Ulpianus also expressly mentions that the duties of a provincial governor included the furnishing *of ministeria quoque militaria* for civic buildings[49]. In the light of all we have said, it is very likely that early constructions following the Roman annexation of Cilicia were carried out by technicians coming from the legions, presumably from those quartered along the eastern *limes*[50].

In addition to the constructions themselves, the most important consequence of building yards –presumably planned and directed by foreign technicians (whether they were military or not) together with local labour– was the early and rapid birth of an architectural mixture, especially in the areas of the big cities and –to a smaller degree– in the minor settlements farther from direct contact and therefore more conservative. In the course of time the process of urban refurbishing expanded everywhere so that,

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47 On the role the local civic communities had in road-building in Asia Minor: Mitchell 1987a, p. 19; Mitchell 1987b, pp. 336-337; Mitchell 1993, pp. 124-129 (with earlier bibliography).

48 1 Pliny the Younger and Trajan: Lehmann-Hartleben 1936; Tosi 1977..

49 Dig. I,16,7.1.

50 On the role of the army in the building activities of the provinces: MacMullen 1959, pp. 214-217.

during the Severan age, also a suburban centre scarcely inhabited as Olba, was furnished with an impressive construction faced by a monumental nymphaeum[51]. In the same way, the settlement recently discovered near Küçük Burnaz was endowed with an aqueduct, although it was probably a *mansio*[52].

From a technical point of view, aqueducts were realized similarly to open channels, such technique involving the construction of substructions so to create a gentle gradient. The only exception in this sense is the aqueduct at Klaudiopolis. Although no monumental evidences ascribable to this aqueduct survive, between the modern houses of Mut, along the Erdem Sokak (a street retaining one of the main road axes of the Roman settlement) several blocks of stone with a hole cut through the middle with a lip and a socket are visible (fig. 2). These elements unquestionably belong to the last section of the pipeline of a urban aqueduct running very likely underground and carrying water under pressure according to a technique widespread among other cities in Asia Minor[53]. The ensurance of water supply –as we know about the other Asian cities– was boasted with pride by means of *nymphaea* located at the end of the aqueducts. Beside the above mentioned case of Olba, *nymphaea* of this kind in Cilicia are known at Diokaisareia and at Selinus (Building 3)[54]. A further example is provided by a smaller *nymphaeum* discovered at Elaiussa Sebaste to the south of the theatre[55] and other ones are known from coins[56].

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51 The aqueduct was perhaps constructed in 198 A.D. thanks to the generosity of a certain Herakleides: Hagel, Tomaschitz 1998, nr. 38, p. 331. For the *nymphaeum* see Keil, Wilhelm 1931, pp. 82-84; Dorl-Klingenschmid 2001, pp. 251-252.

52 On the settlement of Küçük Burnaz: Tobin 1995; Tobin 1999.

53 In general, on aqueducts in Asia Minor, see Coulton 1987.

54 For the *nymphaeum* at Diokaisareia, Dorl-Klingenschmid 2001, p. 178. Although not seen before (cf. Huber 1967, p. 33) the western side of Building 3 (side A) in Selinus was undoubtedly a monumental *nymphaeum*. It decorated the building lying behind that must be identified as baths: such complex was located at the end of the city's aqueduct.

55 Elaiussa Sebaste II, forthcoming.

56 A *nymphaeum* is represented on coins of Tarsos (see, for example SNG France, 1505) and of Anazarbos (SNG Switzerland, 1450).

The availability of running water (whose distribution inside the cities was eased by availability of lead[57] in the region) had as its immediate consequence the construction of several baths of either big or small dimensions. This kind of complex is typically Roman both from a building and from a social point of view.

As for the aqueducts, baths also involved high skills that local workmanships could not supply without foreign help. A precious evidence in this sense comes from the excavation –about to be completed– of a bath at Elaiussa Sebaste, that was carried out with the typically Roman building techniques (that is to say using a mixed technique made of *opus reticulatum* and roofing-tiles) ascribable to the early 1st century A.D. This evidence proves, apart from the reasons why it was constructed, the unquestionable presence of foreign workmanship on the site, even before the Roman annexation took place[58].

This example can be associated with other very well known baths in the same city, which were built in a different but typically Roman technique (that is to say a mixed technique made of *opus reticulatum* and courses of bricks) ascribable to a later period, probably between the end of the 1st and the mid 2nd century A.D.[59]

These two monuments thus provide meaningful examples where both foreign and local workmanships cooperated. Similar experiences probably took place at different times and in different ways throughout Cilicia, local workmanship directly learning the know-how in the construction of this kind of architectural typology. Of course, it wasn't a passive and monotonous learning faithfully reproducing the same model. After a short period of time different conditions (for example the climate, the availability of money and materials) led to the construction of numerous thermal complexes. Once more, Cilicia stands out because it is almost completely

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57 In fact, near Zephyrion (modern Mersin) *molybdaena* - a compound of lead and gold - was quarried: cf. Pl., *NH* XXXIV,173.

58 The building (so-called "Harbour Baths") is a very important example in the history of Cilician architecture both for its building technique and for its early datation. Broad preliminary notes will be soon published in the forthcoming volume Elaiussa Sebaste II.

59 On this monument and on its related chronological problems see Spanu 1999 (with earlier bibliography).

forgotten by the scientific world, therefore attestations of thermal complexes in the region rarely appear in recent repertories[60]. This is due to the fact that –despite the number of very well preserved examples[61]– most of them are awaiting to be excavated and lack accurate planimetries. For

60 Up to now Cilician thermal complexes ascribable to the Roman period -published or even simply mentioned- are the following:

- IOTAPE: Building 6 (Huber 1967, pp. 41-42);
- ANTIOCHEIA EPI KRAGO: Baths I 12 A (Huber 1967, pp. 26-27); Erdemgil, Özoral 1972, pp. 56-57;
- NAGIDOS: Baths at the end of the aqueduct (Hild, Hellenkemper 1990, p.363);
- ANEMURION: Baths II 7 A; Baths II 11B; Baths-Palaestra III 2 B (Huber 1967, pp. 4-14);
- TITIOUPOLIS: Baths (Hild, Hellenkemper 1990, p. 448);
- AYVASIL: Baths of uncertain period, maybe late-Roman/early Byzantine (Hild, Hellenkemper 1990, p. 205);
- KELENDERIS: Baths near the harbour (Zoroğlu 1994, pp. 44-45);
- BÜYÜKCELİ: Baths near the river (Zoroğlu 1999, p. 377);
- PITYUSSA: Baths (Hild, Hellenkemper 1990, p. 380);
- ELAIUSSA-SEBASTE: "Great Baths"; "Opus mixtum" Baths (Spanu 1999, pp. 94-114); "Harbour Baths" (Elaiussa *Sebaste II*, forthcoming);
- TARSOS: Baths near Eski Camii;
- İÇME: Baths near the mineral springs (Langlois 1861, p. 267; Davis 1879, p. 17);
- AUGUSTA: Baths (Gough 1956, pp. 173-175);
- AULAI: Baths seen in the 19th century (Langlois 1861, pp. 254-255);
- AIGEAI: Baths (Budde 1972, figg. 53-55; Hild, Hellenkemper 1990, p. 162);
- ANAZARBOS: Baths (Building g) to the north of the Church of the Apostles (Gough 1952, pp. 104-105; Verzone 1957a, p. 22); baths to the south of the Church of the Apostles (Hellenkemper 1980, p. 1269, note 32);
- HIERAPOLIS KASTABALA: Baths to the south of the theatre (Verzone 1957b, p. 57); Baths in the north-western sector (Hild, Hellenkemper 1990 p. 294). Beside these complexes, I mark out other evidences:
- SELINUS: Building 3 (see notes 54);
- KORYKOS: Small Baths (maybe late-Roman) to the south-west of the "Kathedrale"; Great Baths to the south of the "Kathedrale" (cf. the city's plan in Herzfeld, Guyer 1930);
- EPIPHANEIA: Baths near the theatre.

61 In fact, in many of these monuments elevations are preserved well over the springers of the roofings, thus providing reliable and undisputable information (for example the ventilation and the flux of steams and smokes: cf. Spanu 1999, pp. 97-98 about the "Great Baths" of Elaiussa Sebaste). In this regard it is certain that a systematic survey campaign and the analytical study of the surviving structures might widen the general knowledge about the functioning of thermal complexes.

this reason we must be cautious when we say we have recognized types of buildings and common features. If we leave out some baths in Rough Cilicia where a common scheme –the so-called "hall type" where a series of bath-rooms are grouped around a rectangular covered gallery[62]– has been recognized, the lack of information can lead to misunderstandings and mistakes. An example of this can be given by the claim made in the past about the absence of baths-gymnasia in Cilicia. This kind of building is a fairly common architectural type in Asia Minor combining a Roman bath with a *palaestra*, an element coming from the Hellenistic *gymnasion*. The most famous buildings are located along the Aegean coast (Ephesos, Miletos, Sardis, Alexandreia Troas etc.), and they share some common features both under an architectural and social point of view. An example of this is given by large hall (the so-called "Kaisersaal") associated with the Imperial cult[63].

It is clear that the presence of such buildings in Cilicia cannot be deductively denied. As to the *palaestrae*, once abandoned, they do not leave strong evidences on the ground while the rich decorations their halls had (included their sculptural arrangement) might have been removed or might lie buried inside buildings yet to be excavated. The inscriptions mentioning the office of the gymnasiarch in the region during –almost exclusively[64]– the Imperial age seem to support the existence of multifunctional structures. From such evidences it seems quite trivial to presume the existence of an architectural complex that more than any other structure expressed the social liveliness of a Greek-speaking city: that is to say the *gymnasion*.

As well as in the whole Roman world, Cilician baths enjoyed a particular success thanks to their multiple functions among which those of providing a gathering area and hygienic and healthy facilities.

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62 See Farrington 1987, pp. 54-55; Farrington 1995, pp. 34-36 (Anemurion II.7.A, Antiocheia epi Krago I.12.a including comparisons with Pamphylia).

63 About bath-gymnasia, see Nielsen 1990, pp. 104-108; Yegül 1992, pp. 250-313.

64 The office of the gymniasarch during the Imperial age is recorded at: Iotape (Hagel, Tomaschitz 1998, nr. 1a, p. 122; nr. 1c, p. 123; nr. 3d, p. 125; nr. 9, p. 127; no 23b, p. 131); Kestros (Hagel, Tomaschitz 1998, nr. 4a, p. 146; nr. 19, p. 150); Antiocheia epi Krago (Hagel, Tomaschitz 1998, nr. 14b, p. 37); Anemurion (Hagel, Tomaschitz 1998, nr. 65, pp. 360-361); Diokaisareia (Hagel, Tomaschitz 1998, nr. 103, p. 345); Elaiussa-Sebaste (Borgia, Sayar 1999, nr. 2, pp. 328-329; nr. 5, pp. 331-332); Tarsos (Ramsay 1883, nr. 54, pp. 325-327).

Completely different were the reasons why another architectural typology –the honorary arch of the Roman tradition– was introduced in Cilicia. Monuments of this kind are still visible at Antiocheia on the Kragos[65], Korykos[66], Diokaisareia[67] and Anazarbos[68]. It is noteworthy that at the time of their construction, all these arches were isolated, not connected to the city walls, and virtually functioning as city gates. For the most part, they belonged to the typology of the commemorative arch.

There are also extra-urban monuments: one at Karanlık Kapı[69], another one, known for a long time as Jonas' Pillars, near Merkes-Kalessi or Sarikesi[70] and another one, with three archways, located at one of the extremities of a bridge over the Pyramos river, known from coin issues of Mopsuhestia[71]. With regard to these monuments no dedicatory inscriptions survive, so their chronology remains uncertain. Very probably they were

65 See Huber 1967, p. 19 (Building I. 9); Erdemgil, Örozal 1972, p. 58.

66 For the arch of Korykos -which has recently undergone a disastrous reconstructive restoration- see Herzfeld, Guyer 1930, pp. 173-176, where it is ascribed either to the second half of the 2nd century A.D. or to the 3rd century A.D.

67 There are evidences of at least two honorary arches at Diokaisareia. The former, near the temple of Zeus Olbios, consisted of two rows of six columns bearing brackets and topped by a rectilinear architrave with an arch in the middle. The latter, located to the north-eastern border of the city, had three archways, the central one being taller and larger. It bears an inscription by Arcadius and Honorius which -although the arch is being defined as built εγ θεμελίου- was inscribed without any doubt long time after the monument was constructed. On the two arches, see Keil, Wilhelm 1931, pp. 48-56; 71.To these evidences we must add coins of Otacilia Severa depicting an arch with brackets inwards: Staffieri 1985, nrr. 25-25c; p. 14, 37-38; figg. 39-42 (with other references), where it is identified with the north-eastern arch. Instead, there are not sure proofs to ascribe this represantion to one or to the other monument.

68 On the arch of Anazarbos with three openings (the western one collapsed in the last forty years), see Gough 1952, pp. 104-105, 110-113; Verzone 1957a, pp. 15-23. The datation of the monument is controversial: the more likely hypothesis dates the arch back to early 3rd century A.D. (perhaps the arch was built to honour the emperor Macrinus, as put forward by ROBERT 1961, pp. 176-177). Instead, the datation-suggested by Verzone-to the third quarter of the 2nd century A.D. cannot be accepted.

69 Heberdey, Wilhelm 1896, p. 17; Hellenkemper, Hild 1986, pp. 101-102, abb. 158-159.

70 Heberdey, Wilhelm 1896, p. 19; Hellenkemper, Hild 1986, pp. 108-111. The monument still visible today near Sağlıklı was not an honorary arch dating back to Roman times: in fact it belonged undoubtedly to a later period.

71 See Donaldson 1859, p. 249; SNG AULOCK Kilikien, no 5747, table 194: the coin issued under Valerianus bears the indication ET ΓKT thus referred to the year 323, corresponding with the years 255/256 A.D. For the relationship with the emperor Valerianus, see Pekary 1966.

to be dedicated to the emperors who had happened to visit the region on the occasion of military campaigns against the Parthians[72] and not to affluent local personalities[73].

The emperors' journeys (including the retinues)[74] –and more generally the continuous presence of Western people (whether they were legionaries, auxiliaries, governors and their staffs)– made it possible the introduction of other architectural typologies unknown to local tradition and rare throughout the Roman East. Public spectacle buildings are significant in this sense.

If we leave out theatres and *stadia* (which were anyway connected to the Greek speaking world) Cilicia stands out, among the other Asian provinces. In fact, during the Imperial age, this province had one amphitheatre (at Anazarbos) and at least three proper circuses. These must be distinguished (but they are usually grouped together) from the monuments of Greek tradition such as stadia, meant for athletic games, since circuses –having the spina at the centre of the track– were meant for chariot races. Direct documentation is known for Anazarbos and Seleukeia, a further example being that of Aigeai (known from literary sources). The circus at Adana might belong to the Byzantine period[75].

The presence of these buildings is noteworthy, since such monuments required both economical resources and building efforts, and they were intended exclusively for the performance of gladiatorial combats, wild beast hunts and chariot races. Their construction-due to a strong demand-

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72 Several emperors had the chance to sojourn in Cilicia: maybe Trajan (113 A.D.), Hadrian (maybe in 129 A.D., coming back to Rome), Lucius Verus (162 A.D.), Marcus Aurelius (176 A.D.), Septimius Severus (194 A.D., after the battle of Issos), Caracalla (215 A.D.), Gordianus III (around 242 A.D.), Valerianus (255-256 A.D.), Aurelianus (272 A.D.); for an analysis of historical sources, see Halfmann 1986, pp. 187-188; 206; 212; 215; 219-220; 224; 234; 236; 239.

73 In Asia Minor there are a few arches dedicated to private individuals during the Imperial age, as clearly shown by the inscriptions such monuments bore: cf. the Arch of Apollonios and Demetrios at Perge (İnan 1989) and the Mettii Arch at Patara (Kalinka 1930, nr. 421, pp. 157-158).

74 Significant in this sense are the inscriptions of the *equites singulares* found at Anazarbos: see Sayar 2000, pp. 56-67, nrr. 63-68.

75 On these buildings see, last, Spanu 2001 (with earlier bibliography). The few chronological elements available seem to suggest that several theatres were built in Cilicia during the Imperial age.

is undoubtedly unrelated to local tradition, and it should be considered exceptional because only very few amphiteatres and circuses[76] are found throughout the Roman East.

When we take into consideration urban and architectural planning in the region, we cannot forget the historical and social conditions under which monuments were erected. Then the construction of several monuments was conditioned by various factors: beside the increased economic prosperity of the cities and the presence of the emperor with the legions, we must consider municipal competition too. Municipal competition was a phenomenon of *aemulatio* typical of the cities in Asia Minor, that was criticized by the Romans, and leading sometimes to disastrous economic consequences[77].

We have an echo of such hectic building activities in Cilicia, not only from dedicatory inscriptions survived[78] but also from the numerous coins issued by the cities providing important data about buildings that did not survive.

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76 Against that, it is well known that the lack of monuments intended for that purpose in the East did not hinder the success enjoyed by gladiatorial combats and -perhaps- by chariot races (at this regard, see Robert 1940; Golvin 1988, pp. 239-245).

77 Another essential, basic aspect of the architectural history of the region -that is to say that of the responsability and finances allowing the construction of buildings which presumably involved direct committment of municipal elites- cannot be included in this context. The subject should be specifically treated on a different and specific occasion.

78 Here is a partial list of epigraphical evidences clearly recording the construction of buildings during the Imperial age (funerary monuments are not included):

IOTAPE: Temple (dedicated to Trajan?) and statues; Trajanic period; financed by Toues, son of Irdaouexos (Hagel, Tomaschitz 1998, nr. 9, p. 127). Temple of Poseidon with statue, *balaneion*, temple of the Moires with statues; end of the 2nd century A.D.; financed by Mompsos, son of Kendeos (Hagel, Tomaschitz 1998, p. 122, nr 1a).

SELINUS: Two columns of a not specified monument; 2nd-3rd centuries A.D.; financed by Apatouris, son of Iambios (Hagel, Tomaschitz 1998, nr. 20, p. 382).

KESTROS: Parts of a sanctuary (four columns, a metal door and cult objects); Trajanic period; financed by Neon, son of Ingeos (Hagel, Tomaschitz 1998, nr. 1, p. 145)

KLAUDIOPOLIS: *Tristoon*; around 197 A.D.; uncertain commissioner (Hagel, Tomaschitz 1998, nr. 1, p. 158).

DIOKAISAREIA: *Tychaion*; 1st or maybe 2nd century A.D.; financed by Oppios, son of Obrimos and by Kyria, daughter of Leonida (Hagel, Tomaschitz 1998, no 6, p. 325)

OLBA: Aqueduct; 198 A.D.; financed by Herakleidos; (Hagel, Tomaschitz 1998, nr. 38, p. 331).

The great majority of buildings represented are temples, either dedicated to poliad gods or constructed with a strongly propagandistic aim, as it happened with Tarsos and Anazarbos which competed for the title of the neocory connected with the imperial cult[79] (fig. 1.5-9).

From a merely formal point of view, it would seem that temples faithfully followed tradition showing a purely Hellenistic appearance[80], but they also saw (although structures were obviously more traditional and conservative) important formal and compositive innovations. The major monumental evidences survived reveal the introduction of an element typical of Roman templar architecture: *the podium*. This is visible in the Donuk Taş at Tarsos, in the temples at Elaiussa Sebaste and Seleukeia on Kalykadnos, whose chronology, based at the moment on stylistic considerations, lies between the Augustan age and the mid-1st century A.D.[81]

As for other formal aspects, Cilicia seems to have taken part into the curvilinear formal revolution that interested the East Mediterranean during the imperial age. In Cilician architecture, the success enjoyed by curvilinear shape –both in elevation and in plan (that only indirectly can

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CATI ÖREN (the inscriptions refer to the temple of Hermes): *Naos* and *mageireion* (kitchen); unknown period; financed by Pomponios Nigeros (Hagel, Tomaschitz 1998, nr. 3, p. 156). *Propylaion*; probably 2nd century A.D.; financed by Agosia Tertia daughter of M. Tertius, (Hagel, Tomaschitz 1998, nr. 6, pp. 156-157). *Anaklisin* (bench) of the *naos*; unknown period; financed by Menodotos (Hagel, Tomaschitz 1998, nr. 7, p. 157).

EPIPHANEIA (probably): Agora *seitike* (wheat-market); 1st-2nd century A.D.; financed by Dionysos son of Alexandros (Dagron, Feissel 1987, nr. 124, pp. 209-211).

ANAZARBOS: *Sebaston ydragogion* (aqueduct); 90-91 A.D.; financed by the *demos* of the city (Sayar 2000, nr. 20, p. 30). Temple of Dionysos Kallikarpos; Domitianic period; financed by L. Valerius Niger L.f. (Sayar 2000, nr. 21, pp. 30-31).

79 For a picture of direct or indirect evidences on the Imperial cult in Cilicia, see Price 1984, pp. 272-274. Beside the neocory temples in the greatest towns, we don't forget the realization of temples for the imperial cult also in other sites, like Kestros, about which: Bean, Mitford 1970, pp. 157-161.

80 This seems to regard the interesting example at Lamos (about which see the preliminary notes in Söğüt 1999) that had probably to be ascribed to the Flavian period as proved by the dedicatory inscription of L. Octavius Memor found nearby (Bean, Mitford 1962, nr. 32, p. 208).

81 For the Donuk Taş: Koldewey 1890; Verzone 1957c; Baydur 1986-1992; Hild, Hellenkemper 1990, p. 435. For the temple at Seleukeia, see Keil, Wilhelm 1931, pp. 7-8; Hellenkemper 1995; Berns 1998; Pohl 2002, p. 214. For the temple of Elaiussa Sebaste see Gough 1954; Berns 1998 (where it is ascribed to the Augustan age); Baldassarri 1999 (where it is ascribed to the mid-1st century A.D.); Pohl 2002, p. 17; p. 145.

be defined as Roman)– was really noteworthy as evidenced by images on coin issues. Starting from the 2nd century A.D., in fact, we can notice that the appearance of the temples (as well as the reconstruction of the arch at Anazarbos) was often characterized by the presence of the arcuated lintel, the so called "Syrian pediment", that is to say a pediment interrupted at the base by an arch, an architectural element whose origins are generally recognized in Syria but which became widespread throughout Asia Minor[82] (fig. 1.2).

The increasing familiarity with the construction of vaults and domes was sensibly to change the appearance of town landscapes, with deep changes either in spatial forms as shown by representations of *sacella* or shrines with extradossed vaults resting directly on columns, or in the construction of richly elaborated *nymphaea*. It is interesting to observe that such phenomenon became so widespread that involved also much earlier buildings: the pyre of Herakles-Sandan at Tarsos[83], reproduced on coins until Hadrian's times with its traditional appearance, but from Marcus Aurelius onwards appearing with a dome resting on columns (fig. 1.3-4).

The assimilation of such innovations did not have to be a mere replica of models. Undoubtedly, local architects had the chance to experiment with new solutions. In the course of this brief article on Cilician architecture during the Imperial age, architectural development of funerary *mausolea* has not been taken into account. With regard to it, generally speaking, a costant conservatism substantially following traditional schemes can be observed. Anyhow, within the single necropoleis some sporadic examples of new experimentations can be found. They were probably eased by the fact that monuments did not suffer from a daily, intense life. For example, new formal solutions can be found in some isolated cases in the necropolis at Anemurion (conical buildings and tombs with domes on squinches)[84], in a mausoleum shaped as a *tetrapylon* at Kelenderis[85] or inside a tomb in the necropolis of Elaiussa Sebaste covered by a peculiar elleptical vault[86]. A

82 For the "Syrian pediment": Crema 1961.

83 For the representations of this monument and the cult, see Goldman 1949.

84 Alföldi Rosenbaum 1971, pp. 94-97.

85 Zoroğlu 1994, pp. 41-45 (with earlier bibliography).

86 Machatschek 1967, pp. 114-116, taf. 55.

tomb in the necropolis of Elaiussa Sebaste –published by Machatschek[87]– can be regarded as an example of a search for new formal and spatial solutions (fig. 3). Such mausoleum shows a peculiar covering consisiting of two overlapped and lowered vaults – not easy to build as they required two centerings with different arcuations. Apparently the monument did not undergo any restoration but it had to be constructed in only one building phase. Such innovation did not seem to catch on, therefore it must be regarded as an isolated example. Yet, conceptually it is very similar to the "Moorish arch" which later will enjoy great success in Islamic architecture.

The picture presented so far (which is extremely incomplete due to the present state of knowledge) thus reveals the vivid interest of Cilicia in welcoming both new architectural typologies and formal solutions. Most of these innovations were made possible thanks to the new ways of building unquestionably introduced by the Romans. From a building point of view in fact, Hellenistic techniques essentially meant ashlar masonries (*opus polygonali*s and *opus quadratum*) used both in monumental edifices (such as temples, fortresses and towers) and minor buildings (among which funerary mausolea)[88].

The most conspicuous documentation for the Hellenistic period known so far comes from Rough Cilicia, while Hellenistic Plain Cilicia is poorer. The reason of such difference lies in the geological structure of the two regions: in the fertile alluvional plains of Plain Cilicia the availability of limestone is very scarce, causing a major recycle of material and the almost total lack of evidence for this period.

Ashlar masonries – made without the use of mortar have been the object of recent studies[89]. However, we must observe that their chronology (when missing dedicatory inscriptions or well-known contests) can be hardly fixed. In fact, especially in extra-urban sites and for various reasons, they

87 Machatschek 1967, p. 83, taf. 56.

88 It is necessary to remember that the present state of knowledge must be limited to monumental architecture: the lack of excavations prevents us from getting to know something about "minor" architecture, that is to say which buildings techniques were employed in domestic building or in lesser public buildings.

89 Tırpan 1994, Söğüt 1998.

were still used for a long period of time until the Imperial age. This is suggested by examples dated epigraphically known in Italy[90], Lycia and Pamphylia[91]. As for Cilicia, we have some monumental evidences of the continuity of use of such techniques in areas where the materials were largely available (that is to say in Rough Cilicia)[92] but we must consider that still in the 6th century A.D. Byzantine authors defined the Isaurians as the best stone-cutters and very good construction workers[93].

Despite such continuity, these techniques were quickly supplanted by a new creation from the Romans, the *opus caementicium* or mortared rubble. It was thanks to this new revolutionary building technique with flowing masses that also in Cilicia it became possible to build structures with curvilinear plans, covered with vaults and domes, with less invasive but strongest walls as well as huge constructions such as the Donuk Taş at Tarsos that, although faced with blocks, had its core of mortared rubble made of river boulders and pebbles, materials available on the site.

As suggested before, the introduction of this new building technique took place in "mixed" building yards, as those involved in the construction of baths at Elaiussa Sebaste and of the aqueduct at Anazarbos.

Mortared rubble together with all its advantages was positively welcomed within a short period of time, with different applications and uses according to the materials available. On this subject, we must remember that while Strabo refers of two different Cilicias (the Rough and the Plain), on geological grounds three regions can be distinguished: a

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90 To this regard, the most famous example is the amphitheatre of Alba Fucens, epigraphically ascribed to the Julio-Claudian dinasty: de Visscher 1957.

91 For example, the baths at Simena or the aqueduct at Patara (Coulton 1983, p. 9). For many other cases and in general, on the persistence of polygonal masonry in the construction of baths and other buildings in Lycia and Pamphylia, see Farrington 1995, pp. 52-66.

92 Besides the numerous cases of uncertain datation -due to the lack of inscriptions or of excavation data- the tombs at Imbriogion built during the Imperial age can be pointed out as examples of ashlar techniques carried out without the use of any binder: Heberdey, Wilhelm 1896, pp. 82-83; Keil, Wilhelm 1931, pp 23-26; Machatschek 1974. Now a perimetral wall of the so-called "commercial agora" at Elaiussa Sebaste (Morselli 1999) can be added to some other -and more uncertain- examples. Despite its height, the wall -which is under excavation- is made in ashlar masonry without the use either of mortar or iron clamps.

93 See Mango 1966.

Cilicia with alluvional plains, a Cilicia with calcareous massifs and scists and a "black" Cilicia characterized by the presence of lavic stones (fig. 4).

The existence of this volcanic Cilicia has provided for a long time the idea that the region was favoured in the introduction of the Roman techniques because it had the same geological structures as central Italy where in fact mortared rubble come from[94]. Such statement must be re-evaluated because, apart from a few exceptions, the materials involved were those available in the close nearby.

Such statement regards mainly the facings, but the very strong presence of mortar in buildings located well outside volcanic Cilicia, leads us to the conclusion that concrete was made without volcanic sand, but with sands locally available.

Facings in Rough Cilicia were almost entirely made of small blocks of local stones more or less regularly cut, as clay was scarcely available and therefore it was used mainly in the production of tiles and imbrexes or of particular bricks, with a limited production of proper bricks. On the contrary, in Plain Cilicia, a fertile land poor in building stones, the facings of mortared rubble were almost entirely made of bricks, made with the excellent clay coming from the alluvional plains. "Black" Cilicia, not mentioned by ancient sources, mixed the two facings with a predominance of small blocks of black volcanic stone (fig. 5).

If quarrying blocks of local stone caused small changes in the pre-existing quarrying system, tha massive brick production in Plain Cilicia enabled this region, poor in building stones, to build several great

94 An opinion about the good quality of Cilician mortar was expressed in Ward-Perkins 1958, p. 82 (but without mention of volcanic sand use) and then in Boëthius, Ward-Perkins 1970, p. 387. This opinion has been gradually modified (see, for example, Waelkens 1987, p. 99) and recently it has been completely distorted. A coarse example at this regard is in Cormack 1997, pp. 152-153: "At certain sites in Cilicia where a local equivalent of *pozzolano* (sic!) was readily available (for example Iotape, Elaiussa Sebaste and Selinus), tombs are constructed with barrel vaults which are quite distinct from the ashlar vaults of neighbouring mountainous regions." This opinion (probably borne only by the observation of some photoes) is completely wrong: some tombs of imperial age in these sites present walls with stone blocks but they are only the facings for a core in *opus caementicium*. For these reason, there is not a real building technique difference between the walls and the vaults: it is only an aesthetic change. Furthermore, Iotape, Elaiussa Sebaste and Selinus have not local availability of volcanic sand.

architectural complexes[95]. This was made possible only thanks to the rise of a complex industrial system (that involved collecting the clay, preparing the bricks and baking them in kilns) about which there is neither archaeological nor epigraphical evidence so far (as far as I know no brick stamps of Roman period are found in Cilicia)[96].

Some observations must be made about the *opus testaceum*, the first one regarding its technique. Romans (in Italy as well as in the Western Empire) used bricks as facings destined to contain the core of concrete: for this reason bricks were square shaped (but also to make their transportation easier) and once in the building yard they were broken in triangular or trapezoidal shapes and then laid so to better stuck into the flowing mass of concrete.

In Cilicia (as in many areas in Asia Minor)[97] this reliable and cheap building technique was not appreciated by local workmanships. Also in this region bricks were square shaped but at the beginning, they were laid either whole or longitudinally broken, therefore rectangle shaped. In Cilicia too, sometimes the brickwork was used in a different way with respect to the Western Empire, running right through the core.

Despite the different techniques according to which bricks were laid, brick production in Cilicia for a long time directly derived from the early models of Roman influence: the grooves were scored on fresh clay to facilitate the division of bricks into triangles. Also when the lines did not have a meaning anymore, we still find them in many cases –as, for example, at Hierapolis Kastabala (baths near the theatre), at Elaiussa Sebaste (the so-called "*Opus mixtum* Baths") and at Küçük Burnaz– together with bricks more rationally bearing a transversal line scored to divide them into rectangles.

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95 For a Roman as Pliny the Younger, *opus testaceum* was easier and cheaper than building stones (*facilius et vilius*: Pl., *Ep*., X.XXXVII.2, referred to Nikomedia aqueduct). This had to be very true in Plain Cilicia where the scarcity of good building stones led to high costs of transportation.

96 There are early-Byzantine brickstamps instead: Dagron, Feissel 1987, pp 251-252. Another brickstamp (presumably late-Roman/early-Byzantine as well) found several times at Elaiussa Sebaste can be added to these examples: Elaiussa Sebaste II, forthcoming.

97 A systematic study on *opus testaceum* has been long announced by H. Dodge. On the subject see Dodge 1987.

Another important consideration on bricks produced in Cilicia, showing the adaptation of a foreign technique to local requirements, concerns measures (fig. 6). In Italy, as well as in most of the Western provinces, during the imperial age, bricks were made on standard sizes: *bessales* (two thirds of a a foot square = 19,7 cm each side), *sesquipedales* (one and a half foot = about 44,4 cm each side) and *bipedales* (two feet = about 60 cm each side), one foot bricks do not exist.

In the monuments surviving in Cilicia bricks of such measures are very rare: in fact they were made on local standards and therefore they varied a lot[98]. In general, we can say that *bipedales* (or very large bricks) are

98 As a mere indication, here the dimensions of some bricks of Roman buildings still visible in Cilicia are given:

ANAZARBOS:

1) cm 33 x 33 x 3,5 (building in the north-eastern sector: wall-facings)

2) cm 24 x 34 x 3 (baths to the south of the church: wall-facings)

3) cm 40 x 40 x 4 (baths to the north of the church: wall-facings)

ANEMURION:

1) cm 26,5 x 26,5 x 3,3 (Baths III.2.B: *suspensurae*).

2) cm 28,5 x 28,5 x 3,3 (Baths II.7.A: vaults, wall-facing and basins).

3) cm 31 x 31 x 3,7 (Baths II.7.A: *suspensurae*).

4) cm 69 x 69 x 7,5 (Baths II.7.A: *suspensurae*).

ELAIUSSA-SEBASTE:

1) cm 25 x 25 x 3,5÷5,2 ("Opus mixtum" Baths: wall-facing; Harbour Baths: wall-facing; vaults; bricks with X and I scores).

2) cm 35 x 35 x 6 ("Great Baths": vaults and arches).

3) cm 38 x 38 x 2 (Water reservoir: vault).

EPIPHANEIA:

1) cm 30 x 30 x 4 (Baths near the theatre: courses).

2) cm 30 x 30 x 4 (Building opposite the theatre: wall-facing).

3) cm 38 x 38 x 5 (Building opposite the theatre: wall-facing)

4) cm 35 x 35 x 4 (Building opposite the theatre: courses).

HIERAPOLIS KASTABALA:

1) cm 25 x 25 x 3 (Baths opposite the theatre: wall-facing, with X scores).

KÜÇÜK BURNAZ:

cm 32 x 32 x 3÷4 (Baths, bricks with X and I scores).

TARSOS:

1) cm 22 x 22 x 5 (Baths: wall-facing).

2) cm 69 x 69 x 5 (Baths: in the arched lintels).

To these the data published for AUGUSTA (Gough 1956) are added:

cm 42 x 29,5 x 4,5 (West Building; Baths).

exceptional (maybe because very expensive) while the most common measure is between 26,5 and 35 cm (that is to say more or a less a foot) which is missing in Italy[99].

As for the metrological aspect it can also be noticed that measures vary from city to city and from monument to monument: this can prove that single brick kilns supplied a local market and that frequent changes in the brick production took place in the course of time[100].

From these observations we can see that, on one hand, brick production in Cilicia was connected to models (as proved by the X signs scored to facilitate the division into triangles). On the other hand, there is a substantial difference (e.g. the dimensions) due to local adaptations.

Such local adaptations of the *opus testaceum* of Roman influence are extremely evident in Rough Cilicia, where the scarcity of clay required both the use of small blocks of local stone as facings (sometimes with alternate courses of bricks) and an almost exclusive production of roofing-tiles and imbrexes. Brick production in Rough Cilicia was in fact exceptional, based on specific requests: bricks being placed at particular points of a building such as arches and vaults. Kilns could also supply, when requested, a limited number of particular bricks as for example circular bricks for *suspensurae* or wall tubuli for baths. This exceptional brick productions are easily recognizable because they are unique. In a pool of the baths II.7.A at Anemurion, instead of standard *bipedales*, bricks measuring 69 cm each side, and thick 7,5 cm were placed on *suspensurae*. They are fired slabs and I suppose they are among the biggest bricks ever made in the Roman world.

Another example, where the need of adaptation is evident, is found in the baths at Anemurion. The great majority of buildings in the city are faced with small calcareous blocks, limestone being available on the site. An exception to the rule is given by *suspensurae* and extradossed apses that required an accurate regularity. In fact they were faced with bricks,

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99 Such measure, anyway, seems to be the average of most bricks in Asia Minor: Dodge 1987, p. 112.

100 Due to such a local production, I think it is difficult to establish a dating criterion based on measures -and especially on the thickness- of the bricks, as it has been tempted for Rome.

while other sections were faced with ordinary tiles that, before being fired, were scored with lines to be used either for the roof or, once broken, as bricks (fig. 7).

These observations about the two examples from Anemurion are obviously very detailed, but they undoubtedly give an idea of how Cilicia interpreted Roman influence on building technique. The analysis of the surviving monuments in this perspective can also provide unexpected information about both the building skills achieved by local architects and the relationships between the variuos regions in Cilicia. An example of this is given by the analysis of the vaults in some monuments. In order to make vaults lighter, architects decided to use a material which differed from that one used for the walls. In Rough Cilicia, instead of limestone and scists, sandstone –a much lighter stone available locally or in the close nearby[101]– was used in the vaults.

The examples of the baths at Hierapolis Kastabala, Anazarbos and Tarsos are different. The load bearing walls were made of calcareous *caementa* or pebbles, while the vaults of large rooms were made of volcanic scoriae. The choice was the right one, since this kind of stone guaranteed lightness and it is practically the same solution adopted in the dome of the Pantheon in Rome[102]. Thus it is noteworthy that volcanic stone is not available in the surroundings of Hierapolis Kastabala, Anazarbos and –especially– Tarsos, so it was a precise choice requiring a specific import from far areas, from the black volcanic Cilicia located to the south-east[103].

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101 Significant in this sense is the recent discovery of a sandstone quarry near the seaside between Selinus and Kestros (Blanton 2000, p. 35, figg. 3-8). It lies far from large settlements, but it was extremely functional to the loading of materials directly on the ships so that it could be trasported for long distances, thus solving the problem of land transportation, particularly difficult in the mountainous territory of Rough Cilicia.

102 On the use of different materials in the vault of the Pantheon according to their location, see De Fine Licht 1968. Generally, the use of volcanic scoriae (latin *sfungia*) in the vaults had to be common in imperial architecture, at this regard cf. Isid., *Origin*., XIX,X: S*fungia, lapis creatus ex aqua, levis ac fistulosus et cameris aplus*.

103 The mortar employed in the walls of these structures does not seem to include volcanic sand, therefore the import of volcanic material was limited only to the scoriae for the vaults or for other particular employments. At this regard the use of volcanic stones can be observed in the Roman road in Tarsos: Zoroğlu 1997; Zoroğlu, Doğan, Adıbelli 1998; Zoroğlu, Adıbelli, Doğan 1999.

Last but not least, another consideration about architecture in Cilicia during the imperial age regards architectural sculpture, mainly including marbles and granites. It is well known that the progressive Roman conquest, and the acquisition of the great majority of quarries on the part of the imperial family made it possible a process of "marble style" in architecture throughout the provinces. Private and public buildings were faced with materials not locally available, purchased or granted by the emperor[104]. The study of this phenomenon directly, or indirectly, records the wealth or the importance achieved by settlements which were very far from the quarries the materials came from[105.]

The study of the distribution of decorative stones has been recently developed, but once more Cilicia has been forgotten, being unattested[106] on the maps showing the distribution of the different materials. This is really surprising, since geologically Cilicia lacks crystalline complexes and metamorphic stones[107], therefore the presence of marbles and granites was due only to imports.

Despite the scarce archaeological activity in the region, the remains show that Cilicia saw the employment of large quantities of marbles.

As for architectural sculpture (but there are also records of sculptures made of imported marble, as shown by a small statue made of pavonazzetto –the Dokymenian marble[108]– displayed in the Tarsos museum), the most

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104 Without explicit sources describing the way marbles and granites were purchased and considering the important imperial interventions in the food-grant field in Cilicia, it seems obvious to suppose that such materials were direct donations by the emperor to the region.

105 The bibliography on the subject is very rich, among the various contributions (with further bibliography): Dodge 1988; Dodge 1990; Dodge 1991; Ward-Perkins 1992; Fant 1993. On the marbles and their main features see Gnoli 1988.

106 Cf. Dodge 1988; Dodge 1990 (with distribution maps of Proconnesian marble, Troad granite and Egyptian red granite), Dodge 1991 (with distribution maps of Troad granite, "verde antico", "pavonazzetto", Proconnesian marble): in these maps Cilicia is almost completely unattested. An updated revision -with very different results- on the distribution of Troad marble is in Pensabene, Bruno 1988, p. 22, pict. 19, showing that the stone is fairly present in Cilicia.

107 For a geological picture of Turkey see Brinkmann 1976; Hertz 1988.

108 Tarsos Museum, nr. inv. 120.6. The problems related to white marbles and above all to statuary cannot be included in the present work. Due to the lack of marble in the region, it is easy to understand how local workshops were influenced by the imports of marble sculpture. A significant example -awaiting a systematic study- is that of sarcophagi, on which see Ward-Perkins 1992 (updated with respect to the edition published in the Papers of the British School at Rome, 48, 1980) and Waelkens 1982, pp. 88-90: the distribution maps show the presence in Cilicia of Phrygian sarcophagi (there are over 15 examples of the "garland type" at Silifke, Mersin and Adana); Proconnesian sarcophagi (more than 15 examples at Korykos and 5-9 at Tarsos); Attic sarcophagi (more than 15 examples at Korykos, Elaiussa Sebaste and Tarsos). Anyway, the picture is imcomplete.

common marble is the Proconnesian. It is found everywhere in the region, in columns, entablatures, facing and flooring slabs[109] (fig. 8). The second most imported stone in Cilicia was Troad granite, the grey plutonic rock coming from the surroundings of Pergamon[110] used for columns shafts (fig. 9). This stone probably began to be widespread in Asia Minor from Hadrian's times onwards[111]. Proconnesian and Troad granites were often

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In the following notes focusing on the presence of coloured marbles and granites in Cilicia, the fragments seen by the present writer during my seven years of excavations at Elaiussa Sebaste have not been included. Among these I include: "rosso antico" (from Tenedos island), "giallo antico", (from Simitthous-Chemtou, in the north-western Tunisia), "verde antico" (from Thessaly), "serpentino" (from Krokeai, Greece), red porphydus and Syene granite (from Egypt), "pavonazzetto" (from Dokymeion) and alabaster.

109 The following list includes the most evident presences of Proconnesian marble in Cilicia:
SELINUS. Near Harbour: column shaft.
ANTIOCHEIA EPI KRAGO. Columned street: some column shafts; Building I.2: column bases.
KELENDERIS. Baths: slabs.
KLAUDIOUPOLIS-Mut. Kale: slabs; Ilköğretim Okulu: capitals and frieze element.
SILIFKE. Müze: column shafts and capitals.
DIOKAISAREIA. Theatre: column bases, shafts and capitals.
ELAIUSSA-SEBASTE. Column bases, shafts and capitals.
TARSOS. Ulu Camii: column shafts and architrave-frieze.
ADANA. Müze: column bases, shafts and capitals.
AIGEAI. Column shafts and capitals.
RHOSOS-Arsuz. Private houses, Belediye Lara Park: column shafts.

110 For the Troad granite, see Gnoli 1988 p. 153; Dodge 1988, p. 75; Dodge 1991, p. 40; Peacock 1993, pp. 66-68.

111 Here are the most important presences of Troad granite in Cilicia:
SELINUS: Building 6 (porticoes): column shafts.
ANTIOCHEIA EPI KRAGO. Columned street: most part of column shafts.
ANEMURION: Near the Bouleterion: column shaft.
SILIFKE. Müze: small column shaft.
DIOKAISAREIA, *Tycheion*: column shafts (with regard to this monument, the datation put forward by MacKay 1990, p. 2096, to the second half of the 1st century A.D. seems contradictory with the presumed beginning of the use of such stone. A chronology of the temple in the 2nd century is proposed in Heilmeyer 1970, p.105, based on stylistic comparisons of the capitals).
ELAIUSSA-SEBASTE. Theatre: column shafts.
TARSOS. Columned street: column shafts. Near the Baths: small column shaft.
ADANA. Müze: column shafts; milestone and catapult balls.
ANAZARBOS. Honorary arch: column shafts. Columned street: column shaft.
HIERAPOLIS KASTABALA. Columned street: column shaft.
AIGEAI. Column shafts.
RHOSOS-Arsuz. Belediye Lara Park: column shaft.

used together but they were not very expensive stones[112], as they both came from Asia Minor.

More exceptional-due to the emperor's direct involvement –is the presence of other marbles: besides the more common "cipollino" or Carystian marble (from Eubea)[113] and "serpentino"– the Laconian porphyde (from Krokeai, in Greece)[114]. The presence of much more expensive stones such as the Syene granite (from Aswan in Egypt)[115], the red porphydus (from Mons Porphyrites, Gebel Dokhan in Egypt)[116] or Hereke pudding-stone[117] are noteworthy.

Despite the present state of knowledge, it is important to say that this process of "marble-style" did not involve only coastal centres, favoured by sea transportation, but also internal cities such as Diokaisareia[118], Anazarbos[119] and the very far Klaudiopolis where, with high costs of –mainly river– transportation, columns in the so-called "verde antico" quarried in Thessaly were imported[120].

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112 Proconnesian was one the cheapest marble: in *Edictum Diocletiani de pretiis*, 31, the price of one cubic foot was 40 denarii, against 250 for the same size of porphydus, 150 for thessalian marble and 100 for carystian. Ward-Perkins 1992, p. 65 discussed the possibility that Troad granite and Proconnesian marble were shipped together, within a sort of joined production (Pensabene 1997, p. 279).

113 See Gnoli 1988, pp. 181-183. Columns of this material are visible in the commercial agora at Elaiussa Sebaste and in other Cilician areas.

114 See Gnoli 1988, pp. 141-144.

115 See Gnoli 1988, pp. 145-147. The Syene granite is recorded in Cilicia at: Selinus (Terrace 6: column shafts, Ø cm 59); Adana (Müze: column shaft); Mopsuhestia (column shafts); Anazarbos (Theatre: column shafts).

116 See Gnoli 1988, pp. 122-123. Besides the presence of small quantities, I point out the exceptional discovery of a column made of such stone, now inside a restaurant garden at Yumurtalık -ancient Aigeai- meant undoubtedly for a very important building.

117 This stone was used especially during the Byzantine period. A column found in ther waters at Aigeai and visible on the sea-shore must be also recorded.

118 The opinion in Plommer 1969, p. 190 about the lack of marble in the city cannot be absolutely accepted: Troad granite (Tychaion), Proconnesion marble (Theatre) and others stone have been always visible.

119 The theatre of the city was decorated with very tall columns in Syene granite.

120 Four big column shafts (0,50 m large, 2,50 m tall) decorate the facade of the Laal Pasa Camii built in 1444. The numerous columns seen in the 19th century at Mut had to be made in the same stone. Nowadays only some fragments survive inside modern houses.

This brief account on the distribution of stones imported in Cilicia shows how architectural appearance in the region changed despite the lack of marbles and granites. The new taste for polichromy led to the appreciation of local stone, as shown by the production of columns made of conglomearte and of veined grained limestone employed –for example– for the columned streets at Hierapolis Kastabala and Augusta[121]. Nevertheless, material locally available continued to be used, whether it was limestone or lavic stone, the hardest to cut.

Apart from the quality of imported materials, it is clear that especially semifinished elements (such as capitals, bases and entablatures) were to influence strongly local sculptors who met and got updated with a taste and a style very far from their tradition. These evidences show that the region developed its peculiar style and taste yet to be studied[122].

Despite the quantity of surviving elements, a study of architectural decoration in Cilicia during the imperial age has not been undertaken yet. This research could certainly provide some important information about the artistic history of the region.

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121 The availability of coloured limestones undoubtedly contributed to develop the presence of polichrome mosaics in the region (cf. Budde 1972). Such mosaics were probably created by local workmanships that used materials available on the site.

122 Significant in this sense is the perplexity expressed by Plommer 1969, p. 190, about the architectural decoration of Diokaisareia, expecially about that of the theatre, considered almost Diocletianic!

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Tarsos

Anazarbos

Fig. 1
Coins with architectural representations from Cilicia

1. Aigeai (lighthouse, Macrinus). SNG France, 2344.
2. Anemurion (temple with syrian pediment and Artemis, Severus Alexander). SNG France, 706.
3. Tarsos (pyre of Herakles-Sandan). SNG France, 1319.
4. Tarsos (pyre of Herakles-Sandan, Marcus Aurelius). SNG France, 1451.
5. Tarsos (decastyle temple, Antoninus Pius). SNG France, 1446.
6. Tarsos (Tyche with two temples, Gordianus III). SNG Switzerland, 1144.
7. Anazarbos (decastyle temple, Faustina Minor). SNG Switzerland, 1391.
8. Anazarbos (two temples, Iulia Moesa). SNG Switzerland, Suppl. I, 339.
9. Anazarbos (three temples, Decius). SNG Switzerland, Suppl. I, 354.

Fig. 2 Mut (Erdem Sokak): stone pipes.

LEVHA 2

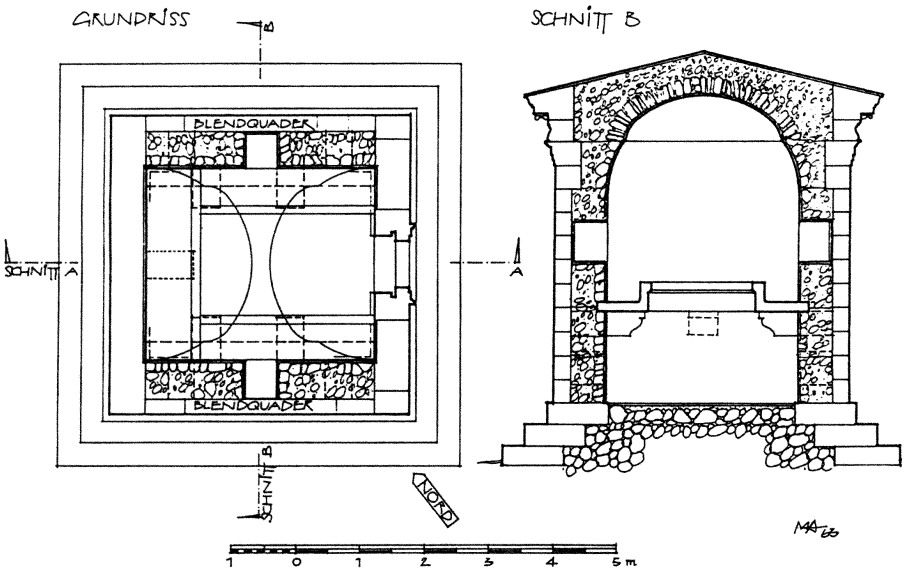


Fig. 3 Elaiussa Sebaste: tomb with double-arch vault (Machatschek 1967, taf. 56).

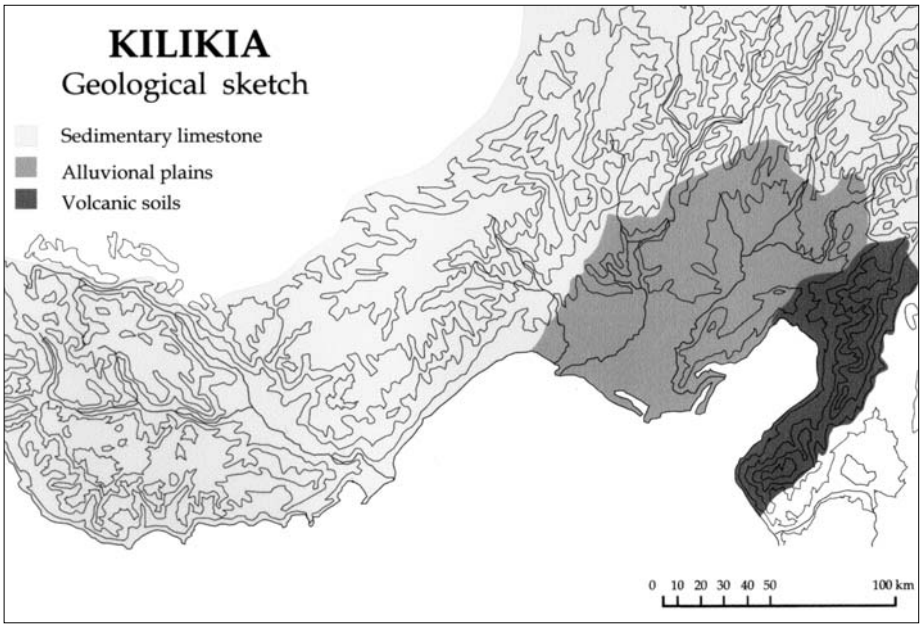
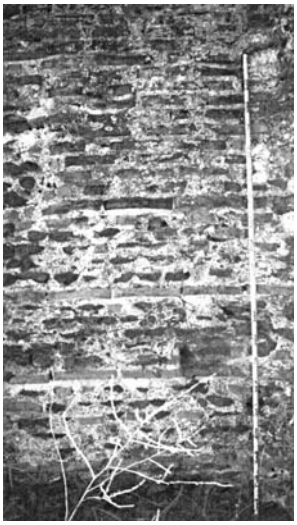


Fig. 4 Cilicia. Geological sketch.

Iotape - Baths

Hierapolis
Kastabala



Epiphaneia

Fig. 5 Cilicia, facing samples: Iotape, Hierapolis Kastabala (arrow shows a brick with X groove), Epiphaneia.

LEVHA 4

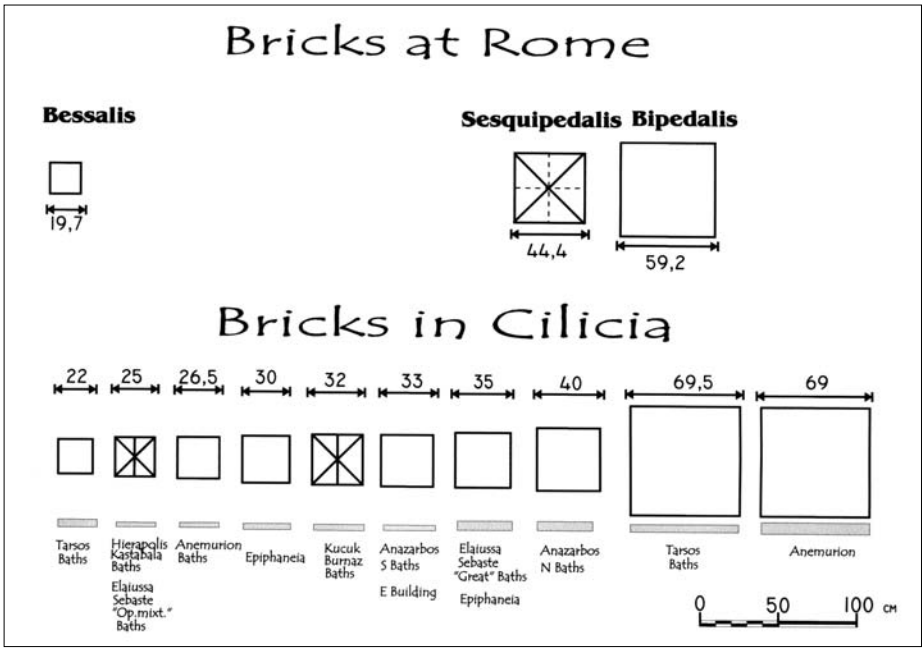


Fig. 6 Bricks at Rome and in Cilicia during imperial age.

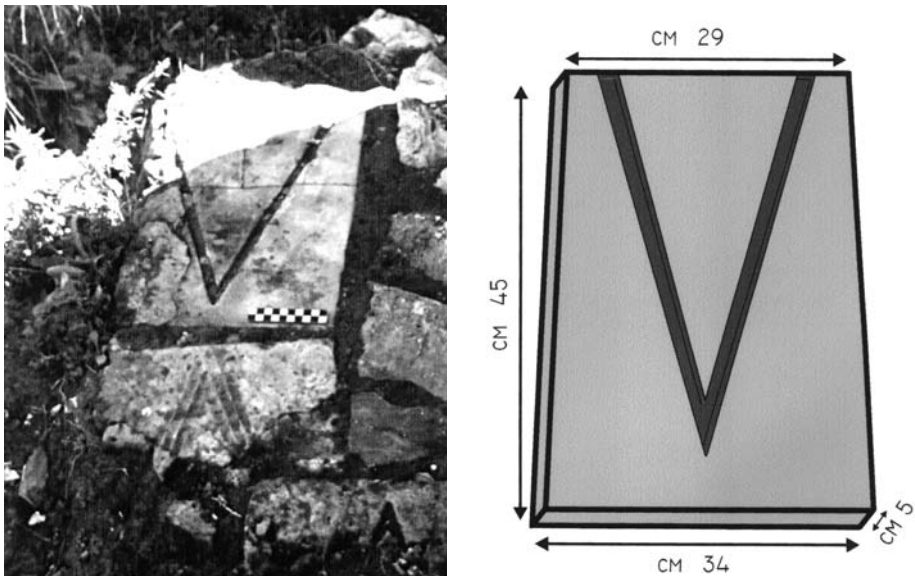


Fig. 7 Anemurion, Baths III.2.B: tiles with V groove.

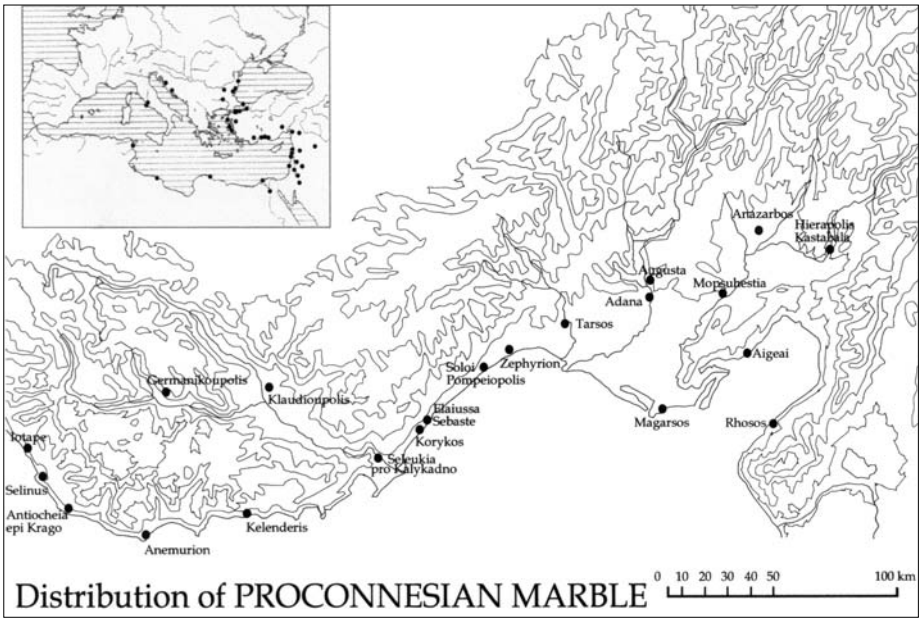


Fig. 8 Cilicia: distribution of Proconnesian marble. In the corner, general distribution map (Dodge 1988)

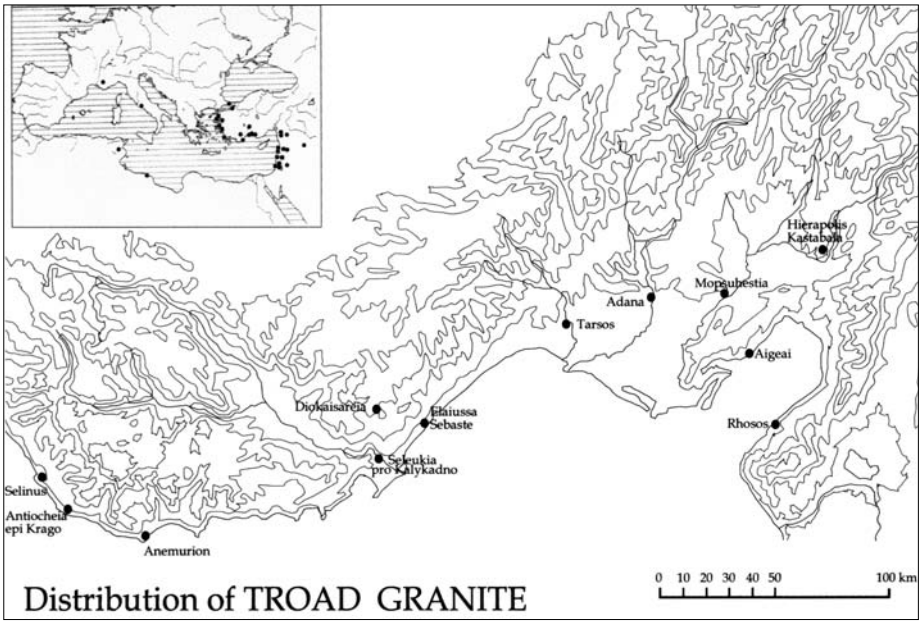


Fig. 9 Cilicia: distribution of Troad granite. In the corner, general distribution map (Dodge 1988).