

# THE GEOGRAPHICAL DISTRIBUTION OF GREEK AND ROMAN IONIC BASES

(PLATES 49-53)

SINCE Rhys Carpenter was one of the founders and the first editor of *Hesperia* and also the one who introduced me to Greek and Roman architecture and taught me both the scholarly rewards and the personal joys to be found in the close observation of its details, it may not be inappropriate to offer him as a very small token of my appreciation of the standards he set for *Hesperia* and of his great teaching this preliminary sketch of the geographical distribution of the two main types of Ionic base in the Roman empire, for he was early one of the few who have noted the distinction between the Greek and the Roman forms of that base.<sup>1</sup>

Before we survey the forms in use in the empire, however, it will be useful, we trust, to review briefly the origins and general development up to the imperial period of the Greek and the Roman forms of the Ionic base.

Asia Minor in the 6th century B.C. must be considered the earliest home of the Ionic base. That two distinct forms of column base were in use in Ionic buildings in the 6th century is well known.<sup>2</sup> The earliest, best known at Samos (Fig. 1, a, b; Pl. 49, a), combined a torus, horizontally fluted, over another element of equal or more frequently greater height, also usually horizontally fluted, which may be either vertical or slightly concave (this is the original scotia; Fig. 2, a, from 6th century Delos).<sup>3</sup> It should be noted that the lower element which takes the weight from the torus above it has a diameter at least as large if not larger than the greatest diameter of the torus; the scotia extends at least as far as if not farther out than the torus. In the other 6th century Asia Minor form,<sup>4</sup> known first in the Artemision at Ephesos (Fig. 1, c; Pl. 49, b) very little later than the earliest Samian examples, the

<sup>1</sup> Carpenter's penetrating understanding of the evolution of the Attic type of the Ionic base, *Greek Art*, 1962, pp. 229-232, deals of course only with the original Greek form. That it is in fact the ultimate origin of the independent Etruscan and Roman version as well has already been suggested in *Etruscan and Roman Republican Mouldings*, 1965, pp. 25, 191 and "The Roman Ionic Base in Corinth," *Essays in Memory of Karl Lehmann*, 1964, p. 301; see *loc. cit.* and below for the distinction between the Greek and Roman forms.

<sup>2</sup> L. T. Shoe, *Profiles of Greek Mouldings*, 1936, pp. 179-180.

<sup>3</sup> *P.G.M.*, pp. 179-180, pls. LXIV, 4-9, LXV, 1-3, 6, LXXI, 22-26, LXXII, 1-8; *Ath. Mitt.*, LV, 1930, fig. 38, (Fig. 1, a, b, here), Beil. XXI, XXII; O. Reuther, *Der Heratempel von Samos*, 1957, fig. 7, pls. 17-20, Z 23-Z 31.

<sup>4</sup> *P.G.M.*, pp. 179-180, pls. LXIV, 1-3, LXV, 5, LXXII, 9-11. D. Hogarth, *Excavations at Ephesus, The Archaic Artemisia*, 1908, pls. III, V; *British Museum Catalogue Sculpture*, I, 1892, pl. I; R. L. Scranton, *Greek Architecture*, 1962, fig. 45; F. Krischen, *Die Griechische Stadt*, 1938, pls. 33, 34. Magnesia, Archaic Temple of Artemis (Fig. 1, d after H. C. Butler, *Sardis*, II, fig. 110).

lower element under the horizontally fluted torus is broken up into two strongly concave scotiae separated from each other and finished at top and bottom with astragals; here too the greatest diameter of the scotiae is equal to if it does not exceed that of the torus above.

Although at least one example of the Ephesos type base, unfortunately unidentified and undated, has been found in Athens, on the Acropolis,<sup>5</sup> it was apparently

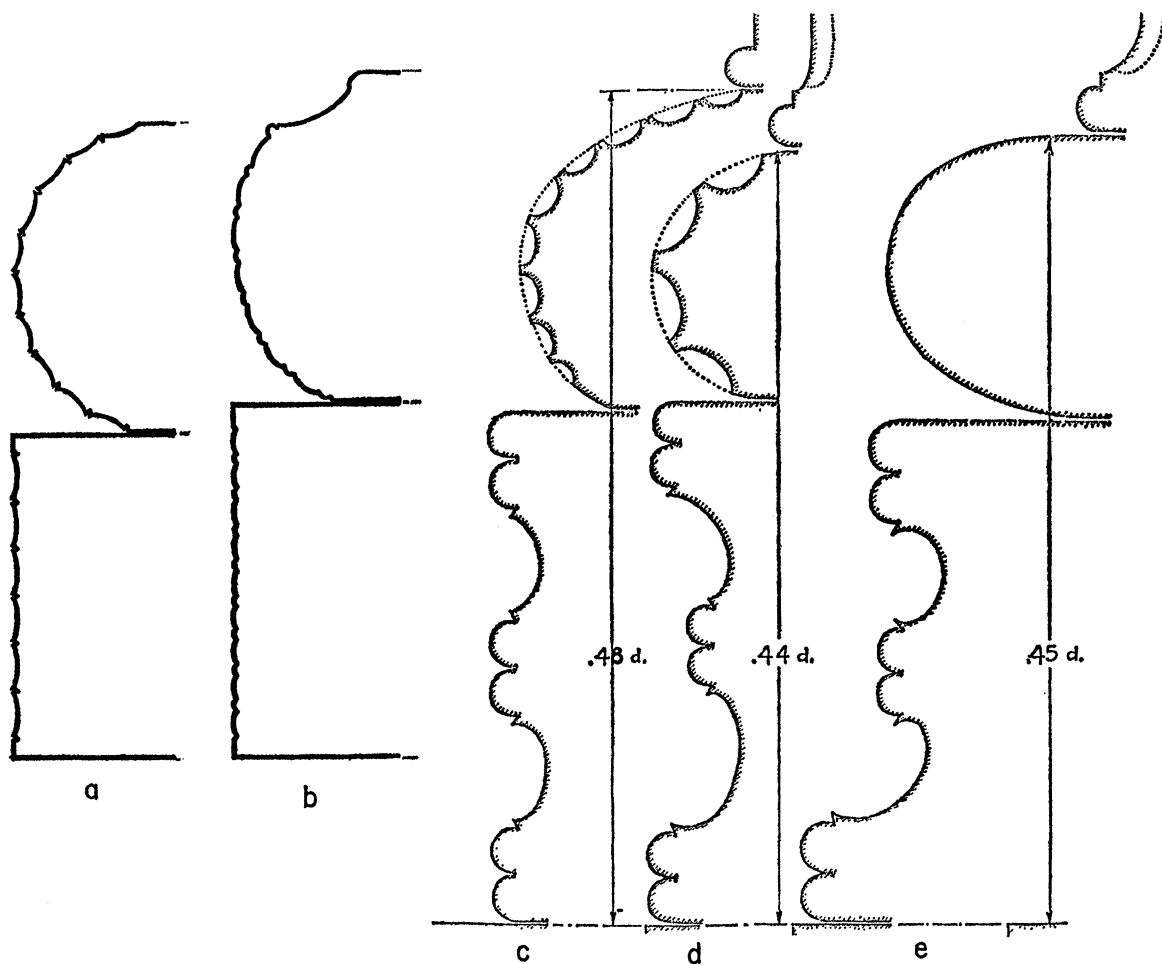


FIG. 1. a. and b. Samos, Rhoikos Temple of Hera. c. Ephesos, Archaic Temple of Artemis. d. Magnesia, Archaic Temple of Artemis. e. Sardis, Temple.

mainly the Samian form which went to Athens in the later 6th century as Ionic styles in both sculpture and architecture made their way across to Attica. The close historical connections between Athens and Samos at the time make this completely understandable. But even as Athenian sculptors made of the Ionic style something

<sup>5</sup> *P.G.M.*, p. 180, pls. LXV, 5, LXXII, 11.

quite their own from the very beginning and soon developed a style distinctly Athenian in its real fusion of Ionic and Doric elements and spirit, so too did the architects in both capitals and bases. Numerous fragmentary examples of the Attic version of the 6th century Samian form have been found, especially in recent years, but a completely preserved example, found re-used in the Athenian Agora (Pl. 49, c),<sup>6</sup> shows well the simpler, more Doric, treatment of both the torus (merely faceted, not fluted) and the cylindrical lower element (vertical and unornamented) which exhibits the same spirit as the painted rather than carved Ionic capitals so well known in the late 6th and the 5th centuries in Athens.<sup>7</sup> This simplified form continued to be used by old-fashioned architects in the early second half of the 5th century,<sup>8</sup> but Athenian architects in general were not satisfied with the form learned from Asia Minor.

In the course of the 5th century they developed a form of base which was ever after to bear the name of Attica and which was to be the inspiration for nearly all later Ionic bases. The full fledged Attic base as found in the Erechtheion, however, was not arrived at immediately; it came only after several experimental or intermediate forms:

1. Stoa of the Athenians at Delphi, 479 B.C. (Pl. 49, d)<sup>9</sup> where a) the lower element is curved in at the top to make a unique cyma recta instead of a vertical or concave element and b) a small torus projecting beyond all above it is added at the base; of the changes, b) is the crucial new element, but note also that the bottom of the cyma recta carries the line of the profile well out beyond the greatest projection of the top torus.
2. Older Parthenon, Unfinished Toichobate (Fig. 2, b, Pl. 49, e; *P.G.M.*, pl. LXVII, 1). Whatever the exact date of the unfinished building which preceded the present building on the site (on which point our honoree will soon give us further light in *The Architects of the Parthenon*), it was started after the Persian destruction of the Acropolis and before 447 when the present temple was begun. Although some have seen an astragal-crowned cyma reversa (comparable to the fillet-crowned cyma reversa used in the same position in the Hephaisteion, *P.G.M.*, pl. XXXVII, 2) as intended in the unfinished piece, the finished deep well rounded cut at the bottom seems to require a torus rather than a cyma; therefore it is highly likely that a form much closer to the Attic torus, scotia, torus of the Propylaia and Erechtheion than in the following, No. 3, was projected here.

<sup>6</sup> A 1974, found built into a wall of the 4th century B.C.

<sup>7</sup> P. Amandry, *Fouilles de Delphes*, II, *La colonne des Naxiens et le portique des Athéniens*, 1953, pl. XL.

<sup>8</sup> In the Temple of Athena at Sounion to be published by Homer A. Thompson in *Hesperia* Supplement XIV; thanks to his kindness I mention this here.

<sup>9</sup> Amandry, *op. cit.*, pls. XXI, XXIV.

3. Temple on the Ilissos <sup>10</sup> and Temple of Athena Nike on the Acropolis (Fig. 2, c; Pl. 49, f),<sup>11</sup> both designed about 448 B.C., where the greater advantage over the Delphi cyma recta of the older scotia with a top projection (as in the 6th century Samian prototype) is recognized and where the small base torus of Delphi is retained.
4. Base of the Ionic columns found built into the Late Roman Fortification Wall in the Athenian Agora (Fig. 2, d; Pl. 49, h)<sup>12</sup> where the new base torus is now

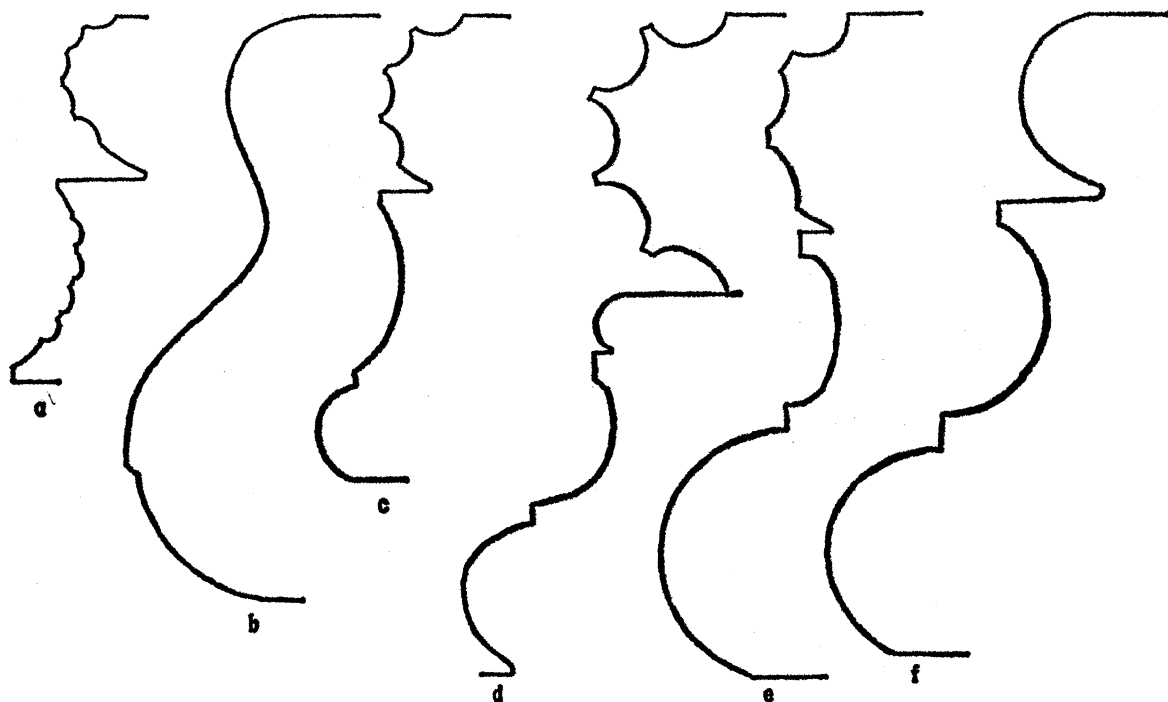


FIG. 2. a. Delos. b. Athens, Older Parthenon. c. Athens, Temple of Athena Nike. d. Athens, Agora A 2891 and 2892. e. Athens, Propylaia. f. Athens, Erechtheion, North Porch.

somewhat larger proportionately than at Delphi or in the Nike Temple but still not nearly the size of the top torus and where an additional small torus is added as a crowning finish to the scotia under the proper top torus. Although the building to which these columns belong is not known, the capitals associated with the base confirm a date between the mid 5th century and the Propylaia which this base suggests.

<sup>10</sup> J. Stuart and N. Revett, *Antiquities of Athens*, I, ed. of 1825, pls. X, XII; A. W. Lawrence, *Greek Architecture*, 1957, fig. 82.

<sup>11</sup> *P.G.M.*, p. 180, pls. LXXV, 13, LXVI, 2; Orlandos, *Ath. Mitt.*, XL, 1915, pl. V; *B.C.H.*, LXXI-LXXII, 1947-1948, p. 5, fig. 3.

<sup>12</sup> A 2891 and 2892. *Hesperia*, XXIX, 1960, pp. 353-354, fig. 7, pl. 77, a.

Finally it was Mnesikles in the Propylaia (437-432 B.C.) who saw both the practical and the aesthetic virtues of a truly tripartite (rather than essentially two-part) base in which the base torus not only attains but often even exceeds the height of the crowning torus with a scotia between which is still mainly vertical in axis, its lower fillet only slightly more projecting than the crowning fillet (Fig. 2, e; Pl. 49, g).<sup>13</sup> Let me refer again to the analysis of this base which Rhys Carpenter has given us.<sup>14</sup> Another detail must be noted in this earliest known Attic base; undoubtedly the practical considerations of the position it was to occupy where crowds of pedestrians and horsemen were to pass made Mnesikles keep under control the flaring projection which is the essence of this base. Unlike the Nike base predecessor and the Erechtheion base to follow, in this base the top fillet of the scotia does not project as far as the greatest diameter of the torus above it; it is set back about one-third of the full projection of the torus. That this was special treatment for this position seems attested by the fact that in the Erechtheion and ever after in the Greek world and its cultural dependencies the top of the scotia is at least on line with if not projecting beyond the face of the torus above. The Erechtheion bases (Fig. 2, f; Pl. 50, a)<sup>15</sup> are of the form which became standard throughout Greece proper.<sup>16</sup>

Meanwhile in Asia Minor the Ephesos type (e.g. Sardis, Temple of Artemis, Fig. 1, e; Pl. 50, b)<sup>17</sup> had gained popularity over that of Samos (except in Samos) but by Hellenistic times it had to compete with the Attic form<sup>18</sup> which had invaded its

<sup>13</sup> *P.G.M.*, pl. LXVI, 1; F. C. Penrose, *Principles of Athenian Architecture*, 1888, pl. 32; Scranton, *op. cit.*, fig. 63.

<sup>14</sup> *Greek Art*, pp. 230-231.

<sup>15</sup> *P.G.M.*, pls. LXVI, 3, 4, LXVII 2, LXIX, 5, 6; G. P. Stevens *et al.*, *Erechtheum*, 1927, pls. XVI, XVIII, XXII, XXIII, XXVI, XXXIV, 2, XXXVII, 3-5.

<sup>16</sup> E.g. Athens, Monument of Agrippa (Pergamene date, *Antiq. Athens*, II, ed. of 1825, pl. XLIX), Monument of Lysikrates (*Antiq. Athens*, I, pl. XXV), Olympieion (Penrose, *Athenian Architecture*, pls. 37, 39; *Ath. Mitt.*, XLVIII, 1923, pl. II; *The Horizon Book of Ancient Greece*, 1965, p. 364), Stoa of Attalos (*Stoa of Attalos II in Athens*, 1959, fig. 21). Delos, Portico of Philip (*Délos*, VII, 1, 1923, figs. 132, 133, 135), Ionic Naikos (*ibid.*, fig. 166; *P.G.M.*, pl. LXVII, 8). Epidauros, Theater (P. Cavvadias, *Fouilles d'Épidaure*, 1893, pl. III, 7; *P.G.M.*, pl. LXVII, 9), Tholos (Cavvadias, *op. cit.*, pl. V, 3). Olympia, Propylaia to Gymnasium (*Olympia*, I, 1892, pl. LXXVI, 4, 5). Samothrake, Ptolemaion (A. Conze, *Samothrake*, II, 1880, pls. XXVIII, XLVII).

<sup>17</sup> E.g. Didyma, Temple of Apollo (H. Knackfuss, *Didyma*, I, 1941, pls. 1-5, 16, 27-28, 30-31, 43, 144-145, 153-154). Halikarnassos, Mausoleion (*A.J.A.*, XII, 1908, pl. I). Kastabos, Temple of Hemithea (J. M. Cook and W. H. Plommer, *The Sanctuary of Hemithea at Kastabos*, 1966, figs. 17, 19, 21). Labranda, Propylaia (K. Jeppesen, *Labranda, Swedish Excavations and Researches*, I, 1, 1955, figs. 9, 10). Magnesia, Temple of Zeus (C. Humann, *Magnesia am Maeander*, 1904, figs. 154, 158; Krischen, pl. 24). Pergamon, Ionic Temple (P. Schazmann, *Pergamon*, VI, 1923, Beiblatt 3: 6, 7). Priene, Temples of Athena and Asklepios (Th. Wiegand, *Priene*, 1904, figs. 54, 57, 58, 110; *Antiquities of Ionia*, IV, 1881, pls. IX, XI, XIV, XVI, XVII). Sardis, Temple of Artemis (*P.G.M.*, pls. LXV, 9, LXXII, 12; H. C. Butler, *Sardis*, II, 1925, figs. 11, 12, 36, 38, 40, 58-65, 67, 96, 102, 103, 108-111, pl. B).

<sup>18</sup> E.g. Ankara, Temple (D. Krencker and M. Schede, *Der Tempel in Ankara*, 1936, pl. 7, c).

territory in force. The Attic base often appears even in the same building with the Asiatic (as we should now call the Ephesos type) in 2nd century Asia Minor (e.g. Didyma, Temple of Apollo, Attic toichobate, Pl. 50, c, with Asiatic column bases).<sup>19</sup> So strong was the appeal of the Attic form that it won the field in Asia Minor and was the form which Greeks carried with them everywhere throughout the Hellenistic world to the East.

Meanwhile the Ionic order had travelled westward also. In the Greek cities of Sicily and Magna Graecia, from the 6th century on, both the Samian and Ephesian forms of the base were adapted as was characteristic western Greek procedure,<sup>20</sup> but regardless of adaptations all pre-Hellenistic bases retain the fundamental Greek characteristic of the scotia projecting at least as far as the torus. By the 2nd century however, the western Greek cities, having come under Roman political domination, in most cases have taken over the form of base that had been developed further north in Italy.

In the non-Greek parts of Italy the Etruscans and Romans had by the 2nd century come into direct contact with old Greece and Asia Minor and had begun to adopt parts of the Greek orders. In so doing, however, they did not copy precisely the Attic base seen there but made a fundamental change which was to have as long a history in future as did the Attic change from the original Asiatic form. The new form has often been defined<sup>21</sup> but we may repeat: the top of the scotia is set well *back* of the greatest projection of the top torus. The explanation for this basic change has been sought in the existence of the traditional Etruscan single torus base which could quite naturally be doubled leaving just a little concave space between to give the general impression of the tripartite Attic base (e.g. Paestum, Fig. 3, a; Pl. 50, d and Saturnia,

Magnesia, Agora Fountain (Humann, *Magnesia am Maeander*, 1904, fig. 145; Krischen, pl. 12), Agora Stoa and Propylon (Humann, *op. cit.*, figs. 130, 135, 136), Temple of Artemis (*Antiq. Ionia*, V, 1915, pls. V, X; Humann, *op. cit.*, figs. 35, 67, 78; Krischen, pl. 39; Lawrence, *Greek Architecture*, fig. 121), Altar (Humann, *op. cit.*, fig. 92). Miletos, Bouleuterion Propylon (H. Knackfuss, *Milet*, I, 2, 1908, figs. 56, 57, 62, 63, pl. XI; Krischen, pl. 13; *P.G.M.*, pl. LXVII, 7), Building of Laodike (H. Knackfuss, *Milet*, I, 7, 1924, figs. 275, 277). Pergamon, Theater Terrace Temple (*Pergamon*, IV, pls. XXXI, XXXIII; *P.G.M.*, pl. LXX, 1). Priene, Agora North Stoa (*Priene*, figs. 194-196; M. Schede, *Die Ruinen von Priene*, fig. 64), Lower Gymnasium (*Priene*, fig. 272; *P.G.M.*, pl. LXVIII, 3), Stadion Gate (*Priene*, fig. 263), Temple of Athena Altar (*ibid.*, fig. 96), Propylon (*ibid.*, fig. 104). Teos, Temple (*Antiq. Ionia*, I, Chap. I, pl. II; IV, pl. XXV).

<sup>19</sup> E.g. Didyma, Temple of Apollo, exterior columns Asiatic, antae and toichobate and interior columns Attic (*Didyma*, I, pls. 8, 9, 12, 27, 43, 57, 59, 60, 67, 72, 81-83, 94-105, 153-154). Magnesia, Temple of Zeus, columns Asiatic, antae Attic (Humann, *op. cit.*, figs. 154, 158). Pergamon, Altar of Zeus, main order Asiatic (H. Kähler, *Pergamon*, 1949, pl. 7), interior order Attic (*Pergamon*, III, 1, pl. XI; *P.G.M.*, pl. LXVII, 6). The base of the Smintheion at Chryse appears to be unique, a cross between the Asiatic and Attic quite unparalleled elsewhere (*Antiq. Ionia*, IV, pls. XXIX, XXX; *Sardis*, II, fig. 111) with four parts of equal height: torus, scotia, scotia, torus.

<sup>20</sup> L. T. Shoe, *Profiles of Western Greek Mouldings*, 1952, p. 180, pl. XXXI.

<sup>21</sup> *P.W.G.M.*, p. 181; *E.R.R.M.*, pp. 25-26, 193; "Roman Ionic Base in Corinth," p. 301.

Fig. 3, b, with no fillets on the scotia; Cosa, Basilica, Fig. 3, c; Pl. 50, f with a fillet at the bottom of the scotia).<sup>22</sup> This still appears to be the strongest element in the creation of the new form which we call the Roman base.

There has recently come to light, however, in the Greek part of Italy a body of material which sheds most interesting new light on the background of the Roman Ionic base. We now know of remarkable Ionic bases found over a period of years in the early Hellenistic tombs of Tarentum. Thanks to the kindness and generosity of Joseph Carter who is studying the sculptural decorations of these tombs in their

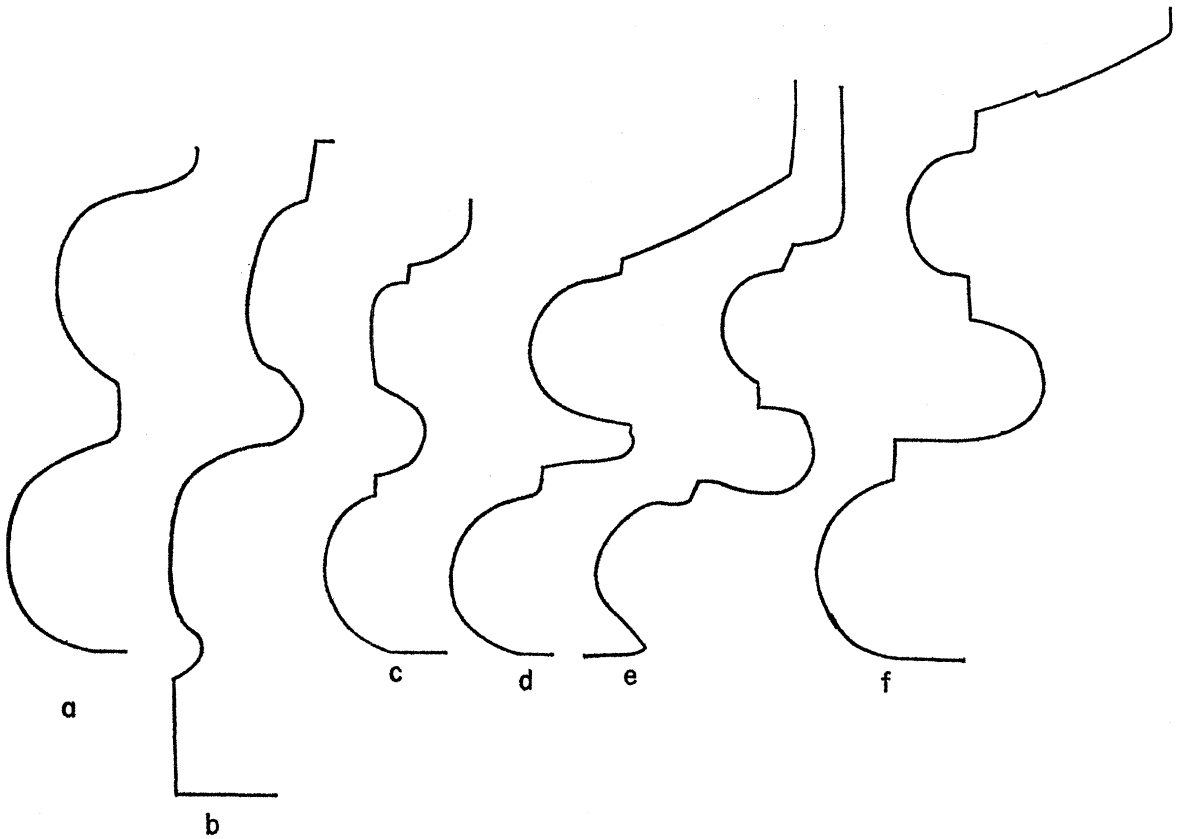


FIG. 3. a. Paestum. b. Saturnia. c. Cosa, Basilica. d. Tivoli, Rectangular Temple. e. Rome, Temple of Veiovis. f. Rome, Forum Boarium, Round Temple.

architectural framework, it is possible to speak here of a series of bases which adds significant evidence for the antecedents of the Roman base. Two bases consist of a torus over a sloping fascia reminiscent of the archaic Samian form adapted elsewhere in Southern Italy. Most important for our problem, however, are several tripartite bases composed of a torus, a cyma reversa, and a fascia with small base

<sup>22</sup> *E.R.R.M.*, pp. 25, 191-193, figs. 41, 42, pl. LX.

astragal, all three of similar height; the important thing is that the cyma reversa (which acts here like a scotia) is set well back of the torus above it, exactly as is the scotia of the Roman base. Here, then, is the same attitude toward the concave element in relation to the convex above it that is characteristic of the Etruscans and Romans, yet this is in the Greek area where Rome probably came into contact with Greek style after the conquest of Tarentum in the early 3rd century B.C. Are these *Greek* tombs which the Romans among them would have seen and been influenced by *or* are they tombs of Romans who had come to Tarentum which combine Greek sculptural and architectural styles with a local Italian detail? If the latter, one must assume the Etruscan Ionic base to have been not only in existence but common in Roman Italy much earlier than the earliest examples of it we know thus far. If, however, as seems more likely, these elaborately carved bases<sup>23</sup> are Tarentine Greek with no northern connections of any kind, the form could be understood as a further instance of the independent originality of the western Greeks whose creation of architectural details quite different in spirit from the forms of old Greece is amply attested throughout the west from the archaic period on.<sup>24</sup> If these are not unique local Tarentine forms but reflect other Hellenistic Ionic bases in South Italy, they may indeed form a part of the explanation of why the Etruscans and Romans, seeing this form in South Italy, created the Ionic base they did.

Whatever the reasons for the Roman form,<sup>25</sup> it spread rapidly from Etruria throughout Italy even into former Greek territory southward and northward across the Alps into Gaul. The Romans who settled down with the Hellenized Gauls of Ensérune<sup>26</sup> and Glanum<sup>27</sup> in the late 2nd and 1st centuries B.C. built into their houses bases with no suggestion of any Asiatic Greek past but of the same type of profile to be found in Italy at the same time. As in Etruria some are used with Tuscan<sup>28</sup> capitals, others with Ionic.<sup>29</sup> The same three versions of the form found in Italy (Figs. 3, a-f, 4, a, b, 5, a) occur also in Glanum: 1) no fillet at top or bottom of the hollow scotia, 2) fillet at the bottom only and 3) the full fledged form with fillets at both top and bottom.

Although the Roman base was regular throughout Italy at the end of the Republic (e.g. the two temples in the Forum Boarium in Rome, Figs. 3, f, 4, b; Pl. 50, e, g; Tivoli, Rectangular Temple, Fig. 3, d; Rome, Temple of Veiovis, Fig. 3, e) an

<sup>23</sup> The torus is horizontally fluted, the cyma reversa carved with Lesbian leaf, the fascia with a flat wave pattern and the astragal with bead and reel.

<sup>24</sup> *P.W.G.M.*, pp. 9-20, 22-28.

<sup>25</sup> *E.R.R.M.*, pp. 193-198, pls. XXXVIII, 7, LXX-LXXII.

<sup>26</sup> J. Jannoray, *Ensérune*, 1955, pp. 131-133, figs. 17, 18, pl. LV, 3.

<sup>27</sup> H. Rolland, *Glanum (Saint-Remy de Provence)*, 1946.

<sup>28</sup> *Maison des Antes (Glanum)*, figs. 60, 62; M. Pobé and J. Roubier, *Kelten-Römer*, 1958, fig. 65).

<sup>29</sup> *Maison d'Épona (Glanum)*, figs. 54, 58, 59), *Maison d'Atys (ibid.)*, fig. 80, capitals unknown).

elaborated version of it had also been created in the last years of the Republic; as Strong and Ward-Perkins have admirably set forth,<sup>30</sup> the dating of some of the earliest examples is uncertain, but there is sufficient evidence to indicate that what was to become extremely popular in the empire along with the simple Roman base had

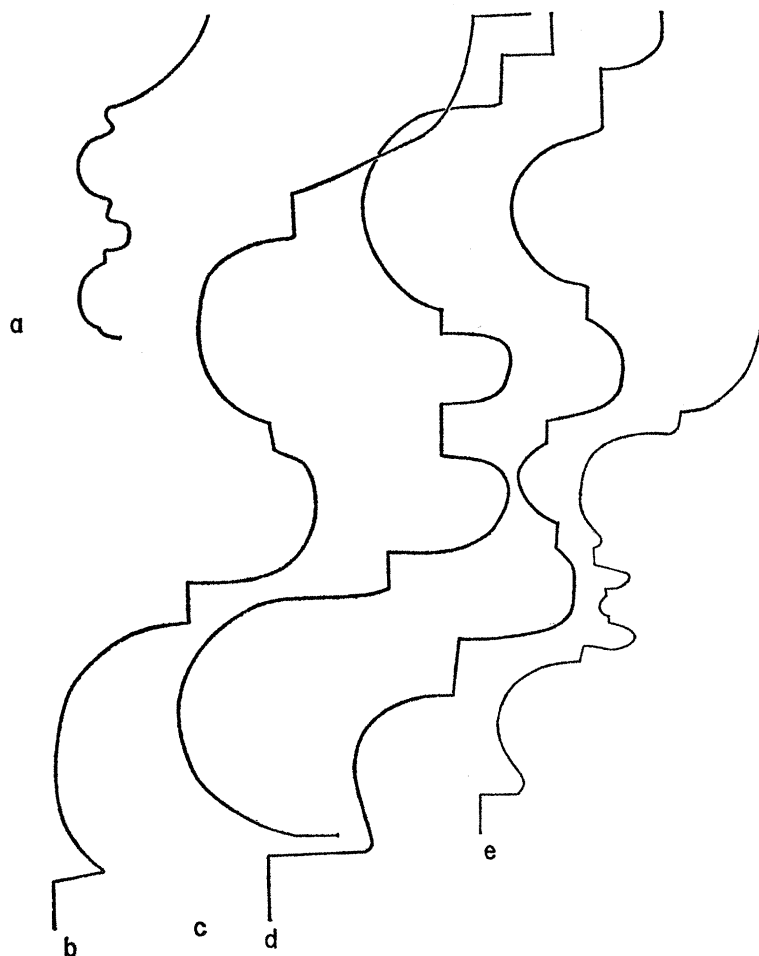


FIG. 4. Rome. a. Palatine Fragment. b. Forum Boarium, Rectangular Temple. c. Argentina Temple A. d. Forum Holitorium, Temple A. e. Temple in Via delle Botteghe Oscure.

already been tried in the late Republic. The innovation is in the scotia which is doubled with a fillet and/or astragal between (e.g. Rome, Temple in Via delle Botteghe Oscure, Fig. 4, e, Pl. 50, h; Argentina Temple A, Fig. 4, c; Forum Holitorium, Temple A, Fig. 4, d).<sup>31</sup> It has been suggested that this represents a fusion of

<sup>30</sup> D. E. Strong and J. B. Ward-Perkins, *P.B.S.R.*, XXX, 1962, pp. 5-12.

<sup>31</sup> *Ibid.*, figs. 1, 2; *E.R.R.M.*, pls. XXXVIII, 6, LXII, 3, 4.

the Asiatic and Attic types of base seen by the Romans in Asia Minor. No doubt sight of the double scotia of Asiatic bases did influence this new design, but the basic Roman set-back of the scotia was not altered; the Roman double scotiae are no more exact a copy of the Asiatic double scotiae in relation to the torus above than was the Roman single scotia a copy of the Greek Attic form.

The above condensed outline of the forms of Ionic base as developed in the Greek and Roman worlds will serve, we trust, to give a picture of the state of affairs at the end of the Roman Republic. Clearly two traditions had been formed; the Attic base as developed in Athens in the last half of the 5th century B.C. had spread over the Greek and Hellenistic world and the variant of it with the set-back scotia developed in Italy and southern France had successfully kept the original Attic form out of the Roman Republican lands. What was to happen throughout the empire as it spread over the ancient world in the following three centuries? It will only be possible here to indicate the main outlines, to select a few examples from each province, but if the following characteristic examples succeed in showing the way in which the empire is divided into two by the two bases, our purpose will have been served, i.e. to suggest that once more a small architectural detail may help our understanding of the general historical and cultural divisions.

Let us begin again with Greece where the Attic base as developed in the 5th century B.C. continued to be used in all buildings erected during the empire with a few notable exceptions. The use of the Roman form by the Italian colonists in the early years of the new colony at Corinth has already been discussed<sup>32</sup> but it has been noted that even in Corinth the Greek form had been adopted by the mid 1st century after Christ (e.g., Temple E, Pl. 51, b), so strong was its tradition in Greece, and used thereafter.<sup>33</sup> Representative examples of the standard Attic base in the empire may be cited also from Athens (e.g. Library of Pantainos, Pl. 51, a),<sup>34</sup> Eleusis,<sup>35</sup> and Olympia.<sup>36</sup> At Olympia appear two further exceptions to the general picture; the Roman form is used both<sup>37</sup> at the entrance to the Stadion (Pl. 51, i) and in the

<sup>32</sup> "Roman Ionic Base in Corinth," pp. 300-303.

<sup>33</sup> *Ibid.*, p. 302. Cf. e.g. Peribolos of Apollo (*Corinth*, I, ii, 1941, fig. 25), Temple E (*ibid.*, figs. 125-127), Bema (*Corinth*, I, iii, 1951, figs. 50, 58, pl. 46, 3), Babbios Monument (*ibid.*, plan C), South and Julian Basilicas (*Corinth*, I, v, 1960, plan IX), Theater (*Corinth*, II, 1952, figs. 91, 95 No. 175, 102, B), Peirene (*Corinth*, I, vi, 1964, fig. 38), Unknown (*ibid.*, fig. 53).

<sup>34</sup> Odeion of Agrippa in Agora (*Hesperia*, XIX, 1950, p. 44, fig. 3, pls. 33, b, 35, e), Library of Pantainos in Agora, Monument of Philopappos (*Antiq. Athens*, III, ed. of 1827, pls. XXXI XXXII; M. Santangelo, *Annuario*, III-IV, 1941-1943 [1948], figs. 27, 32, pl. XI), Arch of Hadrian (*Antiq. Athens*, III, pls. XXI, XXIII, XXV, but note Roman base in upper storey, pl. XXIV), Aqueduct of Hadrian (*ibid.*, pl. XXVII), Library of Hadrian (*ibid.*, I, pl. XXXIII; W. Judeich, *Topographie von Athen*, 1931, pl. 20), Choregic Columns on South Slope of Acropolis (*Antiq. Athens*, II, pl. XL).

<sup>35</sup> Lesser Propylaia (*Unedited Antiquities of Attica*, 1817, Chap. III, pls. 2, 3, 6), Triumphal Arch (G. Mylonas, *Eleusis and the Eleusinian Mysteries*, 1961, fig. 60).

<sup>36</sup> Exedra of Herodes Atticus (*Olympia*, I, pl. LXXXVI, IV and V).

<sup>37</sup> *Olympia*, I, pl. XLVIII, 2; L. Drees, *Olympia*, 1968, pl. 54. *Olympia*, I, pl. LXI, 6.

Hadrianic South Stoa (Pl. 51, j). Moving northward, in Macedonia, Philippi for all its strong Roman connections uses the Attic base as does Stobi (Pl. 51, g);<sup>38</sup> in Thrace we find an Attic base on a monument at Paradisos.<sup>39</sup> If we cross over to Asia Minor we shall not be surprised to find the Attic base regular in Roman times in Pergamon, Ephesos, Miletos (e.g. Ionic Colonnade, Fig. 6, a; South Agora, Pl. 51, c), Aphrodisias, Mylasa, Knidos, at Aizani in Phrygia, Prusias in Bithynia (Pl. 51, f), and Myra in Lycia<sup>40</sup> to select a few examples. In Syria too the Attic base is normal at Antioch (Fig. 6, b), Baalbek (Pl. 51, d), Gerasa (Pl. 51, e), Palmyra as well as the many minor sites and temples.<sup>41</sup> For Palestine<sup>42</sup> Samaria

<sup>38</sup> Philippi, Oriental Temple (P. Collart, *Philippes*, 1937, pls. XLVII-XLVIII, LI). Stobi, Theater (*Arch. Anz.*, 1938, col. 122, fig. 27).

<sup>39</sup> *B.C.H.*, LXXI-LXXII, 1947-1948, p. 439, fig. 15.

<sup>40</sup> Pergamon, Asklepieion (O. Deubner, *Das Asklepieion von Pergamon*, 1938). Ephesos, Library (W. Wilberg, *Forschungen in Ephesos*, V, 1, 1944, figs. 4, 6, 16, 17, 27-30, 45-46, 49, 68, 70). Aphrodisias, Agora Stoa (*Antiq. Ionia*, III, Chap. II, pl. VI), Temple (*ibid.*, pls. XVIII, XX; *Nat. Geogr.*, 132, 2, Aug. 1967, pp. 286-287), Propylon (*Antiq. Ionia*, III, pls. XXIV, XXVI). Miletos, South Market (*Milet*, I, 7, fig. 45), North Gate (*ibid.*, figs. 66, 69, 81, 90, 128), Serapeion (*ibid.*, figs. 195, 220), NE Sanctuary and Propylon (*ibid.*, figs. 227, 235), Ionic Colonnade (A. von Gerkan, *Milet*, I, 9, 1928, fig. 53 from which Fig. 6, a here), Faustina Baths (*ibid.*, pl. XIII). Knidos, Corinthian Temple (*Antiq. Ionia*, III, Chap. I, pls. VI, IX), Baths Vestibule (*ibid.*, pls. XIII, XV-XVII) with Attic antae and Asiatic column bases, Theater (*ibid.*, pl. XXIV). Mylasa (*Antiq. Ionia*, II, pls. XXVI, XXIX, XXXI, XXXII). Euromos, Temple (*Antiq. Ionia*, I, Chap. IV, pl. IV). Phrygia, Aizani, Temple of Zeus (D. S. Robertson, *Greek and Roman Architecture*<sup>2</sup>, 1945, fig. 94). Bithynia, Prusias ad Hypium (F. K. Dörner, *Bericht über eine Reise in Bithynien*, 1952, pl. 8, 23-25). Lycia, Myra (*Antiq. Ionia*, V, pls. XIV, XV, XXVII).

<sup>41</sup> Antioch, Bath C (G. W. Elderkin *et al.*, *Antioch on-the-Orontes*, I, 1934, fig. 23), Theater at Daphne (R. Stillwell, *Antioch*, II, 1938, fig. 27), Villa (*ibid.*, fig. 69), various bases (Stillwell, *Antioch*, III, 1941, fig. 99, pl. 39). Baalbek, Main Temple and Court (B. Schulz and H. Winnefeld, *Baalbek*, I, 1921, fig. 38, pls. 22, 26, 76, b), Temple of Bacchus (*Baalbek*, II, 1923, figs. 6, 7, 44, 58, 71, 78, 99, 1, pls. 9-11, 21, 28-30), Round Temple (*ibid.*, fig. 138, d-f, pls. 58-66). Gerasa, Triumphal Arch (C. H. Kraeling, *Gerasa, City of the Decapolis*, 1938, pl. X, a, plans III, IV, V, 13), South Tetrapylon (pl. XVIII, b, plans XIV, XVI), North Gate (pl. XXII, a, plan XX, 10), Temple of Artemis (p. 134, fig. 1, pl. XXV, b, c), Artemis Propylaia (pl. XXV, a), Temple C (pls. XXVIII, c, XXIX, a, b), South Gate (pls. XXX, c, XXXI, a), Forum (pl. XXXII, b), Staircase and Propylaia to Cathedral (pls. XXXVI, XXXVII, a), Baths of Placcus, a re-used base (pl. LIV, b). Palmyra, Colonnaded Street (M. Wheeler, *Roman Art and Architecture*, 1964, fig. 44), Bel Temple (D. Krencker *et al.*, *Palmyra*, 1932, pls. 72, 77, 89, 94, Propylaia, pls. 98, 99), Baalsamin Temple (pls. 65, 67), Tomb Temple 86 (pls. 38, 40, 42, 43), Corinthian Temple E of Theater (fig. 152, pl. 57, Propylaia, pl. 61), Sanctuary (fig. 122). Sunamein, Temple of Fortuna (D. Krencker, Spiers, Ashby, *Architecture of Ancient Rome*, 1927, pl. XXX). D. Krencker and W. Zschietzschmann, *Römische Tempel in Syrien*, 1938, *passim*. H. C. Butler, *Ancient Architecture in Syria*, 1907-1920, *passim*.

<sup>42</sup> Samaria, Herodian Temple (G. A. Reisner *et al.*, *Harvard Excavations at Samaria 1908-1910*, 1924, figs. 111, 112), Basilica (figs. 139-142, pls. 47, b, 48, b, 50, b, 51, a, b), Forum colonnade (pl. 49, d), Street of columns (fig. 134, pl. 46, c, d), Mausoleum (fig. 149, c, d), various bases (figs. 118, 4, 6, 7; 130, 7; 131, 7); House A 31 (fig. 64, a) of Hellenistic period shows the Attic base in use on the site before the Roman period. Masada, Palace of Herod (Y. Yadin, *Masada*, 1966, pp. 44, 46, 48, 51, 66).

and Masada will serve as typical examples. In Egypt too the Greek base is regular,<sup>43</sup> and as far afield as India the Attic base is at home.<sup>44</sup>

Returning to the western part of Greece proper we may be surprised to find, at Kalydon and Dodona,<sup>45</sup> that the Roman base has crossed over from Italy to penetrate Greek territory, even so sacred a Greek site as Dodona. This being so, we shall not be surprised to find that the Greek form was far from normal along the Adriatic coast northward where the Roman base established itself both along the coast and inland<sup>46</sup> and at the head at Pola.<sup>47</sup> In fact the Greek bases in the Palace of Diocletian<sup>48</sup> at Spalato seem to be explained by the strong eastern flavor commonly recognized throughout the architecture of that complex.

It is of course to be expected that Rome and Italy of the empire continue to use the two forms so well established by the end of the Republic; the interesting thing is that with all the elaboration of other parts of the Greek orders during the empire, except for elaboration of ornament and only occasionally of the form, the Roman single scotia and double scotia bases are standard throughout the empire and on into later centuries. Let a few examples from the capitol and near by and in northern Italy represent for us all Italy (e.g. Pl. 52, a-d).<sup>49</sup>

<sup>43</sup> Alexandria, with foliate drums (R. Naumann, *Der Quellbezirk von Nîmes*, 1937, figs. 35, 38, 40, 42; *Annuaire du Musée Gréco-Romain*, 1935-1939, p. 49, pl. XVI, 6, p. 52, fig. 21). Ras el Soda, Temple (*ibid.*, p. 137, pl. LI). Hermopolis (G. Roeder, *Hermopolis 1929-1939*, 1959, pls. 8, e, f, 20, 22, 51, 93, c).

<sup>44</sup> Pakistan, Swat Pānr, Area Sacra (*Fasti Arch.*, XVI, 1961, p. 276, No. 3779, pl. XVIII, fig. 64).

<sup>45</sup> Kalydon, Heröon (*P.G.M.*, pl. LXVIII, 5; E. Dyggve *et al.*, *Das Heröon von Kalydon*, 1934, fig. 36, pl. IV, C). Dodona, Theater, Parodos (*B.C.H.*, LXXIV, 1960, p. 749, figs. 5, 6), Building beside Theater (*Πρακτικά*, 1953, pp. 161-162, fig. 2).

<sup>46</sup> Doclea, Forum (P. Sticotti, *Die Römische Stadt Doclea in Montenegro*, 1913, fig. 59 of Greek form), Basilica (fig. 65, probably Greek form), Diana Temple (fig. 51 of Roman form but text does not mention finding of the base—is it restored in the drawing?). Apollonia, Monument of Agonothetai (L. Ray, *Albania*, XXXV, 5, *Fouilles . . . à Apollonia d'Illyrie*, pls. IX, 1, 3, XII), Sanctuary (*Albania*, XXXIX, 6, pls. XVIII, 2, XXI, 2, XXII, 3, 4), all Roman. Krügjata Temple (C. Praschniker, *Muzakhia und Malakastra, Archäologische Untersuchungen in Mittelalbanien*, 1920, p. 47, fig. 15), Roman.

<sup>47</sup> Temple of Augustus (*J.R.S.*, V, 1915, pl. I).

<sup>48</sup> G. Niemann, *Der Palast Diokletians in Spalato*, 1910; E. Hebrard, J. Zeiller, *Spalato, Le Palais de Dioclétien*, 1912; J. and T. Marasović, *Diocletian Palace*, 1968; *passim*.

<sup>49</sup> A) Roman base of regular single scotia form:

Rome, Temple of Mars Ultor (E. Nash, *Bildlexikon*, fig. 83), Temple of Venus and Rome, exterior of peristyle (L. von Matt, *Architektur im Antiken Rom*, 1958, pl. 19) but for columns of pronaos the double scotia form, Temple of Antoninus and Faustina (*ibid.*, pl. 17), Arch of Septimius Severus (Brilliant, *M.A.A.R.*, XXIX, 1967, pl. 20, b), Arch of Silversmiths (L. Curtius, *Das Antike Rom*, 1944, figs. 121-122), Arch of Constantine (*ibid.*, fig. 105-107, 112). Ostia, House of Amor and Psyche (N. Neuerburg, *Fontane e Ninfei nell' Italia antica*, fig. 189), Horrea Epagathiana (G. Calza *et al.*, *Scavi di Ostia*, I, 1953, pl. XI, 2), other (*ibid.*, pls. X, 2, XXXVII, 2). Porto, Porticus of Claudius (W. MacDonald, *Architecture of the Roman Empire*, I, 1965, pl. 18).

Moving northward all Gaul of the empire (e.g. Glanum, Pl. 52, e; Arles, Pl. 52, g) follows the lead of southern Gaul of the Republic.<sup>50</sup> The version with no fillet for the scotia which was left behind in Italy long before the end of the Republic continues in Gaul and a scotia so low that the fillets are hardly visible becomes a favored form,<sup>51</sup> notably in Lyons (Fig. 5, c) and Vernègues (Fig. 5, b), and appears in Augst in Switzerland (Pl. 52, h).<sup>52</sup> But just as Corinth in the early imperial period stands as a striking exception to the general picture of Greek bases throughout Greece (above, p. 195) so too is there a striking exception to the Roman bases in

Villa of Hadrian, Circular Portico (von Matt, pl. 41; Aurigemma, *Villa Adriana*, 1961, fig. 48), Cryptoporticus Building (*ibid.*, pl. XIII), Palace Peristyle, Basilica plan room (*ibid.*, fig. 175). Assisi, Temple of Minerva (S. Chierichetti, *Assisi, an Illustrated Guide Book*, Milan, 1960, p. 61). Aosta, Arch (F. Ferrero, *The Valley of Aosta*, 1910, pl. opp. p. 158). Susa, Arch (Anderson, Spiers, Ashby, *op. cit.*, pl. LVI). Ancona, Arch (*ibid.*, pl. LVII).

B) Roman base with double scotia:

List of *P.B.S.R.*, XXX, 1962, p. 7 of which only some are given here with references to illustrations.

Rome, Temple of Castor (Ward-Perkins, *P.B.S.R.*, XXX, 1962, fig. 1, 2, pl. II, b), Temple of Saturn (*ibid.*, pl. IX, b), Temple of Concord (*M.A.A.R.*, V, 1925, pl. 48), Temple of Vespasian (*P.B.S.R.*, XXX, 1962, fig. 1, 4), Arch of Titus (Curtius, *op. cit.*, fig. 41), Forum of Nerva (P. von Blanckenhagen, *Flavische Architektur und ihre Dekoration*, 1940, pl. 1, 3), Temple of Venus Genetrix and Forum of Julius Caesar (Trajanic; Curtius, *op. cit.*, figs. 58, 59), Market of Trajan (*ibid.*, fig. 84), Pantheon (MacDonald, *op. cit.*, pls. 97, 120, a), Severan Hippodrome in Domitian's Palace (*ibid.*, pl. 133). Villa of Hadrian, Large Baths (Aurigemma, *Villa Adriana*, fig. 70), Sala Triclinio (*ibid.*, fig. 193), Canopus (*ibid.*, pls. VI, VII). Note that the base in the Casino Great Hall (*ibid.*, fig. 53; J. Chillman, *M.A.A.R.*, IV, 1924, pl. LII, 3) is an exception in which the scotia projection is Greek (see below, p. 203, note 65). For an example of the Roman base in Sicily see the Imperial Palace at Piazza Armerina where the Greek form also appears (*Rivista dell' Istituto Nazionale d'Archeologia e Storia dell' Arte*, N. S. XI-XII, 1963, p. 33, fig. 4, p. 45, fig. 22, p. 48, fig. 27, p. 53, fig. 32; Neuerburg, *Fontane*, fig. 131).

<sup>50</sup> Aix-en-Provence, Baptisterium (*Kelten-Römer*, pl. 251). Arles, Theater (*ibid.*, pl. 78), Sarcophagus (*ibid.*, pl. 243). Carpentras, Arch (*Les villes romaines de la vallée du Rhone*, p. 85). Glanum, Temple of Valetudo (*Glanum*, 1958, fig. 15, G, pls. 34, 3, 35, 1), Arch (*Kelten-Römer*, pl. 75), Monument to Lucius and Gaius (*ibid.*, pl. 76). Haute-Garonne, Cinerary Urn (*Kelten-Römer*, pl. 223). Lyons, Odeum (*Gallia*, XXIV, 1966, p. 495, fig. 12), Theater (*Latomus*, XVI, 1957, p. 227, fig. 1, pl. XIII, 1). Orange, Arch (Anderson, Spiers, Ashby, *op. cit.*, pl. LVI). Reims, Gate of Mars (*Kelten-Römer*, pl. 157). Saintes (*ibid.*, pl. 156). Trier, Baths (D. Krencken *et al.*, *Die Trierer Kaiserthermen*, 1929, p. 308, fig. 465), Relief in Museum (*Horizon Book of Ancient Rome*, 1966, pp. 184-185). Vernègues Temple (*Kelten-Römer*, pls. 113, 259; *Latomus*, XVI, 1957, p. 227, fig. 1). Vienne Temple (*Kelten-Römer*, pl. 126). Belgica: Dommartin-le-Chaussée, Column dedicated to Jupiter (*Fasti Arch.*, X, 1955, pp. 436-437, fig. 132; *Gallia*, XII, 1954, pp. 482-485, fig. 10). Tournai, Colonnaded Court (*Fasti Arch.*, IX, 1954, p. 453, No. 6353, fig. 144).

<sup>51</sup> A. Audin, *Latomus*, XVI, 1957, pp. 225-231, a good discussion of bases of southern France which does not, however, recognize this form with a very shallow scotia as essentially the Roman version of the Attic base.

<sup>52</sup> R. Laur-Belart, *Führer durch Augusta Raurica*, 1966, p. 82, for Schönbühl Temple of Ceres from the court of which comes the base in our Pl. 53, c which I owe to the kindness and interest of Dorothy Burr Thompson.

Gaul. At Nîmes<sup>53</sup> in both the Maison Carrée and its peribolos (Pl. 52, f) and the Fountain (so-called Temple of Diana) the bases of both the single and the double scotia forms have the top of the scotiae on line with the greatest diameter of the torus above, that is, they are in the Greek rather than the Roman tradition as far as the projection is concerned. But they are not direct Greek forms; we have seen (above, pp. 194-195) that the double scotia with both a top and a bottom torus is an Italian

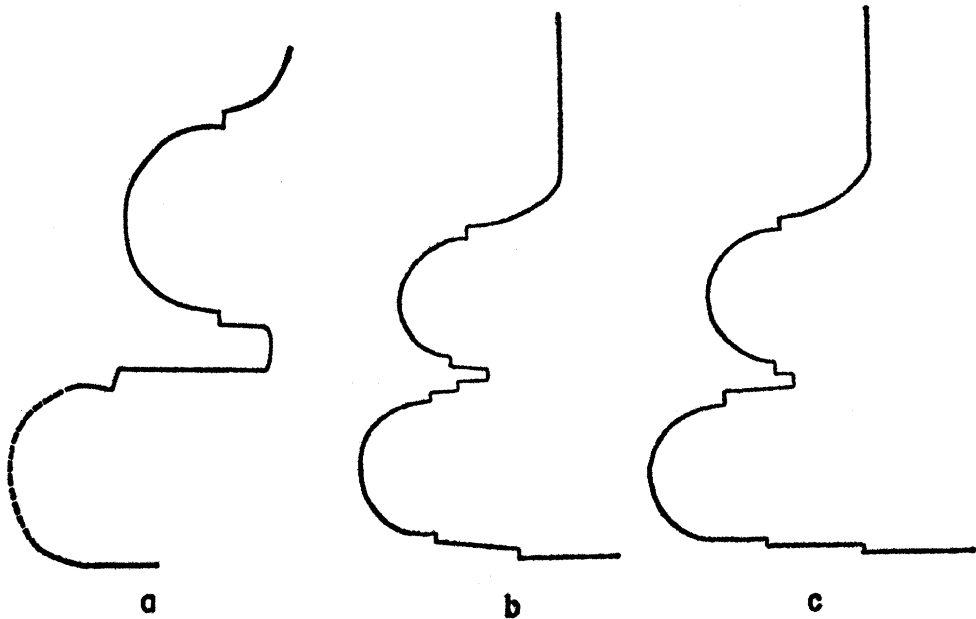


FIG. 5. a. Gabii, Temple. b. Vernègues, Temple. c. Lyons, Theater.

Roman development. For some reason, however, at Nîmes the scotiae are treated as in the Greek form as we shall meet again much later in Leptis Magna (below, p. 203, note 65). The extra little astragals in both the single and double scotia forms are also typical Roman elaboration. The answer to why only this one (to our present knowledge at least) of the cities of southern France should have followed the Greek rather than the Roman style of scotia projection does not come easily. One can but conjecture that the leading local architects of Nîmes had travelled in Greek or eastern lands and been strongly impressed by what they saw or that they were perhaps themselves eastern immigrants to Nîmes, as the appearance of the characteristic Syrian base (see below, p. 203, note 65) with a foliate drum in the Fountain would suggest.<sup>54</sup>

<sup>53</sup> Maison Carrée (J. C. Balty, *Études sur la Maison Carrée de Nîmes*, 1960, temple: fig. 2, pls. XIII, 4, XIV, 1 and 2, XV, 1, peribolos: XXII, 3, XXIII, 1), Fountain (R. Naumann, *Der Quellbezirk von Nîmes*, 1937, pls. 19, 1 and 2, 21, 32, 39).

<sup>54</sup> *Ibid.*, pls. 21, 32, 39. There are numerous other Greek elements in Nîmes, further study of which may suggest explanation of the bases.

In Britain<sup>55</sup> Roman bases, sometimes with a low scotia (though higher than at Lyons and Augst), are characterized chiefly by very slight projection of the base torus beyond the upper one (Pl. 53, a, b). Back on the continent examples of the Roman base can be cited from the provinces east of Gaul along the Danube (Noricum, Pannonia, Moesia).<sup>56</sup> One wonders of course where, to the north of Greece, the Greek and Roman forms met, and further investigation of the available evidence in this wide area will certainly give the answer. Both are found in Constanta in Moesia (Roumania), a Greek base on an edicola with a bilingual inscription, a double scotia Roman base on one with a Latin inscription, and both (though the Greek more common as would be expected in such an old Greek site) in buildings at Kallatis also on the shore.<sup>57</sup>

Apparently, as might be expected, the Roman base came down the Danube and met the Greek base along the shores of the Euxine Sea where Greek colonies had been established since the 5th century B.C. The surprising thing is to find Greek bases at the inland Dacian sites of Sarmizegetusa and Durostorum.<sup>58</sup>

The other meeting point of the two forms is of course in north Africa. Spain<sup>59</sup>

<sup>55</sup> Bath, Temple of Sulis Minerva (M. J. T. Lewis, *Temples in Roman Britain*, 1966, pl. II, b), Baths, Pl. 53, b. Wroxeter (Viroconium), Forum Colonnade (G. Webster, *Wroxeter, Roman City*, 1965, p. 6), Pl. 53, a.

<sup>56</sup> Noricum: Magdalensberg, Temple built by Tiberius (*Fasti Arch.*, XIII, 1958, p. 363, No. 5777, pl. XXXIII, fig. 98). Pannonia: Villas (E. B. Thomas, *Römische Villen in Pannonien*, Budapest, 1964, pls. CIX Magyarfalva and CLVIII-CLIX Százhalombatta-Dunafüred). Note at Nemesevámos-Balacapuszta (pl. XXVII) a form which is a cross between the Roman and archaic Asiatic, the set-back scotia marking it Roman in inspiration. At other sites, e.g. Csopak (pls. VII-IX) and Fonyód (pl. X) provincial forms of angular elements are but vaguely reminiscent of classical prototypes.

Moesia: Philippopol, Base (E. Kalinka, *Antike Denkmäler in Bulgarien*, 1906, p. 72, no. 79), Altar (*ibid.*, p. 294, no. 374). Belotinci, Altar (*ibid.*, p. 163, no. 181). Warna, Relief (*ibid.*, p. 175, no. 196). Stäklen (Novae) (*Fasti Arch.*, XVI, 1961, p. 254, No. 3630, pl. XV, fig. 51). Tropaeum Traiani (F. B. Florescu, *Monumentul de la Adamklissi Tropaeum Traiani*, 1959, figs. 48, 52, 53, Editio A II-A, fig. 67, 1-54).

<sup>57</sup> Constanta (*Fasti Arch.*, XVII, 1962, p. 220, No. 3093, pl. XXI, fig. 65, with Greek base; I. Stoian, *Tomitana*, 1962, pl. LVI, left and R. Vulpe and I. Barnea, *Din Istoria Dobrogei*, II, *Romanii La Dunărea de Jos*, 1968, fig. 4, with Roman base). Kallatis (*Dacia*, II, 1925, p. 116, figs. 29, 2, 30, 1, p. 118, fig. 32; IX-X, 1941-1944, p. 268, fig. 13, 4 and 17).

<sup>58</sup> Sarmizegetusa (*Dacia*, I, 1924, p. 259, fig. 24; III-IV, 1927-1932, p. 530, fig. 14). Durostorum (*Dacia*, IX-X, 1941-1944, p. 429, fig. 2).

<sup>59</sup> Pl. 53, c illustrates a Roman base from Carteia, thanks to the generosity of the excavator, Professor Daniel E. Woods (now published, D. E. Woods, F. Collantes, C. Fernandez-Chicarro, *Carteia* [Excavaciones Arqueológicas en España, 58], Madrid, 1967, pl. XIX, 1; see also 2). Other examples in Spain include Barcelona Temple (M. A. Basch *et al.*, *Carta Arqueológica de España, Barcelona*, 1945, pl. VIII; *Servei d'Excavacions i Arqueologia de Catalunya, Memoria 1936-1937*, pls. I, X); Merida, Temple of Diana (R. M. Pidal, *Historia de España, España Romana*, 1955, figs. 393-394), Theater (*ibid.*, figs. 404, 405; J. R. Mélida, *Arqueologia Española*, 1936 and 1946, pl. XXI); Sadaba, Tomb of Atila Family (*ibid.*, pl. XXV); Tarragona, Arch (*ibid.*, pl. XXXIII); Talavera la Vieja, Curia (Pidal, fig. 381); Evora, Temple (*ibid.*, fig. 395); Vich Temple (Basch, *op. cit.*, pl. XVI); Zaragoza Temples (J. G. Sarañana, *La Dominación Romana en Aragón*, 1946, pls. XII, XIV, figs. 24, 28).

(e.g. Pl. 53, c) uses the Roman form regularly from Republican times on throughout the empire; Egypt at the other end uses the Greek. Coming westward from Egypt Cyrene,<sup>60</sup> a Greek settlement of many centuries, retains the Greek form used in its Greek days (e.g. Fig. 6, c, d) as do other cities of Cyrenaica<sup>61</sup> (e.g. Ptolemais, Pl. 51, h). Beginning at Gibraltar and moving east we find Roman colonies in abundance

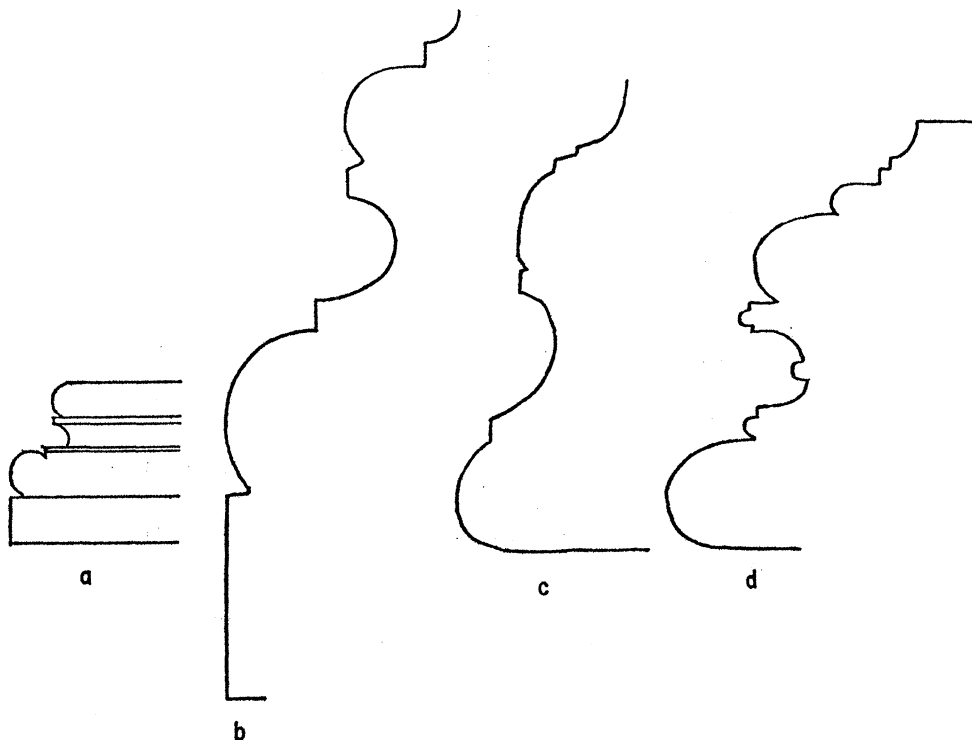


FIG. 6. a. Miletos, Ionic Colonnade. b. Antioch. c. Cyrene, Twin Temple. d. Cyrene, Temple E 6 on Agora.

<sup>60</sup> Agora, North Side, Monumental Covering of Well (S. Stucchi, *L'Agorà di Cirene*, I, 1965, *I Lati Nord ed Est della Platea Inferiore*, fig. 116, pl. XXXIV, 6-7), 2nd half of 2nd century B.C., illustrates the Hellenistic form. Temple E 6 (*ibid.*, figs. 165-167, pl. XLII, 1), end 2nd century after Christ, has the scotia elaborated with an astragal in the center (Fig. 6, d). This may be an attempt to suggest the Roman double scotia form so popular in the Roman parts of the empire at this time, but note that the scotia projects well, in the Greek tradition. Grand Temple, Roman Imperial Interior Reconstruction (*B.C.H.*, LXXI-LXXII, 1947-1948, pl. LIX, C).

Insula of Jason Magnus, Temple Geminus (P. Mingazzini, *L'Insula di Giasone Magno a Cirene*, 1966, fig. 40, pl. XXXIV, 1-2), South Peristyle Colonnade, (*ibid.*, fig. 19), Column near entrance to Via di Giasone Magno (*ibid.*, fig. 37), Pilaster of Room 34 (*ibid.*, pl. XXVII, 6).

<sup>61</sup> Ptolemais, Triumphal Arch (C. H. Kraeling, *Ptolemais, City of the Libyan Pentapolis*, 1962, fig. 16, plan VIII, 1, 3), Villa of Early Empire (fig. 46, pls. XXI, A, B, C, XXII, A, B, XXIII, A, B, XXIV, A, B, C, XXVII, D, plans XIV, 4, 5, 11, XV, 2, 3), City Bath, Frigidarium, Room 6 (fig. 35), Column on Podium of Square of Cisterns (pl. XX), Public Buildings, Room 26 (plans XVIII, 13, XIX, 2).

in Mauretania, Numidia (Fig. 7, a) and Africa,<sup>62</sup> all using the two Roman bases of Italy, the single (by far the more common) and the double scotia forms. The meeting place of the Greek and Roman bases appears to be in Tripolitania at both Sabratha and Leptis Magna where both forms occur.<sup>63</sup> Ward-Perkins has demonstrated how

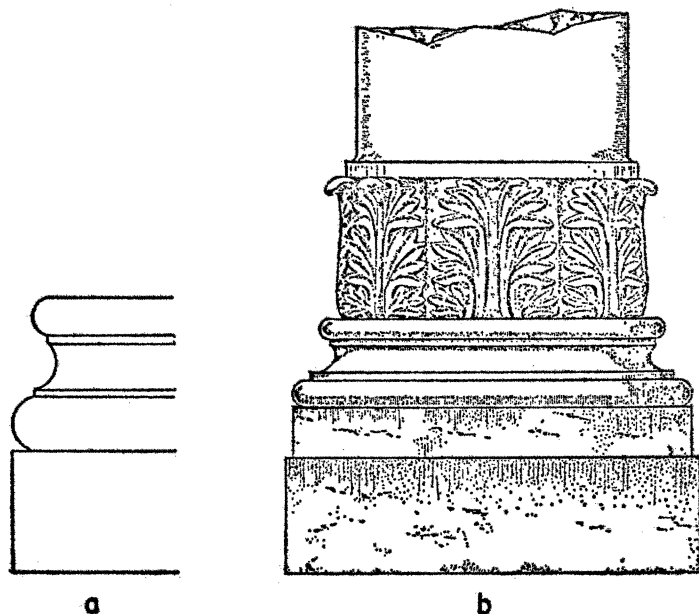


FIG. 7. a. Khamissa, Colonnade. b. Leptis Magna, Severan Basilica, Upper Order.

<sup>62</sup> Volubilis, Houses (K. McK. Elderkin, *From Tripoli to Marrakesh*, 1944, pls. 122, 123, 125, 126). Khamissa, Old Square, Colonnade (S. Gsell and C. A. Joly, *Khamissa, Mdaourouch, Announa*, I, Khamissa, 1914, fig. 4, pl. VI), Southwest Temple (fig. 10), West Temple (fig. 13), Basilica (fig. 14). R. Cagnat and P. Gauckler, *Les monuments historiques de la Tunisie*, I, *Les monuments antiques*, 1898, *passim*. R. Cagnat, *Carthage, Timgad, Tébessa et les villes antiques de l'Afrique du Nord*, 1927, *passim*. Gemellae, Praetorium (*Fasti Arch.*, IV, 1949, fig. 84). Djemila (*Fasti Arch.*, VI, 1951, p. 374, No. 4841, fig. 137), Propylon to Temple of North (Elderkin, *op. cit.*, pl. 99). Maktar, Forum (*Fasti Arch.*, III, 1948, pp. 459-461, No. 4681, figs. 120-121). Lambaesis (*Fasti Arch.*, IV, 1949, pp. 400-401, No. 4020, fig. 86), Arch of Septimius Severus and Praetorium (A. Ballu, *Guide illustré de Timgad*, pls. 1, 2). Timgad (A. Ballu, *Les ruines de Timgad*, 1911, *passim* and *Guide illustré de Timgad*, *passim*), Library (*M.A.A.R.*, IX, 1931, pl. 19, 2). Tébessa, Arch (S. Gsell, *Les monuments antiques de l'Algérie*, 1901; Anderson, Spiers, Ashby, *op. cit.*, pl. LIV). Dugga, Theater (*M.A.A.R.*, IX, 1931, pl. 15, 1 and 2), Capitolium and other temples (Cagnat and Gauckler, *op. cit.*), Mausoleum (G. Picard, *Le monde de Carthage*, 1956, pl. 82). Hippo, Forum East Colonnade (*Fasti Arch.*, III, 1948, p. 330, No. 3479, fig. 76). Thuburbo Maius, Roman Baths (Elderkin, *op. cit.*, pl. 37). Subaitla, Capitolium (Cagnat-Gauckler, I, pl. IX). Carthage. For Volubilis see also R. Etienne, *Le quartier nord-est de Volubilis*, 1960, *passim*.

<sup>63</sup> Sabratha, Theater (G. Caputo, *Il Teatro di Sabratha e l'Architettura Teatrale Africana*, Rome, 1959, pls. 2-4, figs. 4, 7, 8, pilaster bases; pls. 16, 17, figs. 30-32 but note that, although these

much of Greek style came into Leptis with Greek stone masons from the mid 2nd century after Christ onward, especially in the great building period of Septimius Severus.<sup>64</sup> The interesting point about Ionic bases is that both Greek (Pl. 53, d) and Roman (Pl. 53, e) forms are used in these Severan buildings and that new mixtures of the two traditions appear (Fig. 7, b; Pl. 53, f).<sup>65</sup> The clash here of two very strong traditions must have been a very real one; this was the point at which neither buckled under to the other. But back among the native peoples who picked up some Roman style for their tombs it seems to have been the Roman form that was imitated,<sup>66</sup> as for example at Ghirza (Pl. 53, g).

North and east of the Mediterranean as the empire died it left two legacies of Ionic bases. The Byzantines continued to use the Greek Attic form, the Early Christians in the west the Roman. It was therefore the Roman form which Romanesque and Renaissance architects saw all about them and which went into those and the later styles based on them. Not until the impact of the drawings of the original

photographs show these column bases as clearly of Greek form, they are drawn as Roman in the profiles of pls. 65 and 66; this is true also of pls. 38 and 45, figs. 65-67, 78 which are clearly Greek but appear as Roman on pl. 64), Temple of Isis (G. Pesce, *Il Tempio d'Iside in Sabratha*, 1953, figs. 6, 14, Greek, also figs. 8, 13 but possibly Roman, pl. VI, B, Dedication, clearly Greek), Antonine Temple (D. E. L. Haynes, *An Archaeological and Historical Guide to the pre-Islamic Antiquities of Tripolitania*, pl. 16, Greek), Basilica of Justinian (*ibid.*, pl. 21). Tripoli, Arch of Marcus Aurelius (*ibid.*, pl. 14, Roman).

Leptis Magna: 1) Roman forms: Arch of Trajan (R. Bianchi Bandinelli, E. V. Caffarelli, G. Caputo, F. Clerici, *The Buried City, Excavations at Leptis Magna*, 1966, figs. 55, 230), Colonnaded Street behind Palaestra (fig. 50), Pavilion in Market (fig. 62), Market (fig. 67), Building on Decumanus (figs. 168, 169), Hadrianic Baths (Haynes, *op. cit.*, pls. 5, 6; *M.A.A.R.*, X, 1932, pl. 33, 1-3), Arch of Septimius Severus (Haynes, *op. cit.*, pl. 2; Ward-Perkins, *Proceedings of the British Academy*, XXXVII, 1951, pl. IV); 2) Greek form: Arch of Marcus Aurelius (*Buried City*, fig. 172), Severan Forum, Entrance (figs. 109, 115), interior (color pl. I), Chalcidicum (figs. 51, 52), Market, Double Portico (fig. 59) and Eastern pavilion (fig. 68), Theater Scaena (fig. 77). Severan basilica, Façade (figs. 124, 125) and Western Apse (fig. 128), Old Forum Church (Haynes, *op. cit.*, pl. 11).

<sup>64</sup> *Proceedings of the British Academy*, XXXVII, 1951, pp. 269-304.

<sup>65</sup> Severan Basilica, Upper Order (Fig. 7, b after Ward-Perkins, *J.R.S.*, XXXVIII, 1948, p. 64, fig. 8), a Roman base surmounted by an acanthus drum, a fusion thus of Greek and Roman elements since the foliate drum over an Attic base of Greek form originates in Syria and is common there and in Egypt (see above p. 197, note 43). Severan Basilica, Colonnade and Pilaster bases of Central Nave show another mixed form (*Buried City*, figs. 123, 126, 132, 133). Whereas the Upper Order of this building uses a Roman single scotia base under a Syrian foliate drum, here we have the double scotia form of Imperial Rome but with the top of the scotia on line with the torus above as in the archaic Asiatic prototype of the Roman form and at Nimes and once in Hadrian's villa at Tivoli (above, pp. 199 and 198, note 49).

<sup>66</sup> Ghirza, North Cemetery, Temple-tombs A and C (Haynes, *op. cit.*, pls. 28, 29). Mselleten, Wadi Merdum, Obelisk Tomb (*ibid.*, pl. 31).

I am happily much indebted to Lady Olwen Brogan for sharing with me her extensive knowledge of North African and Gallic sites and bibliography and for showing me photographs of unpublished tombs from many sites in North Africa.

Greek form by Stuart and Revett began to be felt did the Greek base begin to appear in modern classical architecture, but the Roman form learned from the Renaissance had been so firmly established that as long as Ionic bases have continued to be cut (even the rare ones today) the two forms exist side by side, each holding its own in our ecumenical culture, in contrast to the Roman empire where the tradition of each geographical area was strictly maintained.<sup>67</sup>

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American Academy in Rome: Figs. 3-4, 5a (*M.A.A.R.*, XXVIII, pls. XXXVIII, LX-LXII), Pl. 50, e, f, h, (*ibid.*, figs. 40, 42, 39), Pl. 52, c (*M.A.A.R.*, XXIX, pl. 20, b).

American School of Classical Studies in Athens: Pls. 49, c, h, 51, b.

American Schools of Oriental Research: Pl. 51, e (*Gerasa*, pl. LIV, b).

British School at Rome: Pl. 52, a (*P.B.S.R.*, XXX, 1962, pl. II, b).

Comité Technique de la Recherche Archéologique en France: Pl. 52, e (*Glanum 1945-1956*, pl. 35, 1).

Deutsches Archäologisches Institut: Pl. 51, c (*Milet*, I, 7, fig. 90), g (*Arch. Anz.*, 1938, col. 122, fig. 27).

École française d'Athènes: Pl. 49, d (*Fouilles de Delphes*, II, pl. XXI).

Alison Frantz: Pl. 50, a.

*Latomus*, Brussels: Fig. 5, b, c (*Latomus*, XVI, 1957, p. 227, fig. 1), Pl. 52, f (Balty, *Maison Carrée*, pl. XXIII, 1).

Gebrüder Mann: Pl. 49, a (*Der Heratempel von Samos*, fig. 7).

Benjamin D. Meritt: Pls. 49, f, g, 51, a, i, j.

Arnoldo Mondadori Editore: Pl. 53, d, e, f (*Buried City*, pls. 109, 67, 122).

Oriental Institute, University of Chicago: Pl. 51, h (*Ptolemais*, pl. XXVII, D).

Österreichische Akademie der Wissenschaften: Pl. 51, f (*Reise in Bithynien*, pl. 8, 24).

Jean Roubier: Pl. 52, g (*Kelten-Römer*, pl. 78).

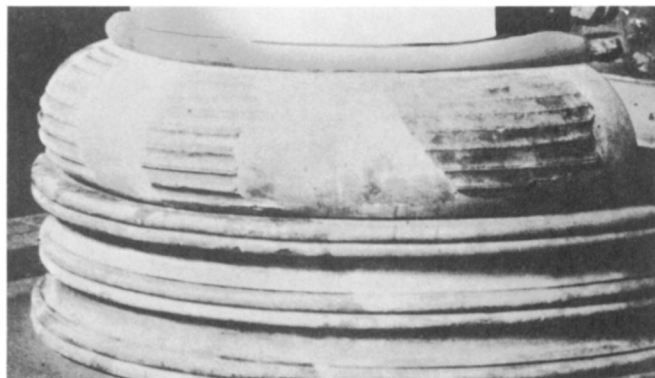
Richard Stillwell: Fig. 6, b.

University Prints: Pl. 49, b.

Yale University Press: Pl. 52, d (MacDonald, *Architecture of the Roman Empire*, pl. 133).



a. Samos, Archaic Heraion



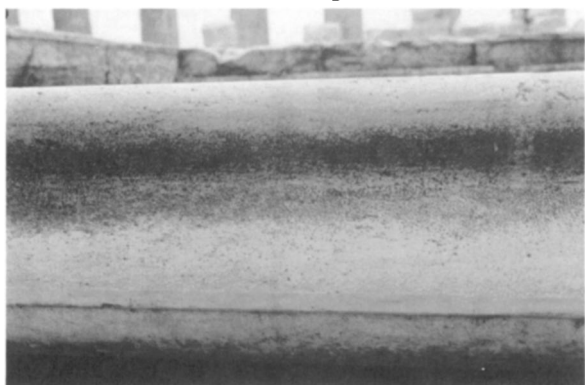
b. Ephesos, Archaic Artemision



c. Athenian Agora A 1974



d. Delphi, Stoa of the Athenians



e. Old Parthenon Toichobate



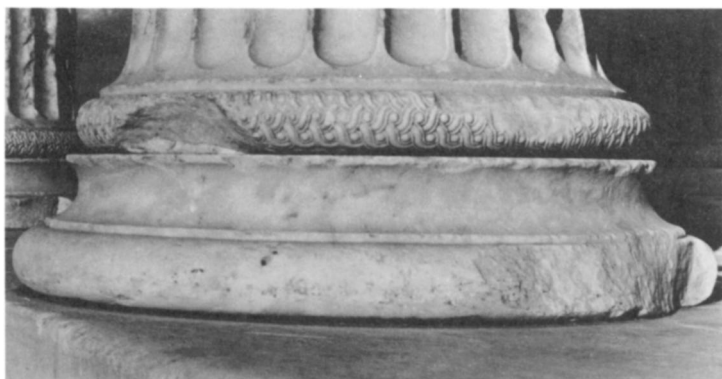
f. Athens, Temple of  
Athena Nike



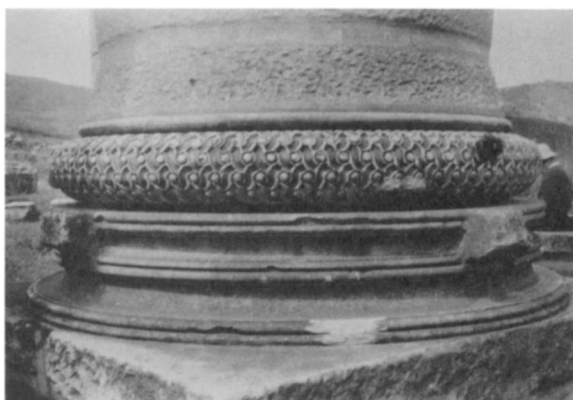
g. Athens, Propylaia



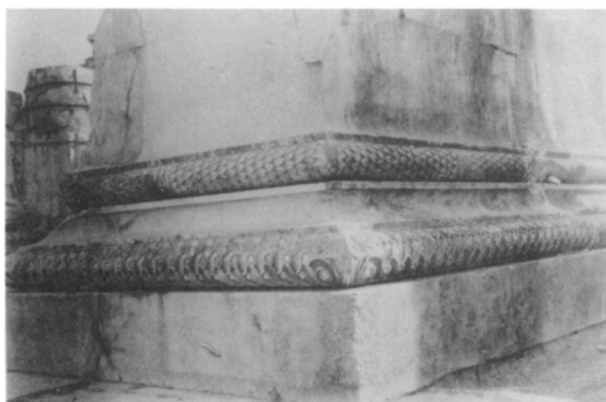
h. Athenian Agora A 2891 — 2892



a. Athens, Erechtheion



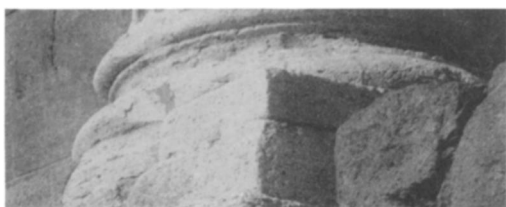
b. Sardis, Temple



c. Didyma, Temple Anta



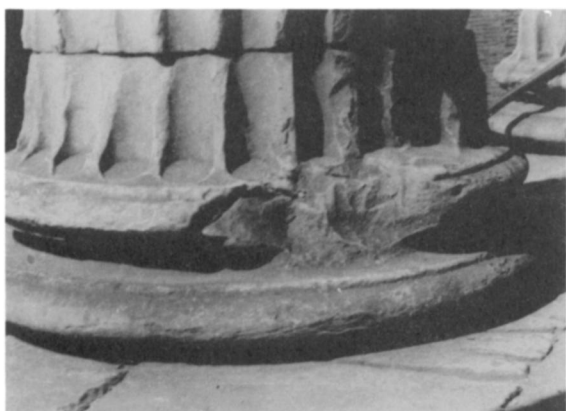
d. Paestum



e. Rome, Forum Boarium, Rectangular Temple



f. Cosa, Basilica



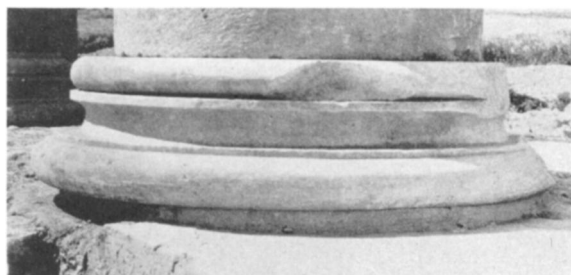
g. Rome, Forum Boarium, Round Temple



h. Rome, Temple in Via delle Botteghe Oscure



a. Athens, Library of Pantainos



b. Corinth, Temple E



c. Miletos, South Agora



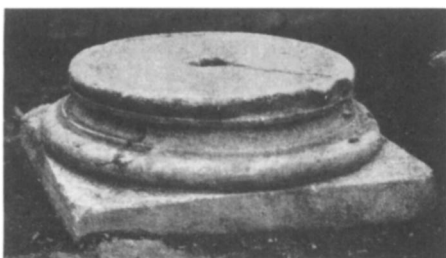
d. Baalbek, Court



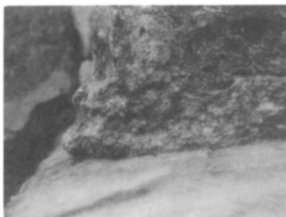
e. Gerasa, Reused in Baths of Placcus



f. Bithynia, Prusias



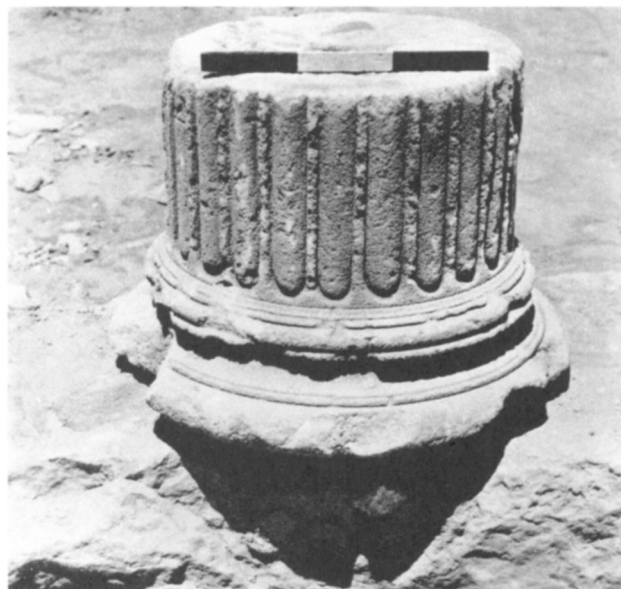
g. Stobi, Theater



i. Olympia  
Entrance to Stadion



j. Olympia, South Stoa



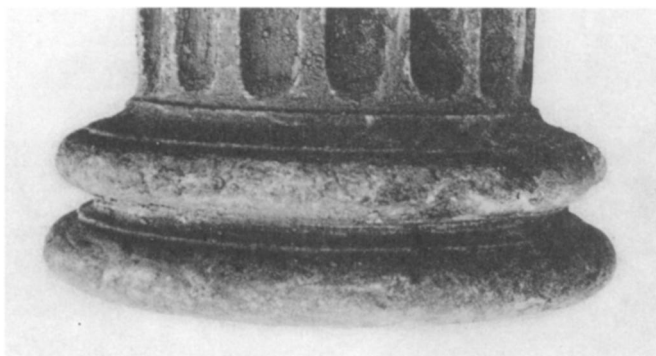
h. Ptolemais, Villa



a. Rome, Temple of Castor



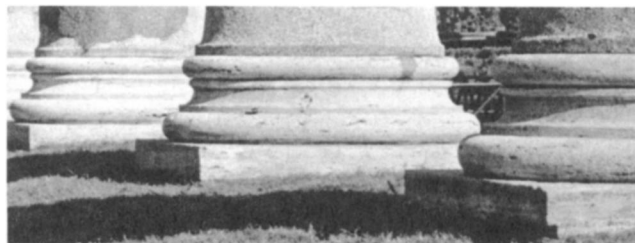
c. Rome, Arch of Septimius Severus



e. Glanum, Temple of Valetudo



g. Arles, Theater



b. Rome, Temple of Venus and Rome  
Exterior (above), Pronaos (below)



d. Rome, Palace of Domitian on Palatine, Hippodrome



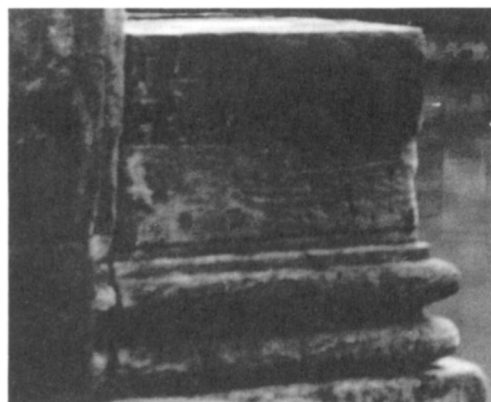
f. Nîmes, Maison Carrée



h. Augst, Court of Temple of Ceres



a. Britain, Wroxeter, Forum



b. Britain, Bath, Baths



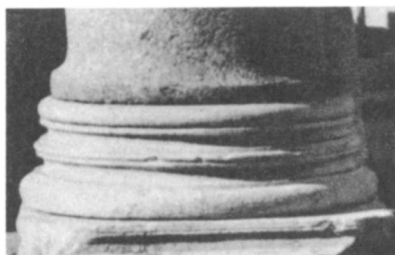
d. Leptis Magna, Entrance to Severan Forum



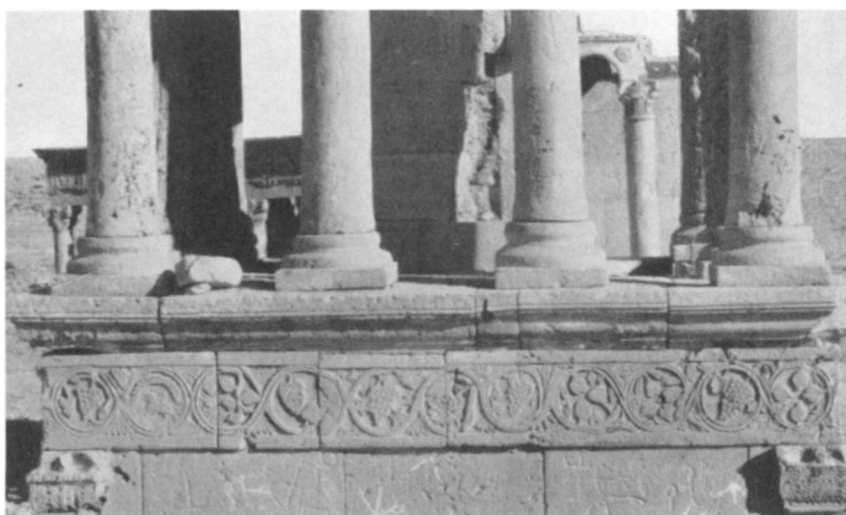
e. Leptis Magna, Market



c. Spain, Carteia



f. Leptis Magna, Severan Basilica



g. Ghirza, Temple-tomb