

# KLEPSYDRA AND THE PAVED COURT OF THE PYTHION

A word of explanation is due as to why this paper does not in all respects conform to what is generally expected in the preliminary presentation of the results of an excavation. A large part of the necessary notes, drawings, and photographs was brought to America through the kindness of the United States Department of State, and reached me in January, 1942. Certain material, however, apparently had to be left in Greece: detailed records of the pottery found in connection with the buildings, notes on structural details, and certain photographs and drawings. My general conclusions had of course been reached with this material to hand; but access to it while this paper was in preparation would have made it possible to describe the physical remains with greater precision, and to present the archaeological evidence for the chronology of various periods more fully and effectively.

I am deeply indebted to Professor D. M. Robinson for assistance and encouragement in countless ways; to Professor Oscar Broneer, with whom I have discussed many of my problems, who has generously read the manuscript and made suggestions greatly to its improvement; and to the members of the classical faculty of the University of California, for their many kindnesses during the years 1941-43.

My debt to my colleagues of the Agora Staff, I cannot adequately acknowledge here; suffice it to say that there is scarcely a page or a paragraph which is not the better for the knowledge and counsel of some one of them.

Most of the photographs, including all of the good ones, were taken by Miss M. A. Frantz. The original drawings were made by John Travlos; those which are here reproduced were made by David A. Lee, of Oakland, California, from tracings of the originals.

## I. INTRODUCTION

Every visitor to Athens is familiar with the north face of the Acropolis as it looks from the streets of the town below; he has seen the sheer rock wall above the tree-covered slope with the dark shadows of the sanctuary-caves near its western end (Fig. 1). But not everyone, approaching the Beulé gate of the Acropolis, has turned aside to take the path to the left around the slope at the base of the northwest cliffs. He who has, will have paused at the broad ledge directly below the caves and the Propylaia—it is an obvious resting-place—to reflect for a moment about the region where he stood. Here in antiquity was the place where peripatos and Pan-



thenaic Street met; above were the Olympion and the Pythion, somewhere near by, the sanctuary of Ge; farther along the slope—green today as it was in antiquity—were the Aglaurion and the shrine of Aphrodite “in the Gardens”; below stretched



Figure 1

The northwest corner of the Acropolis from the Areopagus. The dark shadow of the caves, and the sunlit ledge before them are conspicuous below and to the left of the Propylaia. Still lower, almost beneath the Propylaia, and just to the left of the center of the picture, the brightly lighted masonry of the chapel well house can be distinguished; a sharply defined, almost rectangular shadow marks the opening of the cleft by which we made our way into Klepsydra: indicated by K. At the right of the chapel, and above it, the line of the cleft may be made out, through which the rock-cut stairway reached the ancient bastion below the Propylaia; note the Byzantine doorway in the face of the bastion. The Court of the Pythion lies to the left of the Klepsydra, concealed behind the thick growth of trees at the left. With this view, compare those shown by Picard, *L'Acropole: L'enceinte, etc.*, pls. 2 and 10, both taken before trees were planted.

that mysterious area, the Pelargikon. Here, surely, was the very heart of primitive Athens, Athens before Theseus—after the Acropolis itself, the oldest and most sacred part of the city.<sup>1</sup>

<sup>1</sup> Thucydides, II, 15, where *πρὸς νότον* must be a mistake or a corruption: Thucydides wrote, or intended to write, *πρὸς βορρᾶν* (or *πρὸς ἄρκτον*, cf. Belger, *B.P.W.*, XIV, 1894, p. 93). It is the duplication of certain sanctuaries, which appear both on the north slope of the Acropolis, and south of it, toward the Ilissos, that may have caused the error, and is certainly responsible for its perpetuation; the question has often been discussed (see the references cited by Judeich, *Topographic*<sup>2</sup>, p. 55, note 4), most recently by O. Broneer, whose paper is summarized in *A.J.A.*, XLV, 1941, p. 92.

Recalling himself to the present, and his immediate surroundings, he will have noticed, probably, the rather puzzling complex of structures below the caves of Pan and Apollo: the impressive stone paving close against the base of the overhanging cliff; the shabby masonry of the wall of Valerian which partly concealed it<sup>2</sup> (Figs. 2-8); and up at the right, among the rocks, the little chapel of the Holy Apostles, with the stone well-curb in its apsidal end, and the narrow rock-cut stairway leading from it up to the Acropolis wall (Figs. 19-20). He may even have clambered up the modern steps and made his way into the chapel. Once there, he has, surely, looked into the well and seen the still, dark water far below. This is the water that is ordinarily called Klepsydra (that it is rightly so called there can, I think, be no doubt). It was James Stuart and Nicholas Revett, visiting Athens in the middle of the eighteenth century to gather material for their epoch-making *Antiquities of Athens*, who first put together the indications given by ancient writers, to arrive at this identification.<sup>3</sup> It has not subsequently been seriously questioned, and there is no reason it should be: we shall see that it is certainly a sound one.

Klepsydra has a long history, longer by far, indeed, than the history of the city of Athens itself, for its origin goes back into the remoteness of geologic time. We shall not here trace it so far; our interest begins with the period, remote enough, when the Neolithic dwellers on the slopes of the Acropolis first dug their shallow pits about the hidden source. Thence, we follow it through to modern, or all but modern, times; to the years of the Greek Revolution, when for almost the last time the people of Athens regarded Klepsydra's water as of something more than archaeological interest.<sup>4</sup>

Some documentation of this history existed; our excavations have added much more. This essay is primarily an account of those excavations, but it aims also to gather, and to interpret, all the relevant material, old and new. It suggests, further, that Klepsydra was not merely a spring with its own nymph, but was actually the center of that cult of the Nymphs which, it has long been evident, existed on the northwest slope of the Acropolis. It includes also the first study of the Paved Court which lies beside Klepsydra and, finally, advances reasons for believing that this court was a part of the sanctuary of the Pythian Apollo: that, in all probability, it

<sup>2</sup> As a result of the Agora Excavations, there is now conclusive evidence that Valerian can have had nothing to do with the building of the wall which is ordinarily attributed to him, cf., e. g., *Hesperia*, VII, 1938, p. 332, and the summary of the history of the wall in *Arch. Anz.*, LII, 1937, p. 111. Few readers, however, would recognize it under the name which will ultimately be proposed for it; I, therefore, here and throughout, use the old name, omitting even quotation marks.

<sup>3</sup> *Antiquities of Athens* (London, 1762, 1787, 1794, 1816), I, p. 15; II, pl. V.

<sup>4</sup> In 1929-30, when Professor Broneer began work on the north slope of the Acropolis, he found that women of the Anafiotika quarter still went regularly to Klepsydra for their water.



Figure 2

Klepsydra and the west end of the Paved Court from the north. The low wall in the left foreground is the north wall of the Court. The wall of Valerian, in part demolished when this photograph was taken, crosses it toward the Acropolis, and partially masks the brick and stone vault of the chapel well house. Note the modern steps utilising the wall of Valerian to reach the cleft where the ancient stairway runs between the chapel and the Acropolis. Much of this is somewhat better shown in Picard, *L'Acropole*, plate 11, which includes the caves above, but shows nothing of the Court (cf. also his plate 9, 2).

served as a kind of pompeion, or a place of preparation, for the great religious procession to Delphi, the Pythais.

Modern investigation of Klepsydra might be said to have begun in 1822. The plans of the Venetian engineers of 1687, the accounts of Stuart and Revett, Dodwell, Leake, and other travellers make it quite plain that, at least during the seventeenth and eighteenth centuries, the actual source of Klepsydra, the old spring house, the well house, and the stairway from the Acropolis were all forgotten, buried presumably beneath an accumulation of silt and debris washed and thrown down from the Acropolis. The water of Klepsydra was, of course, known and used: the overflow emerged from the slope as a small stream which ran beside the path toward the town, where during part of the period it fed a roadside fountain.

In 1822, the Turkish forces defending the Acropolis were obliged to surrender to the Greeks because they lacked water. The Greeks, determined that the same thing should not happen to them, in their turn, began at once a search for an adequate water supply. They looked for the Erechtheid *θάλασσα*, it is true, but they found Klepsydra, and lost no time in enclosing it within the famous water bastion built under the leadership of Odysseus Andritzos.

The Ἐπιστάτης τῶν οὐδάτων, who made the actual rediscovery of the long-lost spring was, it seems almost certain, Cyriacus Pittakis, who thus auspiciously began his long career as an archaeologist; and it was he who wrote the first description of it.<sup>5</sup>

In 1874, Émile Burnouf, of the French School at Athens, carried out excavations which were the first serious effort to unravel the tangle of walls, ancient and modern, which then concealed the spring. He cleared out much of the interior of the bastion of Odysseus, though he was refused permission to demolish the whole of it; and his careful drawings are the best, almost the only, records which we possess of the bastion. He descended into the ancient drawbasin, but saw only what Pittakis had led him to expect; and he uncovered a small part of the Paved Court.<sup>6</sup>

In 1888, the Archaeological Service finally decided to demolish the bastion, and the work was carried out in the summer of that year: Klepsydra was thus made relatively accessible, but the Paved Court lay still almost entirely concealed.<sup>7</sup>

<sup>5</sup> Pittakis' first account of his discovery was published in his *Ancienne Athènes où la description des antiquités d'Athènes et de ses environs* (Athens, 1835), pp. 153-7; his second in 'Εφ. 'Αρχ., 1853, p. 1066, no. 2010; both are confused and inaccurate, and bear all the earmarks of having been written up from inadequate notes made long before, or even from memory. For a summary of the controversy about who actually discovered the spring, see Burnouf (cited below, note 6), pp. 39 ff.; Pittakis' affidavit, which seems not to have been known to Burnouf, must settle the question: 'Εφ. 'Αρχ., loc. cit., note 1, and below, Appendix, Test. X.

<sup>6</sup> Burnouf, *La Ville et l'Acropole d'Athènes* (Paris, 1877), pp. 39-46, pp. 165-174, plates XIV-XVI, XIX, XX.

<sup>7</sup> Δελτ. 'Αρχ., 1888, pp. 68, 92, 136, 183.



Figure 3

The west end of the Paved Court from the east, showing the wall of Valerian before its demolition. Klepsydra lies behind the giant boulder at the left. Beyond the wall of Valerian may be seen the pathway which leads here from below the Beulé Gate—the Turkish and modern successor to the Panathenaic way. The pole in the left foreground, which appears also in Figures 5 and 8, is modern and was later removed. Cf. Picard, *op. cit.*, plate 9, 3.

In 1896, the Archaeological Society began what was planned as the systematic exploration of the whole of the north slope of the Acropolis; during this first season the excavation reached the vicinity of Klepsydra: the late Roman cistern, and parts of the Valerian wall and the processional street were uncovered.<sup>8</sup>

The next year, in 1897, P. Kavvadias excavated the cave sanctuaries and the area to the east of them. This was begun as a part of the larger project, but soon



Figure 4

Klepsydra from the west. At the left may be seen the Paved Court, with the cypress trees beyond it.

Conspicuous in the foreground is a retaining wall of the Turkish period. Immediately behind it is the single course which is left here of the foundations of the wall of Valerian. Next come the remains of the Bastion of Odysseus, partially removed to show two blocks of the orthostate wall of Klepsydra. Above the orthostates, the heavy shadow is the entrance of the cleft which leads into the south end of the spring house (cf. Fig. 9). Left of the opening, and above it, may be seen the masonry of the chapel—the Roman well house.

overshadowed that in interest and importance; the chief result was, for the first time, a real appreciation of the place of the cave sanctuaries in Athenian history and topography. Its consequences were of direct interest to our particular study in two respects: Kavvadias called attention to the character of the sanctuary of Apollo as a Pythion; and he exposed a great part of the Paved Court, for the first time since antiquity.<sup>9</sup>

<sup>8</sup> Πρακτικά, 1896, pp. 17-20; *Ath. Mitt.*, XX, 1896, p. 460.

<sup>9</sup> 'Εφ. 'Αρχ., 1897, pp. 1-32, pp. 87-92, plates I-IV (the Paved Court, p. 87); Πρακτικά, 1897, pp. 10 ff.; *Ath. Mitt.*, XXI, 1897, pp. 226, 479; *B.C.H.*, XX, 1897, p. 382.

The books and articles which were the result of these investigations are the primary, the important, studies of Klepsydra and the Court. There was, of course, during the century following Pittakis' discovery, a number of other publications in which Klepsydra was discussed or mentioned; but few of them really contribute to knowledge of the spring. Four are perhaps worth citing here:<sup>10</sup> Christopher Wordsworth's account of the subterranean stairway and chapel, which was almost contemporaneous with Pittakis', but very much more lucid; the discussions by Bursian and Boetticher, important as the first studies of the buildings from a distinctly critical and archaeological point of view; and the sketch and comments by Ernest Breton which are the sole record of the frescoes which once covered the chapel walls.<sup>11</sup>

During the winter of 1936-1937 the staff of the Agora Excavations of the American School of Classical Studies at Athens were notified that the government proposed to create a scenic boulevard around the Acropolis—a kind of modern version of the ancient peripatos—and would begin by paving that stretch of Acropolis Street which separated the southeast sections of the American Excavation zone from the Acropolis itself. It was obviously desirable that at least a part of this street should be archaeologically investigated before it was permanently sealed over by a layer of concrete. It was decided, therefore, to include a portion of the street and of the slope of the Acropolis above it in the program for the campaign of 1937.<sup>12</sup> The new section was given the name OA ('Οδὸς Ακροπόλεως). Investigation of the wall of Valerian, and of the newly discovered Panathenaic street, inevitably led us up toward the cliffs: it was during this season that the whole of the Paved Court was exposed by the demolition of a stretch of the wall of Valerian which had covered much of its western end (Figs. 2-3, 5-6); and it was now that our curiosity was attracted by the problem of the Klepsydra.<sup>13</sup>

<sup>10</sup> I have omitted handbooks; yet the following are, of course, basic to the study of any problem of Athenian topography: Wachsmuth, *Die Stadt Athen im Alterthum* (Leipzig, 1874 and 1890); Harrison and Verrall, *Mythol. and Mon. of Ancient Athens* (London, 1890); Harrison, *Primitive Athens as Described by Thucydides* (Cambridge, 1906); the commentaries in Hitzig and Blümner, *Pausanias, Graeciae descriptio* (Berlin, 1896), and in Frazer, *Pausanias's Description of Greece* (2nd ed., London, 1913); Judeich, *Topographie von Athen* (2nd ed., Munich, 1931); and, for the Acropolis especially, Jahn-Michaelis, *Arx Athenarum* (3rd ed., Bonn, 1901).

<sup>11</sup> Wordsworth, *Athens and Attica: Journal of a Residence There* (London, 1836), pp. 82-85; Bursian, *Philologus*, IX, 1854, p. 644; *Rh. Mus.*, X, 1856, p. 501; Boetticher, *Bericht über die Untersuchungen auf der Akropolis von Athen im Frühjahr 1862* (Berlin, 1863), pp. 220 f. (= Erbkam's *Zeitschrift f. Bauwesen*, XIII, 1863, p. 600), and *Philologus*, XXII, 1865, pp. 71 f.; Breton, *Athènes décrite et dessinée* (2nd ed., Paris, 1868), pp. 180-183. Breton was in Greece in the spring of 1859: E. Lovinesco, *Les voyageurs français en Grèce au XIX siècle* (Paris, 1909), p. 164.

<sup>12</sup> *Hesperia*, VII, 1938, p. 331. For the location see the new general plan, *Hesperia*, IX, 1940, plate I (opposite p. 308).

<sup>13</sup> Brief accounts of work on Klepsydra and the Paved Court in 1937 and succeeding years

In July of that year, the water was bailed out and the first study of the draw-basin was begun. It was soon clear, what had not been so from the descriptions of Pittakis and Burnouf, that the underground basin of the spring was a structure of the fifth century B.C., preserved practically intact; furthermore—this Burnouf *had*



Figure 5

The Paved Court and Klepsydra from the north. The planking close to the wall of the Court, in the right foreground, covers the original overflow channel of Klepsydra (A on the general plan). Above the south wall of the Court, against the right side of the big boulder, the masonry of the well house is visible. The door-like opening in the well-house wall against the boulder is modern: it was made during the period when the Bastion of Odysseus was standing, in order to make the water accessible from outside; but note that it does not appear in Breton's sketch (below, Fig. 21), drawn in 1859.

noted<sup>14</sup>—that it must have been accessible, originally, from the west, by an entrance now hidden beneath the masonry of the wall of Valerian and the bastion of Odysseus (Figs. 2, 4). During the campaign of 1938, a cleft was discovered among the rocks

have been included in Shear's annual reports on the Agora Excavations: *Hesperia*, VII, 1938, pp. 332-335; VIII, 1939, pp. 221-225; IX, 1940, pp. 296 f.; X, 1941, p. 7; cf. *J.H.S.*, LVII, 1937, p. 120; LVIII, 1938, p. 219; *Arch. Anz.*, LII, 1937, pp. 110 f.; LIII, 1938, pp. 549 f.

<sup>14</sup> Burnouf, *op. cit.*, p. 168.

above the remains of the bastion (Fig. 4); it seemed to lead in the right direction, and so it proved: as it was cleared, it led us over the original outer wall directly into the southwest corner of the spring house.

Now for the first time we had the key to the whole problem, the explanation of the complicated series of structures which covered the spring. It was apparent that



Figure 6

The Paved Court: the west end from the east. The picture is taken from the north wall. The three steps remaining of those which led up to the entrance are very evident here. The gap across the centre of the Court shows the line of the foundations of the transverse wall, of which several blocks are visible where they bond with the north wall. Particularly clear in this view are the foundations of the well house: small boulders and debris resting over the south wall of the Court—the common wall between Court and Klepsydra.

the original building, a spring house which enclosed the rectangular drawbasin on two sides, with a short stairway leading down to the basin from the entrance at the northwest corner (Figs. 29-30), had been set deep in a natural cave which closed it in at east and south, and formed its roof. At some time in antiquity, the rock roof caved in. It was still possible to draw water over the northwest corner of the basin,

but the fallen boulders so blocked and damaged much of the building that when in Roman times it was deemed wise to make the spring directly accessible from the Acropolis, no effort was made to salvage the old system; a vertical shaft was opened from above through the fallen boulders that had once formed the roof (Figs. 31, 33, 34), and over it was erected the apsidal well house of brick and concrete, which in mediaeval and modern times came to be used as a church.

Once it was discovered that the collapse of the original rock roof was the critical event in the history of Klepsydra, the working out of details was relatively simple. The campaigns of 1939 and 1940 were spent largely in examining these details, and in gathering such evidence for the chronology of various periods as was available. It may be noted in this connection that north and west of the buildings the ancient ground levels have been almost entirely cut away. This apparently happened for the most part during the period of the Turkish occupation of Athens, when the outwork was built which still runs below the north-west shoulder of the Acropolis, or during the construction of the Turkish wall of 1778 or of the bastion of Odysseus. Some work remains to be done about Klepsydra and the Paved Court, but the main outlines of their history as presented here seem securely established; future discoveries will probably cause revision only in matters of detail.



Figure 7

The cliff face south of the Court showing the cleft opposite the south end of the transverse wall, sealed with concrete masonry at the time of the construction of the well house. Cf. Picard, *op. cit.*, plate 9, 3.

The cliff face south of the Court showing the cleft opposite the south end of the transverse wall, sealed with concrete masonry at the time of the construction of the well house. Cf. Picard, *op. cit.*, plate 9, 3.

## II. EMPEDO-KLEPSYDRA: NAME AND NATURE

### EMPEDO

"Klepsydra," says Hesychius,<sup>15</sup> "is a fountain which was formerly called Empedo." The dual naming reminds one of another and more famous fountain: one which was called Kallirhoe in the days when it was but an open spring, but which has been called Enneakrounos ever since the tyrants turned the springs into a proper fountain with spouts and basins, as you see it now.<sup>16</sup> A similar history, I think, must explain the two names, earlier and later, of Klepsydra. Empedo was surely the name

<sup>15</sup> Appendix, Test. VI A; cf. VI B and IV.

<sup>16</sup> Thucydides, II, 15; Pausanias, I, 14, I. On the distinction between *πηγή* and *κρήνη*, see Hitzig-Blümner, *Pausanias, ad. loc.*, and Wycherley, *Class. Rev.*, LI, 1937, pp. 2 f.



Figure 8

The east end of the Paved Court from the west. The irregular foundations of the transverse wall are conspicuous in the foreground, and at the extreme left, the gap in the north wall of the Court where a well was driven through it in Turkish times. Notice the cave-like overhang of the cliff above the southeast corner; the dark spot in the floor just to the right of the post shows where the floor was crushed by a mass of limestone fallen from above. The careful arrangement of headers and stretchers in the east wall is clear, though the careful treatment of the surfaces and joints is not. The single remaining block of the topmost course may be seen, immediately to the right of the post, carefully fitted in against the overhanging rock. Note that a part of the north wall had not yet been freed from modern encumbrances when this picture was taken.

of the spring, the *πηγή*; Klepsydra, that given to it when the water was made readily accessible by the construction of the spring house, the *κρήνη*, in the second quarter of the fifth century B.C.

Empedo may be formed in one of two ways: either from *ἔμπεδος* (*A*), meaning *firm set*, or *in the ground*, and so *steadfast*, or *continual*; or from *ἔμπεδος* (*B*), meaning *fettered* or *bound*. Hiller and Pape, relying on one of Hesychius' definitions, and on certain of the scholiasts' accounts, prefer the second derivation;<sup>17</sup> but the excavation has shown that the first is so singularly appropriate that there can be little doubt that it is the correct one. The spring fits perfectly both the literal and figurative meanings of *ἔμπεδος* (*A*): it is deep in the ground,—so deep, indeed, that the inlets to the classical drawbasin are something like six meters below the outside ground level,—while, unlike many small springs in this semi-arid land, Klepsydra is never dry.

We may regard it as certain, I believe, that Empedo was also the name of the nymph (dare we say “the constant nymph”?). For that there *was* a nymph here, and a cult place, too, long before the spring was embellished with any kind of formal structure, is more than probable. *Nullus fons non sacer*, Servius reminds us;<sup>18</sup> it must be almost literally true: these simple cults are everywhere in the Greek world, and everywhere, no doubt, among the earliest. Plato thought so: such sanctuaries, still tended in Attica in places that were in his time waterless, were to him sure signs that springs had once existed there, in that remote day when copious sources and ample streams had made the land a rich and fertile one.<sup>19</sup>

It is, of course, wholly in accord with general Greek practice that the name of the spring should be given to the nymph who haunted it, or the name of the nymph to her spring. In this case we may reasonably suppose that the nymph has her name from the spring. Yet Empedo has standing as a name quite independent of the spring, and in a context which suggests that it would have been considered appropriate as the name of a nymph—an Attic nymph. On a black-figured cup in Munich,<sup>20</sup> Theseus is shown with the young men and women who were sent with him to Crete; the artists have given the names of his companions: the last girl on the left, behind Athena, is called Empedo, ΕΝΤΕΔΟ. The names of her four girl companions are Euanthe, Eunike, Anthyla, and Timo. Two of these, Euanthe<sup>21</sup> and Eunike,<sup>22</sup> bear names

<sup>17</sup> Hiller, *R.E.*, *s.v.* Empedo (this is the only article, so far, in *R.E.* on the spring; “Klepsydra” has not yet appeared); Pape-Benseler, *Gr. Eigenn.*<sup>3</sup>, *s.vv.* Ἐμπεδό, Ἐνπεδό, Πεδό; *infra*, Appendix, Test: IB, IV, VI A and B.

<sup>18</sup> *Ad Aen.*, VII, 84.

<sup>19</sup> Plato, *Kritias*, 111C f.

<sup>20</sup> Munich, 2243, by Archikles and Glaukytes, *ca.* 540 B.C.: Furtwängler-Reichhold, *Gr. Vasenm.*, III, 219 ff. (Buschor), pl. 153, 1; Hoppin, *Gr. Black-Figured Vases*, Archikles 3.\*

<sup>21</sup> Mother of the Charites, Cornutus, *Theologiae Graecae Compendium*, 15 (on the difficulty of distinguishing between nymphs and graces, especially in art, see Furtwängler in Roscher, *Lexicon*, *s.v.* Chariten, cols. 880, 882, 884, Harrison, *Myth. and Mon.*, p. 544); the Charites in nymph-like contexts: Servius, *ad Aen.*, I, 720; *I.G.*, XIV, 1034 (Rome).

<sup>22</sup> A nereid: Apollodorus, *Bibliotheca*, I, 2, 7; a naiad: Theocritus, XIII, 45.

which occur elsewhere as the names of nymphs, or have nymph connections; the name of the third, Anthyla, appears on a black-figured hydria<sup>23</sup> as one of a group of girls (nymphs?) at a fountain; the name of the last, Timo, is not found, to my knowledge, in the world of mythology, but it has connections which are worth noting here: it is the name of a priestess of the chthonic gods in Paros, and the name of the fire-bearer who accompanied the Delphian Pythaïs of 106/5.<sup>24</sup>

### KLEPSYDRA

Klepsydra is familiar, of course, in the sense of *water-thief*, as a name for that curious type of vase which is known also as "water-snatcher"; and still more familiar for the simplest form of water-clock or timer.<sup>25</sup> As a proper name it is rare, occurring but twice elsewhere: it is the name of the spring at Messene,<sup>26</sup> where we notice that it is the *πηγή*, and not the *κρήνη*, which is so called; and it is the nickname of a hetaira, from whom Euboulos borrowed it for the title of a play.<sup>27</sup>

It was doubtless because they interpreted the word in its primary sense of *water-thief* or *water-hider*, that ancient writers were led to invent the periodicity of Klepsydra's flow.<sup>28</sup> It is easy, for example, to see how Istros, or his authority, must have reasoned: *water-hiding*, of a spring, should mean that the spring sometimes runs dry, or nearly so, like the Inopos in Delos, or the Nile; but flood and low water in these we know depend on the Etesian winds; it is evident, therefore, that Klepsydra must get its name because it, too, rises and falls with those winds. It sounds plausible, but it is none the less a pure invention—the work of a too erudite scholar in his library. A visit to the spot, or a question asked of an Athenian living near by, and he would have found out, as we did, that the flow of Klepsydra is uncommonly steady. The clue to the meaning of the name as applied to the spring is to be found, I have no doubt, in the phrase from an unknown poet, possibly Callimachus, happily preserved for us

<sup>23</sup> In Würzburg: Langlotz, *Gr. Vasen in W.*, pl. 94, no. 304; cf. Eustathius *ad Il.*, I, 359 (p. 117, 46): the sister of Memnon, and a city named for her on the Nile.

<sup>24</sup> Priestess: Herodotus, VI, 134; fire-bearer, Dittenberger, *Syll.*<sup>3</sup>, 711 D. Recall that *έμπεδος* = *χθόνιος*: Hesychius *s. v.* *έμπεδής*, quoting Hipponax (frg. 113, Bergk, *P.L.G.*<sup>4</sup>, II, p. 495).

<sup>25</sup> Recently discussed by Suzanne Young, *Hesperia*, VIII, 1939, pp. 274 ff., who publishes the unique timer from the Agora. Cf. Pauly-Wissowa, *R.E.*, *s. v.* For the latest discussion of "water-snatchers," with full bibliography, see Robinson-Freeman, *C.V.A., Robinson Collection*, Baltimore, Fasc. 3, p. 13.

<sup>26</sup> Pausanias, IV, 31, 6; 33, 1.

<sup>27</sup> Athenaeus, 567 D (Asclepiades, frg. 1: *F.H.G.*, III, p. 306 [*F. Gr. Hist.*, II B, no. 157, p. 883]). No fragment is preserved (Kock, II, p. 182).

<sup>28</sup> Appendix, Test. I B, V, VIII. On the Inopos and its connection with the Nile, cf. Schoeffer, *R.E.*, *s. v.* Delos, col. 2463; on the Nile flood in general, Rehm, *R.E.*, *s. v.* Nilschwelle; on the Etesian winds, the *meltemia* of the modern Greek sailor, which blow in July and August, Neumann-Partsch, *Phys. Geogr. v. Griechenland*, pp. 95 f., and Rehm, *R.E.*, *s. v.* Etesiae.

by Hesychius, *κλεψύρων* *νῦδωρ*, “secretly (or stealthily) flowing water.”<sup>29</sup> An apter phrase for the water of Klepsydra could scarcely be found: no movement of the water is normally visible;<sup>30</sup> the inlets are deep below the surface, the overflow makes its way out by natural channels concealed among the rocks; but there is, actually, a steady flow, and unless heavy demands are made upon it the water maintains its level.

Empedo-Klepsydra is the most copious of the series of small springs—the *νάματα σμικρά* of Plato<sup>31</sup>—which girdle the Acropolis. They appear, typically, at the base of the cliffs, where the grey limestone cap of the Acropolis rests on layers of schist and marl.<sup>32</sup> The limestone is full of crevices and cracks, and the rain water which falls on the Acropolis runs off through these, and down until it reaches the relatively impermeable schist; there it collects. The limestone thus acts as a kind of gigantic reservoir, of which the schist forms the floor; it is the water seeping through wherever it can find an outlet along the “joint,” which forms the series of little springs. Since the whole rock formation tilts slightly toward the northwest, it is naturally here that the most powerful spring is created.

Klepsydra's origin in the crevices of the limestone explains some of its chief characteristics: its hardness, for its lime-content is extremely high, even for Athenian water; and its temperature, for while it is cool, it lacks the icy coldness of a mountain-born spring. These are the qualities which have led people to describe it, ever since antiquity, as brackish and unfit for drinking. Its origin also explains some of the lore which grew up about the spring in antiquity; the story that its depth was unplumbable, and the corollary that it connected by underground channels with Phaleron,<sup>33</sup> were obviously the result of the fact that the limits of the cleft where the spring house was built could not be fixed. Its depth could not be sounded, nor its length measured; it was for practical purposes endless.

### III. EMPEDO: TO THE TIME OF THE PERSIAN WARS

As early as the end of the Neolithic period the men of Athens began to use the water of Empedo.<sup>34</sup> The cave at the base of the cliff cannot have been very different

<sup>29</sup> Appendix, Test. VI B; the suggestion that the phrase comes from Callimachus goes back to Meineke, *ad Callim.*, p. 220; Callimachus' interest in Athenian springs, Strabo, 397. In *κλεψύρων*, occurring only here, there is an evident play on *ἐπίρρυντος*, the usual word for ordinary running water: Theophrastus, *Caus. plant.*, III, 8, 3; *Hist. plant.*, V, 9, 5; *Geop.*, II, 6, 33.

<sup>30</sup> Boetticher believed that he detected a flow toward the west (*Bericht*, p. 220), but he must have been deceived, perhaps by currents of air stirring the surface slightly.

<sup>31</sup> *Kritias*, 112 D.

<sup>32</sup> All this is based entirely on Lepsius, *Geologie von Attika* (Berlin, 1893), pp. 6 and 53, pl. I, *profil 1*; it is accessible also in Judeich, *Topographie*<sup>2</sup>, pp. 43 ff., figs. 6, 7 (from Lepsius).

<sup>33</sup> Appendix, Test. IB, V, VI A, VI B.

<sup>34</sup> The account which follows of the north slope of the Acropolis in prehistoric times is only a

then from what it is now, save that its overhang was undoubtedly greater. Whether the water then came to the surface actually within the cave, or whether it seeped out a little lower on the slope, we cannot well be certain. But whatever and wherever its appearance, the Neolithic folk knew of it and used it: within a short radius of the spring, we have discovered and excavated no less than twenty shallow wells or pits, the purpose of which was clearly to tap the underground vein of water. Although we have found no certain traces of the dwellings of the people who dug these wells,—perhaps they lived in the caves which were later to become sanctuaries: *antea specus erant pro domibus* (Pliny, VII, 194),—the series of pots, other artifacts, and human and animal bones recovered from the wells form by far the largest collection of material yet found from the Neolithic period in Athens.<sup>35</sup>

From this time on the spring was almost constantly in use, with a few exceptions which are rather puzzling. There is, for example, no good evidence for activity in the region of Empedo during the early Bronze Age. This may be pure chance:<sup>36</sup> we have noticed the extent to which ancient accumulations have been disturbed or removed in this area; and occupation in Early Helladic times is well attested in other parts of the Acropolis slope.

In Middle Helladic times, Empedo seems to have been much frequented; a number of wells, deeper and altogether better made than those of the Neolithic period, have produced a long series of vases and other objects of the fabrics and types characteristic of the Middle Bronze Age.<sup>37</sup>

The Mycenaean activity on the north slope of the Acropolis is particularly well documented. Broneer's recent discovery shows us that the Mycenaean lords of Athens were considerably concerned about the water supply of the citadel, that through the largest of all known clefts in the limestone cap they reached the natural underground reservoir at the base of the rock, and thus secured for themselves a source which, like Perseia at Mycenae, could not be cut off by besiegers.<sup>38</sup> But this source was inaccessible to the humbler people who lived, not on the Acropolis, but below it; they continued to depend, as their predecessors had done, on Empedo for their water. Just west of Klepsydra we have excavated a well which was filled up during the late

sketch, and makes no pretense to completeness either in subject matter or in bibliography. Hansen, *Hesperia*, VI, 1937, pp. 539 ff., publishes the pottery from the excavations of the American School, covering every period from Neolithic through Mycenaean. Members of the Italian School in Athens found traces of habitation over a long period on the south slope of the Acropolis: *Annuario*, IV/V, 1921-22, p. 490; *Boll. d'Arte*, IV, 1924-25, pp. 88 f. I have not had access to the recent final publication.

<sup>35</sup> *Hesperia*, IX, 1940, pp. 297 f.

<sup>36</sup> It was not until our third season, for example, that we found any Mycenaean deposits.

<sup>37</sup> *Hesperia*, VII, 1938, pp. 335 ff.

<sup>38</sup> Broneer, *Hesperia*, VIII, 1939, pp. 317-433; for his earlier Mycenaean discoveries, *Hesperia*, II, 1933, pp. 352 ff., and VI, 1937, pp. 559 ff. Cf. *A.J.A.*, XXXVIII, 1934, pp. 123-127.

Mycenaean period, and, about 50 meters toward the east, a second one, approximately contemporary; while actually beneath the floor of the Paved Court there are two large rectangular pits, the contents of which date from about the same time.<sup>39</sup> These deposits seem to be nearly contemporaneous with the Mycenaean fountain farther east. A third well, close to the east side of the Court, was in use later, to the very end of the Mycenaean period.

For the following period, the Geometric, evidence is as scarce as for the early Helladic period. But while in the latter case it seemed likely that chance had played a part, the situation with regard to the Geometric period is somewhat different. Everywhere on the Acropolis and its slopes, traces of Geometric occupation are relatively rare. This is not strange, for we know that in Athens, some, and probably most of the people of that time, lived in the more level parts of the town, and that, in general, the Geometric peoples were not citadel-builders or dwellers.

But a little later, as we reach the historical period, we have once again ample evidence of human activity on the slope about Klepsydra. We have found and cleared eight wells, in the area immediately below the spring, which were filled up at a time close to that when we believe the first permanent spring house was built, that is, sometime during the quarter century following the Persian Wars.<sup>40</sup> The contents of these wells are of some interest for the history of this region on the northwest slope of the Acropolis. In each case we found that the bulk of the filling of the well had been thrown in at one time, and that this fill, while composed largely, of course, of broken pottery, most of it very fragmentary and representing a long period of time, contained also large quantities of such debris as broken roof tile, broken up sun-dried brick, neat polygonal building-stones such as are commonly used in the foundations of houses or other small buildings, paving slabs, and several trimmed saplings. It was abundantly clear that the wells had not served simply as receptacles for ordinary domestic rubbish,—the usual fate of disused wells in antiquity,—but had been filled up as the result of a thorough-going cleaning-up of the neighborhood: a cleaning-up so thorough as to include, apparently, the complete dismantling of a number of small buildings, or at least the complete disposal of the remains of such buildings (they might, of course, have been previously demolished).

These wells, dug we know not when—probably during the seventh or the sixth century—and closed up not many years after the Persian invasion, certainly before the middle of the century, are the last that were made in the region of Klepsydra for many hundreds of years. This is hardly coincidence. Until now the water of Empedo, deep under the rock at the back of the cave, had been hard to get at; it was as easy, perhaps easier, to dig a well nearby and so tap the water before it reached the surface. With the construction of the new spring house, such wells were no longer necessary; the water could now be easily drawn from the source itself.

<sup>39</sup> *Hesperia*, X, 1941, p. 7, and fig. 7.

<sup>40</sup> *Hesperia*, VIII, 1939, pp. 221 ff.

#### IV. KLEPSYDRA AND PAVED COURT: PERIOD I

Klepsydra and the Paved Court as we know them are clearly parts of the building program initiated after the defeat of the Persians (Fig. 36). Klepsydra is the descendant of Empedo; we do not know what may have preceded the Paved Court, but there is no evidence that either had a structural history before this time: the two buildings are, so far as we can judge, completely new. That they are not only contemporary but parts of a single scheme is evident: the material and workmanship are identical throughout, and they actually share a wall in common, Klepsydra's north, the Court's south wall (Figs. 29-30); such ceramic evidence as is available also bears this out.

The streamlets which feed Empedo bubble out at the back of the cave, at a point nearly six meters below the level of the ground at the entrance. The architect's problem, in converting *πηγή* to *κρήνη*, was to make the water conveniently accessible without destroying or wholly masking the essential character of the natural cave: for the feeling was old and strong that a special quality belonged to the natural state of the cave where a god dwelt.<sup>41</sup> The architect had to install modern plumbing, as it were, while still retaining the atmosphere of the old oaken bucket. How much refashioning of the cave was actually necessary, it would be difficult to say; but it is clear that it was, at most, only a little. He solved his problem in a direct and simple way: a reference to a sectional drawing through the Cave of the Nymphs at Vari<sup>42</sup> will give the reader a notion of what that problem was; our sections (Figures 32 and 33) show the solution.

The heart of the design is, of course, the rectangular drawbasin, sunk deep enough to reach the actual point of issue of the water (Figs. 9-18, 29-35). The basin is enclosed on two sides by a platform flush with its margin, from which the water could be drawn over a railing; the platform itself was reached by a flight of eight steps which descended from the northwest corner of the building. The living rock formed the roof and most of the east wall; at the south, where the cleft, of course, continued on under the rock, the spring house was closed by carrying the masonry up to meet the roof; but it remained open, as the cave had been, toward the west and, evidently, toward the north; the west wall reached only to the level of the ground at the cave entrance: the triple set-back of its upper courses helped to increase the light

<sup>41</sup> We have but to raise our eyes a little from Klepsydra to see three striking manifestations of this feeling—I mean the three cave sanctuaries. Most shrines of the nymphs are good examples: the Corycian cave, that at Vari, the Nymphaion on Parnes. Where architectural adornment has been added, as at Claros or Cyrene, it is likely to be only a façade, the cave itself is essentially untouched (on such mantic caves, see Elderkin, *Hesperia*, X, 1941, pp. 125 ff.). Expression of this feeling in literature: Seneca, *Epist.*, 41, 3; Ovid, *Metam.*, III, 158 f.; Juvenal, *Sat.*, III, 17 ff.; cf. Kern, *Rel. d. Gr.*, I, p. 81.

<sup>42</sup> *A.J.A.*, VII, 1903, pl. II; cf. *ibid.*, pp. 273, 274.



Figure 9

Looking down into the southwest corner of the spring house from the west. The view is taken over the orthostate wall through the crevice by which we reached the spring house. In the immediate foreground are the three set-backs of the west wall; notice the socket for a vertical post in the lowest. Beyond, in shadow, is the paving of the platform above the drawbasin; then a block, and part of a second, of the Hellenistic marble parapet; behind these, in turn, the heavy shadow under the rock marks the position of the south end of the drawbasin. It is just possible to see here the care with which the blocks of the south wall are fitted against the rock roof. The great mass of limestone which fills most of the left side of the picture is one of those that fell in the first century of our era.

and air within; the parapet of orthostates with its triangular coping provided a measure of seclusion, and prevented unwary passersby from falling into the spring house: it was as essential for this purpose as the wooden rail about the edge of the drawbasin.

As the design of Klepsydra was to a large extent the direct result of the need of fitting it into the existing cave, so it is obvious that the peculiar shape of the Paved Court was also forced upon it by its situation (Figs. 5-8, 29-30): the spring house and the line of the cliff east of it combine to give the south wall of the Court its two directions; the line of the north wall was fixed by the Peripatos, which, though no trace of it now exists, must inevitably have passed here (Figs. 36-37); at the northwest corner of the Court it met the Street of the Panthenaia, which swung southwestward here and gave to the western end of the court its extremely awkward shape.

We can say much less about the Court than about Klepsydra. It is clear, I think, that it *was* a court and not a covered building. For one thing, there are no traces of adequate interior supports, which would be desirable, although not essential, in a building of this size—the transverse wall and the posthole in the center of the eastern half of the building belong to a later period. Furthermore, and this is perhaps a more compelling argument, had a roof been intended, the architect would certainly have designed his building without the awkward angles which would make the present one so difficult to cover. There is no direct evidence for a restoration of the walls of the Court. We may guess, but it is only a guess, that they were carried up to the same height as the walls of Klepsydra and that, like them, they were crowned by a parapet with a coping.



Figure 10

Looking along the west wall of the spring house into the southwest corner. The set-backs begin at the top of the highest visible course of the wall at the right. Notice how this wall has settled beneath the weight of the fallen boulders, one of which appears in the upper left corner (this is the boulder referred to in the text to Fig. 9). Despite the heavy coating of lime deposit which covers most of the surfaces, it is possible to see that the faces of the blocks were originally carefully tooled and without drafting.

The masonry, throughout the two buildings, is of poros, fairly hard, and shading in color from a pale gray to a pale buff; the only exceptions to this are found in the east wall of the Court (Fig. 8) and the orthostate wall of the spring house (Fig. 4), where a harder poros, almost a limestone, bright buff in color, is used, and in the



Figure 11

Looking into the drawbasin over the marble parapet, from the southwest. Notice the rock wall overhanging the masonry at the east; the "euthynteria" at the north, east, and south sides; the reused material in the floor; the three inlets—marked by the broken ends of the marble tiles projecting from the east wall.

stairway, which is built of a very hard gray poros. The material was obviously new and cut for the buildings, save only some blocks in the floor of the drawbasin which seem to be second hand (Figs. 11, 15).

The workmanship is of the high quality which would be expected in buildings of the period to which ours belong. An index of this quality is the pains which have

been expended in dressing the rock and fitting the individual blocks to it (Fig. 9), wherever the walls abut upon it. The same care is evident in the walls themselves: we note the almost invisible bevelling of the joints, and the careful tooling of exposed surfaces, conspicuous where the walls have received their final dressing and have not been seriously damaged since; the best examples are the east wall of the court (Fig. 8) and the orthostate wall (Fig. 4), and, to some extent, the west wall of the spring house below the set-backs (Fig. 10).

What looks like drafting is visible in many parts of the buildings. But it is clear that it is a technical and not a decorative device. The facts that all faces which are certainly finished are free from drafting (Fig. 10), and that the drafting, where it exists, is very irregular, are sufficient indication that it was intended to be cut away (Fig. 16). It shows simply that the buildings, especially the Court, were never completely finished, a fact of some significance to which we shall return later.

There are details of both buildings which deserve our attention; let us look first at the spring house.<sup>43</sup>

The drawbasin, which is, as it were, the essence of the whole matter, has a number of interesting features.<sup>44</sup> We may note, first of all, that while three of its walls rest on a kind of euthynteria,<sup>45</sup> the fourth, the west wall, rests directly on the slabs of the floor (Figs. 11-12, 14-15). The explanation is obvious: the direction of the cleft is such that only at the west (Figs. 32-33) could the builder find a natural foundation of rock or hardpan; elsewhere the walls must be based on fill (natural or artificial, we cannot tell). Two pairs of stout transverse beams, the sockets for which are conspicuous in the photographs and drawings (Figs. 13-14, 18, 30, 32-35), crossed the basin from east to west; they were of wood, to judge from the size of the sockets, and must have been built in at the time of construction in the hope of offsetting any possible tendency of the cleft to close.

But perhaps the most curious feature of the structure is the inlets. First of all, it must be remembered that they are not spouts in the ordinary sense of the word. They are set close to the foot of the east wall (Figs. 15-16), and serve simply as a means of communication between the drawbasin and the natural reservoir in which it was set; the character of the basin and the function of the inlets is perhaps made clear by saying that it is like a live-bait box lowered into the cleft; through the inlets the water circulates freely, and in the drawbasin, therefore, will always stand at the

<sup>43</sup> Approximate over-all dimensions of the spring house, including the orthostate wall toward the west, but not the platform west of it, and the full thickness of the north wall, are  $8.50 \times 6.70$  m.; the total vertical depth, from the top of the coping on the orthostate wall to the floor of the basin, is ca. 7.925 m. Wall courses throughout, with only a few exceptions, are uniformly 0.40 m. high.

<sup>44</sup> Maximum dimensions of the drawbasin: ca. 4.50 m.  $\times$  ca. 2.35 m.  $\times$  ca. 4.00 m. deep (from the western margin).

<sup>45</sup> With a projection of ca. 0.10 m.



Figure 12

The north end of the drawbasin from the south. The line of the rock is clear at the upper right. The patched masonry of the northeast corner can be distinguished at the right, approximately midway of the picture's height. The horizontal white line marks the modern water level. The pipe is modern and was later removed (cf. Fig. 17).

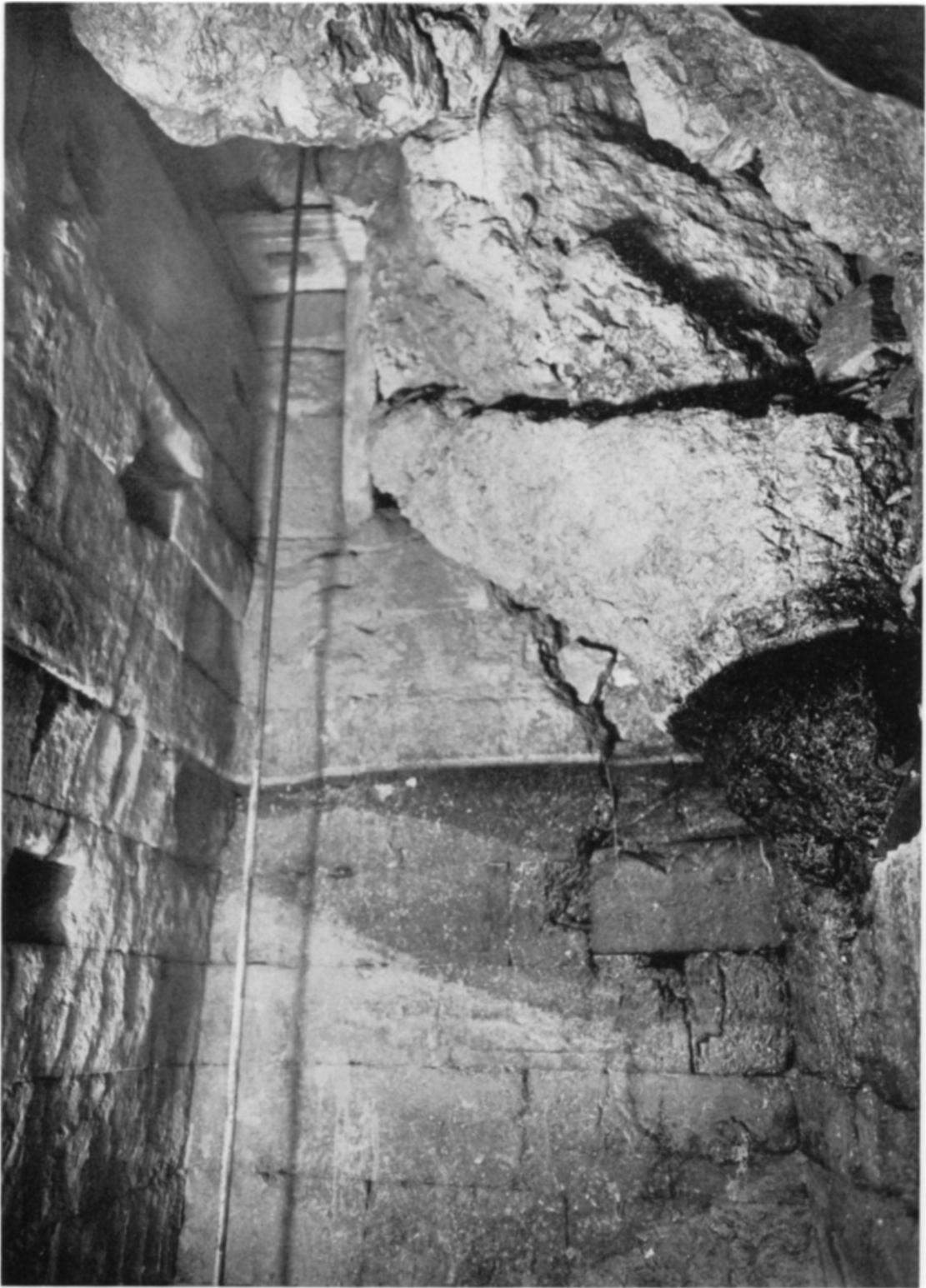


Figure 13

Like the preceding, but showing the upper part of the walls. Over the northwest corner of the basin is the marble well beam, wedged in beneath the rock, resting, at the left, on the northernmost block of the marble parapet. The two sockets for the transverse beams are conspicuous in the west wall.

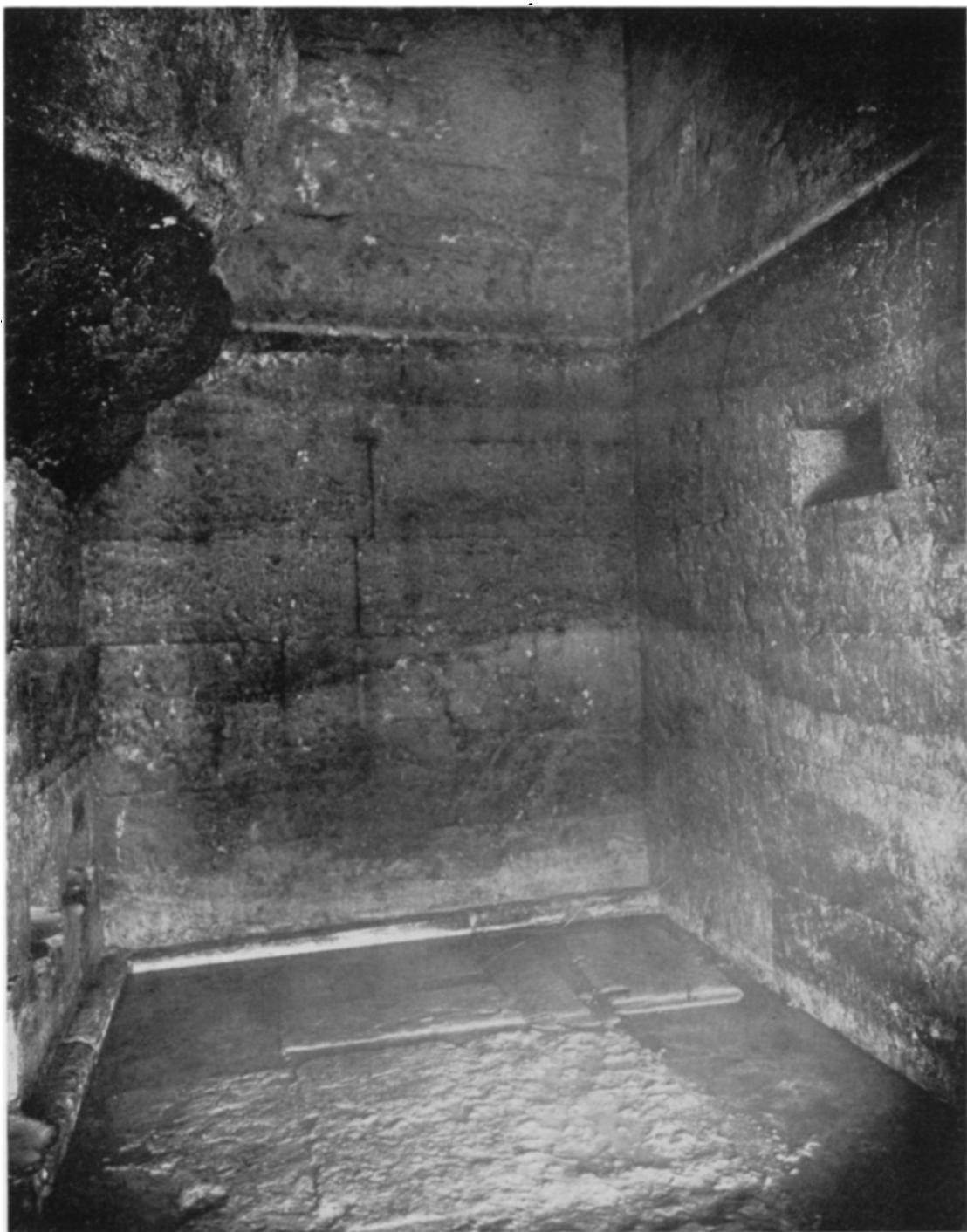


Figure 14

The south end of the basin from the north. Notice the inlets at the lower left, and the beam socket at the right, in the west wall. This view gives a suggestion of the general quality of the masonry, where it has survived relatively undamaged.

same level as in the surrounding rocks. This means that the inlets were, normally, well below the surface; and it is surprising, therefore, to note the care which has been spent upon them. There were originally at least four: three are preserved near the south end of the east wall (Figs. 15-16, 34); the fourth, near the north end of that wall, was destroyed when the wall was repaired at a later period, but the bottom of



Figure 15

The southeast corner of the basin, showing the three inlets in the east wall.

the cutting is still visible in the upper edge of the first course of masonry (Fig. 34). The inlets are painstakingly cut, in two cases with arched openings, to slope toward the interior of the basin; they were fashioned to accommodate, with astonishing precision, what appear to be pieces of ordinary roof-tile of coarse-grained island marble, here used as lining for the inlet floors. The tiles are long enough to extend through the wall and touch the rock at the points where, when the water level is lowered so that they are exposed, the streams running from the limestone are most copious; and each one does actually carry a stream like an ordinary fountain spout, until the water again rises enough to cover them. As if to further the illusion that this was a *bona*

*fide* fountain a circular hollow has been carefully scooped out—not worn, be it noted—beneath the lowest spout, evidently to accommodate a small jug or pitcher (Figs. 16, 32, 34).<sup>46</sup>

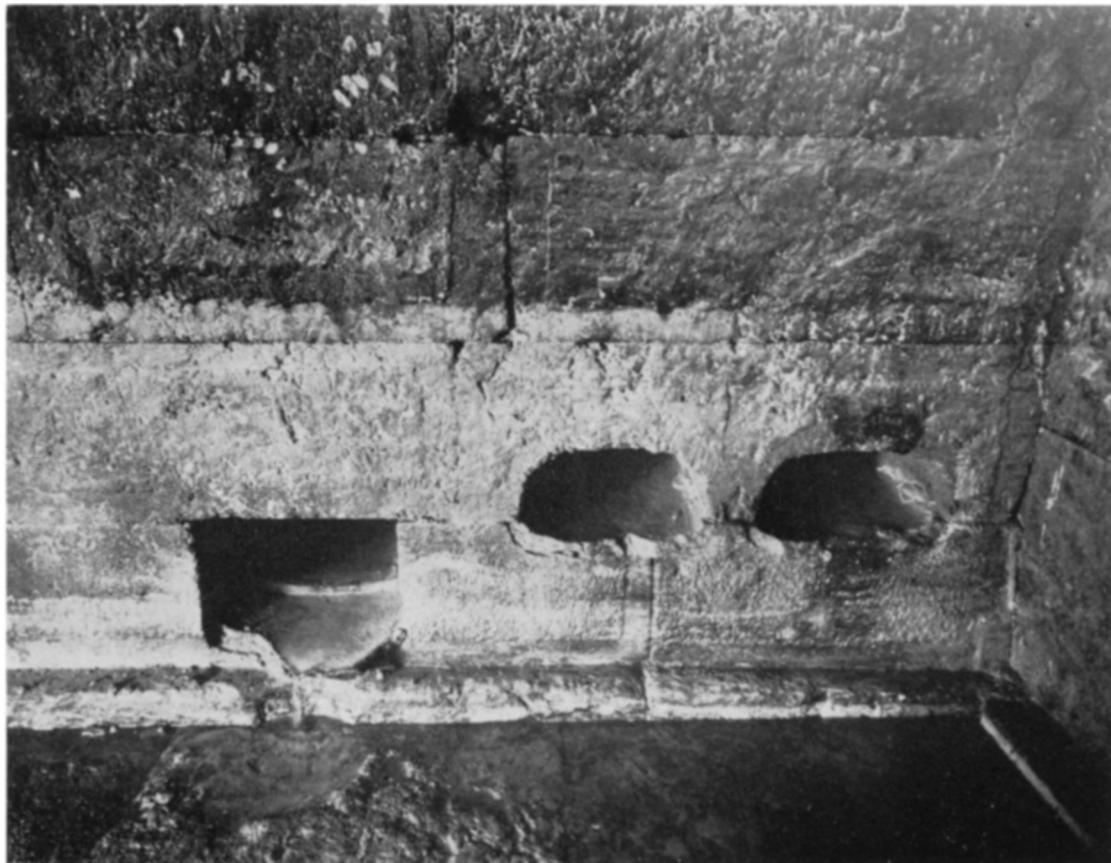


Figure 16

Closer view of the three inlets. The construction, with marble tiles used to line the floors, is very clear. Notice the circular hollow beneath the rectangular inlet, and how carefully it has been made where it cuts the "euthynteria." Notice also the stream of water flowing from this inlet; and the evidently temporary character of the drafting on the blocks of the wall.

A heavy parapet of reused blocks of marble now crowns the west wall of the drawbasin (Figs. 9, 18, 35); and at the north end a small well-beam rests upon it (Figs. 13, 17). This is, of course, not the original arrangement. The two small rectangular sockets in the south wall of the spring house above the parapet wall, now

<sup>46</sup> In a normal fountain it would have served the same purpose as the much larger cuttings beneath the spouts of the Sacred Spring at Corinth: Dunkley, *B.S.A.*, XXXVI, 1935-36, p. 174, pl. 24; Richardson, *A.J.A.*, VI, 1902, p. 311, pl. X, and fig. 3.



Figure 17

The marble well beam over the northwest corner of the drawbasin. The molding on the face of the beam can be seen, and the pulley-hole in the center. The northernmost block of the marble parapet, at the left, rests on the battered west wall of the drawbasin. The walling-up beneath the well beam dates from the period of the well house. Originally, of course, the well beam and its supports framed an opening like a small door, so that the rope and bucket could be reached and manipulated from the platform at the foot of the steps.

partially concealed by the southernmost block of marble, were clearly made to hold wooden railings (Figs. 18, 32):<sup>47</sup> the original parapet must have been a simple fence, like a porch railing with a horizontal beam above and one below, and a number of



Figure 18

The upper southwest corner of the drawbasin. In the west wall, one of the sockets for a transverse beam is conspicuous, and just below it a dark line which indicates the (or an) ancient water level. Above the west wall are the two southern blocks of the marble parapet. The smaller of the two partially masks the two small sockets in the south wall which held the original wooden railings. Notice the deeply worn grooves in the lip of the west wall, which appear to date from an interim period when there was neither railing nor parapet.

uprights between. This railing was about 0.85 m. high. There is a third and much larger socket,<sup>48</sup> directly above the sockets for the railing (Fig. 32). It looks as if it had been made to hold a heavy, horizontal, wooden beam, parallel to the railing and about 0.65 m. above it, but it is not easy to see what function such a beam could have

<sup>47</sup> The sockets are *ca.* 0.15 m. high, and *ca.* 0.20 m. wide.

<sup>48</sup> *Ca.* 0.20 m. high, 0.40 m. wide, and a maximum of *ca.* 0.25 m. deep.

performed in this place. It is so low—only about 1.50 m. above the floor of the platform—that only a small person could have leaned over the railing below it without inconvenience; and it does not seem to answer any structural need. There is one possibility: the socket is at approximately the same level as the later well beam over the north end of the basin; it may be that it served a similar purpose; conceivably, that is, it supported one or more pulleys or similar devices, by which buckets could be lowered and raised more easily than by hand.<sup>49</sup>

The stairway by which one descended to the paved platform above the basin from the northwest corner of the spring house was composed of eight low steps (Figs. 30, 33, 35). Most of the stairway is permanently concealed beneath the fallen rock and the concrete foundations of the well house, but we were able to make sure that the two top steps were cut from one massive block (Fig. 29), and to fix the position of the bottom step. The coursing can be seen in the northwest corner of the platform; there are but four courses, each about 0.50 m. high, so that it is clear that not merely the top two, but all the steps were cut in pairs.

The west wall of the spring house rests on the slabs of the platform floor;<sup>50</sup> these, like the slabs at the west edge of the drawbasin floor, should have rested on rock: the settling of the wall under the pressure of the fallen roof shows that they were not as firmly based as was intended (Fig. 10).

<sup>49</sup> How such pulleys might be hung is shown by a wooden well-head of Roman times found at Saalburg, *Westdeutsche Zeitschrift*, VII, 1888, p. 289 and pl. 7.

<sup>50</sup> The platform averages ca. 1.75 m. in width; the wall above, to the first setback, is ca. 1.60 m. high.



Figure 19

The interior of the well house as we found it, from the entrance. The floor shown here lies nearly a meter higher than the ancient one, and conceals the three rock-cut steps which led down to the well in antiquity: cf. Figs. 31, 33, 34. The well curb is ancient. The circular opening above the well is that made by the builders of the Bastion in 1822; the opening at the right is still later, cf. text to Fig. 5. Notice here and in Figs. 20 and 21 that the side walls, to shoulder-height, approximately, are cut from the living rock, with the brick barrel-vault above, but that the whole of the apsidal end is of masonry.

The setbacks in the three upper courses of this wall (Figs. 9, 32, 33) have already been referred to: by bringing the wall into closer relation with the conformation of the ground, they make not only for economy of material, but for greater strength; and by creating a line roughly parallel to that of the rock roof, they considerably increase the size of the opening through which light may enter.<sup>51</sup> The north wall of the spring house, the common wall between Klepsydra and the Paved Court (Figs. 5-6, 34-35), has suffered such damage that we have no direct evidence as to the

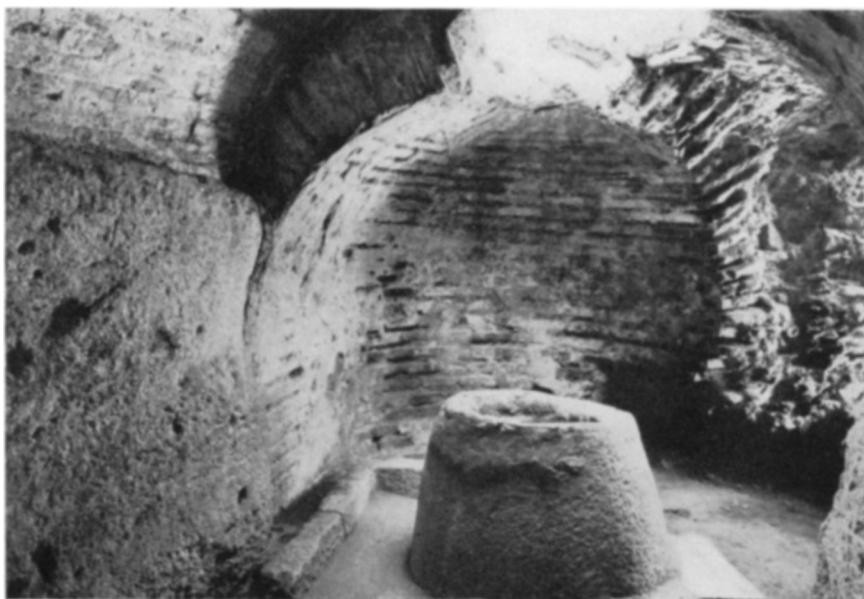


Figure 20

The well house from the center of the east end.

character of its upper courses. But it is a stout wall, of two faces of stretchers, back to back, with a total thickness of just over a meter and a half. I do not think we need hesitate about restoring it on the analogy of the west wall, but, because of the narrower width, with a setback in only two courses at the top, instead of in three (Figs. 30, 35).

The topmost course of the west wall was extended toward the west to form a platform at or about the level of the ground outside the cave (Fig. 30). We cannot say much about this platform, since it is largely concealed by later masonry which could not be removed (Fig. 4): it was *ca.* 1.60 m. wide, and was faced at the west with a wall

<sup>51</sup> The device of slanting the lintel or the sill, or both, of an opening to let in more light is familiar in ancient as in modern architecture; the best examples in Athens are in the Odeion of Herodes: cf. Versakis, *'Αρχ. Εφ.*, 1912, p. 167, fig. 7, pl. 9 and pl. 12.

of small trapezoidal blocks of Acropolis limestone. I have no guess as to the significance of the limestone wall nor the function of the platform. At its inner edge, at the top of the last setback, rested the barrier of orthostates which closed the spring house at this side. Four orthostates are still in position, almost undamaged (Figs. 4, 29, 30, 32-33, 35);<sup>52</sup> a single fragment of the coping which they once carried is preserved, wedged beneath the sagging boulders at the south end; it is large enough so that we could recover its profile.

The crisis in Klepsydra's structural history was, we have said, the collapse of the rock which formed its roof, and there is evidence to suggest that this was a contingency which the builders had feared, and from the beginning, had hoped to anticipate. This must have been, I think, the explanation of the four heavy transverse beams built into the drawbasin; by this device the architect evidently hoped to prevent such a settling of rock as that, for example, which later crushed the northeast corner of the basin. And the best explanation, I believe, of the rectangular sockets in the lowest setback of the west wall of the spring house (Figs. 9, 29, 30, 35), is to suppose that they held stout wooden posts intended to brace the roof.<sup>53</sup> The position selected for the columns was determined, obviously, by the belief that the west wall was, in fact, as firmly based as it was intended to be. It is not possible to decide whether the columns were in any way architecturally ornamented. The general effect, in any case, was perhaps something like that of Peirene at Corinth, for example, in its earlier phases.<sup>54</sup>

There was no formal outlet from the drawbasin: the "bait-box" construction of the basin makes this unnecessary.<sup>55</sup> There is, of course, an overflow; when the

<sup>52</sup> The orthostates are just under 0.90 m. high, ca. 0.50 m. thick, and ca. 1.75 m. long.

<sup>53</sup> The sockets are ca. 0.40 m. square. There is another, very similar, socket in the floor of the Court, against the northeast corner of the spring house.

<sup>54</sup> Morgan, *Ancient Corinth, a Guide to the Excavations* (3rd. ed., Athens, 1936), p. 34, pp. 36 f. and fig. 6.

<sup>55</sup> Schazmann describes and illustrates a Hellenistic fountain in the Asklepieion at Kos which was fed, like Klepsydra, by underground water, but without either formal inlet or outlet, apparently: Herzog, *Kos, I, Asklepieion*, pp. 58 ff., pls. 30-33.



Figure 21

Breton's sketch of the well house, made in 1859, or earlier, while the frescoes were yet visible on the walls.

water reaches a certain level in the cleft, it runs off to the north through natural channels in the rock, to collect beneath the floor of the Paved Court. At present it reappears as a lively stream in the foundation trench of the transverse wall near the center of the Court, where the channels of the Roman and later periods picked it up. Originally, however, it seems to have been allowed to collect in the Mycenaean pits beneath the floor of the Court: the original overflow channel (*A* on the plan, Figure 29) started from the northeast corner of the eastern pit. We may note in this connection that it was not until Turkish times that the water of Klepsydra was piped off in the direction of the Market of Caeser and Augustus; and it is unlikely that it ever served to run the water-clock in the Horologion of Andronicus;<sup>56</sup> throughout antiquity it was carried in a northwesterly direction, clearly toward the ancient Agora.

The water level within the basin was at least as high in antiquity as it is today; a clearly marked line shows that at some period, and for a considerable time, it stood somewhat higher (Figs. 12-14, 18);<sup>57</sup> it can never, I think, have fallen very much lower. There is a reliable indication of this: in the face of the north wall of the drawbasin, close to the northwest corner, a bottle-shaped depression has been hollowed out (Figs. 12-13, 34-35), the purpose of which was, of course, to permit jars and buckets, lowered from the well-beam above, to hang more or less vertically in the water and not be tilted by striking against the wall.<sup>58</sup> The deepest point (measured from the face of the wall, of course) of the hollow must have been below the water level, or it would not have performed its function. This point is only about 0.30 m. below the present water level; the minimum level in antiquity, therefore, is not likely to have been more than, say 0.15 to 0.20 m. below what it is now.

We have said that the flow of Klepsydra is unusually constant. This statement is based only partly on measurement, partly on observation. An approximate measurement made in 1937 shows that in August of that year its capacity was not less than 100 litres (ca. 25 gals.) per hour, probably a great deal more. In July, August, and September, the spring is (*pace Istri*) at its lowest. We have no exact figures for the winter months; the flow increases perceptibly, but not to anything like the figure suggested by Pittakis: ten times the summer flow.<sup>59</sup> But about 2000 people, besieged in the Acropolis from July, 1826, to the end of May, 1827, depended largely, if not

<sup>56</sup> The rather natural supposition that it did, originated with Stuart and Revett, and has been generally accepted since; only Walter calls attention to the fact that Klepsydra's slender stream might be inadequate to run the mechanism of such a clock: *Fuehrer durch Griechenland*, 1, *Athen* (Vienna, 1929), p. 12.

<sup>57</sup> The two water-lines are marked on the sections by broken lines; the modern, which is very conspicuous as a band of white in the photographs, is the lower.

<sup>58</sup> The depression is so deep and so symmetrical that I am forced to conclude that it is at least partly artificial. In most fountains it must be simply the result of wear; a good photograph of such wear: Schatzmann, *Pergamon*, VI, *das Gymnasium*, p. 24, fig. 4.

<sup>59</sup> *Ancienne Athènes*, p. 156 f.: July and August, 160 okas per day; in winter, 1600.

wholly, on Klepsydra for their water, and found it sufficient; when they surrendered, it was not because of thirst.<sup>60</sup>

The single most surprising fact about Klepsydra at this period, to most of us, is perhaps that it could not be reached directly from the Acropolis. It has been com-



Figure 22

The reservoir (sixth century after Christ) seen from above, from the southwest. Note the remains of the wall of Valerian along the west side. The water of Klepsydra was piped into it near its southwest corner (see p. 249).

monly assumed, and rather naturally so, that it must have been at least accessible from the Acropolis, if not actually included in an outwork of the fortifications, from an early period, as early even as Mycenaean times. The partially rock-cut stairway which leads from the vaulted well house up to the classical bastion west of the Propylaia, has been thought to be prehistoric;<sup>61</sup> even when it has been recognized

<sup>60</sup> S. Trikoupis, *Ιστορία τῆς Ελληνικῆς Επαναστάσεως*, IV (London, 1857), pp. 162 f.

<sup>61</sup> Even by so recent a writer as Picard, *l'Acropole, l'enceinte, etc.*, p. 11.

that it was not earlier than Roman, it has frequently been supposed that it simply replaced some earlier but essentially similar scheme.

Yet the history of successive sieges of the Acropolis, in every case where we have any information, suggests that quite the opposite was true. We are expressly told that Kylon in the seventh century, and Aristion in the first, were both forced to yield through lack of water;<sup>62</sup> and it was thirst which forced the Turks to surrender in 1822.<sup>63</sup> It is clear that no permanent spring can have been included ordinarily within the walls and that the normal water supply of the Acropolis was not adequate for a long siege. Wise defenders made special provision to supplement the supply; the Peisistratids planned for water as well as for food when they were beleaguered in the Acropolis in 510 B.C.;<sup>64</sup> the Greeks of 1826, 2300 years later, had the foresight to enclose Klepsydra in the massive bastion of Odysseus.<sup>65</sup>

Further indication of the difficulty of supplying the garrison with water is found in the extensive efforts which were made, at all periods, to provide storage on the summit of the hill itself. Broneer's recent and brilliant discovery of the Mycenaean fountain in the rock wall northwest of the Erechtheum has shown us for the first time the extent of the precautions which the Athenians of that period felt they must take to secure water for their citadel.<sup>66</sup> Extensive remains of a storage system which dates perhaps from pre-Persian, certainly from pre-Periclean times, may still be seen near the northwest corner of the plateau.<sup>67</sup> Somewhat later, to the Classical or Hellenistic period, belong the five shafts in the rock just north of the Parthenon: they are the mouths of cisterns of the ordinary bottle-shaped variety, if one may judge from the very brief published references to them.<sup>68</sup> Late Roman in its present form is the great reservoir which occupies the northeast wing of the Propylaia, but it may well represent a rebuilding or a reworking of an earlier structure;<sup>69</sup> it is the only ancient cistern on the Acropolis, so far as I know, which dates from a period when the water of Klepsydra was also probably available from above.

The building of cisterns on the citadel continued throughout the middle ages and the Turkish period. A number have been demolished in modern times, and no external evidence is available for dating exactly those which remain; as examples of such cisterns, we may recall two small tanks which are still to be seen near the north wall of the Acropolis, a third, now destroyed, which once overlay a part of the foundations

<sup>62</sup> Kylon: Thucydides, I, 26; Aristion: Appian, *Bell. Mithr.*, 39; Plutarch, *Sulla*, XIV, 7.

<sup>63</sup> Below, p. 261.

<sup>64</sup> Herodotus, V, 65.

<sup>65</sup> Below, p. 261.

<sup>66</sup> *Hesperia*, VIII, 1939, pp. 317 ff.

<sup>67</sup> Kavvadias-Kawerau, 'Ανασκαφαὶ τῆς Ἀκροπόλεως (Athens, 1906), pp. 63 ff., pl. II.

<sup>68</sup> *Ath. Mitt.*, XIV, 1890, pp. 324 f.; Kavvadias-Kawerau, *op. cit.*, pp. 125 ff., pl. I, V; Middleton, *Plans and Drawings of Athenian Buildings* (J.H.S., Suppl. III, London, 1900), pl. 1, 77; Stevens, *Hesperia*, V, 1936, p. 518, fig. 66.

<sup>69</sup> Kavvadias-Kawerau, *op. cit.*, pp. 61 f., pl. II; Middleton, *op. cit.*, pl. 4, IV.

of the Temple of Roma, and most familiar of all, the vaulted chamber beneath the Erechtheum, of which only the rock walls now remain.<sup>70</sup>

All of this only bears out what is indicated by the excavation: that until the second century of our era, there was no direct communication between the spring and the Acropolis. There is some evidence, as we shall see, to suggest that such a connection was thought of and was even planned; but it is certain that the plan was never carried through. From the days of Empedo, through 600 years of the life of Klepsydra, the spring was outside the Acropolis; it looked away from the citadel, faced on the Street of the Panathenaia, and could be reached only from that direction.

The Paved Court calls for little comment beside what has already been said, but a few points perhaps warrant special notice:<sup>71</sup>

Despite the badly damaged condition of the walls, we can yet be certain that the entrance to the Court was from the west, where a flight of steps led down from the street (Figs. 5-6, 29-30). The two lowest steps and part of a third are still *in situ*; they are high and steep; the risers are the full height of a wall course, about 0.325 m., and the treads are of approximately the same width. There was at least one more step: that is shown by the weather lines still visible on the surface of the single block of the third step; and we suggest that there were originally seven (Fig. 30).

The proposed restoration is supported by several considerations. Seven such steps would, in the first place, bring the entrance of the Court to the same level as that of Klepsydra, and this, as we have seen, was approximately the level of the ground here in antiquity (Figs. 32-35). Second, this level, about 2.25 m. above the floor, seems also to have been the original height of the east wall of the Court: the single small block which remains of the top-most course is neatly fitted, like the blocks below it, against the overhanging rock, which has been carefully smoothed to receive it (Fig. 8); above the single block the surface of the rock is quite rough, with no trace whatever of tooling—clearly there was no preparation for a higher course of the wall.<sup>72</sup> Finally, the restoration of seven steps at the entrance leaves just space to restore the west wall of the building with the same thickness as the north wall (Fig. 30); we shall see that there is some reason for supposing that the two were alike.

Of the entrance itself, above the level of the steps, and of the walls, we can say nothing. We have guessed that at this level the wall was crowned by a parapet with a coping similar to that which closed in the spring house. The only support for such

<sup>70</sup> Kavvadias-Kawerau, *op. cit.*, pp. 77 f., pl. III; 101 f. (text to pl. V); Paton, *Erechtheum*, pp. 169 f. and references there.

<sup>71</sup> The maximum over-all dimensions of the Court are ca. 24.25 from east to west, ca. 10.50 from north to south; inside measurements, ca. 18.0 m. × ca. 9.0 m.

<sup>72</sup> Note that in the east wall the wall courses are approximately 0.45 m. high. Elsewhere in the Court they vary from ca. 0.323 to ca. 0.35 m. high. The difference caused trouble when it came to bonding the east and north walls, and the irregularity is still plain, Fig. 8.

a guess, aside from general probability, is a large coping stone which was found during the demolition of the wall of Valerian: it is triangular in section, very like that of Klepsydra in its proportions, but on a slightly larger scale, and of a harder material, the same as that used in the east wall of the Court and the orthostates of the spring house.

A conspicuous characteristic of the Court is the unfinished condition of parts of its walls. Many of the blocks of the south wall, for example, are still almost in quarry state (Figs. 5-6), so far as their exposed faces are concerned, with only deep draftings along the upper edges to show how much was ultimately to be worked off. Similar draftings on blocks of the north wall indicate that here, too, the final dressing has not yet been given. There is now no wall along most of the south side, but one was probably planned; a series of shallow beddings which can be traced from the east end of the preserved south wall along the south edge of the floor to the southeast corner were perhaps intended for a light wall which would have screened the lower part of the rock (Fig. 30). No trace of such a wall can be found where it must have abutted against the east wall, and it is practically certain that it was never built.

By far the most striking feature of the Paved Court is the thickness of the north, and if our restoration be correct, of the west wall (Figs. 5-6, 29-30). It is approximately two meters—too thick, obviously, for a wall of an ordinary building, and much too thick for the wall of a courtyard, even in its foundations. It suggests nothing so much as a fortification wall, as more than one scholar has seen,<sup>73</sup> and this may be the true explanation: it is possible that the heavy north and west walls of the Court are testimony to a scheme for enclosing the Court and Klepsydra within an outwork of the Acropolis wall which was planned but never completed.

We cannot, of course, be sure of the original scheme, but on the basis of what clues remain, we can make a plausible guess. It is evident that the east wall of the Court cannot have formed part of such a fortification; it is too narrow and too low. The real clue lies on the rock ledge above: about twenty meters to the east of the Court, close to the outer (north) edge of the ledge which runs eastward from the cave sanctuaries, there is a still conspicuous cutting (Fig. 36).<sup>74</sup> It slants across the rock for a distance of about 15.0 meters; at the west end it breaks off at the edge of the cliff; where it is best preserved, it is about 1.40 m. wide, and a maximum of about 0.50 m. deep with carefully smoothed floor and sides. It is not a quarryman's cutting. It can scarcely be anything but the bedding for a wall.

The restoration is surely obvious: a wall running from the jutting shoulder of the Acropolis just north of the postern gate, diagonally across the ledge and down

<sup>73</sup> E. g., Dörpfeld, *Ath. Mitt.*, XXI, 1897, p. 479; idem, *Festschrift Walther Judeich* (Jena, 1929), p. 6; Judeich, *Topographie*<sup>2</sup>, p. 116, note 3.

<sup>74</sup> Plainly indicated on Kavvadias' plan: 'Εφ. 'Αρχ., 1897, pl. 1, β'; whence we have taken it for our Fig. 36.

the face of the cliff to the northeast corner of the Court; such a wall would have included the postern and the rock steps leading to it. Similarly, from the southwest corner of the Court, we may suppose that a wall was to have climbed toward the south or southwest to meet the retaining walls before the entrance, somewhere west of the Propylaia. A careful examination of the slopes both east and west of the Paved Court has shown that this plan was, almost certainly, never perfected, that the massive north and west walls of the Court and the cutting in the ledge to the east of the cave of Pan, are not only all that remains of it, but, in all probability, all that ever existed.

The reason is not far to seek. We shall see that Klepsydra and the Paved Court were built during the second quarter of the fifth century, probably not later than about 460. They must have formed a part of the plans of Themistocles and Kimon for rebuilding the Acropolis, not of those of Pericles. The rebuilding of the walls was begun by Themistocles, there is no reason to doubt, but it took a long time; in the middle 40's there were still gaps through which a man could make his way unobserved, as we see from Kallikrates' contract to make the Acropolis safe from thieves and runaways.<sup>75</sup> In the meantime, ideas had changed; what had been planned and begun as a mighty citadel, while the memory of the Persians was still fresh, was being finished as the most



Figure 23  
Horos of the Sacred Road, Inv. No. I 5476.

<sup>75</sup> *I.G.*, I<sup>2</sup>, 44 (*Syll.*<sup>3</sup>, 62), *opus Callicratis*, ca. a. 445; asylum on the Acropolis for runaway slaves: *I.G.*, I<sup>2</sup>, 662.

magnificent of sanctuaries : the fortress was all but forgotten for the shrine. We may imagine that when Klepsydra and the Court were built, the finishing touches, the walls to link them to the Acropolis, were left to the last, until the walls above should be finished, at least until their final form should be decided upon. By that time, new and far reaching plans for the Acropolis were being put into effect, the northwest outwork was no longer necessary, was perhaps altogether forgotten; Klepsydra and the Paved Court stayed as they were, for all practical purposes complete and ready to use, but permanently outside the Acropolis.

#### V. KLEPSYDRA AND PAVED COURT: DATE OF PERIOD I

We have repeatedly said that the buildings were constructed during the second quarter of the fifth century. Klepsydra belongs to a recognized class of fountain house, consisting essentially of a basin sunk in the ground. They are commonest, certainly, in the fifth century, but are not limited to it, and there are, moreover, no data for the working out of any typological development.<sup>76</sup> Fortunately, however, there is archaeological evidence and historical probability to support the proposed date and even to make it more precise.

A small quantity of potsherds gathered from behind the walls of the spring house and the Court provide us with a *terminus post quem*, ca. 475-470. The quantity is not large, for, as we have seen, the ground level at present in the immediate vicinity of the buildings is in most places lower than it was in antiquity, so that there remained but a few spots where contemporary filling was found undisturbed. In view of the inaccessibility of our records, we cannot discuss even this material in detail. Suffice it to say that the pottery is entirely homogeneous, and clearly related to that found in connection with the first period of the Tholos.<sup>77</sup> The sherd shown in Figure 24, the only figured piece in the lot, is altogether typical; the lack of incision and the degenerate workmanship show that it cannot have been made much, if at all, before 475.<sup>78</sup>

We have already referred (p. 207) to the group of wells on the slope below Klepsydra, the closing up of which we thought should have coincided with the building of Klepsydra. Analysis of their contents showed that their date, too, should be about 475, hardly later. The great bulk of the pottery belonged to earlier periods, the sixth,

<sup>76</sup> Dunkley, *B.S.A.*, XXXVI, 1935-36, pp. 180 ff., discusses fifth-century examples. The Hellenistic fountain in the Koan Asklepieion has been referred to above, note 55. Aristophanes' references to Klepsydra, *infra*, Appendix, Test. I and IX, give us a lower *terminus*, of course, in 411, the year of the production of the *Lysistrata*.

<sup>77</sup> Thompson, *The Tholos of Athens and its Predecessors* (*Hesperia*, Suppl. IV, 1940), p. 126.

<sup>78</sup> Inv. No. P 13,507. From the rim of a black-figured kylix, with the head and upper body of a figure which may be reclining. My parallels are in Greece; but I may say that Prof. H. R. W. Smith concurs in this dating.

and even the seventh, century; but in each well there was a scattering of later pieces, showing that the actual filling up must have taken place after the Persian wars.

The character of the masonry helps toward establishing a *terminus ante quem*. The plain tooling of exposed faces, the lack of ornamental drafting, to some extent the deep and strictly functional bevelling of the joints (Figs. 10, 14, 18), are characteristics which relate the buildings to structures of the period immediately after the war, and which seem definitely to militate against its being dated later than the middle of the century. The Tholos, in the Agora, comes to mind at once as a building securely dated in just this period; and a reference to the photographs and descriptions of the preserved blocks of the original wall of the Tholos will show that there is a very close resemblance in the treatment of both joints and surfaces.<sup>79</sup>

There is close kinship, too, with parts of the walls of the Acropolis; especially with such sections of the south wall as are certainly ancient.<sup>80</sup> The date of any given ancient part of the Acropolis wall, is, of course, not always determinable, but there is little doubt that all, or nearly all, of it is pre-Periclean.<sup>81</sup> The tradition that Kimon built the south wall is strong and plausible.<sup>82</sup> We cannot be sure of what was built before his time; but we should, I think, regard as the work of Themistocles those parts, at least, of the north wall in which are displayed the column drums and other architectural members of the older Parthenon: these were surely intended not merely as a permanent reminder of the destruction wrought by the barbarians,<sup>83</sup> but as a visible token or pledge of the intention of Athens to carry out the terms of the Greek oath not to rebuild the temples destroyed by the Persians.<sup>84</sup> Hence we must assume that they were set up very shortly after

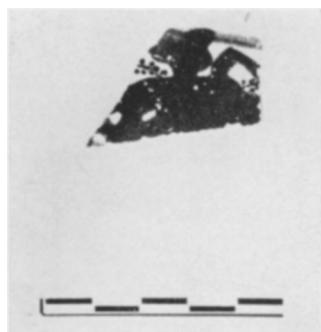


Figure 24

Black-figured Sherd, Inv. No.  
P 13507.

<sup>79</sup> Thompson, *The Tholos* (*Hesperia*, Suppl. IV), p. 50 and figs. 35, 38, 44.

<sup>80</sup> No good photographs of this are published; for example, Picard's pl. 78 (*L'Acropole, le plateau supérieure*) is inadequate to show details; cf. Penrose, *Principles of Athenian Architecture* (London, 1888), pl. 45, figure 2.

<sup>81</sup> No careful study of the walls of the Acropolis has yet been made. Such a study is badly needed: the various chronological schemes thus far proposed are based simply on what their authors consider historical probability. Cf. Judeich, *Topographie*, p. 210, and the references there given; add Wrede, *Attische Mauern* (Athens, 1933), pl. 32.

<sup>82</sup> Plutarch, *Cimon*, 13, 5; *Lucullus*, 44, 5; *Moralia*, 349 D; Nepos, *Cimon*, 2, 5; Pausanias, I, 28, 3.

<sup>83</sup> An "ewige Mahnzeichen des Nationalhasses gegen die Barbaren," Wachsmuth, *St. A.*, I, p. 521, quoting Beulé.

<sup>84</sup> On this oath, cf. Dinsmoor, *A.J.A.*, XXXVI, 1932, pp. 314 f. Himself accepting the authenticity of the oath, like Bates (*Harv. Stud.*, 1901, p. 319), he cites, opposed to it, Busolt, *Gr. Gesch.*, III, 1, p. 358, note 3; Meyer, *Forschungen*, II, p. 97, note 1; Paton, *Erechtheum*.

the final victory. Whether the remainder of the north wall was also built by Themistocles, or even by Kimon, it would be hard to say; if by either, the deliberate ornamentation of the blocks with a band of drafting across the lower edges would be years ahead of its time.<sup>85</sup> In general, it is safe to assume, I think, that the construction of the wall was a gradual process; that the spoils of the Eurymedon reached the treasury in time to pay for some or all of the wall on the south side; and that the entire scheme may not have been completed much before the end of the century.

We have suggested that the peculiarities of the Paved Court are best explained by supposing that they are the result of a never-completed plan to include the spring and its surroundings within an outwork of the Acropolis wall: that the failure to carry the scheme through was a result of sweeping changes of plan for the whole of the Acropolis. The new plans can only have been those of Pericles; the death of Kimon, then, and Pericles' rise to power, should give us roughly the time when work on the buildings was stopped.

The sanctuary of Pan, which must have existed long before, was made the center, following the war, of a state cult, and we may suppose that the extensive cuttings for steps and walls which are still visible in the rock ledge before the cave date from this time;<sup>86</sup> a little later, around 450, the architect Koroibos was busy at the city Eleusinion, only a little lower on the slope.<sup>87</sup> But for our own buildings we have reached a date between about 475-470 at the latest on the one hand and about 460 on the other. This is the time of Kimon; let us remember that Kimon, beside building the south wall of the Acropolis, did much to beautify the city: Plutarch tells us of the shady walks, the plane trees planted in the Agora, the groves and fountains which adorned the Academy.<sup>88</sup> We may well believe, I think, that Klepsydra and the Paved Court were, in their original form, the work of Kimon.

p. 448, note 4; Judeich, *Topographie*<sup>2</sup>, p. 72, note 2. The oath was condemned also by Theopompus (Jacoby, *F. Gr. Hist.*, II, B 1, p. 569, Frag. 153). Its text is found on a fourth-century stele from Acharnai (Robert, *Études épigraphiques et philologiques*, pp. 307 ff.). The section on the temples burned by the Persians (Lycurgus, *Leokrates*, 81; Diodorus, XI, 29) does not occur in the epigraphic text. Robert (*op. cit.*, pp. 312 ff.) is among those who consider the oath apocryphal. Cf. further Dinsmoor in *Studies in the History of Culture* (published for the conference of secretaries of the American Council of Learned Societies, Menasha, 1942), p. 214; and on the authenticity of the Peace of Callias, likewise condemned by Theopompus, Wade-Gery in *Athenian Studies* (*Harv. Stud.*, Suppl. I), pp. 121-156.

<sup>85</sup> For the most recent discussion of this drafting, cf. Scranton, *Greek Walls* (Cambridge, Mass., 1941), p. 129, and p. 179, D6, 1.

<sup>86</sup> Judeich, *Topographie*<sup>2</sup>, pp. 301 f. The scholiast on Clement of Alexandria, *Protr.*, III, 44, 3 uses the verb *τεμενίζω* to describe the establishment of the cult; can we see in it any suggestion of the physical process of constructing the *temenos*?

<sup>87</sup> Kourouniotes, 'Ελευσιακά, I (Athens, 1932), pp. 173 ff.

<sup>88</sup> Plutarch, *Cimon*, XIII, 8.

## VI. KLEPSYDRA AND PAVED COURT: IDENTIFICATION

### KLEPSYDRA AND THE SANCTUARY OF THE NYMPHS

The identification of Klepsydra has never been in doubt;<sup>89</sup> and it is not necessary to do more than reaffirm it here. There are no contradictions in the indications preserved for us in ancient literature: the "just below the Propylaia" of Pausanias, the "near the sanctuary of Pan," and "on the Acropolis," of the grammarians.<sup>90</sup> These clearly point to our spring.

The existence of a sanctuary of nymphs somewhere below or close to the cave of Pan has long been suspected.<sup>91</sup> So closely are Pan and the nymphs linked throughout the Greek world, that one can scarcely think of one without the other: the cult of the Goat-God would in itself be almost enough to prove that the nymphs, too, were worshipped here.<sup>92</sup> More conclusive still is the group of dedicatory reliefs which, from time to time, have been found close by, and in which Pan and the nymphs are associated.<sup>93</sup> New evidence has recently been found in the Agora excavations: the fragment of a boundary stone of a "nymphanian sanctuary": *Nυνφαίο ἱερόν λόπος*: it was found, like many another stone which originally stood on the north slope of the Acropolis, in the walls of a relatively modern house, west of the Stoa of Attalos.<sup>94</sup> The stone is dated by its editor in the first half of the fifth century; it is of special interest because it shows definitely that there was a sanctuary of the Nymphs distinct from that of Pan.

We have suggested that Empedo was nymph as well as spring, because spring and nymph are almost synonymous. This is scarcely less true of cave and nymph. Where the two are found together—as here on the slope, and as they are on Hymettus, and on Parnassus<sup>95</sup>—there the nymphs are most at home: the combination of spring and cave must have been irresistible to nymphs and worshippers alike. Need we look farther for the center of the nymph cult here? May we not suppose that it was Empedo-Klepsydra, close beneath the sanctuary of Pan? I think we may, and that here once stood the new horos-stone. The stone is of some interest, for it may well

<sup>89</sup> Dyer alone seems to have questioned it: *Ancient Athens* (London, 1873), pp. 442 ff.

<sup>90</sup> Judeich, *Topographie*<sup>2</sup>, pp. 191 ff.; and see the *Testimonia, infra, Appendix*.

<sup>91</sup> Judeich, *Topographie*<sup>2</sup>, p. 302.

<sup>92</sup> Harrison, *Myth. and Mon.*, pp. 543 ff.; Farnell, *Cults*, V, pp. 425 ff.

<sup>93</sup> Judeich, *loc. cit.*; Heichelheim, *R.E.*, s.v. *Nymphai*, col. 1558, 55 ff.; the reliefs have been most recently discussed by Feubel, *Die attischen Nymphenreliefs* (diss. Heidelberg, 1935): no. 18 (Svoronos, *Athenener Nationalmus.*, No. 1442, pl. 73 and p. 442), pp. 35 f.; no. C2 (Ny Carlsberg Glyptoth., *Billedtavler*, 27, 404), pp. 68 f.; no. C5 (Casson, *Cat. Acrop. Mus.*, II, No. 1345, pp. 248 ff.), p. 69 ff.

<sup>94</sup> Meritt, *Hesperia*, X, 1941, p. 38, no. 3.

<sup>95</sup> Vari: Wheeler, *A.J.A.*, VII, 1903, pp. 263 ff.; Corycian cave: Pieske, *R.E.*, s.v. *Κωρύκιον ἄντρον*; Pausanias, X, 32, 2 ff.

be a record of a boundary dispute between the nymphs and the Pythian God at the time the buildings were built; perhaps it was set up here to prevent encroachment on the property of the nymphs, just as a similar stone seems to have been erected to protect another fountain when, forty years later, Asklepios moved in on the south slope of the Acropolis.<sup>96</sup>

### THE PAVED COURT OF THE PYTHION

The plans show clearly, what has been implicit in all our discussion so far, that although Klepsydra and the Court share a common wall, and were part of a single building scheme, they were thought of as wholly separate in function. The theory just proposed about the boundary stone would, if it be true, support what we are in any case obliged to assume: that the two were also separate in ownership. It becomes necessary then to account for this curious building beside the spring house.

Let us look back for a moment at some of its chief features: a large paved court, open to the sky, constructed with great care, and dating in all probability from the time of Kimon, it lies below the caves of Apollo, Zeus, and Pan, just at the point where the Street of the Panathenaia, climbing steeply from the Agora, meets the peripatos and swings westward to the Acropolis entrance.

There are several reasons against considering it a secular building: a shady lounging place for summer mornings, for example. First of all, though it is bounded by public streets on two sides, it has but one entrance; and this is on the side toward the processional way, in the most awkward position possible: not only are the angles of the building more difficult to deal with here than elsewhere, but the street level here, in antiquity, was higher above the floor of the Court than at any point along the north side of the building. Further, the steps which lead from the entrance down into the Court are so steep as to be distinctly inconvenient for any sort of ordinary use, and they show, in fact, relatively little wear. Finally, when the collapse of the rock roof made it impossible to reach the water of Klepsydra except from the north, and so the western end of the Court had to be thrown open to the public, the whole eastern half of the Court was still reserved, its privacy assured by the construction of the transverse wall.

We are led, therefore, to suppose that the purpose of the Court was a religious one. It is unlikely that the building itself is a sanctuary: its shape, the lack of any indication of altar or cult statue, perhaps the absence of votive deposits in the immediate neighborhood are all against it. We must imagine then that it was an appendage of some neighboring sanctuary. We have not far to look: immediately above

<sup>96</sup> I.G., I<sup>2</sup>, 874, 875; Wrede, *Attische Mauern*, p. 30, fig. 7 (a good, recent photograph). It seems natural to regard the stone as recording the settlement of what may have been a rather difficult boundary question. This is perhaps the dispute referred to in the *fasti* of the Asklepieion, I.G., II<sup>2</sup>, 4960 (*Syll.*<sup>3</sup>, 88), 13 f.: [οἱ Κ]ήρυκες ἡμέσεσβ[ήτον τὸ χ]ωρίο.

the Court, facing on the narrow rock ledge, are the three cave sanctuaries which we have so often mentioned: the Pythion, the Olympion, and the shrine of Pan. It requires little imagination to see that one of these might, if it continued to be an important shrine, feel the need of more space than its primitive position on the ledge provided. Of the Olympion, we know little, save its name and the fact that Thucydides refers to it in his account of pre-Thesean Athens;<sup>97</sup> of the second, the Paneion, we know that it became the center of a state cult only after the Persian war, and Pan's evident dissatisfaction with the summary treatment which he received from the Athenians makes it seem improbable that any such large and expensive structure as the Court was ever placed at his disposal.<sup>98</sup> But the third sanctuary, the Pythion, was one of the most important in Athens.

This is a fact which has been pointed out more than once in recent years;<sup>99</sup> yet, still, most people, when they think of the Pythion, think of that other Pythion, south of the Acropolis, beside the Ilissos.<sup>100</sup> This is natural enough, for it was by the Ilissos that Pausanias saw a statue of Pythian Apollo,<sup>101</sup> and it was there that Peisistratos dedicated an altar which has become doubly famous because Thucydides quoted the inscription and because the altar was itself actually found not many years ago.<sup>102</sup> Furthermore, the votive plaques which have been discovered at the cave sanctuary are, without exception, dedicated to Apollo *ὑπὸ Ακραῖς* or *Τπάκραιος*, "below the heights," or *ὑπὸ Μακραῖς*, "below the Long Rocks," not to Apollo Pythios.<sup>103</sup> This has conspired, together with the common misunderstanding of Thucydides' account of early Athens, to obscure the importance of the cave below the Propylaia. Yet the evidence is clear enough.<sup>104</sup> Once it is recognized that the controversial passage in

<sup>97</sup> Thucydides, II, 15; Strabo, 422. It was on the basis of the latter passage, which makes it clear that the Olympion must be close to the North Slope Pythion, that Keramopoulos first proposed to identify the huge cave between those of Apollo and Pan as the sanctuary of Zeus: *'Αρχ. Δελτ.*, XII, 1929, pp. 86 ff.

<sup>98</sup> Lucian, *Bis acc.*, 10.

<sup>99</sup> Wachsmuth's extraordinarily sound judgment led him to see, long ago, the desirability of identifying the cave with the Pythion (*Rh. Mus.*, XXIII, 1868, p. 56), but the difficulty of reconciling it with the evidence of Thucydides and others, and with that of the actual discoveries made south of the Acropolis, caused him to withdraw this first tentative identification. Kavvadias' excavations provided the occasion for a reconsideration of the question (*'Εφ. Αρχ.*, 1897, pp. 22 ff.); and the case for the identification is stated most completely and vigorously by Miss Harrison, *Prim. Athens*, pp. 67 ff.

<sup>100</sup> See, e. g., Judeich, *Topographie*, p. 302; Möbius, *Ath. Mitt.*, LX/LXI, 1935/36, pp. 258 ff.

<sup>101</sup> Pausanias, I, 19, 1.

<sup>102</sup> Thucydides, VI, 54, 6; *I.G.*, I<sup>2</sup>, 761.

<sup>103</sup> Kavvadias, *op. cit.*, pp. 8 f., 87 ff., pl. 4; *I.G.*, II<sup>2</sup>, 2891-2931; Oliver, *Hesperia*, X, 1941, pp. 252 f., nos. 54-57 (found during Agora Excavations).

<sup>104</sup> The important passages are: Euripides, *Ion*, 8 ff., 283 ff., 492 ff., 936 ff.; Pausanias, I, 28, 4; Strabo, 404; Philostratus, *Vit. soph.*, II, 5. The last describes the route of the Panathenaic ship: leaving the Kerameikos, it rounded the Eleusinion, coasted the Pelargikon, and finally, was drawn past (*παρά*) the Pythion and came to where it is now moored (*i. e.*, near the Areopagus, Pausanias, I, 29, 1). The topographical interest and value of the passage is enormously enhanced now that we know the actual course of the Panathenaic Street (see the plan, *Hesperia*, IX, 1940, pl. I).

Thucydides does actually refer to the north slope of the Acropolis, and not to the south or to the west, it is obvious that this, and not the sanctuary by the Ilissos, is the Pythion, *par excellence*, of Athens.

Because Apollo Pythios is also Apollo Patroös, and thus intimately connected with the political organisation of Athens, the sanctuary played an important role in the city's official life.<sup>105</sup> Euripides makes it quite clear that the cave was the place of the begetting and the birth of Ion, legendary ancestor of the Athenians.<sup>106</sup> It was to the cave, almost certainly, that the archons came when, after taking the oath of office on the stone in the Agora, they went "to the Acropolis" to take a second oath;<sup>107</sup> and it was here, of course, that, at a later time, they customarily dedicated the familiar small votive plaques.<sup>108</sup> We may remember, in this connection, that, at an early date, each archon vowed that if he violated his oath, he would dedicate a statue of gold, not at Athens, but at Delphi.<sup>109</sup>

No less important was the role of the sanctuary as the focus of Athenian Apollo worship, and of the city's relations with Delphi, symbolised by the Pythaïs.<sup>110</sup> The cave itself was thought of as the place in Athens where Apollo stopped on his way from Delos to Delphi: this is clear from Limenius' hymn to Apollo, composed on the occasion of the Pythaïs of 128/7 B.C.<sup>111</sup> The phrases ἐπὶ γαλ[όφῳ . . .] Τριτωνίδος and πετροκατοίκητος ἀχ[ώ] . . . plainly refer to the cave and not to the sanctuary by the Ilissos.

The Pythaïs commemorated Apollo's journey. At, or close to the cave, each year probably, watchers sat three days and three nights in each of three successive months waiting for the lightning to flash over the cliff of Harma near the southern end of the ridge of Parnes. The lightning, or some aspect of it, was the signal for the sending

<sup>105</sup> Demosthenes, *De cor.*, 141; Aristotle, 'Αθ. Πολ., LV, 15; Harpocration, *s.v.* 'Απόλλων Πατρῷος. On this and what follows see, beside Kavvadias and Miss Harrison, also Keramopoulos, 'Αρχ. Δελτ., XII, 1929, pp. 92 ff., and Boetticher, *Philologus*, XXII, 1865, pp. 77 ff.

<sup>106</sup> The passages are cited above, note 104.

<sup>107</sup> Aristotle, 'Αθ. Πολ., LV, 5.

<sup>108</sup> Cf. note 103, above.

<sup>109</sup> Plato, *Phaedrus*, 235 D; Aristotle, 'Αθ. Πολ., LVII, 4; Plutarch, *Solon*, 25.

<sup>110</sup> Our knowledge of the Pythaïs and its successor, the Dodekaïs, is based largely on the records inscribed on the walls of the Athenian Treasury at Delphi: Colin, *Fouilles de Delphes*, III, fasc. 2, nos. 2 ff., pp. 59 ff. (*Syll.*<sup>3</sup>, 696-9; 711; 728; 772 f.). The two festivals have formed the subject of several elaborate studies: Colin (beside *F. de D.*), *Le culte d'Apollon Pythien à Athènes* (Paris, 1905 = *Bibl. des Écoles françaises d'Athènes et de Rome*, vol. 93); Boëthius, *die Pythaïs* (diss. Upsala, 1918); Daux, *Delphes au IIe et au Ier siècle* (Paris, 1936 = *Bibl. des Écoles franç.*, vol. 140), pp. 520-583, 708-729. Boëthius' is by far the most thoroughgoing and important; Daux's chapters are an excellent summary, with some contributions of his own. On Athenian-Delphian relations, in general, especially in early times, *Athenian Studies Presented to W. S. Ferguson* (*H.S.C.P.*, Suppl. I, 1941), pp. 37 ff. (Daux).

<sup>111</sup> Colin, *Fouilles de Delphes*, III, 2, no. 138 (Reinach); Powell, *Coll. Alex.*, 149 II. For the restoration of the poet's name, Colin, *Comptes Rendus Acad. Inscr.*, 1913, p. 529. Lines 11 ff. describe Apollo's coming to Athens; note the marked echoes of Aeschylus, *Eum.*, 13 ff.

of the theoria.<sup>112</sup> This custom was apparently a very ancient one; how old, we cannot say, but the fact that the procession was preceded by men bearing double-axes is surely an indication of high antiquity: it may show, indeed, as Cook suggests, that the theoria had its origin at a time when Zeus, and not Apollo, was supreme at Delphi.<sup>113</sup> In any case, the phrase, "when it lightens over Harma," had become proverbial by the fifth century.<sup>114</sup> Except that it was seldom, we do not know how often the Pythaïs took place in classical times; in the second century B.C., when the procession became a regular one, a nine-year interval was settled upon.<sup>115</sup>

We have seen that the priests, apparently the pythaïsts themselves, watched for the lightning from the cave, that it was at the cave that Apollo stopped, that from it he started on his journey to Delphi. It is natural to suppose that the procession which commemorated his trip also started from this sanctuary,<sup>116</sup> though not from the cave itself. We do not know anything of the composition of the theoria in early times, but if we may judge from that of the second and first centuries B.C., it may have been fairly elaborate.<sup>117</sup> And the narrow ledge before the cave offers no facilities for the mustering and lining up of the units of a great religious procession. But immediately below the cave runs the Panathenaic street, and beside it lies the Paved Court. The Court, we have already concluded, must have been a sacred building, and one but little used. I should like to recognize in it a kind of pompeion, where certain of the pythaïst gear might be kept, and where some parts of the procession would have been prepared, while the larger units formed in the street outside.<sup>118</sup>

Such buildings were perhaps not common in antiquity. In most cases some part of a temple area or the temple itself probably served as storage room and as a place for preparation of the actual procession: at Phigaleia, for example, *πομπαί, processions*, were prepared at the sanctuary of Artemis Soteira; and at Delphi, the Halos, the *threshing-floor*, was used for that purpose.<sup>119</sup> But pompeia did exist, and Athens

<sup>112</sup> Strabo, 404; probably from Apollodorus: cf. Schwartz, *R.E.*, s.v. Apollodorus, col. 2867, 47.

<sup>113</sup> Aeschylus, *Eum.*, 13, and schol.; Cook, *Zeus*, II, pp. 628, 815 f.; Weinreich, *Arch. für Rel.*, XXIII, 1925, p. 109.

<sup>114</sup> Boëthius, *op. cit.*, pp. 1 ff., especially pp. 10 f.

<sup>115</sup> Boëthius, *op. cit.*, pp. 11 f.

<sup>116</sup> Is there a possible further link between the Pythaïs and this part of the Acropolis in the facts that among the offerings carried to Delphi were *ἀπαρχαί*, that on this slope somewhere was the sanctuary of Demeter Chloe, where the people of Athens first grew grain (Judeich, *Topographie*<sup>2</sup>, p. 285; Cook, *Zeus*, III, p. 178 note), and that also close by was the Bouzygion, where one of the three sacred ploughings took place (Judeich, *op. cit.*, p. 286; Robinson, *A.J.A.*, XXV, 1931, pp. 152 ff.)? Is there a reminiscence of this in Limenius' *πρωτόκαρπος Ἀτθίς?*

<sup>117</sup> Cf. Ferguson's vivid reconstruction, *Hellenistic Athens*, pp. 372 f.

<sup>118</sup> Ample shelter was provided by the natural rock roof which protected a large area in the southeastern corner of the Court. No other cover was needed until the catastrophe of the first century after Christ (see below, pp. 243 ff.) caused the collapse of considerable masses of rock here, as well as elsewhere in the complex.

<sup>119</sup> Phigaleia: Pausanias, VIII, 39, 5; Delphi: Pomtow, *R.E.*, Suppl. IV, s.v. Delphoi, cols.

itself provides an admirable example, and an excellent parallel for our own: the pompeion at the Dipylon gate, whence the Panathenaic procession set out for the Acropolis. There, too, we have an open court, though in that case it is surrounded by a colonnade; and there, too, it is probable that only a part of the procession was prepared within the building.<sup>120</sup>

We know that the institution of the Pythaïs existed at least as early as the fifth century; we have scanty epigraphical and other references to it during the fourth; we know that it flourished for a half century or so at the end of the second and beginning of the first centuries; that it was succeeded in the Augustan period by a less imposing procession, the Dodekaïs; and finally that there is no record of either ceremony after the end of the first century after Christ.<sup>121</sup> We cannot point to any direct correlation between these facts and those of the history of the Paved Court; but there are no contradictions either. And we shall see that there is evidence at least to show that the Court was closely connected with the Python.

#### THE SACRED ROAD TO DELPHI

*"Ορος ἵεπᾶς | ὁδὸς δι' ᾧς πορεύεται ἡ Πυθαιάς ἐσ Δελφός* (Fig. 23), "Marker of the Sacred Road by which the Pythaïs proceeds to Delphi."

This is the reading of an inscribed stone, a roadsign, found in 1938 in the Agora Excavations.<sup>122</sup> The stone was discovered just west of the Stoa of Attalos, and close to the Panathenaic street, in a late Roman context; it had already, in antiquity, been reused as a door-sill, after removal from its original position.

1296 f., where the literature is cited. Something similar, perhaps, is to be recognised in the paved precinct uncovered by Hazzidakis at Tylissos in Crete: *Les villas Minoennes de Tylissos* (École Française d'Athènes, *Études Cretoises*, vol. III), p. 68 and pl. XIV.

<sup>120</sup> Judeich, *Topographie*<sup>2</sup>, pp. 361 f.; *Ath. Mitt.*, LIII, 1928, pp. 169 ff., Beil. XXXIV; *ibid.*, LVI, 1931, pp. 1 ff., Beil. I.

<sup>121</sup> Of the other Pythaïs, the Delian, we know almost nothing: *I.G.*, II<sup>2</sup>, 2336 with Kirchner's comment; Dow, *H.S.C.P.*, LI, 1941, p. 111. Members of the Delphian Pythaïds occur often in Delian inscriptions: Roussel, *Délos colonie Athénienne*, pp. 64 f. Daux has recently suggested (*Delphes au IIe et au Ier siècle*, p. 527, note 4) that the text of Hesychius, *s.v.* ἀστραπὴ δι' ἄρματος: ἔπειπον εἰς δύο θεοὺς λεγομένους Πυθαιστάς might well stand without emendation (Boëthius, *op. cit.*, p. 10 and his testimonium 6), because possibly the Athenians despatched a theoria also to Delos when they sent the Pythaïs to Delphi. This finds support in *P. Oxy.* 2086 (v. XX, 106 ff.): [...] μεγα]λαις τιμαις τον Απ[ολλωνα] εις Δηλον δε θυσιαν απετ[εμψαν οποταν] δι Αρματος αστραψη κτλ., a reference for which I am indebted to Eugene Schweigert.

<sup>122</sup> Horos-stone of Hymettian marble, complete, found on May 27, 1938, in late Roman fill in Section Σ. The stone has been reused, face down, as a threshold, and the back is chipped and worn. A part of the face has been smoothed for the inscription; the remaining surfaces are rough-picked. Shear, *Hesperia*, VIII, 1939, p. 212.

Height, 0.859 m.; width, 0.339 m.; thickness, 0.154 m.

Height of letters, 0.022-0.031 m.

Inv. I 5476.

Fourth century B.C.

We have noticed that the doorway of the Court opened not toward the north on to the peripatos, where an entrance would have been easy, but toward the west, on to the Street of the Panathenaia, where it was hard. The reason is obvious: the street was the route of the Pythaïs as well as of the Panathenaic procession. It was perhaps because the street was associated, in most people's minds, only with the more frequent and more famous festival, that the priests of Apollo found it desirable to set up—where the public might see it, and in permanent form—the claim of the Pythian God to a share in the processional way. We do not, of course, know just where it stood, but the occasion for its erection may very well have been the repair (?) of the Panathenaic street which is recorded in huge letters on the north face of the bastion west of the Propylaia.<sup>123</sup>

Between Athens and Thebes, there is only one point on the Pythaïstic route which may be regarded as fixed. That is the Pythion at Daphne, for the story of the founding of the sanctuary by the descendants of Kephalos, at the bidding of Apollo, makes this practically certain.<sup>124</sup> We may be sure then that the Pythaïs followed the Street of the Panathenaia right across the Agora, and left the city by the Sacred Gate.

Beyond Daphne the route of the theoria is more doubtful. The legend of the killing of Androgeos should bring it past Oinoë on Cithaeron, as Boëthius shows;<sup>125</sup> and he assumes that it followed the ancient predecessor of the modern highway to Thebes by Eleusis and Eleutherae. Throughout the Turkish period, and until the advent of modern wheeled traffic, the ordinary road for horseman or pedestrian from Athens to Thebes was the path across Parnes by Phyle.<sup>126</sup> The Pythaïs was associated with just this region by the lightning flashes; and the road passes all but beneath the cliffs of Harma. I should like to think that beyond Daphne, at the Rheitoi, the procession left the Sacred Way toward Eleusis, and, swinging to the right across the Thriasian plain and up the gorge toward Phyle, followed its own Sacred Road to Delphi.

## VII. TO THE MIDDLE OF THE FIRST CENTURY B.C.

Our records of the spring and the Court during the centuries following their construction are scanty. Aristophanes speaks of Klepsydra, perhaps twice, in the

<sup>123</sup> *Hesperia*, VIII, 1939, p. 222, fig. 18; p. 207.

<sup>124</sup> Pausanias, I, 37, 6 f.; Boëthius, *op. cit.*, p. 50. Interesting in this connection are the proveniences of the two votive plaques,—out of 35 the find-spots of which are recorded,—which have been found remote from the Acropolis: one at or near the Dipylon (*I.G.*, II<sup>2</sup>, 2897); the second at the monastery of Daphne (*I.G.*, II<sup>2</sup>, 2909). It will scarcely be coincidence that both those places are on the Pythaïstic route.

<sup>125</sup> Boëthius, *op. cit.*, pp. 47 ff. quotes the relevant texts, and cites earlier literature.

<sup>126</sup> Skias, *Πρακτικά*, 1900, p. 43; Curtius u. Kaupert, *Karten von Attika*, VII, Text, pp. 10 f. This route may equally well pass by the region of Oinoë, which cannot be precisely located: cf. the discussions by Wrede, *Attische Mauern*, pp. 25, 34; Kahrstedt, *Ath. Mitt.*, LVII, 1932, p. 25; Chandler, *J.H.S.*, XLVI, 1926, p. 8.

*Lysistrata*, produced in 411. We know that some work seems to have been done on the Panathenaic street during the fourth century, and recorded in the inscription still visible on the face of the Acropolis wall above the buildings; and we have suggested that the priests of Apollo may have taken this occasion to set up the marker of the road to Delphi; but no reflection of this is found in the buildings themselves. At some time during this or the following centuries, we cannot be precise, the wooden railing around the drawbasin rotted or was removed, and for a while there was no parapet of any sort: the margin of the drawbasin is worn by ropes and pitchers in a way that could not have occurred while any sort of guard rail was in place (Fig. 18).

Sulla's troops, besieging the Acropolis under the command of Curio,<sup>127</sup> do not seem to have damaged the buildings, nor did either suffer, apparently, from Aristion's "scorched earth" policy,<sup>128</sup> although as we shall see, some record of the battle was left about the spring. Shortly afterward, however, an accident occurred which permanently affected the spring house, and was a presage of worse to follow. This was the shifting of at least one of the huge masses of rock which formed the roof of the cave. We cannot be sure of the extent of this shift; we know, however, that the northern mass of the roof settled vertically approximately half a meter, and crushed the northeast corner of the basin. The patchwork masonry of the repair, which closed the northern inlet, is plainly visible in the photographs and drawings (Figs. 12, 33-34). The whole of the southern wing of the spring house was evidently also damaged, perhaps badly damaged, for the rebuilding which followed apparently involved the closing off of this entire section of the building. The entrance, however, and the stairway to reach the northwest corner of the basin could still be used. Here, from now on, the water was drawn with the aid of a marble well-beam (Fig. 17) set in against the sagging roof. Upon the western margin of the drawbasin, where the railing had been, were set the three large marble slabs which are still among the most conspicuous features of the entire complex (Figs. 9, 17, 18); and behind them, this whole wing of the spring house was filled with debris almost to the level of the setbacks of the west wall. The arrangement is rather puzzling, yet it is evident that it marks the permanent disuse of this part of the building: the new filling shows no signs of having been tramped upon, neither does the edge of the new parapet show any trace of wear by ropes and pitchers.

The blocks of the new parapet—perhaps we should call it rather a retaining wall, for that was actually its function—were secondhand. All three were originally bases

<sup>127</sup> Plutarch, *Sulla*, XIV, 7; Appian, *Bell. Mithr.*, 38 f.

<sup>128</sup> Appian, *loc. cit.*; Pausanias, I, 20, 4 (who attributes the destruction of the Odeion to Sulla). Aristion doubtless recalled that Sulla had turned the trees of the Academy into effective siege-machines (Appian, *Bell. Mithr.*, 30).

which held statues or, in the case of the central slab, stelai (Figs. 9, 18, 35); all are of Pentelic marble of good quality. All three appear to be early; and the southernmost still bears traces of a dedicatory inscription, which can scarcely be dated later than the end of the sixth century.<sup>129</sup>

The blocks are set in a very shallow bedding prepared for them in the top of the west wall of the drawbasin. For added security, and to close the rather wide gaps between them, the joints on the side toward the west have been pointed with soft mortar.

The well-beam,<sup>130</sup> also of Pentelic marble, is of a type familiar in the domestic architecture of the Hellenistic and later periods.<sup>131</sup> It is a marble slab decorated with a simple Ionic moulding at the sides, and with a central slot in which revolved the pulley over which the rope passed (Figs. 13, 17).

For the date of all this, almost the only clue is the filling from behind the marble parapet; fortunately it can be dated with fair accuracy. The filling was an interesting one. It was markedly homogeneous, evidently deposited at one time, and contained chiefly a quantity of broken roof tile and fragments of hundreds of plain storage amphoras; of finer wares there was scarcely a handful. But there was a scattering of rather unexpected objects: a number of large pieces of hard water-proof cement of excellent quality,<sup>132</sup> evidently from the lining of a cistern or conduit, a number of leaden sling-bullets, two iron arrowheads, and several coins.

The clue to the origin of the filling is the mass of plain amphoras: *συντρίβεται . . . τὰ κεράμια παρὰ ταῖς κρήναις*:<sup>133</sup> it can be nothing but the debris removed in a

<sup>129</sup> *Hesperia*, VIII, 1939, p. 225, and fig. 20. This is the slab which appears in Fig. 9.

<sup>130</sup> The well-beam and its supports form the "blinde Tür" to which Judeich refers (*Topographie*, p. 192), relying on the accounts of Pittakis, Breton, and Burnouf (cf. references cited above, note 5). Pittakis believed that he could read ΦΥΝΙΧΟ[ on the beam; Breton and Burnouf, prepared in advance by Pittakis, also thought they saw it, and a pediment above it. The block was, actually, never inscribed. Pittakis, dangling at the end of a rope above the black water with only the uncertain flame of a candle for light, may be excused if he took for letters the fine ribs and ridges of lime deposit (from dripping water) which covered the face of the stone. There is less excuse for his successors; but it may be said in extenuation that some of the "lines" were remarkably suggestive, and it was not until after several hours of careful cleaning of the stone with the help of a ladder and a powerful light that the American excavators were satisfied that the inscription had never existed. It is presumably this inscription which is published by Dittenberger as *I.G.*, III, 3833, from LeBas (*Attique*, no. 677), who must have taken it from Pittakis.

<sup>131</sup> The device is, of course, much older: an excellent example, evidently in wood, is shown on a red-figured column krater in Madrid: a youth stands on a well-curb, drawing water with the aid of the *τροχιλέα*, while several soldiers wait to drink, Leroux, *Vases Gr.*, no. 197 (Beazley, *Att. V.*, p. 478: painter of Naples centauromachy, 13 bis). Several such beams have been found at Delos: Chamonard, *Explor. archéologique de Délos*, VIII, pp. 346 ff., especially p. 349; a good example, p. 348, fig. 213, and pl. LXIII, where details are shown.

<sup>132</sup> This is not to be regarded as indicating that the drawbasin of Klepsydra was ever waterproofed, for it clearly was not. The cement very likely came from the Acropolis; how and why it would be difficult to say.

<sup>133</sup> Schol. Aristophanes, *Lys.*, 329.

cleaning out of the drawbasin itself. The process of breaking water-jars and losing small objects in the basin must have been a continuous one; hence the latest objects from the filling should be a close indication of the time when the basin was cleaned and the filling made. The coins, the fragments of a Megarian bowl, the stamps on some of the amphoras, all point to a date at least as late as Sulla's capture of the city. Of the seven coins found, the latest are three of the Athenian New Style of the type ordinarily dated in 88 B.C. The fragments of the bowl (Fig. 25), small as they are, are yet sufficient to show that the bowl is one of the latest of its kind, and should be dated as late, perhaps, as the second quarter of the first century.<sup>184</sup>

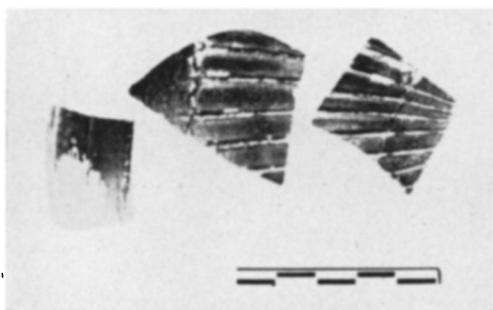


Figure 25

Fragments of a Megarian bowl,  
Inv. No. P 13390.

Fifty-three stamped handles were found among the fragments of the storage amphoras; most of them are of Knidian manufacture, a compact group dating, again, from the early part of the first century: "the 47 Knidian handles from the Klepsydra date from 22 or more different years, probably successive or nearly so. Connections of names begin this period shortly after that of Thompson's Hellenistic Group E, '100 B.C. or a little later.' The three Rhodian handles, and the two of unknown origin, fit, I think, a date in the early first century B.C. The Thasian is the only leftover from earlier times, and none of the handles, according to present information, suggests a date of manufacture later than about the first third of the century."<sup>185</sup>

All these point to a time after, rather than before, the capture of Athens by Sulla. And this is corroborated by the sling-bullets<sup>186</sup> and arrowheads,<sup>187</sup> for they, surely, are mementoes of the siege itself. Whether they were fired by besiegers or besieged, we cannot tell,—none of the missiles is inscribed with a name,—but that they came here at the time of the battle we can hardly doubt.

<sup>184</sup> Inv. No. P 13,390. Three fragments which all but complete the profile of a Megarian bowl. The lip is plain, the decoration of the wall is confined to elongated petals. On the date of such bowls, see Thompson, *Hesperia*, III, 1934, pp. 458, 394 (Group E: from houses sacked by Sulla's troops); idem, *The Tholos* (*Hesperia*, Suppl. IV), pp. 120 f., fig. 90, d (mold for such a bowl from post-Sullan fill).

<sup>185</sup> I owe this note to my friend and colleague, Miss Virginia Grace.

<sup>186</sup> Inv. Nos. IL 657, 673-682, 685: three (IL 673, 678, 685) are inscribed ΔΕΞΑΙ, others are ornamented with thunderbolts or wings. For the most recent discussion of sling-bullets, with references, cf. Robinson, *Olynthus*, X, *Metal and Minor Miscellaneous Finds*, pp. 418 ff.

<sup>187</sup> Inv. No. IL 683, 684. On ancient arrowheads, cf. Broneer, *Hesperia*, IV, 1935, pp. 114 ff.; Robinson, *op. cit.*, pp. 378 ff. Ours resemble his bronze type D 1 (pp. 387 ff., nos. 1940-71), but are, of course, much later.

## VIII. TO THE MIDDLE OF THE FIRST CENTURY AFTER CHRIST

For a century or more after the repair of the drawbasin, there seems to have been no change in either Klepsydra or the Paved Court; and they are almost without history.



Figure 26

Sling-bullets and arrowheads. Top row, from left: IL 678 ( $\Delta\Xi\Lambda$ , thunderbolt), 685, 657, 673 (same), 679 (thunderbolts). Middle row: IL 674 (wings), 682 (same), 675, 680, 681 (all uncertain). Bottom row: IL 684, 683 (both undecorated), 676, 677.

We know, only, that when Mark Antony set out for Parthia and the siege of Samosata, in 38 b.c., he took with him a spray of the sacred olive tree, and, in obedience to an oracle, a bottle of water from Klepsydra.<sup>138</sup> It is an interesting combination of tokens, if tokens they were, but we hear nothing more of them; we do

<sup>138</sup> Appendix, Test. II; *C.A.H.*, X, pp. 52 ff. (Tarn).

not know whether Antony's was a special case, or whether he was conforming to a custom;<sup>139</sup> and I know of no other indication that Klepsydra's water was considered to possess special qualities.

But about the middle of the first century of our era, both the spring house and the Court suffered damage which permanently changed their aspect (Fig. 37). A century earlier, the shifting of a part of the rock had necessitated the repairs which we have just discussed. The collapse which now occurred was much more extensive: large masses of limestone broke away from the roof and blocked the whole of the west side of the spring house (Figs. 4, 33), including the entrance; others crushed or damaged the common wall between the spring house and the Court so severely that the upper courses had to be removed if they were not actually knocked off; a mighty boulder settled over the south edge of the Court just east of the spring house (Figs. 5-7, 29), another fell into the southeast corner (Fig. 8), and a still larger one, torn loose from somewhere high up on the cliff, crashed through the floor of the Court, smashing the paving, and settled into the soft fill of one of the Mycenaean pits.

We have no way of telling now whether this collapse was caused by an earthquake or simply by the normal process of erosion and weathering. Both forces were, and are, constant menaces to the countless caves and cave sanctuaries of Greece. At the shrine of the Black Demeter, Pausanias was shown the marks in the roof of the cave where a mass of rock had broken away years before and crushed the cult statue.<sup>140</sup> In Athens, within the last ten years, a limestone boulder approximately six feet in diameter broke away from the cliff on the north face of the Acropolis, and hurtled down the slope to come to rest against a house on Acropolis Street. Serious earthquakes are, of course, unknown in Athens, but slight shocks are frequent, and may do considerable damage; the earthquake of 1894 did sufficient harm to the Parthenon so that the attention of archaeologists was drawn to the need of repairing and restoring it.

The situation created in the spring house by this collapse was evidently regarded as irreparable. The water was still accessible, the well-beam still in place, and the stairs open; but they could now be reached only by coming into the west end of the Court and climbing over the remains of the wall between the two buildings.

The consequences of this to the Court of the Pythion must have been a matter of grave concern to the priests, for if the public was to use the spring, it must be allowed to pass through the Court. The transverse wall was the solution to the problem: the west end of the Court was apparently simply turned over to the public, or more likely to the authorities in charge of the city water supply, and only the east

<sup>139</sup> The reference to the oracle would suggest not.

<sup>140</sup> Pausanias, VIII, 42, 1, at Mt. Elaion near Phigaleia.

end was reserved for the god. It was probably the city authorities who undertook the repair of the western part of the Court, and who disposed of the fallen boulder by the simple expedient of sinking it beneath the ground level and repairing the paving above it. It must have been they, too, who now replaced the old overflow channel with a new one. The new channel starts beneath the very center of the Court, swings to the west around the sunken boulder, and then runs north and northwest toward the Agora (Fig. 29, *B*).

Only the east half of the Court now remained to Apollo, but his privacy was assured by the construction of the transverse wall dividing the building from north to south (Fig. 30); the foundations of this wall—an irregular packing of reused material—form a conspicuous gash across the paving (Figs. 5, 6, 8, 29), which is elsewhere so well preserved. There is little to be said about the appearance of the wall, and there is no trace of a doorway; at the south end, the face of the rock has been roughly dressed where the wall abutted against it; the dressings indicate a wall approximately 1.75 m. thick, a figure confirmed by the blocks remaining at the north end, where the wall was bonded with the wall of the Court (Figs. 6, 29).<sup>141</sup> The dressing of the cliff face reaches to a height of almost seven meters above the floor; and from the highest point a deep groove runs horizontally toward the east, which can have had but one purpose: to hold the beam ends of a lean-to roof. The rectangular socket, then, which is almost exactly in the center of this new, reduced “pompeion,” (Figs. 29-30) may well have held a central post, although the size of the room, about 8 meters square, would hardly have made it necessary.

A date about the middle of the first century after Christ is suggested for this extensive rebuilding of the Court, by the pottery associated with it; and there is reason to believe that the work was done actually during the reign of the Emperor Claudius.

A considerable quantity of very fragmentary pottery was found in the old overflow channel, which was filled up at this time, and in the pit beneath the floor into which the boulder was lowered. Closely datable pieces are lacking; two of the most characteristic are shown in Figure 27.<sup>142</sup> The closest parallels for the bowl are found among the contents of a well, excavated in 1936 in the Agora, which dates from the first half of the first century: it contained, for example, fragments of terracotta lamps

<sup>141</sup> Note the unusual thickness of even this wall. The bond with the north wall may indicate that a part of that wall, too, was damaged and had to be repaired. The pottery associated with the transverse wall precludes our considering it earlier than this period. Note that the thickness of the wall is wrongly restored in Fig. 30 (shown with broken line); the east face should be *ca.* 0.50 m. farther toward the east.

<sup>142</sup> The bowl: Inv. No. P 13,389, mended from many pieces, considerably restored, but profile complete. The pitcher: Inv. No. P 10,639. The lip restored in plaster, otherwise complete. Coarse clay, with many impurities, unglazed.

of Broneer's Type XVIII, but none of his Type XX, examples of which seem not to appear in Athens until after the middle of the century. We have no single vase which forms an exact parallel for the pitcher, but it is clear that it belongs to the same period: the high shoulder, sharply set off from the neck, the broad low base, the general effect of compactness and neatness, despite the rough finish, are thoroughly characteristic of the first half of the first century after Christ. We should date the repair, on the basis of this evidence, not much later than the middle of that century.



Figure 27

Unglazed pitcher and black-glazed bowl, Inv. Nos. P 10639 and P 13389.

There are other indications that the vicinity of the Court was a center of activity, precisely at this time—during the reign of Claudius. It is certain that the building of an *anabasis*, an “ascent,” which is mentioned in a record of the *pyloroi* of the Acropolis, must have taken place in Claudius' reign.<sup>143</sup> The “ascent” has been, quite naturally, taken to mean the broad marble stairway which led up to the Propylaia from a predecessor of the Beulé Gate.<sup>144</sup> But as a result of discoveries made during the Agora Excavations, it is now fairly certain that the repair or rebuilding of the Street of the Panathenaia, which can be traced from a point in the neighborhood of the Eleusinion to somewhere below the Beulé Gate, must date about this time; and there is every reason to believe that this was the *anabasis* of the inscription.<sup>145</sup> It is this part of the approach to the Acropolis which is so clearly, and on the whole, so accurately shown on a series of Athenian coins of the Imperial period: coins which were struck to commemorate the building of the *anabasis*—note how carefully the coin reproduces the bend in the street where it reaches the Paved Court just below the caves.<sup>146</sup>

<sup>143</sup> I.G., II<sup>2</sup>, 2292, lines 49 ff.: ἐφ' ὅν καὶ τὸ ἔργον τῆς ἀναβάσεως ἐγένετο.

<sup>144</sup> Judeich, *Topographie*<sup>2</sup>, p. 215.

<sup>145</sup> *Hesperia*, VII, 1938, p. 334.

<sup>146</sup> The best and clearest reproductions are published by Pick, *Ath. Mitt.*, LVI, 1931, pp. 65 ff., fig. 2, *Beil.* 28, 1-4; in general, on the coins and their date, cf. J. P. Shear, *Hesperia*, V, 1936, pp. 316 ff., pl. VI.

More important still, for us, is evidence of a new custom in connection with the Pythion, contemporary with the repair of the Court. The earliest of the long series of votive plaques, dedicated by the archons, belongs to the years 40/1-53/4.<sup>147</sup> It might be coincidence that the series begins just at this time; but we shall see that the end of the series, likewise, seems to come just as the Court is abandoned. This is hardly chance; it seems to imply a real relationship; and suggests that as the original function of the Court became less important, it had acquired others, more closely linked with the official life and the regular observances of the sanctuary.

## IX. TO THE EARLY THIRD CENTURY AFTER CHRIST

For over a century we are without records of Klepsydra or the Court of the Pythion. The spring house was evidently steadily used, for the wear on the blocks of the wall toward the Court is very marked. About the status of the Court, we cannot be sure: the last recorded theoria to Delphi took place sometime between 86 and 96 after Christ;<sup>148</sup> whether it was actually the last Dodekaïs we do not, of course, know. In any case, there is reason to believe that the Court continued to fulfill *some* function in connection with the Pythion; and we shall see that it seems to have done so until the early years of the third century.

The last important ancient rebuilding took place before the end of the second century after Christ, with the construction of the existing well house and the stairway which linked it with the Acropolis (Fig. 38). But it is clear, I think, that this rebuilding had not yet taken place when Pausanias visited Athens about A.D. 160. He saw the spring as he went from the Acropolis to the Areopagus: "on the way down, not into the town, but just below the Propylaia." This does not sound like a reference to a subterranean stairway and a spring concealed beneath massive masonry, which could be reached only from within the fortifications of the Acropolis. On the other hand, it is safe to conclude from his remarks about the cave sanctuaries, despite the lacuna, that he did not actually visit this part of the slope.<sup>149</sup> In all probability, he had them pointed out to him as he looked back from the Areopagus.

It was after his visit, then, though, as we shall see, perhaps not very long after, that the change to which we have referred took place. The new scheme finally accomplished what we have suggested was the original purpose of Kimon's architects, but which neither they nor any successor had yet achieved: to make the water directly accessible to the garrison of the Acropolis, by incorporating it, in effect, within the fortification of the citadel.

<sup>147</sup> *I.G.*, II<sup>2</sup>, 2891 (40/1-53/4).

<sup>148</sup> Colin, *Culte d'Apollon Pythien*, no. 63, p. 154; *F. de D.*, III, fasc. 2, p. 66.

<sup>149</sup> Absence of physical details, and emphasis on myth and legend usually characterise the descriptions of sanctuaries or buildings which Pausanias did not actually visit.

The new structure disregarded everything of the old, save only the drawbasin itself (Fig. 31). A vaulted well house was made, partly cut from the rock, partly built of very solid masonry, high above the basin among the fallen and sagging masses of limestone which had formed the roof of the original cave (Figs. 19-20, 32-34). A circular shaft was driven through the floor of the well house so that buckets could be lowered to the water, about five meters below. The well house, had, of course, to be so placed that the water could be reached from it, but otherwise its shape and orientation were largely determined by the utilization of an existing cleft as a means of connection with the Acropolis. The cleft curves upward from the southwest corner of the well house, and enters the Acropolis beneath the northeast corner of the ancient bastion below the Propylaia (Figs. 2, 31). It was widened and deepened where necessary, and an opening was forced beneath the foundations of the bastion. The steps were cut in the rock where possible, elsewhere were built of such materials as were at hand. The vault which covered the well house and stairway is a typical structure of its period in Greece. Its character is clear from the photographs: the walls outside are built of courses of stone, alternating with courses of brick, both set in an extremely hard mortar (Figs. 2, 4, 5); the whole of the inside, except where the walls are actually of rock, is faced with brick (Figs. 19-20). The stairway was originally also covered with a vault (Fig. 32); it was removed by Burnouf on the supposition that it was mediaeval;<sup>150</sup> but the short section which remains in the actual entrance to the well house is probably entirely typical. The very flat arch is noteworthy (Fig. 32); probably it carried no great weight: a fairly thin layer of earth would have been sufficient to protect it. The well-curb (Figs. 19-20), which was still in use up to the time when our excavation was begun, is probably the original one: it is of Pentelic marble, and, except that it tapers rather more markedly, it can be matched in practically every detail by curbs found in the Hellenistic houses of Delos.<sup>151</sup>

The old spring house was now completely sealed beneath the foundations of the new structure. Boulders and blocks were shifted to form parts of these foundations (Figs. 5-6) and where the builders felt at all uncertain of their underpinnings, they poured in great quantities of very hard concrete to fill up the larger spaces. Before the concrete was poured a mass of filling was thrown in over the north and west wings of the old spring house; most of it was debris taken from the drawbasin itself, some of it may have been brought from elsewhere. The aim, of course, was to make the spring totally inaccessible from outside. So carefully and consistently was this done, that we may be sure that even the narrow crevice (Fig. 4) through which we made our way into the southwest corner of the spring house must have been solidly closed.

It was from the filling of debris which had been thrown into this crevice, that

<sup>150</sup> Burnouf, *La Ville et l'Acropole*, p. 165.

<sup>151</sup> Chamonard, *Délos*, VIII, pp. 346 ff. Like ours in lack of ornamental mouldings and rough-picking of the surface, differing from it in proportions: pl. 50 D; pl. 51 B; pl. 51 C.

most of our direct evidence for the date of the new well house comes. The bulk of the material was fragments of plain water jars, but there was one piece which provides us with at least a clue to the date. The jug shown in Figure 28<sup>152</sup> is exactly duplicated, in fabric, glaze and shape, by vases found in a well in the Agora which was closed up, on the evidence of coins, about the end of the second century after Christ. Corroborative evidence comes from the debris over the north wall of the spring house: a coin of Faustina the Younger, who died in 176.

The change in the spring house, the shutting off of the water, or the events which caused it, seem to have had serious consequences for the Pythion and its Court. Early in the third century the archons apparently gave up the custom of dedicating their small tablets in the cave-sanctuary.<sup>153</sup> At the same time, the Court appears to have been abandoned, for debris began to accumulate over the floor, including, it is interesting to note, broken fragments of a number of the votive plaques, evidently thrown over from above.<sup>154</sup>

A period of neglect of the whole neighborhood may, in fact, have set in: exploration has shown that, for a number of years, a winter torrent ran uncontrolled down the hillside, just east of the Court, from just below the caves: it gouged out a gully, meters wide and meters deep, for a long distance down the slope. The neglect was not permanent so far as the sanctuary was concerned, and we shall hear again of Klepsydra and its water. But the Paved Court was, from now on, forgotten.



Figure 28  
Jug with grooved decoration,  
Inv. No. P 12809.

## X. KLEPSYDRA: TO THE END OF ANTIQUITY

The change which the construction of the well house brought to Klepsydra and its neighborhood cannot be too strongly emphasized. From now on, the spring was accessible from the Acropolis, and only from the Acropolis; the Paved Court wholly disappeared (Fig. 39). The wall of Valerian was built toward the end of the third

<sup>152</sup> Inv. No. P 12,809. Mended from many pieces; the handle and much of the body restored in plaster. The decoration of deep swirling grooves we cannot match in this period from the Agora collection, but we have examples of both its earlier and its later phases; the present example slips easily into place in the series.

<sup>153</sup> The latest plaques seem to belong to this time, *J.G.*, II<sup>2</sup>, 2929-30.

<sup>154</sup> Kavvadias notes (*loc. cit.*, p. 87) that a number of the fragments were found actually on the floor, *ἐπὶ τοῦ ἀρχαίου ἔδαφους*. He left only small pockets of fill over the paving; but the very fragmentary pottery found in this earth was consistently of the late second and early third centuries.

century (Figs. 2-4),<sup>155</sup> crossing the ruined Court, and shutting in the well house more effectively than ever. Some indication of how completely the older buildings had been abandoned by this time is the fact that almost a meter of dirt and rubbish had already accumulated over the floor of the Court.<sup>156</sup>

But though the spring house was closed up, and Klepsydra hidden, the water still overflowed, and still ran off, apparently, through the old channel. Three hundred years or more after the building of the well house, there is evidence of new interest in the overflow. Early in the sixth century after Christ, a huge cistern was constructed not far below the spring (Figs. 22, 39). It lies only about 25 meters down the slope, inside the wall of Valerian; its west side was built actually against that wall. The old overflow channel of Klepsydra was blocked and the water diverted through a new set of terracotta pipes into the new reservoir.

The cistern, though much damaged, is still recognizable as a typical product of its period. The massive concrete walls are faced on the inside with brick, the floor is covered with heavy Roman tiles (the smaller tiles which are visible in the photograph in the northeast corner belong evidently to a repair); two stout columns helped support the roof; the coating of water-proof cement which covered the walls is still hard and smooth. The construction is in every way similar to that of the great vaulted cistern in the precinct of Asklepios on the south slope of the Acropolis; it resembles still more closely that of the cistern in the northeast wing of the Propylaia.<sup>157</sup>

I do not know of any published evidence for the date of these two reservoirs; but a possible clue to that in the Asklepieion may be found in the history of that sanctuary. The distinguished philosopher Proklos lived close to, and could visit, the Asklepieion while it was yet undamaged and still the scene of cult observances; but by the end of the fifth century, Marinos, writing his biography of Proklos, speaks of the sanctuary, wistfully, in the past tense.<sup>158</sup> It is likely that the construction of the cistern came *after* the abandonment of the sanctuary, and in that case it cannot be dated much earlier than the early sixth century.

This is the date indicated also for the reservoir below Klepsydra by the pottery associated with it. The channel which carried the water to the new cistern consists, conventionally enough, of a rectangular pipe covered by the customary elliptical tiles. Fragments of several terracotta lamps, and a fair quantity of broken pottery, were recovered from the fill of the trench in which the channel was laid. Both lamps and

<sup>155</sup> For the date see *Hesperia*, VII, 1938, p. 332.

<sup>156</sup> This is shown by the height above the floor of the "euthynteria," of the wall of Valerian here. It is plainly visible in Fig. 3.

<sup>157</sup> Best shown by Middleton, *Plans and Drawings*, pl. 4, IV, E and F.

<sup>158</sup> Marinos, *Vit. Procl.*, 29. Proklos died A.D. 485; Marinos' biography must have followed shortly thereafter. Cf. a cistern on Acrocorinth, Carpenter and Bon, *Defenses of Acrocorinth* (= *Corinth*, III, ii), p. 257.

vases are of types and fabrics which are characteristic of the late fifth and the sixth centuries after Christ.

This new manifestation of interest in the water supply may very well date from the time of the Emperor Justinian. It is well known that he was concerned about the fortifications of the chief cities of Greece, and there is good reason to believe that, in Athens, he was responsible for extensive repairs to the wall of Valerian.<sup>159</sup> The cisterns fall within that circuit, and must be approximately contemporary with the repair. It is surely reasonable to suppose that they formed part of the same program.

## XI. KLEPSYDRA: IN MEDIAEVAL AND MODERN TIMES

### BYZANTINE ACTIVITY

AND

### THE CHAPEL OF THE HOLY APOSTLES

For many centuries after Justinian, the history not merely of Klepsydra but of Athens itself is dark. We have now no way of knowing whether, during these years, the water of Klepsydra continued to flow into the cistern, or whether that was blocked and dry, and the water found its way in hidden streamlets down the slope. But toward the end of the dark ages, in the tenth and eleventh centuries—we cannot be more precise—there is evidence that the ancient source was sought for and found. Debris containing coarse potsherds of this period was found behind the walls of the drawbasin, where it had eluded subsequent cleanings of the tank. More fragments of pottery were found deep in a cleft beneath the floor of the well house at its eastern end. There is but one possible explanation of their presence here: that the people of the time, having a knowledge somehow of the source, but having lost access to it, were digging in every crack and cranny to find one which should lead them to the water. The sherds behind the walls of the drawbasin itself are evidence that their search was successful. Breton found the walls of the “chapel” covered with frescoes; he thought them very ancient: “remontant au moins au X<sup>e</sup> siècle.”<sup>160</sup> There is unhappily no way in which we can control his suggestion; there is practically no trace of the frescoes on the walls of the well house, and Breton’s drawing (Fig. 21) which

<sup>159</sup> Procopius, *De aedif.*, IV, 2, 24 (p. 272, Bonn). Curtius long ago proposed to attribute the Valerian wall to Justinian, but the idea was not generally accepted. It was revived by Soteriou, Τὸ Ιουστινιάνειον τεῖχος τῶν μεσαιωνικῶν Ἀθηνῶν, ἐν 75τηρίδι Ριζαρέιον Σχολῆς (Athens, 1920), pp. 434 ff., and Εἰρετήριον τῶν Μνημείων τῆς Ἐλλάδος, vol. A', 1, τεῦχος α' (Athens, 1927), pp. 27 ff. The Agora Excavations have produced evidence of extensive repairs to the wall of Valerian in the sixth century after Christ. The older circuit may also have been put in order at this time, Thompson, *Hesperia*, V, 1936, p. 200. For Justinian’s attention to water supply: Procopius, *De aedif.*, II, 2, 1 (p. 214, Bonn); II, 9, 10 (p. 236, Bonn); II, 10, 14 (p. 239, Bonn); IV, 2, 6 (pp. 269 f. in Bonn).

<sup>160</sup> *Athènes décrites et dessinées*, p. 182.

is the only existing record of them, forms no basis for judgment. It is at least interesting that his date for the frescoes should agree so closely with ours for the earliest mediaeval activity about Klepsydra. If he is right, we must conclude that this activity indicates not merely a new period of use of the well house, but its consecration as a chapel of the Holy Apostles.<sup>161</sup>

#### FRANKISH REPAIRS

It is not until Frankish times, the middle or second half of the thirteenth century, that we again have any record of an interest in Klepsydra. Then, however, there is evidence of extensive building, or rebuilding, about the spring (Fig. 40).

When we removed the lower courses of the Bastion of Odysseus immediately outside the spring house, we found below them a few small stones set in a very soft mortar, quite distinct from the hard mortar of the Bastion of Odysseus, or the softer, but nevertheless serviceable mortar of the wall of Valerian. This was clearly the remains of a repair or reconstruction of some period between. An extraordinary stroke of fortune brought us evidence for the date. In the lowest layer of the mortar of this repair we found nine bronze coins: they were scattered over an area of only a few square centimeters, and like the coins which had been found the previous year in the mortar of the wall of Valerian, had evidently slipped from the pocket of a careless mason who sealed them over before he was aware of his loss.<sup>162</sup> All nine were coins of Guillaume Villehardouin, struck between 1245 and 1250.

It was surprising to find evidences of so thorough-going a repair at a place which should have been masked by the wall of Valerian, but the explanation is, I think, not far to seek. A massive fortification wall which lies west of the wall of Valerian has been found during the course of the excavations to date from the end of the twelfth or the beginning of the thirteenth century. It should be regarded, in all probability, as part of an extensive outwork built in preparation for the expected siege of the Acropolis by Leon Sgouros in 1204.<sup>163</sup> A portion of the wall is shown by Stuart and Revett: starting from the Odeion of Herodes, it runs north, covering the Beulé Gate and the upper sections of the wall of Valerian.<sup>164</sup> We have followed it to a point just north of the modern Acropolis Street (Fig. 40), where it swings toward the east and cuts across the line of the Valerian wall. It is evident that as long as the new circuit was kept in good repair, its existence rendered useless the last 100 meters or so of

<sup>161</sup> The chapel somehow escaped the notice of Aug. Mommsen, *Athenae Christianae* (Leipzig, 1868). It is included in Xyngopoulos' list of Byzantine and Turkish churches of Athens: Εὐρετήριον τῶν Μνημείων τῆς Ἑλλάδος, vol. A', 1, τεῦχος β' (Athens, 1929), p. 103.

<sup>162</sup> *Hesperia*, VII, 1938, p. 332.

<sup>163</sup> Nicetas Choniates, pp. 800 ff. (Bonn); Hertzberg, *Gesch. Griechenlands seit dem Absterben des Antiken Lebens* (4 vols., Gotha, 1876-9), I, pp. 418 f.

<sup>164</sup> *Antiquities of Athens*, II, pl. V.

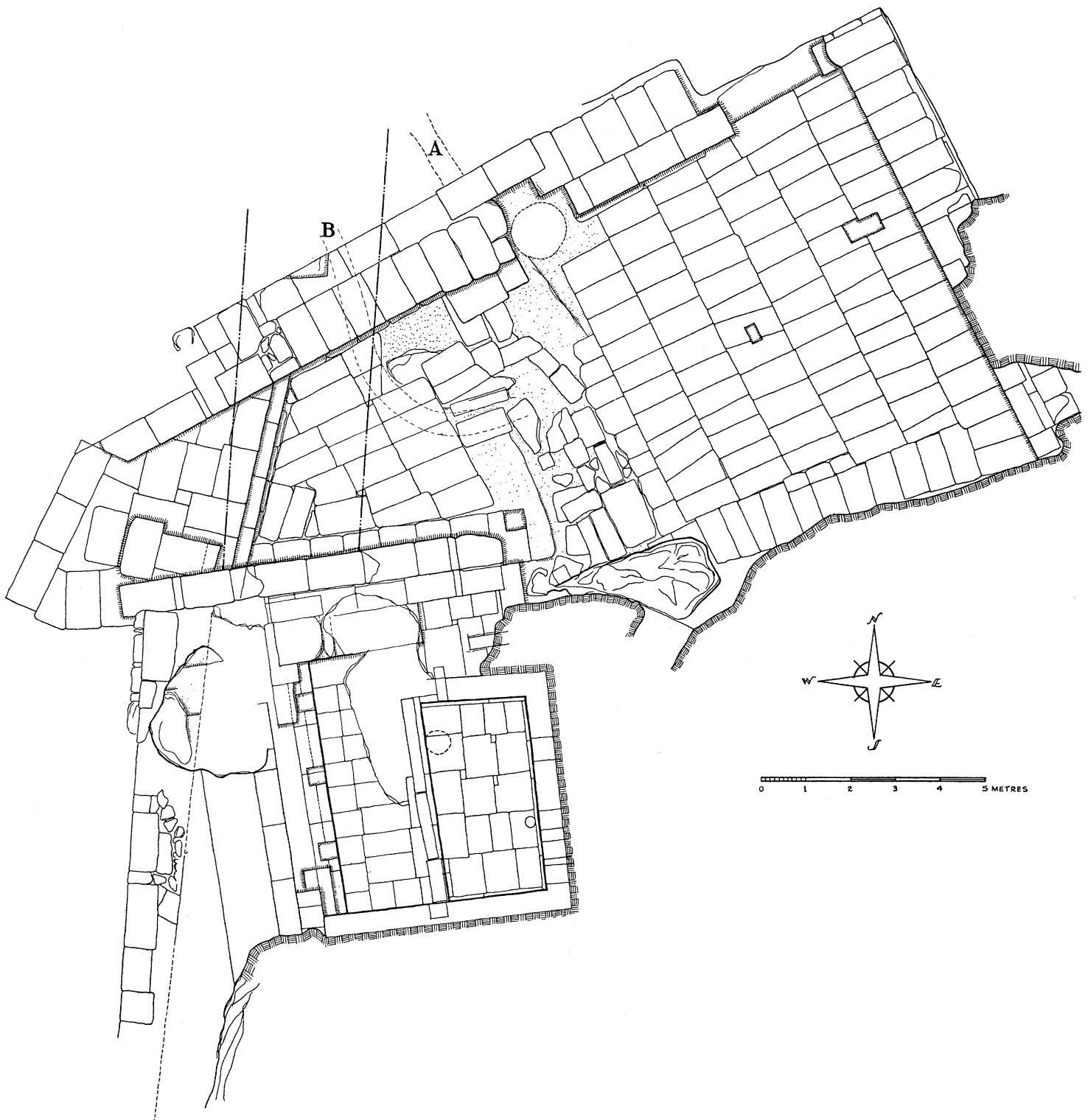


Figure 29

General plan of Klepsydra and the Paved Court: actual state. *A* and *B* indicate respectively the older and the later overflow channels. The broken lines on either side of *B* mark the position of the wall of Valerian to the point where it abutted on the south wall of the Court and the masonry of the well house. Here it jogged, and from here toward the Acropolis its line is shown by the partially preserved foundations of its west face: the line of irregular masonry at the extreme southwest of the plan. The line of fine dots just east of this shows the position of the bastion of Odysseus.

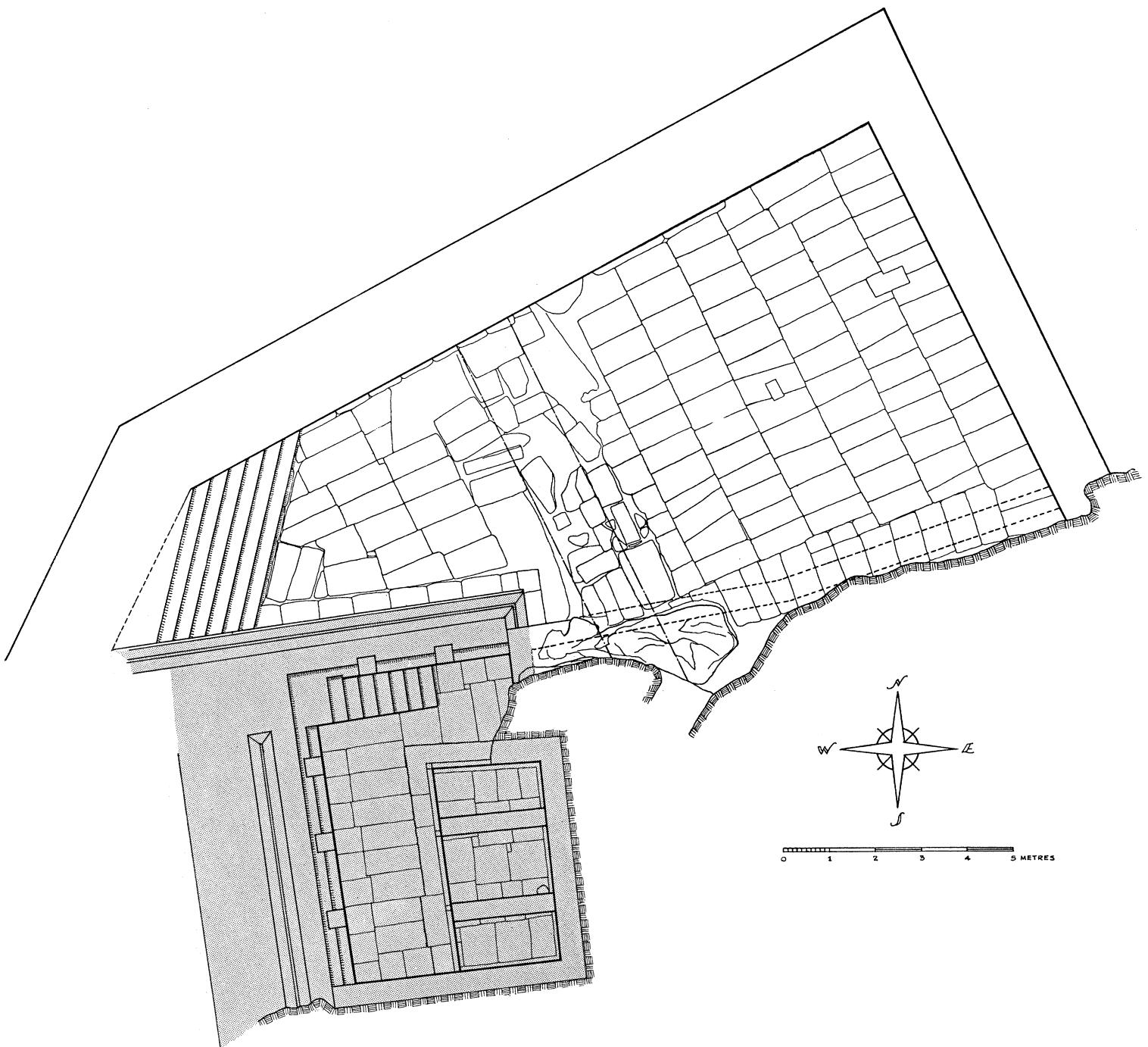


Figure 30  
Restored plan of Klepsydra and the Paved Court.

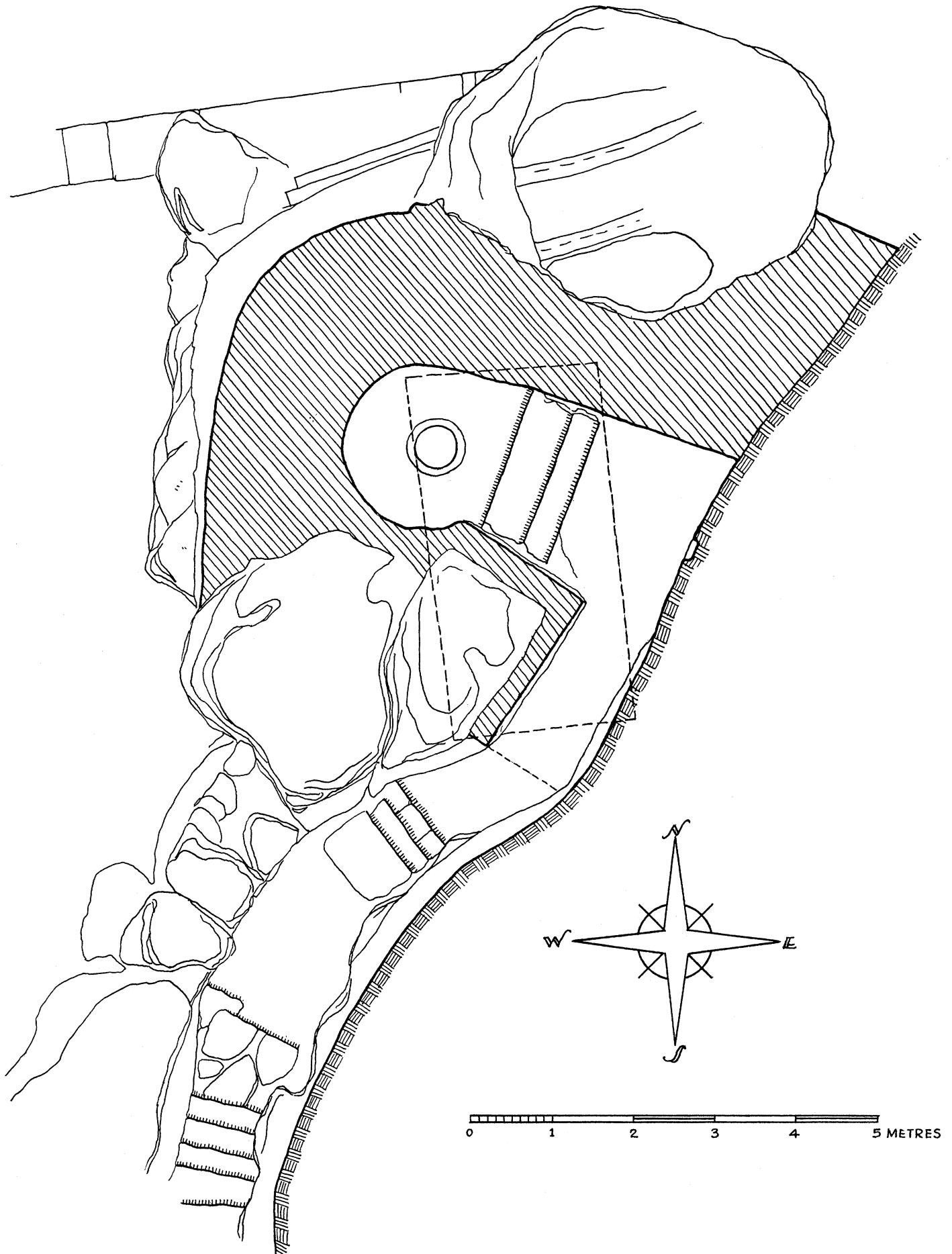


Figure 31

Plan of the well house above Klepsydra, and part of the stairway from the Acropolis. For convenience of reference, the position of the ancient drawbasin is shown with a broken line.

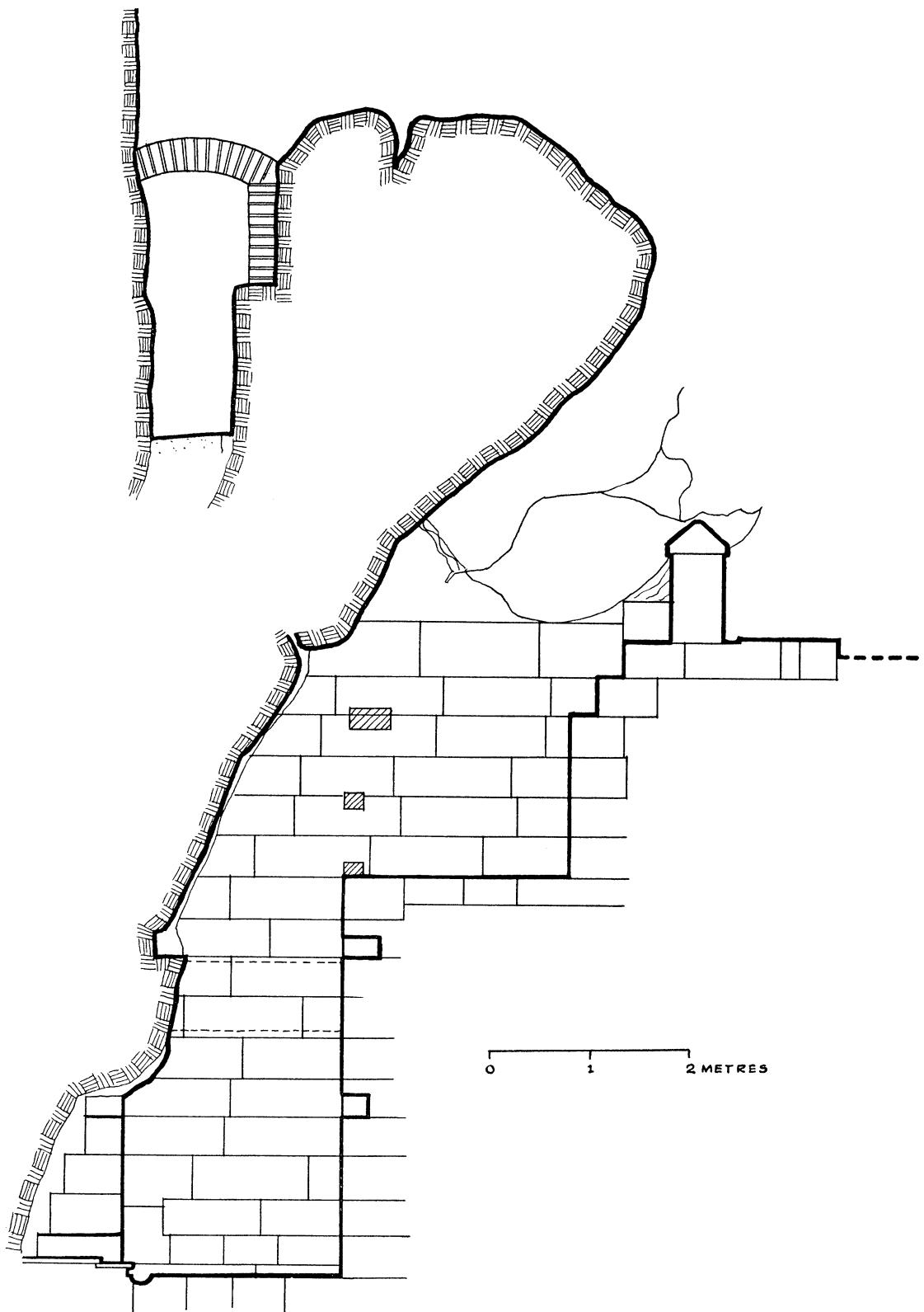


Figure 32

East-west section through Klepsydra and the entrance to the well house looking south. The section is taken on the line of the northernmost of the three inlets, and the beam sockets above it. The south wall of the spring house appears in elevation; and the marble parapet has been omitted in order to show the sockets for the original railing. The heavy broken line at the extreme right indicates the approximate ancient ground level.

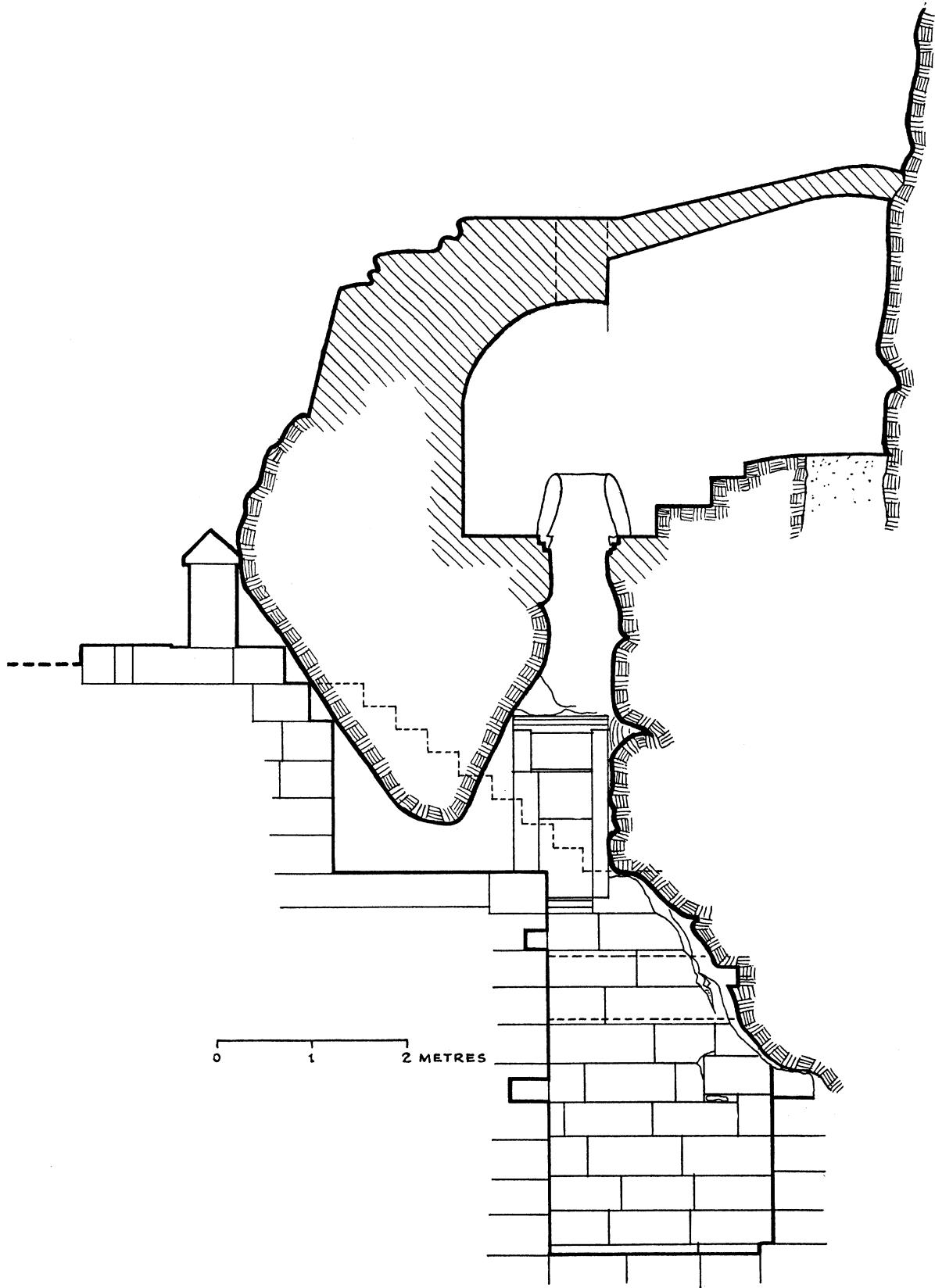


Figure 33

East-west sections through Klepsydra and the well house, looking north. The section is taken at the northern set of beam-sockets and the drawshaft; the well house is shown on its east-west axis. The north wall of Klepsydra is shown in elevation, together with the marble well beam. The steps from the entrance are indicated with a broken line.

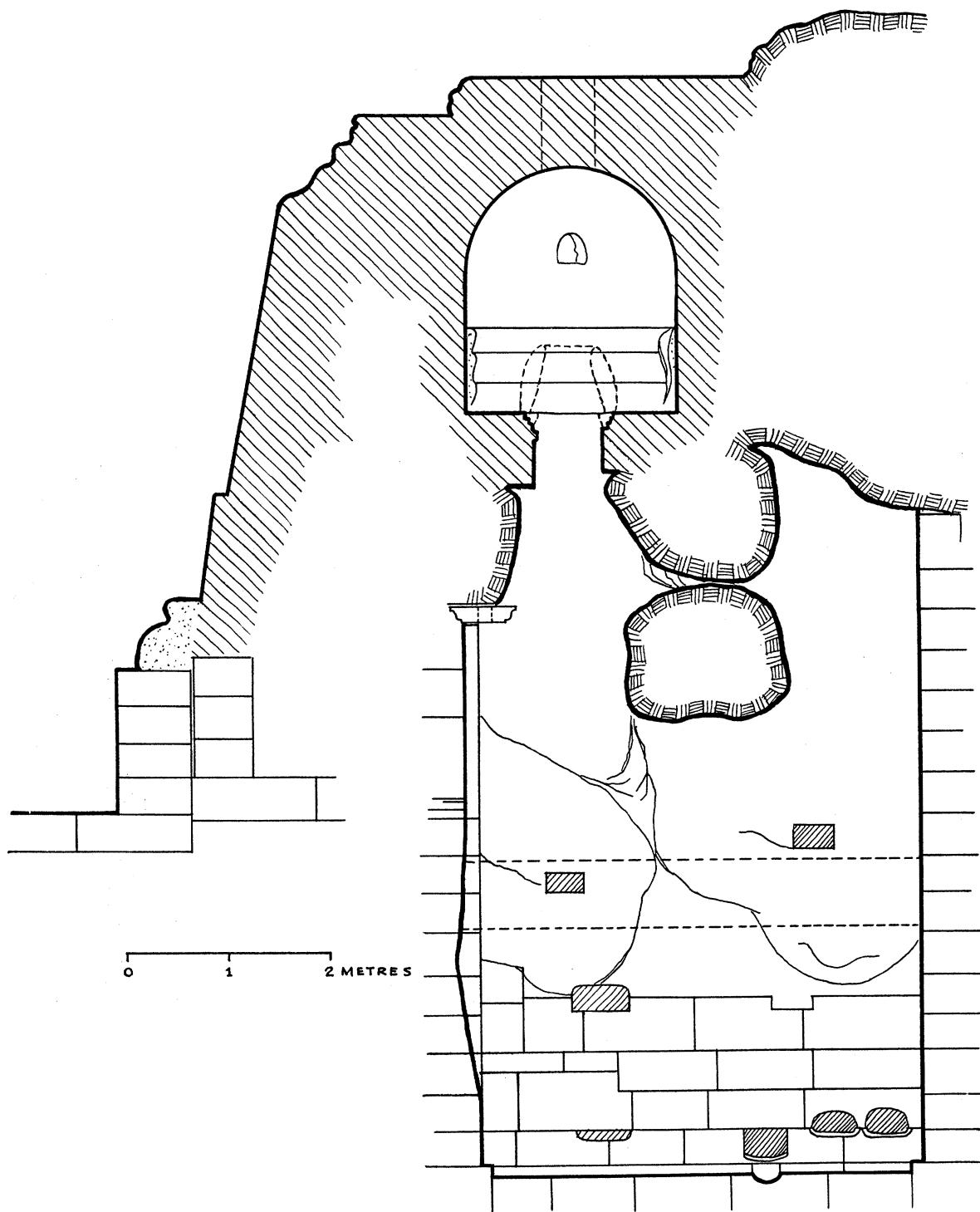


Figure 34

North-south sections through Klepsydra and the well house, looking east. The section through Klepsydra, taken on the center of the well beam, includes, at the extreme left, part of the Court, and the common wall between the two buildings. The east wall of the drawbasin is shown in elevation, with inlets and beam sockets. The section through the well house and drawshaft shows it at the widest part of the apse, with the rockcut steps, and a niche in its east wall, in elevation.

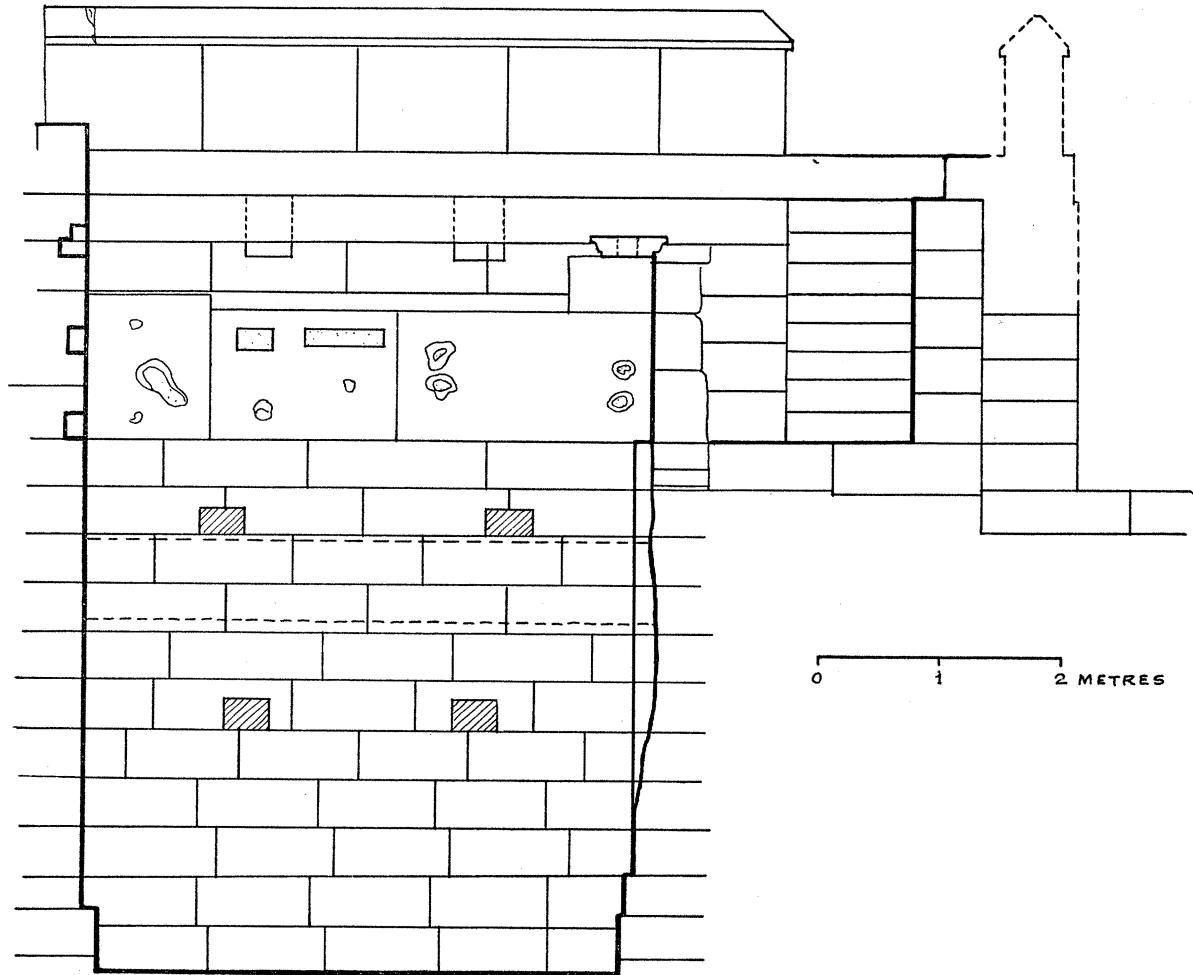


Figure 35

North-south section through Klepsydra, looking west, partly restored. The south wall of the drawbasin is shown in section on the line of the west wall and the sockets for the wooden rail; the north wall is shown at the center of the well beam; the wall between the spring house and the Court is shown partially restored.

In elevation are shown: the west wall of the drawbasin with four beam sockets; the marble parapet above it, made up of three reused bases; above and beyond the parapet, the set-back upper courses of the west wall of the spring house, with sockets for vertical posts, crowned by the orthostate wall with its coping; opposite the entrance, against the north wall of the springhouse, the steps.

the wall of Valerian. It is nearly certain, I think, that this part of the latter wall fell victim to the builders of the new wall, who found it a convenient source of building material; and that this explains why at so early a date the wall of Valerian should have been largely dismantled.

The rewalling of the spring which followed may have been rather elaborate. We have just seen that it involved the complete rebuilding of the older wall at the west. Ceramic evidence shows that the raising of the floor level inside the well house took place at this time (Figs. 19-20). Finally, the "Byzantine" doorway, which is still so conspicuous a feature of the north face of the classical wall above Klepsydra (Fig. 1), ought probably to be considered a part of this scheme.<sup>165</sup> It is obviously a successor to the old opening beneath the foundations of that wall; by its position it calls for a new stairway to the well house, and implies the existence of a "water bastion" which must have been a step between the Roman well house and the modern Bastion of Odysseus.

#### TURKISH FOUNTAINS

We do not know how long the Frankish bastion survived. It had, in any case, disappeared by the late seventeenth century. The doorway in the wall above is shown in the plans drawn by Morosini's engineers in 1687;<sup>166</sup> but it opens on nothing: outside there was only an unwalled slope.

But Klepsydra's overflow still ran out toward the north, and could be put to use. When Sir George Wheler visited Athens in 1675, in the company of Jacob Spon, he saw somewhere in this neighborhood, a "Fountain accommodated according to the Turkish mode with one or two Cocks of water."<sup>167</sup> Wheler had come down from the Areopagus toward the Acropolis, and it is evident that the fountain which he saw must have been somewhere on the western or northwestern slope of the Acropolis, but it is hard to say just where. Fortunately, Fanelli, whose account is in most respects merely an adaptation of Wheler's, just here relies on some other source and is a little more precise. He describes the fountain as being beside the path toward the Bazaar, and not far from the place where, at the time of the Venetian attack on the Acropolis, the besiegers' gallery was located.<sup>168</sup> Clearly it cannot have been very far from the

<sup>165</sup> The doorway is conspicuous in any photograph of the northwestern section of the Acropolis; cf. our Fig. 1. On the door, consult Burnouf, *Ville et l'Acropole*, pp. 69-71 and pl. XX. He would date it before the period of the Dukes of Athens, i. e., before 1260 (Hertzberg, *Gesch. Griechenlands*, II, pp. 144 f.; Miller, *Essays on the Latin Orient* [Cambridge, 1921], p. 114).

<sup>166</sup> One of Verneda's plans is reproduced by Jahn-Michaelis, *Arx*, p. 27. For others see Omont, *Athènes au XVIIe siècle* (Paris, 1898), *passim*.

<sup>167</sup> Wheler, *A Journey into Greece* (London, 1682), p. 383.

<sup>168</sup> S. Fanelli, *Atene Attica descritta da suoi principii sino all' acquisto fatto dall' armi Venete nel 1687* (Venice, 1707), p. 341. The position of the gallery is better judged from the plans of San Felice (Fanelli, p. 317; Omont, *Athènes*, p. XLV, 1) and Verneda (Omont, Pl. XXXIV) which show it approximately north of the Propylaia, than from the various views (Omont, Pl. XXXIII,

source of Klepsydra. It was once more, we may note, outside the fortifications of the Acropolis, for the Turkish outwork which later became so conspicuous a feature of the north slope had not yet been built.<sup>169</sup>

Wherever this fountain may have been and whatever its disposition, it had disappeared before the visit of Stuart and Revett. Their text and their drawings both indicate that they found here only a stream partly canalized. They correctly identified it as Klepsydra (Wheler and Fanelli had supposed it to be Enneakrounos), and they noted that the water was carried to a mosque in the Bazaar, but they make no mention of a fountain along its course.<sup>170</sup>

This first Turkish fountain was destroyed, perhaps, by the builders of the Turkish outwork in the first half of the eighteenth century (Fig. 41). But a new one was built, shortly after the time of Stuart and Revett, for Chandler saw it here in 1765, scarcely a dozen years later.<sup>171</sup> Its remains lie less than 100 meters east of Klepsydra, against the Turkish wall, facing the cobbled path which in Turkish times was the main road between the town and the *kastro*. There is not much left of it now: only the ancient marble sarcophagus which formed its basin, with a little rubble and mortar masonry built into either end, which served to support the superstructure. The water of Klepsydra was brought to it in a rectangular terracotta channel which is still in place; the Turkish builders went in as far beneath the floor of the Paved Court as the ancients had done to catch Klepsydra's overflow, and their pipes follow the Roman channel to a point just inside the outwork, whence they swing eastward along the wall of the outwork to the new fountain.

The fountain seems to have remained in use until shortly before the Greek Revolution. Dodwell,<sup>172</sup> who visited Athens in 1801 and again in 1805, makes no mention of it, but Leake noticed it in 1807,<sup>173</sup> and Hobhouse in 1810 found it still running.<sup>174</sup> But Sournelis, whose contemporary account of Athens during the Revolution contains much interesting and quaint detail, says in discussing the rediscovery of the well house and spring in 1822 that the fountain, although still in existence,

1, 2, XXXVI, 2), which led Broneer to suppose that it was considerably farther east (*Hesperia*, IV, 1935, p. 122). The course of the road at this time is clearly shown on Verneda's plan published by Michaelis, *Comptes rendus Acad. Inscr.*, 1910, p. 278, pl. I.

<sup>169</sup> The outwork appears first on the plans drawn by Stuart and Revett, who were in Athens 1751-54 (*Antiquities of Athens*, II, pl. V; III, plan of Athens following p. vi). Burnouf calls it "enceinte de l'Hypapanti" (p. 27: from the well-known small church just below it); Trikoupis (*Tστορία*, IV [see below note 177], p. 75) apparently refers to it as the outwork "of the lion."

<sup>170</sup> *Op. cit.*, I, p. 15; II, p. v, pl. V; III, p. v, and plan following p. vi, where Klepsydra is marked *Fons*.

<sup>171</sup> *Travels into Greece* (Oxford, 1776), p. 67.

<sup>172</sup> Dodwell, *A Classical and Topographical Tour through Greece* (2 vols., London, 1819).

<sup>173</sup> Leake, *Topography of Athens* (2nd ed., London, 1841), I, p. 169.

<sup>174</sup> J. C. Hobhouse (1st baron Broughton), *A Journey through Albania, and other Provinces of Turkey* (2 vols., Philadelphia, 1819), I, p. 298.

was dry.<sup>175</sup> Dodwell's failure to mention it is curious, since he refers to the caves and the stream below them, notices an ancient statue as he enters the outwork from the town, and comments on the character of the fortification.<sup>176</sup> Probably the fountain was not in working order at the time of his visits; there is evidence that at some time during this period the channel was blocked near its start by the settling of some of the masonry of the wall of Valerian. The channel was subsequently re-routed around the obstacle but, since the fountain seems not to have been an important one, there may have been a long interval when it was dry.

### THE GREEK REVOLUTION; KLEPSYDRA AGAIN

In 1821, when the Turks retired to the Acropolis in anticipation of the Greek siege, they took with them ample supplies of food, but were careless about their water. They cleaned out only one of the cisterns on the Acropolis, and filled it with water which they brought up from the town. But beside this they depended on a solitary well, on the south slope, within the outwork called Serpentze.<sup>177</sup> Winter was approaching and they counted on its rains to renew their supply. But that winter was one of phenomenal drought in Athens; not a drop of rain fell on the citadel, and its discouraged defenders must have been further disheartened by the sight of frequent showers in the surrounding countryside. They were finally forced, by thirst, to surrender in June of 1822.<sup>178</sup> It is interesting that the story told on the occasion of Aristion's surrender to Curio in 86 b.c. was repeated in 1822. When Waddington visited Athens the following winter he was assured by eye witnesses that within a few hours after the Turkish surrender plentiful rain fell.<sup>179</sup>

One of the first acts of the Greek officers who took command of the Acropolis was to institute a search for an adequate water supply, lest the same thing should happen to them and their troops. For this purpose, Pittakis was appointed, as we have seen (above p. 195), and apparently by tracing the pipes back from the fountain, ultimately he discovered the well house above Klepsydra. When the ancient draw-basin had been discovered and cleaned, the problem of incorporating it once more within the fortifications was a simple one. At the command of the famous general, Odysseus Andritzos, a second well house was constructed on the top of the vault of the old one, a second stairway above the ancient stairway, and the whole was enclosed in a mighty bastion. Odysseus recorded his part in the work in an inscription set in

<sup>175</sup> Sourmelis, 'Ιστορία τῶν Ἀθηνῶν κατὰ τὸν ὑπὲρ ἐλευθερίας ἀγῶνα (Aegina, 1834), p. 42, note.

<sup>176</sup> *Op. cit.*, I, pp. 305, 310.

<sup>177</sup> S. Trikoupis, 'Ιστορία τῆς Ἑλληνικῆς Ἐπαναστάσεως (4 vols., London, 1853-57), I, pp. 209, 212; II, pp. 248 ff.; Finlay, *A History of Greece* (new ed., 7 vols., Oxford, 1877), VI, p. 283.

<sup>178</sup> Trikoupis, *op. cit.*, II, p. 251; Finlay, *loc. cit.*

<sup>179</sup> Waddington, *A Visit to Greece in 1823 and 1824* (2nd. ed., London, 1825), p. 60.

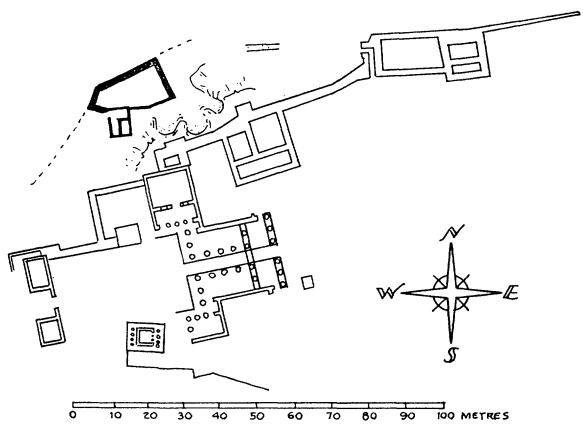


Figure 36

Klepsydra and the Paved Court about 460 B.C.: a sketch plan to show the buildings in relation to their surroundings at the time of their construction. The dotted lines suggest what must have been the general direction of the Panathenaic street and the Peripatos. The patch of double line with stippling between shows the position of the wall-bedding on the ledge above and to the east of the Court.

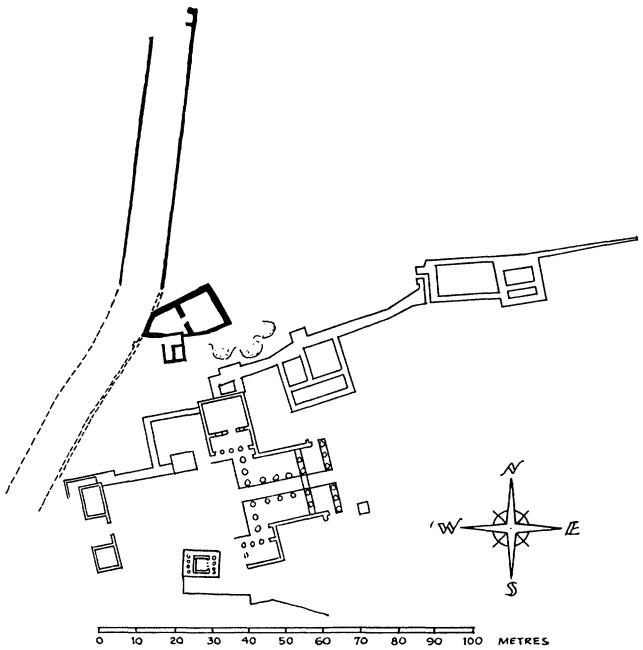


Figure 37

Klepsydra and the Paved Court about A.D. 50. The Claudian *anabasis* has been built; and the transverse wall now divides the Court into two parts.

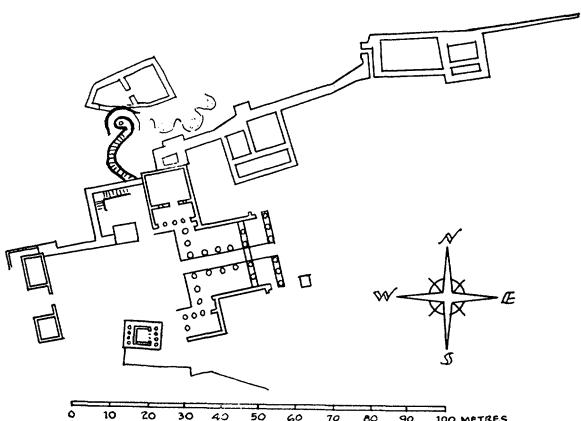


Figure 38

Klepsydra and the Paved Court at the end of the second century after Christ. With the construction of the well house, Klepsydra is no longer accessible from outside, and the Court is apparently abandoned.

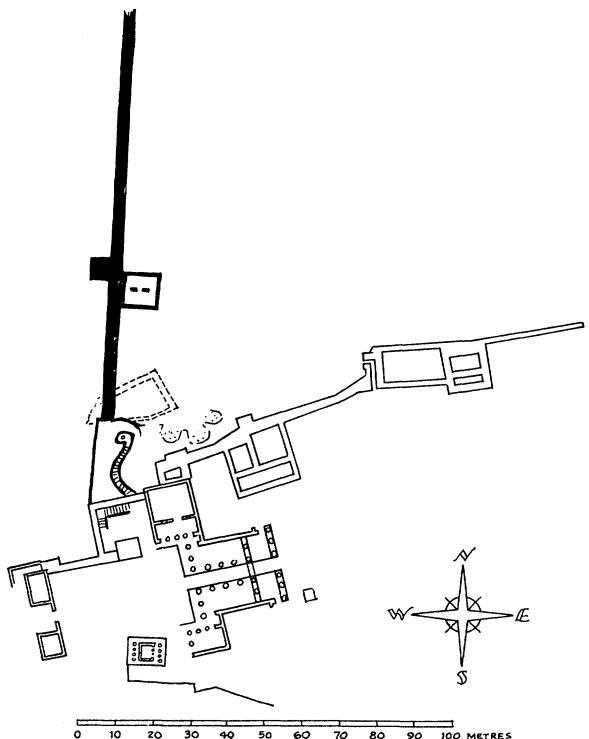


Figure 39

Klepsydra at the beginning of the sixth century after Christ. The wall of Valerian, built about A.D. 275-300, has still further strengthened the defenses of the spring; the overflow is now collected in the new reservoir, thirty meters or so down the slope.

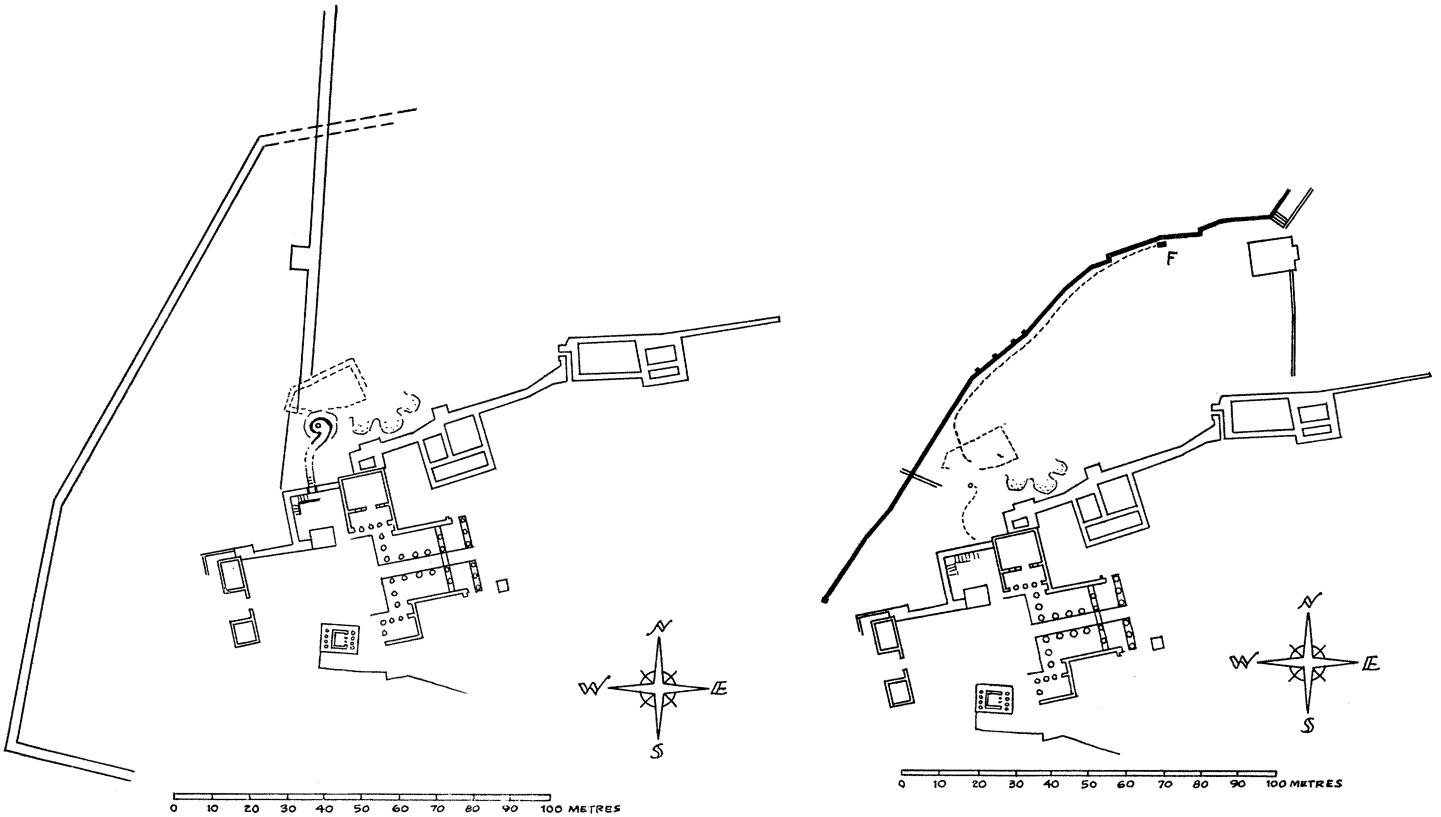


Figure 40

Klepsydra in the second half of the thirteenth century after Christ. Construction of the new fortification, covering much of the west and north slopes of the Acropolis, has resulted in the demolition of that stretch of the wall of Valerian which had protected the well house. A new bastion now encloses the spring, and the well house is reached from a new doorway in the ancient wall below the Propylaia.

Figure 41

Klepsydra at the end of the eighteenth century after Christ. The Roman well house, the Frankish bastion, all but the overflow of the old spring is forgotten. A new Turkish cutwork protects this part of the slope, and the water is piped along it to a new fountain (marked F) beside the road from the town.

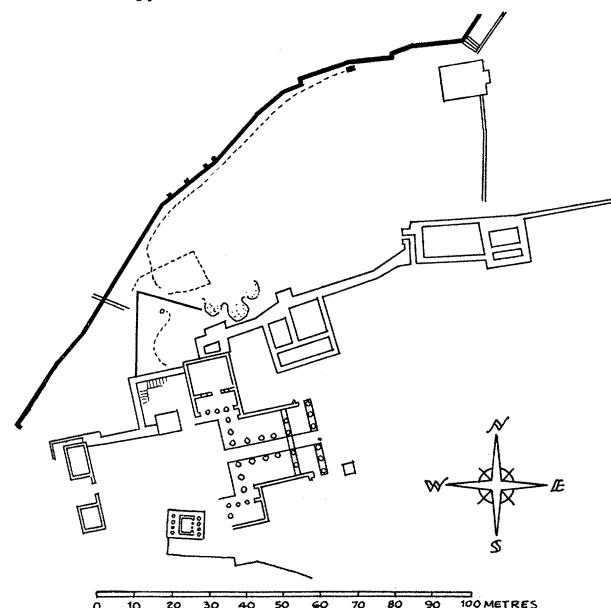


Figure 42

Klepsydra in 1822. The Turkish fountain is now dry. Following the capture of the Acropolis by the Greeks, the Bastion of Odysseus encloses the spring, and a new flight of steps makes the water once more accessible to the defenders of the citadel.

the wall, and the bastion became familiar to archaeologists throughout the last century as the Bastion of Odysseus.<sup>180</sup>

During the next few years the newly built bastion and the water within it did yeoman service in the defense of Greek freedom. In the summer of 1826 began the long siege of the Acropolis by the Turks under the famous general, Kioutahis. For nearly a year the siege continued; and when the Greeks surrendered finally in May, 1827, it was not through lack of water, not really through lack of food either, but because the garrison, isolated when the Greek forces in the surrounding country were defeated and driven off, wounded and sick and discouraged after the sufferings of a winter without adequate shelter, felt that nothing was to be gained by holding out longer.<sup>181</sup>

As the Greeks, five years before, had directed their efforts chiefly at cutting off the Turks' water supply, so the Turks, time after time again during the winter, tried to destroy, when they saw they could not capture, the Bastion of Odysseus.<sup>182</sup> Working from the neighborhood of the Church of the Hypapanti, the besiegers dug tunnel after tunnel, in an attempt to mine the bastion and blow it up. The Greeks from inside the fortification below the bastion were kept busy with counter-mines, but thanks to the ingenuity of one Kostas Hormovas, or Hormovites, who had distinguished himself as a sapper at the siege of Missolonghi, they were successful, in every case, in anticipating the plans of the enemy. The bastion withstood all attacks; the water, deep within it, never failed.

## APPENDIX

### TESTIMONIA

I. Aristophanes, *Lysistrata*, 910-913:

Kt. σὺ δ' οὐ κατακλίνει;

Mv. ποῦ γὰρ ἄν τις καί, τάλαν,

<sup>180</sup> Trikoupis, *op. cit.*, II, p. 355; Burnouf, *Ville et l'Acropole*, pp. 39 ff., pls. XV, XIX; Wordsworth (*Athens and Attica*, p. 84) gives a transcription of the inscription and translates it: "Odysseus, General of the Greeks, raised from its foundations this Bastion over a source of Spring Water in the year M. DCCC. XXII. and month of September." The best plan of the bastion is that in Judeich, *Topographie*<sup>2</sup>, p. 191, fig. 16 (from Curtius and Kaupert, *Atlas*, 22); easily accessible photographs: Harrison, *Myth. and Mon.*, p. 540, fig. 2; A. Boetticher, *Die Acropolis von Athen* (Berlin, 1888), frontispiece.

<sup>181</sup> Trikoupis, *Iστορία*, IV, p. 163.

<sup>182</sup> For all this, cf. Burnouf's account (*Ville et l'Acropole*, pp. 45 f.) taken from Sourmelis; also Trikoupis, *op. cit.*, IV, pp. 79 f. It is of interest to us because we found, just within the Turkish outwork, a series of roughly made shafts which terminate in tunnels leading north under the wall, which are almost certainly some of the Greek countermines; while a few meters north of the wall, the native schist of the slope is torn and broken exactly as though by a subterranean explosion.

δράσειε τοῦθ';

Κι. ὅπου; τὸ τοῦ Πανὸς καλόν·

Μν. καὶ πῶς ἔθ' ἀγνὴ δῆτ' ἀν ἔλθοιμ' ἐς πόλιν;

Κι. κάλλιστα δήπου, λουσαμένη τῇ Κλεψύδρᾳ.

I A. Schol., 911:

. . . πλησίον δὲ τοῦ Πανείου ἡ Κλεψύδρα ἦν κρήνη.

I B. Schol., 913:

'Εν τῇ ἀκροπόλει ἦν κρήνη ἡ Κλεψύδρα, πρότερον Ἐμπεδὼ λεγομένη· ὡνομάσθη δὲ Κλεψύδρα διὰ τὸ ποτὲ μὲν πλημμυρεῖν ποτὲ δὲ ἐνδεῖν· ἔχει δὲ τὰς ρύσεις ὑπὸ γῆν, φέρουσα εἰς τὸν Φλεγρεώδη λειμῶνα.

Φλεγρεώδη λειμῶνα: cf. Test. V, VI A.

II. Plutarch, *Ant.*, 34:

'Εξέναι δὲ μέλλων ἐπὶ τὸν πόλεμον (38 B.C.), ἀπὸ τῆς ἱερᾶς ἐλαίας στέφανοι ἔλαβε καὶ κατά τι λόγιον ἀπὸ τῆς Κλεψύδρας ὕδατος ἐμπλησάμενος ἄγγεῖον ἐκόμιζεν.

III. Pausanias, I, 28, 4:

Καταβᾶσι δὲ οὐκ ἐσ τὴν κάτω πόλιν ἀλλ' ὅσον ὑπὸ τὰ προπύλαια πηγή τε ὕδατος ἔστι καὶ πλησίον Ἀπόλλωνος ἱερὸν ἐν σπηλαίῳ. Κρεούση δὲ θυγατρὶ 'Ερεχθέως Ἀπόλλωνα ἐνταῦθα συγγενέσθαι νομίζουσι.

IV. Schol. Aristophanes, *Wasps*, 857:

Κλεψύδρα κρήνη ἐν τῇ Ἀττικῇ ἥτις Ἐμπεδὼ προσηγορεύετο.

V. Schol. Aristophanes, *Birds*, 1694 (Istros, frg. 11, F.H.G., I, 419):

. . . Κλεψύδρα κρήνη ἐν Ἀργείῳ . . .

κρήνη ἐν ἀκροπόλει ἡ Κλεψύδρα ἡς Ἰστρος ἐν τῇ ιβ' μέμνηται, τὰ παρὰ τοῖς συγγραφεῦσιν ἀναλεγόμενος, οὗτως δὲ ὡνομάσθαι ἐπειδὴ ἀρχομένων τῶν ἐτησίων πληροῦται, πανομένων δὲ λήγει, ὅμοιως τῷ Νείλῳ, ὥσπερ καὶ τὴν ἐν Δήλῳ κρήνην· εἰς ταύτην δέ φασιν ἡματωμένην φιάλην πεσοῦσαν ὀφθῆναι ἐν τῷ Φαληρικῷ ἀπέχοντι σταδίους εἴκοσι· φασὶ δὲ αὐτὴν ἀπέραντον βάθος ἔχειν, τὸ δὲ ὕδωρ ἀλμυρόν.

ἐν Ἀργείῳ: Bentley and Dobree emend to ἀστεῖ, from Hesychius s.v. πεδὼ (Test. VI C), Dindorf to ἀκροπόλει from the following scholion. It is a fair guess that the original read ἐν Πελαργικῷ (though the spring actually lay just above, not within, the probable limits of the Pelargikon); Πελάσγικον Ἀργος (of the familiar oracle, Schol. Theocritus,

xiv, 48 [Deinias Arg., frg. 7, *F.H.G.*, III, 24 ff.]: discussed by Allen, *C.Q.*, III, 1909, p. 85) and Πελαργικὸν ἀργόν (*Thuc.*, II, 17) were easily confused; cf. the scholion on Arist. *Panath.* 111, 2 (Dind.): μαρτυρεῖ Θουκυδίδης, τὸ Πελασγεῖ καὶ Ἀργος εἰπών.

#### VII. Hesychius:

- A. Κλεψύδρα· κρήνη ἥπις τὸ πρότερον Ἐμπεδὼ προσηγορεύετο· ἔχει δὲ τὰς ρύσεις ἀνατελλούσας εἰς τὸν Φαληρέων δῆμον.
- B. κλεψύρρυτον ὕδωρ· τὸ τῆς Κλεψύδρας· αὗτη δέ ἐστι κρήνη Ἀθήνησιν, ἀπὸ τῆς ἀκροπόλεως ἐπὶ σταδίους εἴκοσιν ὑπὸ γῆν φερομένη, εἰς ἣν τὰ ἐμβαλλόμενα πάλιν θεωρεῖται ἀρχομένων τῶν ἐτησίων.
- C. Πεδώ· ἡ νῦν καλούμενη Κλεψύδρα κρήνη ἐν ἀστει.

#### VIII. Photius:

Κλεψύδρα· κρήνη ἐν ἀκροπόλει οὔτως καλεῖται.

#### VIII. Suidas:

Κλεψύδρα· ἡ πηγή· διὰ τὸ ποτὲ μὲν πλημμυρεῖν ποτὲ δὲ ἐνδεῖν

#### IX. Aristophanes, *Lysistrata*, 326 ff.:

Χορ. Γυν. ἀλλὰ φοβοῦμαι τόδε· μῶν ὑστερόπονς βοηθῶ;  
 νῦν δὴ γὰρ ἐμπλησαμένη τὴν ὑδρίαν κνεφαίᾳ  
 μόγις ἀπὸ κρήνης ὑπ' ὄχλουν καὶ θορύβουν καὶ πατάγου χυτρείου,  
 δούλησιν ὡστιζομένη  
 στιγματίαις θ' ἀρπαλέως  
 ἀραμένη, ταῖσιν ἐμαῖς  
 δημότισιν καομέναις  
 φέροιντ' ὕδωρ βοηθῶ.

We cannot be sure, of course, that Aristophanes had the Klepsydra in mind as he wrote this passage. But it seems very probable: it was the only considerable source within easy reach of the women; and the picture of the chorus of old women hurrying around the shoulder of the Acropolis with their water-jars, to meet the old men climbing up with their firebrand seems a very natural one.

#### X. Affidavit published by Pittakis, *'Εφ. Ἀρχ.*, 1853, p. 1066 (no. 2010), note 1:

Κυριακὸς Πιττάκης Ἀθηναῖος, νέος χρηστός, δουλεύων ἐξ ἀρχῆς τὴν ἑαυτοῦ πατρίδα μὲν ἐνθερμον ζῆλον καὶ πατριωτικὸν ἐνθουσιασμόν, διορισθεὶς δὲ ἐν τῷ

Φρουρίῳ μετὰ τὴν παραλαβὴν αὐτοῦ, καὶ ἐξετάζων εἰς τὴν ἀνίχνευσιν τοῦ ἐν τῷ ναῷ τοῦ Ἐρεχθέως τῆς Ἀκροπόλεως τῶν Ἀθηνῶν φρέατος, καὶ εύρὼν τὴν πλησίον τοῦ σπηλαίου τοῦ Ἀπόλλωνος καὶ Πανὸς πηγήν, τὴν ὅποιαν οἱ παλαιοὶ Κλεψύδραι ἐκάλουν, λαμβάνει εἰς ἀπόδεξιν τὸ παρὸν ὑπογεγραμμένον παρὰ τῶν συμπατριωτῶν του, καὶ ἐσφραγισμένον τῇ σφραγίδι τῆς ἡμετέρας πόλεως.

Ἐν Ἀθήναις, τῇ 10 Ὁκτωβρίου 1823.

Νεόφυτος Πεντελιώτης, Διοινύσιος Πετράκης, Ν. Ζαχαρίτζας, Ἰωάννης Βλάχος, Χ. Σπ. Γκικάκης, Χαρίτος Κτενᾶς, Σπύρος Βουγιουκλῆς, Παλαιολόγος Βενιζέλος, Ἀγγελος Γέροντας, Νικόλαος Βάθης πρωτομάστορης τῶν κτιστῶν τῶν Ἀθηναίων ὑπογράφομαι διὰ τοῦ νίον μου Ἐλευθερίου Βάθη, μὴν ἡξεύρων γράμματα.

Τ. Σ.

Τὸ πιστοποιητικὸν τοῦτο δημοσιεύω ἐνταῦθα οὐχὶ διὰ νὰ καυχηθῶ, ἀλλ’ ἵνα χρησιμεύσῃ εἰς τὰ περὶ Κλεψύδρας ἴστορούμενα χρονικά.

ARTHUR W. PARSONS