

Identifying Epigraphical Hands

Stephen V. Tracy

I

TO COLLECT systematically and study the work of individual masons has not heretofore been the primary goal of any epigraphist.¹ Styles of lettering, however, have long interested scholars because of the aid they provide in dating.² In the first and still the most ambitious attempt at classification, W. Larfeld compiled tables designed to give typical shapes of letters appearing on Attic inscriptions in eighteen periods from the eighth century B.C. to the fifth Christian century.³ Since 1900 volumes of facsimiles⁴ and then of photographs⁵ have provided convenient, though limited, material for dating by letter-style. For the archaic scripts of Greece, L. H. Jeffery has given an authoritative account of immense value to all scholars and especially to epigraphists.⁶ On a more limited scale, O. Kern wrote an excellent narrative history of the letter-styles of the inscriptions from Magnesia on the Maeander;⁷ along similar lines, C. B. Welles offered nine tables of general styles (the inscriptions in each arranged chronologically) for the inscriptions from Gerasa.⁸

A. Wilhelm indicated a new direction for study in 1906 when he

¹ This is an expanded version of a paper delivered at the meeting of the American Philological Association in San Francisco on 27 December 1969. Acknowledgment here for financial support is gratefully made to the Woodrow Wilson Foundation, Ford Foundation and Wellesley College. Special thanks are due to Professor Sterling Dow, who originally laid much of the groundwork for the study of individual hands and who first suggested the study of one mason. In addition, he has generously aided my work at every turn, placing at my disposal not only his extensive squeeze collection but also tentative lists of inscriptions by individual masons.

² See e.g. the remarks of B. D. Meritt, *Epigraphica Attica* (Cambridge [Mass.] 1940) 87–88, and A. G. Woodhead, *The Study of Greek Inscriptions* (Cambridge 1959) 62–66.

³ *Handbuch der griechischen Epigraphik* II (1902) 389–506.

⁴ H. Roehl, *Imagines inscriptionum graecarum antiquissimarum* ed.3 (Berlin 1907).

⁵ O. Kern, *Inscriptiones graecae, Tabulae in usum scholarum* (1913); P. Graindor, *Album d'inscriptions attiques d'époque impériale* (1924); J. Kirchner, *Imagines inscriptionum atticarum* (1935), ed.2 by G. Klaffenbach (1948).

⁶ *The Local Scripts of Archaic Greece* (Oxford 1961); this work supersedes Roehl (*supra* n.4), and Larfeld (*supra* n.3) in his treatment of periods I–IV.

⁷ *Die Inschriften von Magnesia am Maeander* (1900) xxix–xxxvii.

⁸ C. H. Kraeling ed., *Gerasa, City of the Decapolis* (1938) 358–68, figs. 8–16.

identified a style belonging to a limited period (*fin. saec. III a.* in Athens) and noted seven examples.⁹ In 1931, with the Athenian agora excavations just underway, S. Dow, under the guidance of W. S. Ferguson, undertook the task of studying Hellenistic Athenian letter-styles with the purpose of developing a more reliable means for dating Attic inscriptions. A succession of letter-styles was soon established well enough so that when Agora inscriptions began to appear in numbers they could be assigned to approximate periods with some assurance.¹⁰ In the course of his work, Dow noted inscriptions which revealed marked similarities of lettering, sometimes suggesting that they were the work of one man.¹¹ He eventually encouraged the present writer to attempt the study of a single mason.¹² This article offers an account of the procedures adopted and the rationale behind them in the hope of lessening the principal difficulty facing the student of epigraphical hands, which is the lack of established procedural methodology.

A number of epigraphists in passing, *i.e.* as a corollary of their research, have assigned inscriptions to a single hand. H. T. Wade-Gery alone has set forth in detail the criteria he used in successfully attributing four different inscriptions to one mason.¹³ Employing primarily¹⁴ the metric criterion of width of chisel blade, he noted that all four inscriptions revealed the use in a fixed pattern of three chisels (with blade widths of 0.007, 0.009 and 0.011 m.). This method has not proved generally applicable, probably because ancient masons did not often use the same or identical sets of tools over long periods of time.¹⁵ Although others have failed to state such tangible criteria,

⁹ *Urkunden dramatischer Auffuehrungen in Athen* (Wien 1906) 63–64. S. Dow, "New Kinds of Evidence for Dating Polyektos," *AJA* 40 (1936) 58–60, designated this the disjointed style and listed twenty-seven inscriptions. Whether this is, in fact, a general style or the work primarily of one mason awaits further study.

¹⁰ Cf. the dating on this basis in Dow's *Prytaneis* (*Hesperia* Suppl. 1, Athens 1937).

¹¹ *ibid.* pp. 92, 107, 109, 116, 129, and "The Egyptian Cults in Athens," *HTHR* 30 (1937) 209. For this opening section, I have consulted with profit an unpublished essay by Dow entitled "History of the Study of Athenian Letter-Styles."

¹² (1) "A Letter-Cutter of Classical Athens," unpublished diss. Harvard University, 1968. For publication of some of the results, see (2) "Athenian Agora Inscriptions Cut by One Mason," *Hesperia* 36 (1967) 242–48, and (3) "A Series of Epigraphical Joins," forthcoming in *AJA* 75 (1971).

¹³ "A Distinctive Attic Hand," *BSA* 33 (1935) 122–35.

¹⁴ The paragraph beginning at the bottom of p.134 (*ibid.*) indicates that he relied to some degree on the shape of the lettering.

¹⁵ C. G. Higgins and W. K. Pritchett, "Engraving Techniques in Attic Epigraphy," *AJA* 69 (1965) 367–71, discuss this on p.367 n.2.

there have been some notable achievements. G. Colin identified on the basis of letter-shape the hands which inscribed the record of the Pythais on the wall of the Athenian treasury at Delphi¹⁶ and thus was able to assign fragments with great accuracy. Dow, in *Prytaneis*, assigned fragments to a number of given hands¹⁷ and in his important re-edition of *IG II² 2336*, clearly distinguished the multiplicity of letter-cutters who inscribed the text.¹⁸ In both cases, letter-shape apparently constituted the principal criterion. On the same basis, A. Raubitschek, in studying the dedications from the Athenian acropolis, was able to assign inscriptions to several hands.¹⁹ In addition to these major studies, a number of others have suggested that several inscriptions were by the same hand.²⁰ In every case similarity of lettering seems to have been the principal criterion.

My objective has been to collect and study the inscriptions cut by individual masons. Extensive investigation has led to the conclusion that quantitative criteria such as Wade-Gery adduced in the one instance, which are also dependable and widely applicable, cannot be found. Careful appraisal of letter-shape and uniformity are the criteria which have enabled me to assign separate inscriptions to a given hand. This approach assumes that the lettering of stonemasons reveals individual peculiarities²¹ and may be treated as a form of handwriting. The following considerations support this assumption.

The errors made during inscribing suggest that ancient masons cut freehand with the aid only of guidelines.²² Dittography and haplog-

¹⁶ *Fouilles de Delphes* (hereafter *FD*) III.2, 15 n.1.

¹⁷ See n.11 *supra*.

¹⁸ *HSCP* 51 (1940) 111–24, esp. 115–16. An achievement analogous to this, but in an area of study where little doubt exists that one is dealing with the handwriting of individuals, is O. Broneer's discernment of 14 hands in the Themistokles ostraka group (*Hesperia* 7 [1938] 231–41). On this, see now E. Vanderpool, "Ostracism at Athens," *Semple Lecture Series 2* (Cincinnati 1970) 11 and figs. 30–31.

¹⁹ *Dedications from the Athenian Acropolis* (Cambridge [Mass.] 1949) 93, 116 and 436–37.

²⁰ A. Wilhelm, *JOAI* 21–22 (1922–1924) 154; E. Schweigert, *Hesperia* 10 (1941) 338; D. M. Lewis, *BSA* 55 (1960) 190; with regard to Agora I 5824, B. D. Meritt cautiously observed, *Hesperia* 13 (1944) 243: "The writing is so nearly like that of *IG II² 472* that it may well be by the same hand; . . ."

²¹ Higgins and Pritchett, *op.cit.* (*supra* n.15), have well illustrated some of the details observable.

²² For a discussion of the errors made by one mason, see Tracy, *op.cit.* 1 (*supra* n.12) 206–11; Raubitschek, *op.cit.* (*supra* n.19) 452–53, gives a list of errors and corrections on early dedications, and Larfeld, *op.cit.* (*supra* n.3) I.231–34, offers a general selection. Cf. also my discussion in *BCH* 93 (1969) 371–95 of errors in the record of the Pythais of 98/7.

raphy, in particular, occur not infrequently; errors of this type happen when a copyist looks to and from a working copy. W. Larfeld and G. Klaffenbach, who discuss the process of inscribing in their handbooks, therefore appear to be in error when they imagine a meticulous letter-by-letter layout which preceded the actual cutting.²³

The assumption of a careful layout came about, in all probability, from attempts to infer the practice of ancient masons from modern practice. Modern masons do lay out their texts carefully letter-by-letter.²⁴ The primary purpose is to avoid mistakes, for an error in a short text composed of large, deeply incised letters is virtually impossible to correct and often necessitates that the marble be discarded.²⁵ It is important, therefore, that no inscribing errors occur, and much time is expended to ensure a complete and correct layout. Ancient masons by contrast normally cut very long (several thousand letters) texts of small,²⁶ lightly incised letters. In a text of this type a few errors are scarcely noticeable and were easily rectified by simple superscription or erasure;²⁷ their prevention clearly did not warrant the expenditure of a week's labor or more to lay out the text letter-by-letter.²⁸ Ancient masons thus cut their small letters freehand and not along the lines of a pre-drawn text. This made it possible, even necessary perhaps, for a mason to develop his own style of lettering.

²³ G. Klaffenbach, *Griechische Epigraphik* (Göttingen 1957) 46, and W. Larfeld, *Griechische Epigraphik* (Munich 1914) 144. On this point, see Tracy, "Notes on the Inscriptions of the Pythais of 98/7 B.C.," *BCH* 93 (1969) 372 and 394 n.1.

²⁴ Most letter-cutting in the United States is now done by a technique of sand blasting; I have observed letterers at work in Athens and have attended a demonstration of letter-cutting by the master mason of the Mastores Marble Workshop (Nea Ionia, Athens), Theodoros Mastores. Mr Mastores and his fellow workers did much of the work during the reconstruction of the Stoa of Attalos in the Athenian Agora.

²⁵ Modern Attic masons rarely cut texts longer than one hundred letters and do not cut letters smaller than 0.015 m. Requested to cut letters similar to those on a squeeze of IG II² 1028 (0.008 m.), Mr Mastores demurred, saying that he could not and had never had the occasion to cut such small letters.

²⁶ Letters on most Attic decrees range in height from 0.005–0.009 m.

²⁷ Tracy, *op.cit.* (*supra* n.23) 375.

²⁸ This is an estimate of the time required to lay out the approximately 10,000 letters of IG II² 1028. The actual inscribing was a slow, tedious process interrupted by periodic checking and correction. Modern letterers consider fifty letters per hour to be a very good rate of inscribing. Assuming that the ancient letterer could cut one hundred letters per hour, it required one hundred hours of cutting simply to inscribe the letters. Add to this the time required for minimal layout, checking and correction, cutting of the crowns and painting of the letters, and the conclusion must be that II² 1028 was the work of at least one and perhaps several months.

Complementing this, the evidence thus far indicates that ancient letterers did not usually cut more than one style of lettering. The dossiers of inscriptions, spanning as many as twenty-five years for a single mason, do reveal a gradual development and, sometimes, even experimentation in lettering;²⁹ the overriding impression, however, is one of similarity, with only very gradual, hardly perceptible changes in style. The very existence of extensive dossiers suggests that these particular masons did not cut many different styles or more than one style very often.³⁰ Furthermore, variation of hand can be observed surprisingly often on inscriptions³¹ and reveals that the ancient Greeks did not have the same concern for uniformity of lettering within a given text which we now have. *IG II² 2336*, an extreme example, and for that reason an instructive one, evidences at least ten different hands,³² ranging from very plain to very ornate and from very small (0.006 m.) to very large lettering (0.017 m.). No attempt at uniformity was sought; each mason simply cut in his own style each time (several hands appear more than once). This strongly indicates that these masons usually cut only one style, viz. their own. It probably never occurred to them to do anything else.³³

In summary, ancient letterers, in contrast to modern,³⁴ did not simply cut along the lines of a text laid out by a master mason; rather, each had to be himself a master letter-cutter who could receive the text and inscribe it with only the aid of guidelines. The skill required to produce long decrees in this manner is rather considerable. Clearly someone who acquired this skill was a professional artisan who made at least part, if not all, of his livelihood inscribing decrees; thus, the hand on any given decree should reward study.³⁵

²⁹ One mason of *fin. saec. III a.*, who usually cut plain letters, on one occasion (see n.43 *infra*) employed serifs in a rather hesitant fashion.

³⁰ By the definition of the method here adumbrated, it would be impossible to recognize the same mason at work if he cut two radically different letter-styles.

³¹ Some recently published examples are *FD III.2 no.48 (BCH 93 [1969] 391)*, *IG II² 2323 (C. A. P. Ruck, IG II² 2323, The List of Victors in Comedies at the Dionysia [Leiden 1967] 1–11)*, and *Agora I 884 (Hesperia 36 [1967] 86–88)*.

³² Reedited by S. Dow, with the changes of hand clearly indicated, in *HSCP 51 (1940) 111–24*.

³³ Although cutting a style of lettering to order is part of our present 'catalog' or 'menu' mentality, it may not be correct to assume it as an inevitable part of the thinking of Greeks in this period.

³⁴ In the modern shop, many can cut the letters once the text is laid out on the stone. The layout and design of the lettering, however, is entrusted to a specialist.

³⁵ These remarks apply only to masons who inscribed long decrees; they appear to form

By way of example, I outline here the four principal steps employed to constitute the dossiers of inscriptions which follow.

(1) Selection of an inscription to serve as the standard: A particular fragment might be studied for many reasons; common sense requires only that it be large enough to provide a reasonable sample of the lettering (several hundred letters) and have letters which are clearly legible. In attempting a beginning, I also considered it advisable to select lettering which seemed easy to recognize and to avoid periods which bristle with historical controversy.

(2) Study of the lettering of the standard: The basic problem is to distinguish the lettering of the individual from the general style to which it belongs.³⁶ By drawing the letters on graph paper in an attempt to reproduce them exactly, I learned the basic shape and possible latitude of variation for each letter. Then, as many idiosyncrasies as possible were isolated which, taken as a group, would characterize, in all probability, only the lettering of the mason in question. Certain letters, for example, reveal distinguishing peculiarities more often than others. These may be classed as follows: (a) letters composed of several strokes which may be disposed in varying relation to one another. *Epsilon*, *eta*, *kappa*, *mu*, *nu*, *xi*, *pi*, *sigma*, *upsilon* and *psi* belong to this group; (b) certain strokes of some letters invite idiosyncratic solutions, in particular the crossbar of *alpha*, the strokes which differentiate *omega* from *omikron*, and the vertical of *phi* (both its relative height and relation to the circular part or parts); (c) round letters, which are difficult to inscribe freehand and thus inspired individual solutions.³⁷

(3) Search for other inscriptions which reveal the same lettering as

a skilled class distinct from those who inscribed columellae and the like. This appears to be the significance of the fact that no grave monuments inscribed by any of the masons studied have been discovered in spite of special searches conducted in the Kerameikos, Agora, and Epigraphical Museum.

³⁶ On this point, see Meritt, *op.cit.* (*supra* n.2) 98f.

³⁷ Curving strokes and round letters caused special difficulties, for it was necessary to cut the curving stroke with straight or pointed tools. S. Casson, *AJA* 39 (1935) 516 pl.5, illustrates how one early letter-cutter solved the problem by making a series of dots with a vertical punch to form the circle. Another way of meeting the difficulty is to develop special tools. A. Raubitschek, "The Mechanical Engraving of Circular Letters," *AJA* 55 (1951) 343-44, and U. K. Duncan, "Notes on Lettering by Some Attic Masons in the Sixth and Fifth Centuries B.C.," *BSA* 56 (1961) 185-88, discuss them. These methods are exceptional; most masons simply cut round letters as best they could with conventional tools.

the standard: Although study of the standard revealed a combination of peculiarities different for each mason, it proved helpful in museum searches to select three or four letters characteristic of each to serve as keys. With the aid of these, it was possible to examine quickly a large collection of fragments, efficiently selecting the few which required detailed study.

(4) Constitution of the dossier: The lettering on each fragment provisionally selected was subjected to a detailed scrutiny, and only those with lettering which matched in every way that of the standard were admitted to the final dossier. A conscious attempt was made to employ letter-shape alone in the decision. For example, I examined all fragments rather than allow the dates established by editors to serve as a prior criterion for excluding large numbers. The final stage is to apply to the fragments thus brought together an exhaustive internal study for possible joins and associations.

Identifying individual masons on the basis of letter-shape inevitably involves subjectivity. In order to alleviate this hazard, I have attempted to develop an approach which is basically descriptive in nature. When adequate photographs are published as a control in support of detailed description of lettering, subjectivity is reduced to a minimum. A physical join is its own proof. In other cases, if something important rests on the identification of two fragments as by one mason, it is desirable to offer a description and illustration of the lettering on both fragments. Only in this manner can the assignment carry weight.

The museums of Greece house thousands of fragments so small that they are often undatable, even unclassifiable. The study of epigraphical hands promises to provide a new and valuable approach to them. Any fragments assignable to a given mason will automatically receive a rather precise date (the span of a man's working career). In addition, if systematic searches of the epigraphical collections in Greece are carried out in order to collect all the fragments of one mason, a number of joins are almost certain to result. Although one begins study with a large fragment, I have found that it is possible to recognize and join exceedingly small ones.³⁸ As the study progresses, therefore, and many masons become known, it should be possible to date many fragments and even to replace them in their respective *stelai*.

³⁸ Tracy, *op.cit.* (*supra* n.23) 387 fig.17; see also *ibid.*, *op.cit.*3 (*supra* n.12).

II

Reference lists of inscriptions for three masons follow. Each is preceded by a careful description and illustration of the lettering on one inscription (the standard), followed by a simple list of fragments which reveal the same lettering and, therefore, by the definition of this study, were cut by the same mason.³⁹ These lists are intended to serve a dual function: (1) Each will make available a detailed account of the lettering on one inscription. Should someone else discover a fragment which matches, he will have at once a rather precise date for it and a list of inscriptions to which it may join. (2) Although the simple list cannot carry weight by itself, if the assignment of a fragment is important to a scholar, by obtaining a squeeze he should be able to substantiate or discount it.

MASON 1

IG II² 912 (PLATE 25, fig.1)⁴⁰

DATES: 226/5–180/79 B.C.⁴¹

General characteristics of the lettering: thin, very plain letters evenly spaced out; the effect *in toto* is one of grace, simplicity and economy of style. An important element of this is the mason's habit of curving the horizontal strokes of *epsilon*, *xi* and *sigma*.

Peculiarities of individual letters (PLATES 25 and 26, figs. 2 and 3):

- Alpha* The slanting strokes often do not meet at the apex; the crossbar varies between a straight line and a curve, the former occurring more frequently.
- Beta* Relative to the other letters, the *beta* (and, similarly, *rho*) tends to be thin; the two spheres are not differentiated in size.
- Epsilon* The top and bottom horizontals normally curve outwards to such an extent that one might describe them as flaring; the central hori-

³⁹ It is well not to forget that this is an hypothesis which the evidence thus far supports. It is impossible, however, to prove it absolutely; rather it can only be modified or discarded on the basis of empirical testing. The same measure should be applied to Professor Meritt's statement "... similarities need not imply an identity of hands ... (*op.cit.* [*supra* n.20] 250)." His principal point on the subject of hands is that caution and further study are needed (*cf.* esp. *op.cit.* [*supra* n.2] 102–05).

⁴⁰ Dow first recognized this mason and gave me a tentative list of eleven inscriptions. On pp. 107 and 109 of *Prytaneis* (*supra* n.10) he suggested that IG II² 916, Agora I 165, and I 632 were by this hand. Agora I 165 is close but so badly worn over most of its surface that it does not seem possible to judge with certainty. If the archon Akhaios is correctly placed in 166/5, I 165 cannot be by this mason.

⁴¹ Concerning this date see n.42.

- zontal is straight and disproportionately short, only half as long or less than the others.
- Omikron* This letter tends to be rather small and to occur in the upper part of the letter-space; it is often composed of two semicircles which do not meet precisely.
- Xi* The top and bottom horizontals curve; there is never a central vertical stroke.
- Pi* This is the mason's most idiosyncratic letter, for here alone, at the bottom of the right vertical, he places a serif with some regularity.
- Sigma* The top and bottom strokes curve dramatically; often the bottom stroke is short, only slightly curved, and meets part way up the stroke which it joins to form the lower part of the letter— Σ .
- Upsilon* The *upsilon* is composed of three separate strokes; the vertical frequently does not meet perfectly at the v formed by the other strokes.
- Omega* It is never a complete circle. V-shaped serifs turned on their sides are placed on each side; the one on the left is usually larger and therefore more distinct.

LIST OF INSCRIPTIONS:

IG II² 841IG II² 859IG II² 861

IG II² 912 Agora I 4146 (*Hesperia* 26 [1957] 59–61) belongs to it but does not join.

IG II² 916 archon Diodotos after Phanarkhides (180/79).⁴² To which S. Dow (*Hesperia* Suppl. 1 [1937] 105–07) added Agora I 973a, B. D. Meritt and W. K. Pritchett (*The Chronology of Hellenistic Athens* [Cambridge (Mass.) 1940] 113–16) joined Agora I 973b + 5457, B. D. Meritt (*Hesperia* 36 [1967] 232–33) joined Agora I 5395, and the present writer (*Hesperia* 39 [1970] fasc.4 forthcoming) joined Agora I 3676 (published originally in *Hesperia* 29 [1960] 8–9).

IG II² 931IG II² 1221IG II² 1304 archon Aiskhron (211/0)IG II² 1539 archon Diokles (215/4)⁴³Agora I 626 *Hesperia* 15 (1946) 187–88.Agora I 632 *Hesperia* Suppl. 1 (1937) 109–10.

⁴² Meritt, *TAPA* 95 (1964) 239, now dates Diodotos to 180/79 instead of 192/1. This date results in a spread of 45 years between Agora I 3684 and the present text. Conceivably a mason could have a working career of 45 years; however, it may be that the archon list for this period is still somewhat uncertain.

⁴³ This text alone reveals an intermittent use of serifs as though it were an experiment.

- Agora I 1036 *Hesperia* 39 (1970) fasc.4 forthcoming.
 Agora I 1690 *Hesperia* Suppl. 1 (1937) 107-08.
 Agora I 2987 *Ibid.* 93-94.
 Agora I 3684 archon Ergokhares (226/5); *AJP* 63 (1942) 422.
 Agora I 4260 *Hesperia* 26 (1957) 58-59.
 Agora I 4605 *Hesperia* 29 (1960) 10-11, where the date assigned to it, *ca. a.* 267/6 *a.*, is too early; C. G. Higgins and W. K. Pritchett, "Engraving Techniques in Attic Epigraphy," *AJA* 69 (1965) 367-71, discuss this fragment on p.370 and refer to it as plate 98B-E.
 Agora I 5589 *Hesperia* 13 (1944) 249-51.
 Agora I 5787 *Hesperia* 30 (1961) 268.
 Agora I 6625 archon [Euphil]jetos (214/3); *Hesperia* 23 (1954) 236-39.

MASON 2

Agora I 286 (PLATES 26 and 27, figs. 4 and 5)⁴⁴

DATES: 130/29-117/6 B.C.

General characteristics of the lettering: This mason tends to crowd his letters together so closely that they seem to bump against one another. The letter-strokes are rather thick and give an impression of haste due to the fact that often strokes of a single letter either do not meet exactly or overlap noticeably. The mason employs serifs frequently but irregularly, most often at the bottom of vertical strokes. The serif is usually of the 'inverted v' type; occasionally it is merely suggested by a thickening at the end of the letter-stroke. The overall impression is one of crowding and lack of precision. This mason's most idiosyncratic letters are *epsilon* and *sigma*.

Peculiarities of individual letters (PLATES 27 and 28, figs. 6 and 7):

Epsilon Tends to be a rather thin letter with short, stubby horizontals which are often thickened perceptibly at the ends. Although there is no regularity of practice, the horizontals are usually about the same length; occasionally the middle or lowermost is definitely shorter than the other two. They tend to curve slightly, sometimes fail to meet the vertical, and have a serif fairly frequently. When a serif appears, it is usually on the bottom stroke.

Sigma This letter consists of four slanting strokes of approximately the same length. The strokes often curve slightly, especially the top one, and tend to overlap; this is particularly noticeable where they meet at the vertical midpoint of the letter. Serifs usually appear on the top and bottom strokes, although the one at the top is frequently omitted. Only rarely are there no serifs.

⁴⁴ Dow, *op.cit.* (*supra* n.10) 158, assigned to this hand Agora I 138 and I 286.



Figure 1. EXCERPT OF IG II² 912 (LINES 47-53)

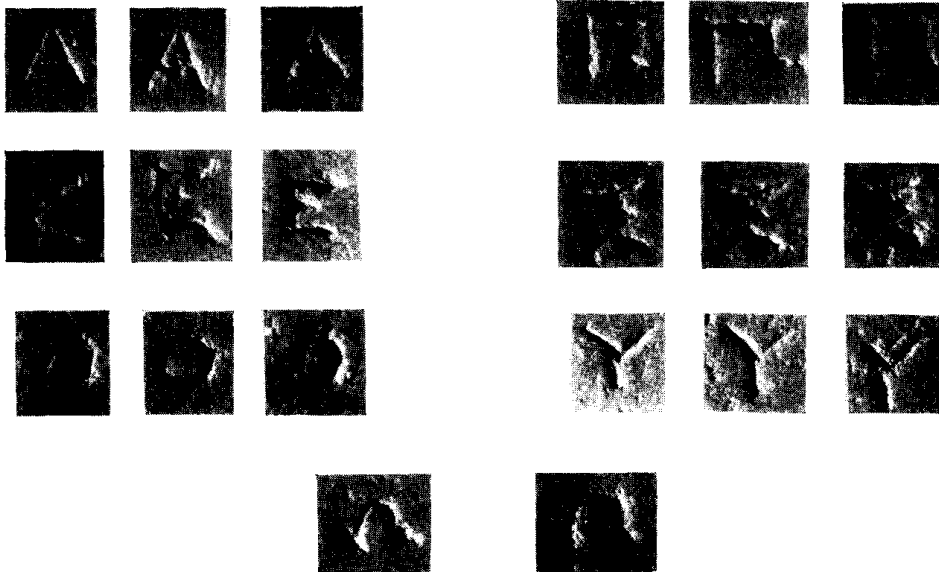


Figure 2. CHARACTERISTIC LETTERS OF MASON 1

LETTERING OF MASON 1

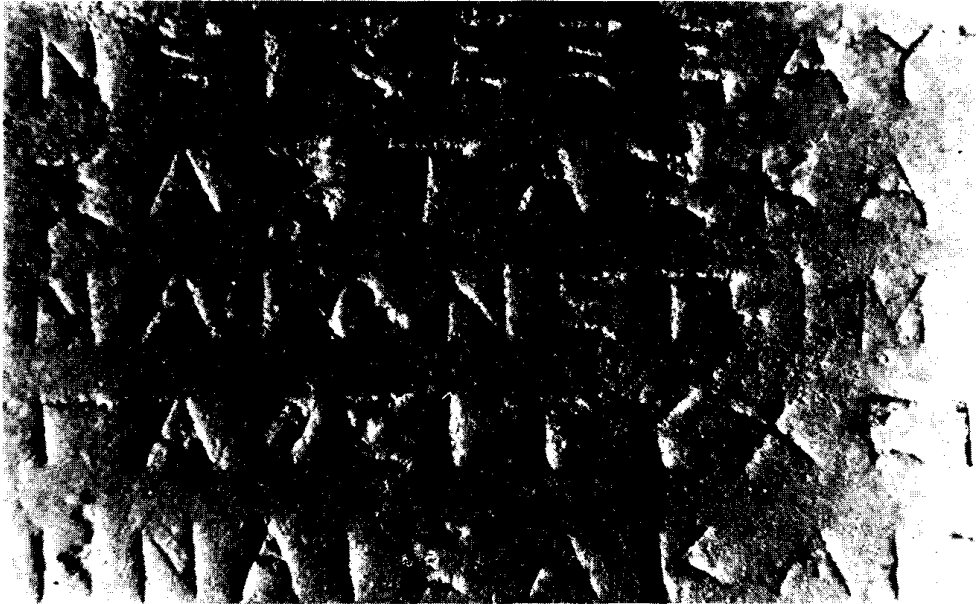


Figure 3. EXCERPT OF IG II² 912 (LINES 41-45)



Figure 4. EXCERPT OF AGORA I 286 (LINES 12-17)



Figure 5. EXCERPT OF AGORA I 286 (LINES 1-6)



FIGURE 6. CHARACTERISTIC LETTERS OF MASON 2



Figure 7. EXCERPT OF AGORA I 286 (LINES 7-11)

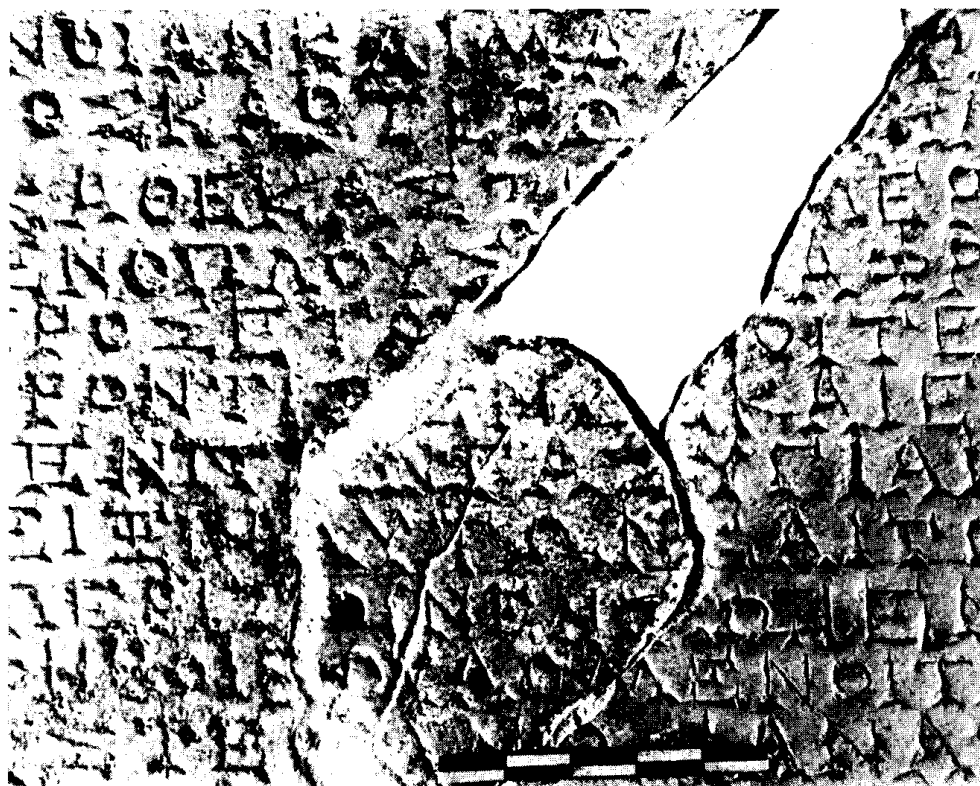


Figure 8. EXCERPT OF IG II² 1028 (LINES 83-93)

LETTERING OF MASONS 2 AND 3

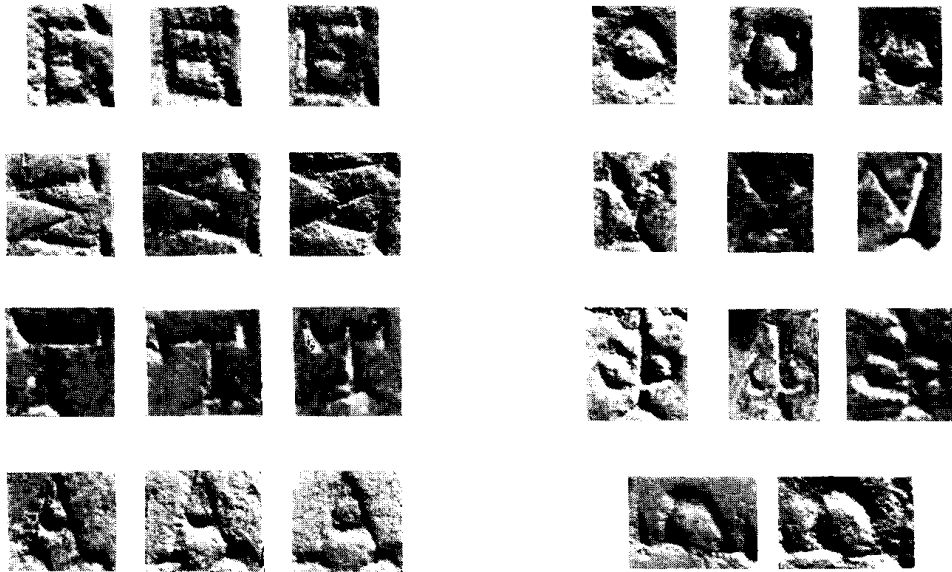


Figure 9. CHARACTERISTIC LETTERS OF MASON 3



Figure 10. EXCERPT OF IG II² 1028 (LINES 66-74)

- Alpha* The crossbar is usually curved; occasionally it is sharply broken.
- Delta* Tends to be rather wide and squat in appearance.
- Zeta* Has the shape of Z.
- Mu* A rather wide letter; the strokes which form the central v seldom extend down to the base of the letter and often intersect one another.
- Tau* The horizontal tends to curve.
- Omega* Never a complete circle; the mason employs a combination of straight lines and inverted-v serifs at the sides; the tendency is to a relatively large horizontal line on the left and a v serif (somewhat smaller) on the right.

LIST OF INSCRIPTIONS:

- IG II² 1133 archon at Delphi [Aristion] son of Anaxand[rides] (130/29); Agora I 5679 is part of this inscription (*Hesperia* 39 [1970] fasc.4 forthcoming).
- IG II² 1134 archon at Delphi E[ukleides] (117/6)
- IG II² 1332 archon Iason (125/4)
- IG II² 1333
- IG II² 3147 Reedited by S. Dow and published in *Hesperia* 4 (1935) 81-90, it includes IG II² 3150, Agora fragments I 382a-d, and now I 382e (*Hesperia* 29 [1960] 56).
- Agora I 138 Reedited by B. D. Meritt (*Hesperia* 13 [1944] 257-60), it includes Agora fragments I 138(C), I 535(A), and I 3046 joined to I 756(B).
- Agora I 286 archon Theodorides (127/6); the most recent edition of this monumental stele is that of O. W. Reinmuth in *Hesperia* 24 (1955) 220-39. B. D. Meritt has joined Agora I 6471 to it (*Hesperia* 32 [1963] 22) and suggested new restorations in lines 1-3 and 78-81 (*Hesperia* 34 [1965] 92-95).
- Agora I 3939 *Hesperia* 26 (1957) 77-78.
- Agora I 4547 *Hesperia* 39 (1970) fasc.4 forthcoming.
- Agora I 6422 archon Lenaios (118/7); *Hesperia* 32 (1963) 22-23.
- Kerameikos III A6 W. Peek, *Kerameikos III: Inschriften, Ostraka, Fluchtafeln* (Berlin 1941) 10-11.

MASON 3

IG II² 1028 (PLATE 28, fig.8)⁴⁵

DATES: 131/0-98/7 B.C.

General characteristics: Although heavily ornamented with serifs, the lettering has a graceful appearance. The letter-strokes are comparatively thin and

⁴⁵ Dow originally identified this mason and in *HThR* 30 (1937) 209 assigned to him EM 649, IG II² nos. 989, 1023, 1028, 1228 and 2336 (parts). In addition, he gave me a list of 12 other inscriptions, four of which proved to be by this mason.

placed with sufficient care that only close inspection reveals strokes bisecting one another or failing to join. In addition, the spacing is even and carefully articulates one letter from another. Prominent serifs are the chief feature of this mason's lettering. He made two types, an inverted-v and a straight-line serif. The inverted-v serif appears only on vertical and vertically slanting strokes, the straight-line only on horizontal and horizontally slanting strokes. Very often he began the straight-line serif at the horizontal and extended it upward, thus giving very idiosyncratic shapes to *epsilon*, *sigma* and *tau* (PLATE 29, fig.9). The unusual shape of these letters makes this particular mason's work very easy to recognize.

Peculiarities of individual letters (PLATE 29, figs. 9 and 10):

- Alpha* Normally has such large serifs that it seems to walk on them crab-like. The crossbar varies, being either a curve or a straight but slanting line; it is never sharply broken or perfectly horizontal.
- Omikron* Smaller than the other letters, it is usually composed of two semi-circles; occasionally it approximates a diamond in shape.
- Sigma* The top and bottom strokes slant; they are never parallel. Serifs are usual; occasionally the upper stroke lacks the serif; very rarely does no serif occur.
- Upsilon* Consists of two main strokes—the left beginning at the bottom and slanting or curving upward to the height of the letter, the right (a shorter straight stroke) meeting the left at the bottom of the letter or just slightly above it. Often it is the right stroke which is the longer and is joined by the left.
- Phi* Relatively taller than the other letters, it consists of a long vertical stroke to which two small, complete spheres adhere at about mid-point.
- Omega* Never a complete circle, it has at the bottom two horizontal strokes usually with serifs, which extend to the left and right making the letter substantially wider than the others.

LIST OF INSCRIPTIONS:

IG II² 989 archon Herakleides (104/3); *Hesperia* 26 (1957) 25–28.

IG II² 1023

IG II² 1028 archon Medeios (101/0); Agora fragments I 717 and I 3810 join this stele (*Hesperia* 36 [1967] 244–45).

IG II² 1136 archon at Delphi Xenokrates (106/5)⁴⁶

IG II² 1227 archon Epikles (131/0)

IG II² 1228 archon Sarapion (116/5)

IG II² 1341

⁴⁶ On the date of Xenokrates see *FD* III.2 no.5, lines 2–4.

IG II² 1942

IG II² 2336 archons Theokles, Herakleitos (103/2-97/6). This text has been re-edited by S. Dow in *HSCP* 51 (1940) 111-24. The hand of IG II² 1028 labelled by Dow 'Hand B', inscribed lines 47-92, 125-28, 149-51, 164-65, 180-81, 241-42, 247-48, 261, 266-67 and 274-75. Agora fragments I 5045 (*Hesperia* 36 [1967] 245-47), I 3318, and I 4037 (*Hesperia* 39 [1970] fasc.4 forthcoming) have recently been joined to this stele.

Agora I 1773a *Hesperia* Suppl. 1 (1937) 161-62.

Agora I 2945 *Hesperia* 36 (1967) 235.

Agora I 3871a, b *Ibid.* 242-44.

Agora I 5919 *Hesperia* 33 (1964) 193-94.

EM 649⁴⁷ *HThR* 30 (1937) 208-12.

EM 5228 unpublished

EM 5581 unpublished

Record of the Pythais archon Argeios (98/7)

FD III 2 nos. 2, 6, 10, 16, 17, 26, 31, 32, 45, 48. *FD* III 2 no.53 and Delphi Museum inventory no.6346 have been joined to no.48 (*BCH* 62 [1938] 362-68). For a new text of no.31 and notes on all of these texts cf. *BCH* 93 (1969) 371-95.

Kerameikos III A5 W. Peek, *Kerameikos* III: *Inschriften, Ostraka, Fluchtafeln* (Berlin 1941) 4-10.

WELLESLEY COLLEGE

October, 1970

⁴⁷ EM designates inventory numbers of the Ethnikon Mouseion, i.e. the National Epigraphical Museum in Athens.