ALAN HENRY

THROUGH A LASER BEAM DARKLY
Space-age Technology and the Egesta Decree (I.G. I³ 11)

aus: Zeitschrift für Papyrologie und Epigraphik 91 (1992) 137–146

THROUGH A LASER BEAM DARKLY
Space-age Technology and the Egesta Decree (I.G. i^3 11)[1]

In July 1989 an International Epigraphical Seminar was held at the University of New England in New South Wales; the guest of honour was Harold Mattingly. Not inappropriately, therefore, Mortimer Chambers of the University of California at Los Angeles presented a paper on the Egesta Decree, in which, by means of a series of measurements and computer-enhanced photographs, he sought to demonstrate conclusively that the archon in line 3 peering out mistily at us across the centuries cannot be Habron (458/7) and must indeed be Antiphon (418/17). The arguments and evidence mustered on that occasion have now been given definitive form in the Acta of the New England Seminar published in this Journal in 1990 under the confident and uncompromising title 'Athens' Alliance with Egesta in the Year of Antiphon'.[2]

At the New England gathering I had been invited to act as formal respondent to Chambers' paper, and in the course of my brief response I outlined what I considered still to be doubtful elements of the case for Antiphon. I now set out these objections in detail. For I believe that the search for the archon of I.G. i^3 11 is not yet over. More ink is still to be spilt in this debate on which hinges so much more than the date of this one document alone. For in this text there are 13 three-bar sigmas, not to mention 10 tailed rhos (plus two without); and traditional wisdom has sought, more or less successfully so far, to make the terminus post quem non for three-bar sigma and tailed rho 446 and 438 B.C. respectively. Should Antiphon prove to be the archon of I.G. i^3 11 those who, like Mattingly, have fought for so long to discredit these canons will feel vindicated in their claim that prosopographical and historical evidence has not been given sufficient weight in the dating of a whole series of crucial Athenian documents of the fifth century B.C.[3]

---

[2] ZPE 83 (1990) 38-63, with Plates I-III and Color Plates A, B. The paper is published there over the names of Professor Chambers and his colleagues Ralph Galluci and Pantelis Spanos. For the sake of convenience, however, I shall here refer throughout to the paper by Chambers' name alone.

[3] What follows here is a revised and expanded version of a paper entitled 'Enhanced Vision and the Segesta Decree (I.G. i^3 11)' delivered on May 20, 1991 in the chambers of the Athens Archaeological Society before an invited audience on the occasion of the Annual Report of the Australian Archaeological Institute at Athens presented by the Director, Professor Alexander Cambitoglou.

I.G. i[3] 11 records part of an agreement, probably an alliance, between Athens and the city of Egesta in Sicily (see ZPE 83, 1990 Plate I,1).[4] It is inscribed on a fairly thick block of marble (some 18,5-19 cm), which is worn almost entirely smooth in the upper, left area, mainly as a result of its later re-use as a door-sill, for which a deep, circular cavity was also cut to hold the door-post. The passage of many pairs of feet and, perhaps, the swinging of the door itself have contributed to the almost total obliteration of the letters cut in the top, left portion of the block, and most particularly in line 3, where, towards the right of the preserved area, together with the word ἔρχε, only the last two letters of the archon's name, ON, are still legible. The N is clear, the O less so but nevertheless unchallengeable, and that the name ended in -ων no-one disputes. These two letters are cut in stoichoi 37 and 38 of what is calculated to be a stoichedon 48 layout.[5] It is the immediately preceding letters originally cut in stoichoi 35 and 36 which are the focus of dispute.

Traces of a "round" letter in stoichos 36 had been remarked upon from as early as the 1860s, when Koehler first published the text in Hermes.[6] Koehler indeed thought that these traces might represent an O, but no fifth century Athenian archon has a name ending in -οων. Raubitschek,[7] however, in 1944 suggested that what we were seeing in stoichos 36 was the remains of the right-hand rounded section of a rho; furthermore, he took the vertical stroke which can be detected in the preceding stoichos (35) to be the left-hand vertical of a beta. These "identifications" of beta and rho thus led Raubitschek to restore Habron - [hά]βρον - and hence to date our text in the year 458/7.

Further support for Habron seemed to be forthcoming when it was claimed by Klaffenbach that the top of an alpha in stoichos 34 could be read on a squeeze in Berlin,[8] but Bradeen and McGregor, on the basis of advice received from D.R.Laing about the squeeze and of their own autopsy of the stone in Athens, concluded with impeccable honesty that there was insufficient justification for reading any letter in stoichos 34.[9] Chambers himself, after examination of the squeeze in the company of Herr Erxleben in the Akademie der Wissenschaft of the then Deutsche Demokratische Republik, has likewise concluded that nothing of this putative alpha can actually be seen.[10]

Our attention then is to be focussed on the apparent letter-traces in stoichoi 35 and 36. I stress "apparent", since not all would concede that even these marks are letter-traces at all:

---

[4] I shall here ignore the smaller fragment, I.G. i[3] 11b, which contains parts of the last two lines of the decree.

[5] Line 1 excepted, of course.

[6] Hermes 2 (1867) 16-18; cf. I.G. i 20.

[7] TAPA 75 (1944) 10-14.

[8] See SEG 10.7.

[9] D.W.Bradeen and M.F.McGregor, Studies in Fifth-Century Attic Epigraphy, Norman (1973) 71-81, especially 75-77.

[10] Op.cit. (note 2 above) 39. Chambers also notes that he could see nothing on the stone at this point nor were there any traces detected by the computer-enhanced photography. One may wonder, however, why the laser beam was unable to capture any traces in this stoichos from within the stone.

some would argue, perhaps not without reason, that the alleged vertical in stoichos 35 is a mere scratch, simply the result of casual damage to the stone, probably during its period of redeployment as a door-sill, and not the residue of an original chisel stroke.[11]

With typical caution and common-sense Geoffrey Woodhead, although accepting the vertical in stoichos 35, opts in his I.G. i³ text to record nothing at all in stoichos 36 and nothing but a vertical to the left of the space in stoichos 35: so [-]|ͷ[.]ον. Nevertheless, he there confesses that 'de hά]β[ρ]ον vix in dubio sumus', the reading printed by Bradeen and McGregor in their articulated text.[12]

The other contender, Antiphon, who held the archonship in 418/17 exactly 40 years after Habron, was first championed by Harold Mattingly in 1963.[13] Mattingly, however, later reneged on placing any faith in what might or might not be letter-traces in stoichoi 35 and 36,[14] and it was left to Terry Wick in 1975 to bring Antiphon once more to our attention.[15] Wick identified at least to his own satisfaction, the "round" letter in stoichos 36 as a phi, and was not alone in urging the reading]ιφον.[16]

By this stage of the controversy it was still largely a question of what one believed one could see on the stone or what one could persuade others could be seen. But something superior to the doubtful accuracy of the human eye backed by the weight of scholarly authority was needed to produce an objective demonstration that would admit of no dispute.

It is at this point that we can now turn to a detailed assessment of the case mounted by Chambers and his colleagues. Their aim - and rightly so - was to focus on the identification of the letters in stoichoi 35-36. Their approach was twofold: (i) a series of careful measurements of the space between letters in a given line; and (ii) the application of computer-enhanced photography, combined with laser technology. Their study, therefore, was calculated to be presented as "scientific": while the human eye may be fallible and gullible, the camera and the computer cannot lie.

Let us then turn first of all to the argument based on measurements.[17] This is designed to demonstrate the superiority of the reading ιφον to that of βρον in stoichoi 35-38.

---

[11] Cf. W.K.Pritchett, AJA 59 (1955) 59, who likewise sees no evidence on the stone for any letter in stoichos 35.

[12] They state, however, that even an optimistic reading will produce no more than [---]|[.]ον (op.cit. 77).

[13] Historia 12 (1963) 267-269, later suported by his Leeds colleague, J.D.Smart, in JHS 92 (1972) 128-144.

[14] Istituto italiano di numismatica, Annali 12-14 (1965-67), Supplemento (publ. 1969) 205 n.7. Mattingly's unease is reflected in the contrast between his position in AJPh 105 (1984) 347, where he comes close to the views of Bradeen and McGregor, and his stance in Chiron 16 (1986) 167-170, where he again favours Antiphon.

[15] JHS 95 (1975) 186-190 (plus Plates XXIII, XXIV).

[16] Cf. CP 76 (1981) 118-120, where he cites the support of J.M.Balcer for the reading]ΙΦΟΝ.

[17] See op.cit. 41-42, with Appendix II, 61-63.

The first argument brought by Chambers against Habron is based on the estimated space occupied by a sequence of four letters beginning with iota and ending with nu or with a letter which, like nu, would occupy most or all of its stoichos. Any such argument, of course, depends at least partially for its validity on the assumption (not in fact warranted here) that the letters were consistently cut in the same position in their repective "boxes". In this case it also ultimately depends on the assumption - for such it must still be - that the "trace" in stoichos 35 is actually an inscribed vertical stroke and not a mere accidental scratch.[18] For the moment, however, let us assume argumenti causa that this vertical stroke in stoichos 35 *is* a letter-trace, and proceed to an examination of the case based on measurements.

Chambers first lists ten examples in which a clear iota is followed, three stoichoi later, by a letter beginning with a vertical which also fills a stoichos (e.g. epsilon, lambda, mu, nu). He also presents a sub-group of three further examples in which iota is followed, three stoichoi later, by a broad letter presumably filling a whole stoichos but not beginning with a vertical. The mean measurements (in cm) of these 13 examples range, he claims, from 4.012 to 4.28,[19] but this is to exclude the combination ιχϲε in line 14, which, as his Table shows, affords a range of 4.48 to 4.55 and a mean of 4.528. Chambers attempts to explain away this unwelcome anomaly, claiming that it is "insignificant, because ε is out of position, towards the right, as photographs show; perhaps the mason's eye skipped over to the iota of χϲένια; having copied this iota, he saw his mistake and corrected the iota into epsilon." The epsilon is indeed out of position, but the fact remains that one group of four such letters on the stone actually occupies more than 4.5 cm., and, whatever the explanation of the irregularity, the very fact that a letter can be "out of position" in this text must of necessity weaken any argument based on comparative measurements.

Chambers' second group presents 12 examples in which a broad letter beginning with a vertical (such as the suggested beta of Habron) is followed, three stoichoi later, by another letter also beginning with a vertical (such as the nu of the putative Habron). This group yielded mean measurements of 4.294 to 4.736, "clearly more than the first group in which the first letter was iota."[20] He goes on to seek corroboration in a further group of 11 examples, randomly chosed, in which one broad letter is followed, three stoichoi later, by another broad letter. This group yielded a mean with a range of 4.274 to 4.62, but only, be it noted once again, by ignoring the combination βεια in line 14, which yielded a range of 4.10 to 4.25 and a mean of 4.19. Chambers eliminates this inconveniently low example by

---

[18] This vertical does seem to extend rather too high up, and even Chambers is prepared to concede that it is to the left of centre. Moreover, it may be noted here that, as aligned against iotas in the same stoichos, there are several examples on this stone of stoichoi in which broad letters beginning with a vertical have their lefthand verticals immediately in line with, or even to the right of, the vertical of the iotas. The fact therefore that the vertical stroke - if such it be - in stoichos 35 is centred or just slightly left of centre does not necessary preclude a letter such as beta. See further p.143 below.

[19] Actually, on his own figures, this should read 3.976 (ιαυτ in line 4) to 4.28.

[20] Op.cit. 62.

pleading that this is "an unusually narrow space, made so by the fact that the left diagonal of alpha slides down towards the neighbouring iota."[21]

Chambers presents these figures in an attempt to demonstrate that the space between the vertical in stoichos 35 and the left hasta of N in stoichos 38, which, he calculates, occupies a mean of 4.086 cm (range 4.05 to 4.12), is adequate to accommodate a sequence of four letters beginning with iota and ending with a letter occupying the full area of its stoichos (such as the last four letters of Antiphon would demand) but inadequate to meet the larger demands made by a sequence of four letters beginning with a broad letter with a lefthand vertical as would be required by the reading Habron.

Statistics, especially when taken to the third decimal point, always look impressive, as indeed these do, at least at first sight. But statistics can also be misleading. Have we then any reason to to question the case so painstakingly and seductively presented by Chambers and his colleagues?

We might note in the first place that, although it is true to claim, as Chambers does,[22] that the distance "from the beginning of a clearly preserved broad letter beginning with a vertical to the beginning of another broad letter in the third space following ... is *normally* (my emphasis) distinctly greater" (sc. than the comparable distance in equivalent groups of four letters beginning with iota), "normally" is not "always". Indeed, we may further observe that the widest of Chambers' narrow group viz. ιμελ in line 9, with a mean of 4.28 - I exclude for the moment the sequence ιχϲε in line 14, which, as we have seen, actually occupies 4.528 cm - is only infinitesimally smaller than the narrowest of Chambers' broad group viz. ενον in line 15, with a mean of 4.294, and, of course, actually *greater* than the smallest mean figure presented in his corroborating randomly chosen group viz. βεια in line 14, which, special pleading apart, shows a mean of 4.19.

Moreover, the broad group ενια, also in line 14,[23] occupies an area of c.3.97 cm, well below the mean measurements of Chambers' broad groups, *including* the 4.19 of the comparable group βεια in the same line, which, as we have seen, *is* cited by Chambers, but by dint of special pleading is excluded from the reckoning in his summation.

Thus, although it can be shown that, on balance, the combinations of letters of the one group occupy more space than the combinations of the other, there is in fact little difference between certain combinations in the two groups. Moreover, the space allegedly available in line 3, 4.086 cm, is actually greater than the c.3.97 cm occupied by the uncited ενια in line 14, and, if one adduces the minima of the five measurements made in each case by Chambers, his own βεια yields 4.10 as compared with the maximum measurement of 4.12 of the relevant space in line 3.

---

[21] Ibid. 63 note 59.

[22] Ibid. 42.

[23] Not cited by Chambers, presumably because he adjudges the epsilon here to be "out of position", but measured by myself and Paul Wilson during our visit to the Epigraphical Museum.

What conclusion then are we to draw? Quite apart from the manifest and undisputed fact that the stone is not cut with complete regularity, the statistics presented surely do not conclusively demonstrate the validity of the claim that the sequence βρον would be impossibly wide to fit into the space available in line 3. And, let us never forget, if the vertical mark in stoichos 35 is not a letter-trace at all, then the whole exercise of measurements becomes a scientific illusion.

In the final analysis what is important here is not average comparisons but actual measurements. One could at the very most argue that a sequence of four letters with initial beta might on average occupy more space than an equivalent sequence with initial iota. But one cannot, and should not, categorically conclude that "the group]βρον... would be incompatible with the space now occupied by]ιφον; therefore the vertical in line 3 is not part of beta and is an iota."[24]

I would urge, therefore, that there is nothing in this part of Chambers' case which decisively eliminates Habron as a candidate for the archon in I.G. i[3] 11.

The second part of Chambers' case depends on the evidence of computer-enhanced photographs,[25] "using the same method by which images are recovered and then enhanced from explorations in space." The suggestion here is that, whereas the human eye is fallible, the evidence of computer technology is beyond challenge.

But is it? After all, what the camera records and the image processor refines is simply what is now "visible", one way of another, on the stone, not solely or necessarily what was originally cut by the mason in fifth century Athens. The technology cannot of itself distinguish between original letter-strokes and marks subsequently created by damage of one sort or another.

Moreover, it is perhaps not without significance that Chambers' conclusion is, in his own words, that "the image processor ... showed that 35 and 36 are *most probably* iota, phi" (my emphasis).[26] There would then still appear to be at least some element of doubt, and I would suggest, with all due respect to the originality and ingenuity of Chambers' team, that the photographs offered to support their conclusions - and these, be it noted, are the pick of the bunch - are open to sufficient challenge as to leave us exactly where we were before these techniques were applied. Instead of making subjective assessments of what we see or do not see on the surface of the stone itself, we are now driven to making equally subjective assessments of the enhanced images the computer has produced for us.

If we look first at Chambers' Color Plates A, B, which are purported to show the letters ιφ and ιφον respectively, we will readily concede that there is a difference of clarity between

---

[24] Op.cit. 42.
[25] Ibid. 42-45, with Plates II-III and Color Plates A,B.
[26] Ibid. 43.

the enhanced and the unenhanced versions. The vertical Chambers claims to be the letter iota in stoichos 35 is certainly visible, as indeed are other traces descending diagonally to the right from the top. These latter traces are dismissed by Chambers - as they have been in the past by other scholars too - as "the result of damage to the stone." And this may very well be a fair verdict. Nevertheless there is surely an unwelcome subjective element intruding here in deciding which traces clearly brought out by the computer are genuine original letter-traces and which are mere incidental damage.

Chambers claims that the "vertical (i.e. in stoichos 35) is of precisely the same length as the other clear iotas on the stone." "Precisely", I believe, is an overstatement, since the difficulty of precise measurement of letters at any point on this extremely worn surface, far less in this crucial area where the letter-strokes are virtually totally worn away, is notorious. Of course, I would be prepared to concede that this trace can be *interpreted* as much the same as any other iota on the stone, although it does seem to be the case - and I readily admit that this is merely an impression - that the trace extends too high to be a letter rather than a fortuitous mark on the stone.

Chambers also sets some store on the fact that "this vertical ... is virtually in the center of its stoichos." The implication is that iotas here are to be expected to be cut more or less in the centre of their stoichoi, but letters with a left-hand vertical, such as the putative beta of Habron, with the vertical to the left of the stoichos. The preserved areas of this text, however, do not bear this assumption out:[27] e.g. the iota of νομιζόμενον in line 15 is aligned with the left hasta of the nu of τὸν in line 10 and of the epsilon of π]όλει in line 12; the iota of λοιπόν in line 16 is aligned with the left hasta of the nu of hορκοτὸν in line 10, and is actually slightly *further left* than the left hasta of the rho of πρεϲβείαν in line 14; the iota of β]ολεῖ in line 16 is aligned with the left hasta of the nu of χϲένια in line 14.

To come now to the alleged phi. Even the most sympathetic observer will surely feel obliged to concede some element of doubt here. As Chambers himself says, with something of an understatement, this letter "has suffered much damage." He adds. "A long scar runs through it from upper left to lower right; the letter extends well around this scar. There are also two or three small marks above and to the right of this diagonal scar, forming a shape like a small tent. These marks too seem to be largely damage or "noise", and they are not part of the letter as it was carved. The loop of phi actually lies to the left of the diagonal scar."[28]

Now it must certainly be true that the marks which Chambers deems to be damage or "noise" at the top right cannot be a part of a letter; for they are far too close to the following letter (O) in stoichos 37. Yet what is it on the photographs beyond their mere position which allows us to adjudge the other marks, apparently indistinguishable from "noise", as genuine letter-traces?

---

[27] Cf. Bradeem and McGregor op.cit. (note 9 above) 76.
[28] Op.cit. 44.

There is only one completely preserved phi on the stone, that of Εὔφεμο[ϲ in line 15.[29] Chambers notes that here the distance from the vertical of upsilon to the left edge of the loop of phi is 0.98 cm. "precisely the distance between iota and the left edge of the loop of phi in line 3." But the latter measurement depends (i) on the acceptance of the vertical in stoichos 35 as a genuine letter-stroke in the centre of its stoichos,[30] and (ii) on the precise location of the position of the left side of the alleged loop of phi, which is somewhat less than certain in the enhanced photograph. Yet Chambers feels able to conclude that this confirms "that the iota in line 3 is in the center of its stoichos and is indeed an iota."

To return to the phi in line 15. Chambers describes it thus: "the vertical ... stops at the bottom of the loop and neither bisects it nor appears at the top... This seems to be true of the letter we identify as phi in line 3." Let us examine this description.

Both Chambers' photograph (Plate I (2)) and my own autopsy in Athens reveal, if I am not mistaken, a vertical in the phi in line 15 which *does* continue up for some distance into the loop, as well as a damaged area at the top of the letter which makes any judgement as to whether the vertical appears again at the top very difficult if not downright impossible. Indeed, the whole letter space is heavily worn, not just the area at the top, so that complete certainty here cannot be secured. However, one may point out that such a putative qoppa-shaped phi is, to my knowledge, without parallel in fifth-century Attic decrees.[31]

As for the alleged phi in stoichos 36 of line 3, which, Chambers urges, is of the same form as the phi in line 15, he adduces the evidence not only of the enhanced photograph of the surface but also of a laser beam directed "through the stone in order to capture the letter in stoichos 36 from within."[32] The laser beam was applied from the back, sides and front.

Now here is a very exciting new prospect for the detection of letters once cut on now severely abraded marble. And not just, of course, on the Egesta stone; if this technique can be applied successfully to one stone, it can be applied to others too.[33]

The physical basis of this technique must lie in the microscopic damage which occurs when stone is fractured. When hit by a chisel so that spallation occurs, the crystalline marble is subjected to rapidly increased deviatoric load or stress. In the zone of spallation what is termed catastrophic failure - albeit in a small localized zone - takes place. Microcracks link to become large cracks, and flakes fly off. However, in a bulbous zone *beneath* the chisel-blow, the stress levels are raised to a sub-critical degree, and microcracks form in a zone of

---

[29] Not line 13, as Chambers inadvertently twice refers to it (loc.cit. and again on Plate I (2).

[30] Of the vertical Chambers says that one expects it "to be in the center of a stoichos" (op.cit. 44 note 20).

[31] Michael Walbank kindly informs me per epist. that he knows of no such "qoppa-like phi in an Attic document."

[32] Op.cit. 43.

[33] I have discussed the feasibility of the technique with Professor Gordon Lister of the Department of Earth Sciences at Monash University. In what follows I am much indebted to him for expert advice both on the technique itself and the physical characteristics of marble.

microcrack dilatancy. This bulbous zone of microcracks will coalesce as more blows are struck. It will be preserved in the stone below the letters, even when the stone is abraded, and this zone of microcracking might indeed be detected by variation in the transmission of light intensity, as a laser beam scans through the material.[34]

The technique thus has promise, if rigorously and properly applied. But it is noteworthy, to quote Chambers, that "we had the greatest success when the beam came through the stone *from the back*" (my emphasis).[35] For there is no reason why transmission from behind should improve the image. On the contrary, there are many reasons why spurious and difficult to interpret results, particularly in a block as thick as this, will be obtained. Marble is never perfect; fabric is induced during deformation and metamorphism, and these 'flaws' will be exposed by laser-imaging techniques, producing an image which is an amalgam of all the defects encountered in the passage of the beam and the effect of viewing - in this case from behind - bulbous microcrack zones which have coalesced.[36]

Thus, unless the images so produced by the laser beam are such as to engender immediate and universal conviction on the part of the observer, some element of doubt must remain. Each student of this famous stone will have to decide from the photographs offered whether or not such conviction has been established. My own feeling is that only those already predisposed to conviction will accept Chambers' contention that the evidence of the enhanced photographs is clear and depart rejoicing in the elimination of the doctrine of the three-bar sigma, while orthodox interpreters of fifth century Athenian international policy will continue to see the mid-forties as a terminus post quem non for documents exhibiting three-bar sigma and will, for that reason alone if for no other, reject Antiphon in favour of Habron in the Egesta Decree.[37]

There remains, of course, the *historical* arguments, which it is not my purpose to rehearse again here. Suffice it to say that one cannot ignore the inherent difficulty in any down-dating of the Egesta Decree to the year of Antiphon of the apparent failure of the Egestan envoys in

---

[34] Chambers has here not properly understood the point of my remarks at the New England Seminar (see op.cit. 43 note 18). My comments were not restricted to "fragile marble" nor intended to suggest that deformed letters might be preserved within a stone as a result of a chisel blow on the surface.

[35] Ibid. 43. The photographs in Plates II and III, which are alleged to show φονε in line 3, were both taken by a laser beam directed from back to front through the stone.

[36] It should also be noted that even the cutting of the hole for the door-post in this block will have caused considerable internal radial damage to a distance of perhaps up to three times the diameter of the hole itself. Internal flaws thus generated will also be picked up by any beam passing through the stone either from behind or from the sides.

[37] There is good justification, however, to repeat the experiment from the *front*, this time with systematic variation in the angle of incidence of the laser beam, since the angle of incidence can be critical to the nature of the image that is produced. Variations in reflectance and variations in depth of penetration of the laser might then accentuate the 'necks' of the ovalescent microcrack bulges beneath the original letters and give better resolution.

Thucydides' account of the events leading up to the Athenian decision to intervene in Sicily to make any reference to this recently concluded alliance.

Chambers is not unaware of this dilemma: "perhaps," he writes, "the question should be addressed to Thucydides."[38] But since - this side of the grave, at least - that is hardly a practical proposition, he is driven to the equally unsatisfactory conclusion that Thucydides' informants simply did not tell him that a treaty with the Egestans had been concluded shortly before the embassy to Athens in 416/15 B.C. However, given the considerable space and detail devoted by Thucydides to the events leading up to the despatch of the expedition - not to mention virtually two whole books devoted to the expedition itself - I find that explanation quite inadequate.

To conclude. My examination of the case as presented by Professor Chambers and his colleagues based on measurements and computer-enhanced photography does not lead me to accept that the reading Ἀντ]ίφον in line 3 has been established beyond reasonable doubt. Both epigraphically, therefore, and historically we should continue to consider Habron of the year 458/7 as a possible, if not probable, candidate for the archon of the year of the Athenian alliance with Egesta preserved for us - albeit so imperfectly - in I.G. i^3 11.[39]

Monash University   Alan Henry

---

[38] Op.cit. 53.

[39] I also have considerable reservations about Chambers' suggested reconstruction of the whole text (ibid. 45-46). I hope to deal with this elsewhere.