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WALTER COCKLE

A NEW VIRGILIAN WRITING EXERCISE
FROM OXYRHYNCHUS

The papyrus which I wish to discuss is a Latin Writing Exercise¹ (Plate I) which was found by B. P. Grenfell and A. S. Hunt in their third season of excavation at Oxyrhynchus between December 4, 1903 and February 25, 1904². It consists of two hexameters of Virgil from Aeneid Book XI written end to end in one long line without interpuncta or word division. The letter forms when compared with M. Jean Mallon's analysis of the *Capitale classique*³ suggest to me a date in the first to second century A. D. and hence range it alongside Hawara Papyrus 24⁴, which is also a Virgilian Writing Exercise. The Virgilian graffiti from Pompeii⁵ are of a similar age, though they are mainly in cursive hands.

We have here repeated six times, with possible traces of a seventh line, Aeneid XI 371-372. This is drawn from the bitter reproaches of Drances to Turnus in the council of King Latinus after the deaths of Pallas and Mezentius in battle.

1. This text appears by permission of the Egypt Exploration Society. It will be re-published in due course in *The Oxyrhynchus Papyri*. A version of this paper was first delivered at the XV^e Congrès International de Papyrologie in Brussels on 31-VIII-1977.

2. *Egypt Exploration Fund Archaeological Report*. 1903-04, pp. 14-15.

3. J. MALLON, *Paléographie romaine*, Madrid 1952 (*Scripturae Monumenta et Studia* III), pp. 17-53.

4. E. G. TURNER, *Half a line of Virgil from Egypt*, in *Studi in onore di Aristide Calderini e Roberto Paribeni*, II, Milano 1957, pp. 157-161; S. DOW, *Latin Calligraphy at Hawara - P. Hawara 24*, in *Journal of Roman Studies*, 58 (1968), pp. 60-70.

5. M. DELLA CORTE, *Virgilio nell'epigrafia pompeiana*, in *Epigraphica*, 2 (1940), pp. 171-178.

folios vi and vii, which are dispersed among other moral and ethical sententiae drawn from Menander's *Monostich Gnomes*. But the main purpose is rather to make the scribe copy most of the letters of the alphabet. The English exercise for typists, 'The quick brown fox jumps over the lazy dog'⁷ is parallel. In fact, if the two Virgilian hexameters were complete, all the letters of the Roman alphabet except D, K, P, Y and Z would be used. But because the papyrus is broken on the right hand side, B, F, H and Q are also lost.

The papyrus is, as we see in Plate I, very fragile. It now measures circa 30.5 cm. in height. Its width I estimate at about 36.3 cm. But as it is shown on the plate, the piece on the left bearing the SCILICETS is mounted too close to the rest. The warped condition of the original makes the calculation of size rather imprecise.

The Latin exercise is written parallel to the fibres. I cannot find any kollēsis on the Virgil side, whose fibres are continuous for the whole surviving width.

On the other side of the papyrus there is a *Register of Men's Names* (Plate III) written in Greek in a formal semi-literary hand. It is in two columns and the text is also parallel to the fibres. The top of the document is the left side of the Writing Exercise. There is a check mark against the beginning of each entry.

P. Oxy. inv. 21.3B.24/F(4) and K(1-4) *Register of Men's Names*

Column I

TOP MARGIN

1 (m. 1)	ιθ[[ιθ]]
2]..[
3]ιθ[
4]νδρου
5] [] .. [

7. The closest parallel to the typists' exercise in Oxyrhynchus Papyrus XXXI 2604 of the third century A.D. where a Greek pseudo-epic line containing every letter of the alphabet is repeated. This line recurs in P.S.I. XII 1293 Fr. a. 1. 1. Cf. D. HAGEDORN, *Zwei Spielverse*, in *Zeitschrift für Papyrologie und Epigraphik*, 2 (1968), pp. 65-69.

(Gap in numeration
is arbitrary)

BROKEN PAPYRUS

10 []ϕι[
11]νωφρις π .. []
12]νοις Ἐρμίου θ .. θ
13]κερωτος θαν ..
14]ατος Ἐρωτος
15 []γτατος]θ
16 πε .. []
17
18]ς
19]ς[ὁ]μοίως
20 φ ις [] ο ις
21 φαις[]εων Τεεφμόϊτος πανο .. []
22 ὼρος [] ο ος Τεεφμ[ό]ϊτος
23 Ἡφαιστο .. []αθιος ω []
24 Φιςβων .. []φος
25 Φάησις []πάμωνος Σαραπίωνος
26 Πειεους []ϑ .. αδελφος
27 Πιεσου[]
28 α[]

FOOT OF COLUMN

13 θαν^θ .. presumably a personal name 15 uncertain whether
ιθ or (γίνονται) θ 21 i.e. Ἡφαις[τ]έων for Ἡφαιστίων 21-2
Τεεφμόϊς is an unrecorded personal name, but compare P. Tebt.
I.90.36 (s. I B.C.) Τεεφμε(), a name in the genitive
24 Φιςβων .. [] a new name 25 Φάησις For accentuation (not
given in pap.) note Chandler, *Greek Accentuation* §§ 602-603
26 Πειεους a by-form of Παϊεϋς 27 e.g. Πιεσοῦ[ρις] cf. P. Ryl.
II 220.

Column II

TOP MARGIN

1 θης Νεχθερω[^{να}] .. []]
 /
 2]]

(Gap in numeration
is arbitrary)

BROKEN PAPYRUS

11 (m.2) π[
/
12 Ἡφ[
/
13 Cαφ[
/
14 Ψοcγαν[
/
15 Πετ .. μ[
/
16 Ἄφθ []
/
17 Αφ ηc[
/
18 Ἄπολλ[
/
19 Ἡφαιc[
/
20 μερ[] ... []
/
21] .. []
/
22 πο []
/
23] ... [] οi ... []
/
24] ... []
/
25 απ[] λωταc[]
/
26 αχμ'ων[]
/
27 πε ... ληνταπ []
/

FOOT OF COLUMN

14 part of Ψοcναῦc 15 πετ . μ[or τετ . μ[The fourth letter is a convex curve to the right of the cross-bar of tau, the fifth the foot of a diagonal descending to the right. Possibly part of Πετραμενοῦφιc but the rho is not easily read 17 e.g. Ἐρβῆc or Ἐρβῆc[ιc 20 μερ[or μεγ[The ekthesis suggests a change in the form of the entries here. The village name Μερομέρθα cannot be read. μερ[ι]cμ[ό]c is possible rather than probable 25] λωταc[or] λιοταc[Ἄπ[ο]λλωτᾶc is possible 26 αχμῶν ων is on loose fibres and may not belong so close to mu. If Ἄχμων is read, it is a new name.

For a time I thought there was a kollēsis-join just after the sigma of Ἐρωτοc in Col. I. 14, but I have re-examined the papyrus with care and believe I was misled by warping in this area. It is in fact possible to follow the horizontal fibres right across the document.

The papyrus as it now survives is a very large single sheet with no evidence for kollēsis joins on either side. Its dimensions of over 30 cm. in each direction set it among the largest sheet sizes. It is thus near Pliny's *cubitalis macrocolis* which Professor Turner estimates⁸ to have a width of 33.3 cm. (18 *digiti*).

For dating the document Professor Turner compares the book-hand of P. Rylands III 484, *New Comedy*⁹ (Plate IV(a)), assigned to the latter half of the 1st century A.D. Its script is not so regular as the Oxyrhynchus document. He observes a similar uprightness of script in a number of documents dating from c. A.D. 60 - A.D. 140. These include Oxyrhynchus Papyrus I 37, *Report of a Lawsuit*¹⁰ (A.D. 49), whose script has many archaic elements, and P. London II 281, *Death Certificate of a Priest from Socnopaei Nēsos*¹¹ of A.D. 66. The later is more quickly written and less regular.

From the reign of Domitian come a number of documentary parallels. The are P. Flor. I, 61, *Proceedings before C. Septimius Vegetus, Prefect of Egypt*¹², written in A.D. 85 (Plate IV(b)), and

8. E. G. TURNER, *The Typology of the Early Codex*, University of Pennsylvania Press 1977, p. 48. The sizes of extant papyrus sheets made up in the form of roll and codex are discussed on pp. 47-51.

9. P. Rylands III Plate 9.

10. = P. London 746.

11. = P. London Atlas II 19.

12. Medea NORSA, *La scrittura letteraria greca dal secolo IV a. C. all'VIII d. C.*, Firenze 1939, tav. 12a.

P. London 2078, a *Private Letter*¹³ of A.D. 87. This is upright and in a larger module, but many letters are in a cursive form. Further examples are Oxyrhynchus Papyrus II 270, *Indemnification of a Surety*¹⁴, A.D. 94 (Plate IV(c)), of a similar module but squarer in form, P. London II 257, a *Census roll*¹⁵ of A.D. 94-5 from the Arsinoite nome, which has a rounded, upright hand written more quickly than our document, and P. Merton 13 (Plate IV(d)). This is from Oxyrhynchus and contains a *Return to the exēgetes concerning an inheritance*. It dates from A.D. 98-102. Its letters are more compressed than our document and it is more quickly written. A final example is P.S.I. IX 1062, a *Census return from Ptolemais Euergetis*¹⁶ of A.D. 104-5, which has a similar upright nature but more cursive forms¹⁷.

This range of parallels adduced by Professor Turner suggests that the document belongs to the late first or early second century A.D. In the absence of any evidence for kollēseis on either side of this papyrus we should a priori think that the exercise with its multiple repetitions is more likely to be written on the back of a used document than the other way round. A list which was kept for administrative purposes need not have been kept very long after its original compilation, so the Latin, if it is written later, could also be of the late 1st - early 2nd century after Christ.

In Hawara 24 the text of Aeneid II, 601 is written along the fibres of the verso side of the papyrus (Plate II). On the recto side, which bears a visible kollēsis, is a similar writing exercise, apparently the end of Aeneid IV, 174 [*Fama, malum qua no*]n̄ aliū velocius. The final ' *ullum* ' of that hexameter is omitted¹⁸, and it is followed

13. *New Palaeographical Society Facsimiles. Series II.* Plate 98.

14. = P. London 793.

15. = P. London Atlas II 36-42.

16. M. NORSÄ, *La scrittura letteraria greca* cit., tav. 11b.

17. Compare also P. Giss. Univ. Bibl. 20. *Letter on the loss of documents*. Circa A.D. 120, which is on a larger module, rounded and mannered; P. Amherst II 66. *Judicial Proceedings* A.D. 124; P.S.I. V 446. *Decree of Marcus Petronius Mamertinus, Prefect of Egypt*. A.D. 133-137, in a Chancery hand of large format (= Medea NORSÄ: *Papiri greci delle collezioni italiane*, Roma 1946, tav. XV), and P. London 110. *Horoscope of A.D. 138* (= P. London Atlas I 75-6).

18. The Virgilian graffito of Aeneid I, 192-3 from the Palaestra near the Amphitheatre of Pompeii should alert us to the possibility that in this sort of exercise a metrical line may not necessarily be quoted in full or finish at the verse end. It runs: *Nec prius / obstitit quam / septe(m) ingentia / victor corpora / funda(t)*

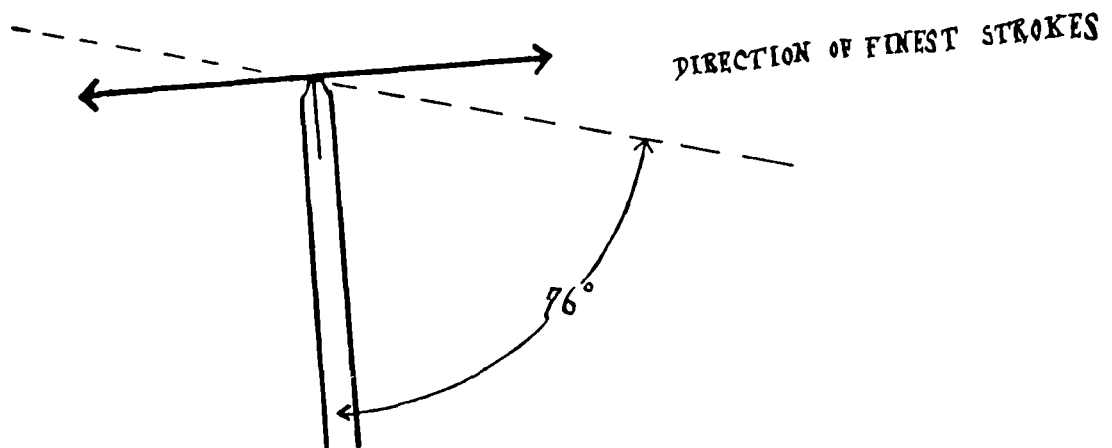
by 'Gramma[]', which Jean Mallon has suggested is the beginning of Horace: *Ars Poetica* 78: — 'Gramma[tici certant et adhuc sub iudice lis est]'.¹⁹

Hawara 24 has most recently been discussed in detail by Sterling Dow in *Journal of Roman Studies*, 58 (1968), pp. 60-70, though Professor C. O. Brink makes no mention of the papyrus in this commentary on *Ars Poetica* of 1971. However, if M. Mallon's suggestion is correct, that is the oldest surviving quotation of Horace on papyrus and the only one from Egypt yet found.

Nevertheless, what must interest us most in the new Oxyrhynchus Papyrus is the calligraphy and it is this that will occupy us next.

The Capital hand, the module and the inclination of the pen to the papyrus as viewed from above suggest that like that of Hawara 24 the script belongs to the first to second century A.D. Hence an analysis of the penmanship deserves our close attention in the way that M. Mallon has analyzed the script of P.S.I. 1183a, a *Census of A.D. 47-48* from Oxyrhynchus, which survives in a formal capital copy and a more cursive capital original (P.S.I. 1183b)¹⁹.

The pen is cut with a square point. The heaviest strokes are those descending from top left to bottom right in N, A and X. The finest stroke is the cross-bar of A and suggests that the angle of the pen, when viewed from above, to the horizontal line of writing was about 76°.



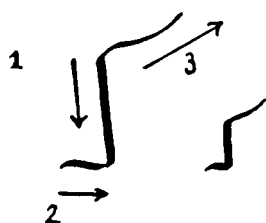
The finest strokes are of particular importance in establishing this angle of a broad nibbed pen to the line of writing, which I shall

humi /. Published by M. DELLA CORTE, *Notizie degli Scavi di Antichità*, 15 (1939), p. 269 no. 158 and fig. 9.

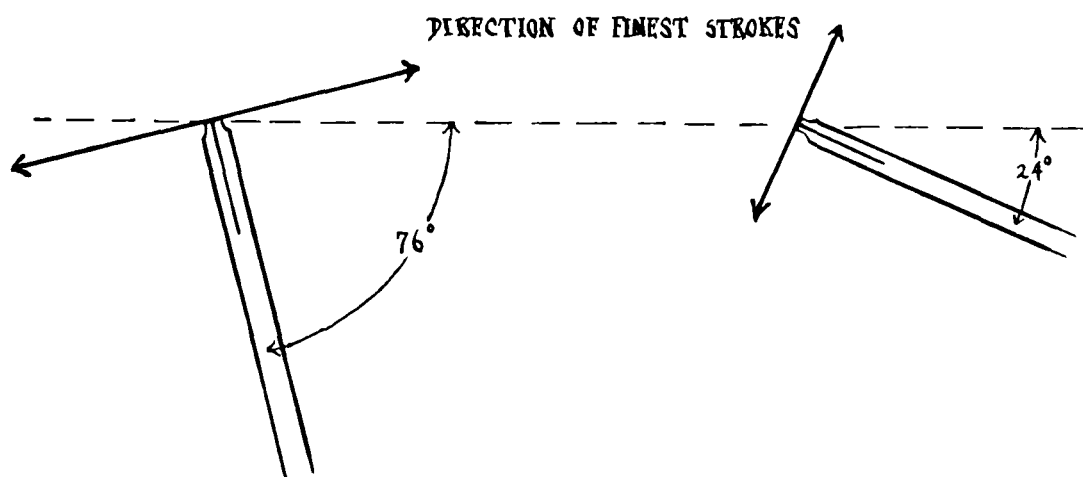
19. MALLON, *Paléographie romaine* cit., pp. 23-30, and Planche V nos. 1 and 2.

term the Mallon angle. With a broad nibbed pen these finest strokes can only be made with a movement of the nib at right angles to the tip, whereas thick strokes may be varied somewhat by increasing pressure on the nib. This particular hand is impossible to write with a pen whose nib is cut with an oblique point. I have attempted to copy this hand with pens with square and various types of oblique nib. Only with a square point can all the forms be achieved coherently²⁰.

S The letter S which begins the lines in SCILICET is enlarged to a height of 15 mm. and a width of 20 mm. but is also found in the same module as the rest of the letters in the S of NOS with a height of 6 mm. and a width of 9 mm.²¹ As in Hawara 24, the top of the S projects above the letter adjacent to the right in a sinuous rising curve.



The order and direction of the strokes is the same as in Mallon's analysis, but because the Mallon angle is 76° compared with 24° in P.S.I. 1183a the third strokes is fine instead of thick.



Oxyrhynchus Virgil

P.S.I. 1183 a

20. Compare the parallel analysis of pen-strokes by Edward Johnston in his posthumous work *Formal Penmanship and other papers*, London 1971, especially pp. 61-82. Johnston's 'Constant Angle' is *complementary* to the Mallon angle, i.e. added together they make a right angle, if the pen is square nibbed.

21. The nib width judged by the broadest strokes is about 1 mm. The overall ratio of nib widths to height of letters is 1:7 in the Oxyrhynchus Virgil. This falls

In the initial S of line 4 a slight serif has developed at the beginning of the second stroke.



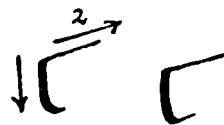
Oxyrhynchus Virgil



P.S.I. 1183 a (Mallon)



Hawara 24

C is written in two strokes.  Its height is 5.5 mm. and width 5.5-7.5 mm. It has a flat top like that of FACIES in Hawara 24, which rises very slightly above the horizontal. The very thinness is an indicator of the Mallon angle.



Oxyrhynchus Virgil

P.S.I. 1183 a

Hawara 24

I is written with a top serif slightly inclined to the left and is finished at the foot with a hook curling to the right. It is 5-6 mm. high.



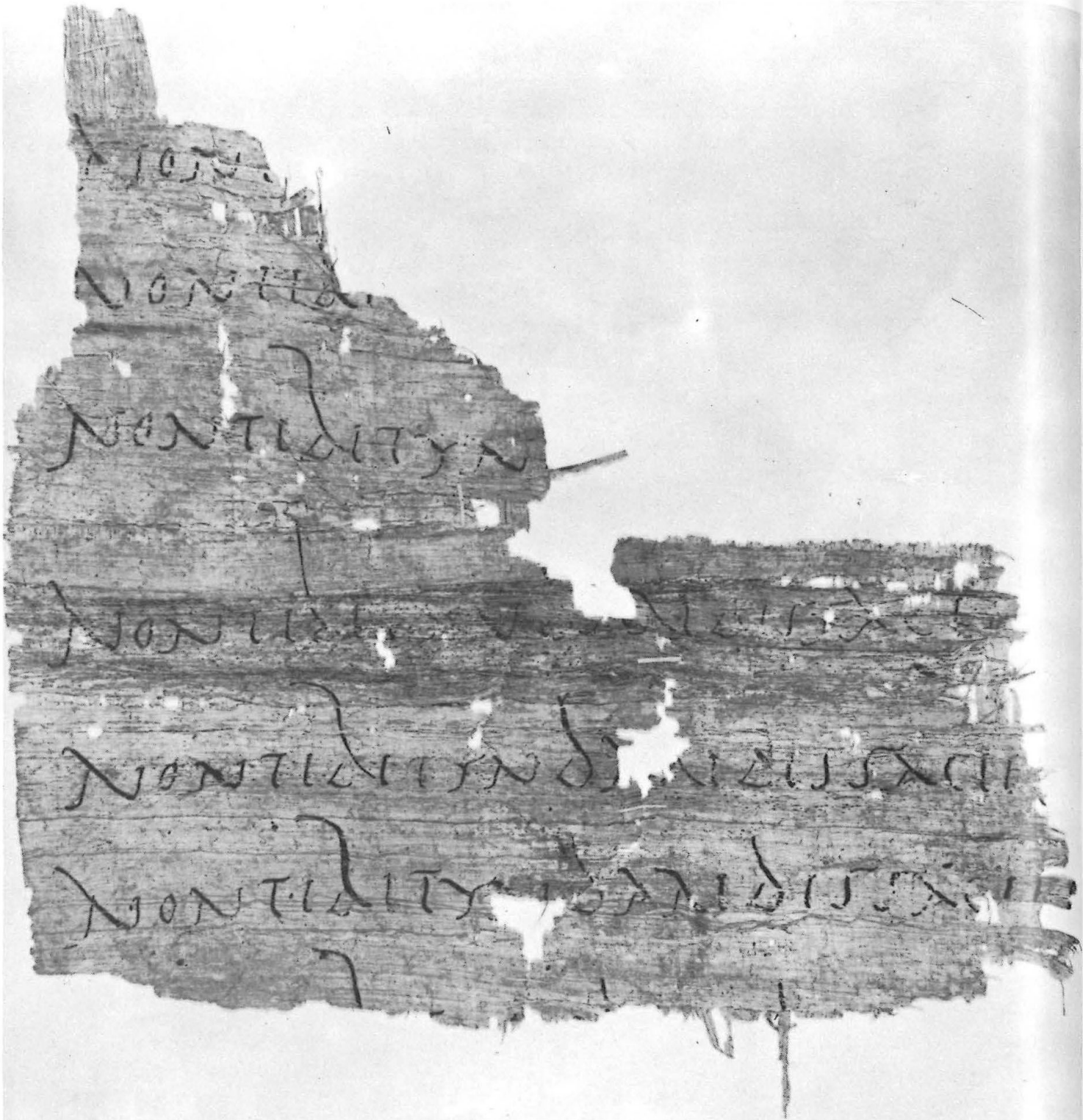
In Hawara 24, the different Mallon angle, which I estimate to be about 60° ²², makes the top serif less pronounced.

within Johnston's classification of 'Light Writing'. (*Formal Penmanship* cit., pp. 83-89). The corresponding ratio for Hawara 24 is 1:6 (Light Writing) and in P.S.I. 1183a 1:4.5 (Medium Writing).

22. The Mallon angle for Hawara 24 was calculated by Professor Turner in *Studi Calderini-Paribeni* cit., II, p. 160, to be 45° . In this calculation he relied

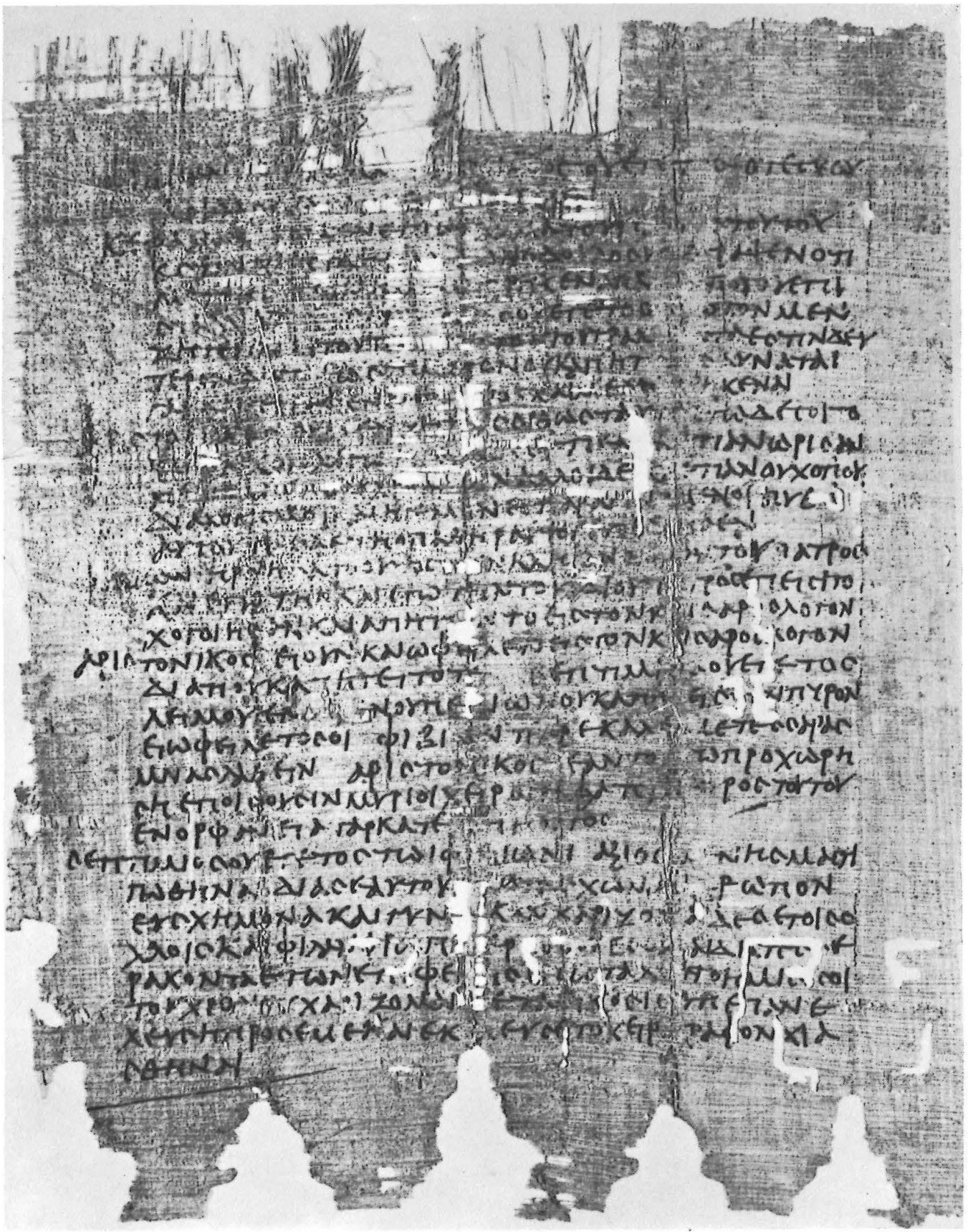


Oxyrhynchus Virgil Writing Exercise. Virgil: Aeneid XI 371-372



HAWARA PAPYRUS 24

Virgil: Aeneid II v. 601.



(b) P. Florence I 61. Proceedings before C. Septimius Vegetus. A.D. 85.



HAWARA PAPYRUS 24

Virgil: Aeneid IV v. 174. Horace: Ars Poetica v. 78.

FILIO PATRI TATE DONAZOS ESTE
 ANCVSTO KELEXANICO IANP

ANOTINNO STATHICO COXANO

ICHTE METROPOI AECCEC

NEPISE ANTONIENI SIAI IN

VINES ISCHYAN METROPOI

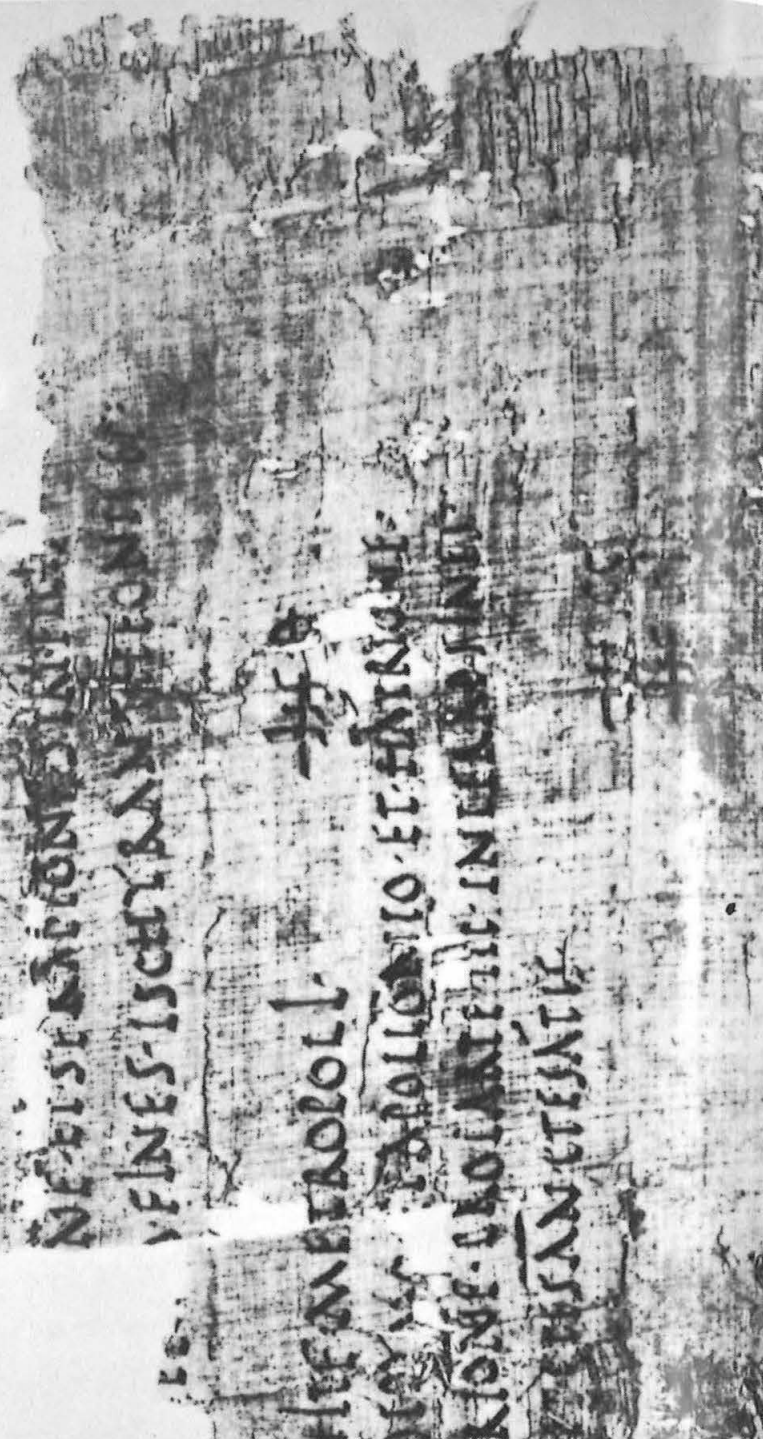
MEN. SELENEVE
 A TIENOXOYRINCHITE METROPOI

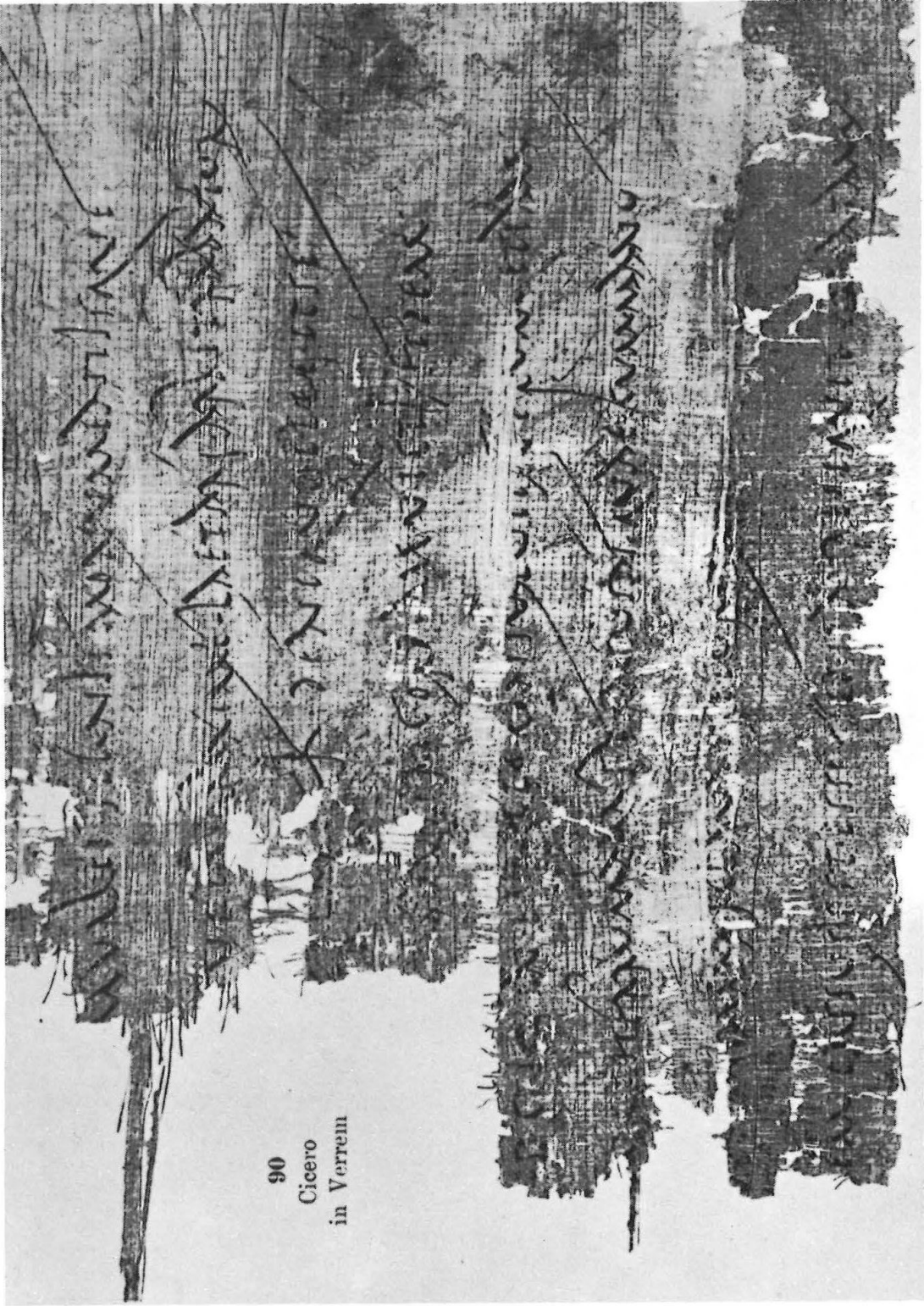
MUNEAN ISEICANNOYAC. PAPHLOMIO ET FINIKOMI

HESIOD

LON. ANTONIENI METROPOI

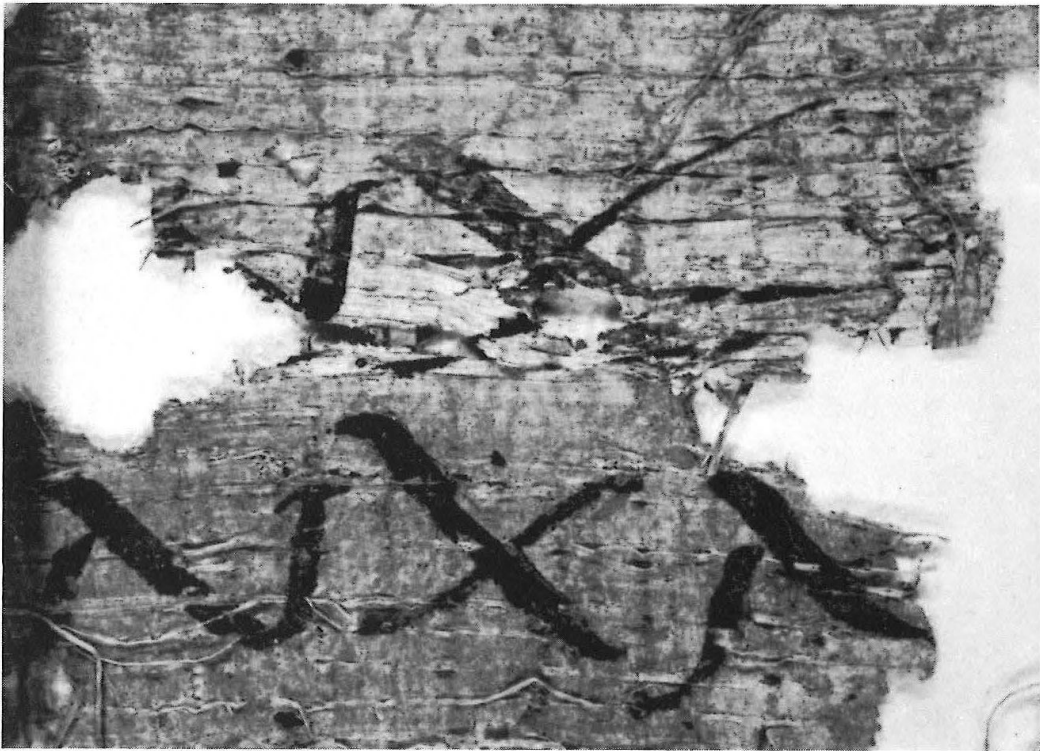
THEPA



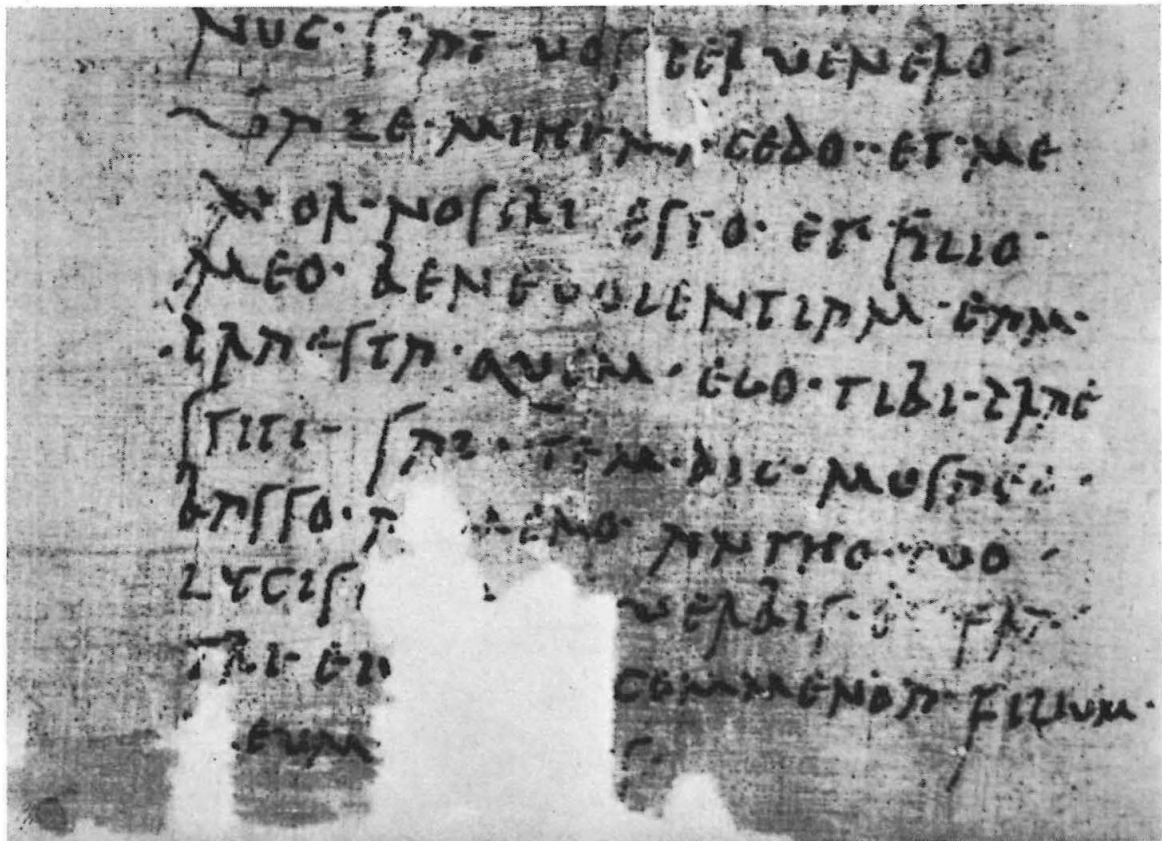


90
Cicero
in Verrem

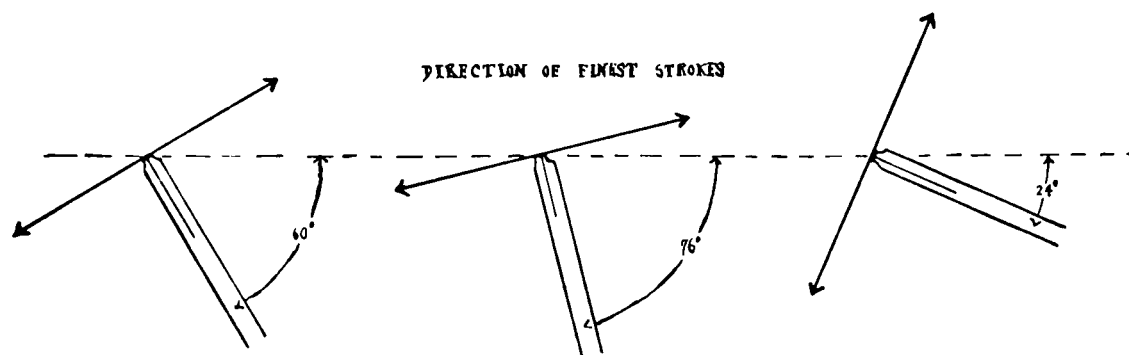
(a) P. Ianda V 90. Cicero: In Verrem II 2.



(b) *Oxyrhynchus Virgil*. X in line 2 (enlarged 4 times).



P. Vindob. Lat. 1 b. Letter to Macedo. c. 17-14 B.C.

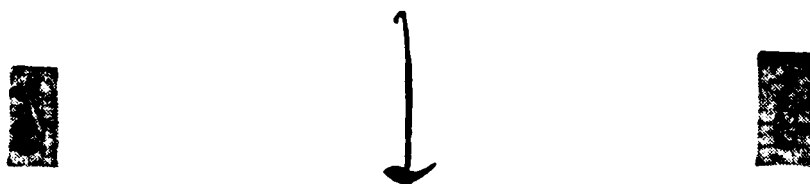


Hawara 24 (approximate)

Oxyrhynchus Virgil

P.S.I. 1183

The bottom curves away to the right in the same way. All I's are of the same length in the Oxyrhynchus and Hawara pieces, unlike P.S.I. 1183a where I's which are long in quantity are taller than those which are short²³.



Oxyrhynchus Virgil

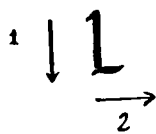
P.S.I. 1183

Hawara 24

L is 5.5-6 mm. high. It is written in two strokes, the vertical first from top to bottom with a serif at the top inclined slightly to the left like that of I. It is similar to the L of VELOCIVS in Hawara 24 recto ll. 2-3.

primarily on the form of the thickest rather than the thinnest strokes. Some variation of the angle is of course possible if the pen is held most firmly by the thumb, forefinger and middle finger, while its barrel is allowed a range of movement between the knuckle of the thumb and that of the forefinger. A preliminary attempt to classify the modes of grasping the pen has been made by Colette SIRAT, *Écriture et civilisations*, Paris 1976 (Institut de Recherche et d'Histoire des Textes - Études de Paléographie hébraïque), pp. 48-100. Her work is primarily confined to Hebrew manuscripts. Such a study from Latin and Greek manuscripts has yet to be made.

23. Cf. J. S. and A. E. GORDON, *Contributions to the Palaeography of Latin Inscriptions*, Berkeley and Los Angeles 1957 (*University of California Publications in Classical Archaeology*, III, 3), pp. 186-201.

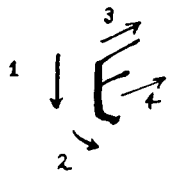


The second stroke is horizontal and written from left to right. The pen is usually lifted between the strokes and the horizontal does not slope down to the right as in P.S.I. 1183a and Hawara 24 recto l. 1.



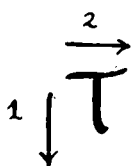
Oxyrhynchus Virgil P.S.I. 1183a Hawara 24

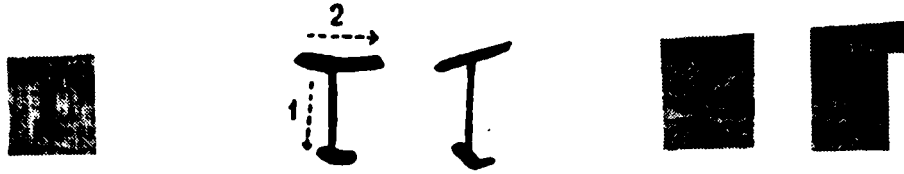
From SCILICET we have already examined I and C, so next we come to E. It is 7 mm. high \times 2.3 mm. wide. Strokes 1 and 2, the vertical and base are made in one descending movement curving down to the right at the base. Stroke 3, the upper 'horizontal' rises upward at 38° - 39° , while the centre (4) rises at 15° - 16° . In REGIA in l. 6, this stroke (4) thickens at its right hand end. This contrasts with Hawara 24 recto where it is horizontal. In P.S.I. 1183a the use varies, being sometimes horizontal and sometimes rising slightly.



Oxyrhynchus Virgil P.S.I. 1183a Hawara 24

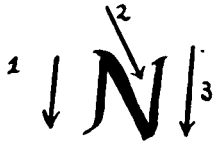
T is 5 mm. high \times 3.4 mm. wide. It has the same vertical as I, curving to the right and drawn from top to bottom. The cross bar is horizontal, evenly spread on either side of the vertical, and is noticeably thicker than the upper strokes of S and C.





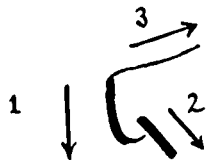
Oxyrhynchus Virgil P.S.I. 1183a *Hawara 24*

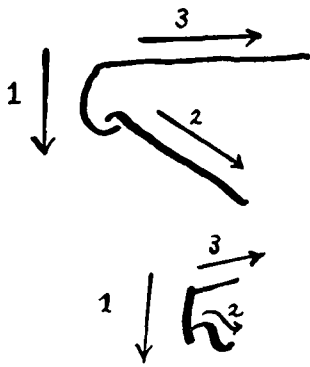
Since the remaining letters of TVRNO are severely damaged, let us examine N in CONTINGAT which is clear in every line. It is 7 mm. high \times 10 mm. wide. The left hand vertical inclines down to the left like Hawara 24 and has no base serif unlike P.S.I. 1183a. The diagonal is straight at 32° - 33° to the horizontal without the slight sinuousness of the Hawara N. It projects to the left above the first stroke. The right hand vertical has the same inclined top serif as L and I.



Oxyrhynchus Virgil P.S.I. 1183a *Hawara 24*

G is made in three strokes. It stands 5 mm.-8 mm. high \times 10-12 mm. wide and follows M. Mallon's analysis in form. The first stroke, a left hand descender, is identical with the first stroke of C. The second, which corresponds to the median cross stroke of the right hand limb of the Trajan's Column Capital, is a separately drawn, straight, broad diagonal stroke descending to the right at 33° to the horizontal, the same angle as the diagonal of N. The pen is lifted before beginning this stroke, which commences, above the end of stroke 1. The third and final stroke, which forms the top of the letter, is a thin horizontal gradually rising to the right like the top




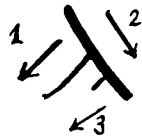


stroke of S. Against this compare the G of GRAMMA[TICI in Hawara 24 recto, an enlarged capital where the second stroke is hooked over the right hand end of the first. The different Mallon angle and the nib cut finer make all the strokes more uniform in thickness. In P.S.I. 1183a the second stroke begins with a sinuous movement.



Oxyrhynchus Virgil P.S.I. 1183 a Hawara 24



In A of CONTINGAT, again Mallon's order of strokes is followed. The letter is 5-10 mm. high \times 7-13 mm. wide, of which the smallest form is in the first A of ANIMAE in l. 1, and the largest in CONTINGAT in l. 4. Unlike the A's of P.S.I. 1183a, those of the Oxyrhynchus Virgil have the cross-bar present though truncated. It is very thin and drawn at right angles to the cut of the nib of the pen. Hawara 24 in the word FACIES has a cross-bar spanning the two upright limbs  and the pro-



gressive forms of



in P. Iand. V 90,

Cicero: *In Verrem* II (Plate VIIa) of the same period are alongside  and  becoming more cursive in execution. We should note that the progressive development is not


secure evidence of a chronological progression of these pieces. Modified forms can be contemporary with less cursive forms in copies of the same document. This is clearly shown in the two examples which occur in P.S.I. 1183b, the cursive original of the Census list of A.D. 47-48, which is written more formally in P.S.I. 1183a. They occur in AEGYPTO, five lines from the bottom, and ISCHYRAN in the last line but one (Plate VI). The A of the Oxyrhynchus exercise lies one stage from Hawara 24 in this progression.

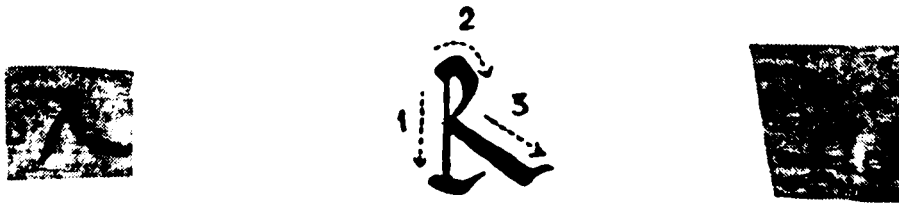


Oxyrhynchus Virgil P.S.I. 1183a Hawara 24 P. Lands V. 90 P.S.I. 1183b

In REGIA only R is new to us. The clearest example is in line 1, which is 6 mm. high × 7 mm. wide. It is made in two movements: first the left hand descender at 27° to the vertical, then a horizontal beginning hing to the left, then sloping across the top of stroke 1 to reach the base line in a concave curve to the right. In it the second and third strokes

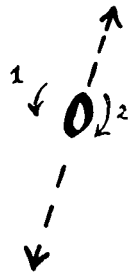


of P.S.I. 1183a, whose form is epigraphic,  are made as one. The R's of TYNDARIDIS and GRAMMATICI in Hawara 24 are similar to those in the Oxyrhynchus piece.

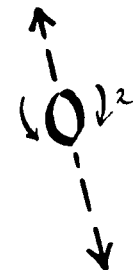


Oxyrhynchus Virgil P.S.I. 1183a Hawara 24

O is preserved in CONIVNX and NOS, being most clear in the latter. It is 3.5 mm. high × 2.5 mm. wide. It forms an oval



slightly leaning to the right and a little smaller than the modular height of the line, being written above the base line. It is made of two descending strokes whose apex is to the right of centre, whereas in P.S.I. 1183a the apex

is to the left of centre  Hawara 24 more resembles

the Oxyrhynchus text in this.



Oxyrhynchus Virgil P.S.I. 1183a *Hawara 24*


The V of CONIVNX is 4.5 mm. high \times 9 mm. wide. It is made in two descending strokes of which the left has a lead-in, and the right is seriffed at the top.



Oxyrhynchus Virgil P.S.I. 1183a *Hawara 24*

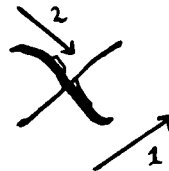
X is a little more interesting. It is 6 mm. high \times 8.0-10.2 mm. wide. The ductus proposed by M. Mallon is that the first stroke is from top left to bottom right, and the second stroke from bottom left to top right.



His account is confirmed as the normal ductus by the ligatures for the numeral *quadraginta*²⁴, which he quotes from the fifth century onwards,  where the L is linked to the top right hand of the X.

This, however, is not the form we find in the Oxyrhynchus Virgil. The X's of lines 1 and 3 have a regular appearance; that in line 4 is too damaged for us to draw conclusions, but in line 2 we have an oddity. This enables us to observe the order of the strokes in all the examples of X.

In line 2, the stroke from bottom left to top right is perfectly formed, but the other oblique stroke from top left to bottom right is not. It begins normally at the top, but after 2.5 mm. the pen catches a loose fibre on the surface of the papyrus. The extreme right hand of the nib begins a faint hair line while the body of the stroke thins. 2 mm. further on the hairline stops. But in a further millimetre we reach the crossing point of the two strokes. We observe that on the far side of the bar a blacker hairline begins afresh on the right hand of the stroke. It tails into the main body of the stroke over the next 2 mm. What appears to have happened is that the two strokes were written in the same direction, but in the reverse order to M. Mallon's description.



The stroke from bottom left to top right was written first. Before the ink dried, the second stroke was begun from top left. At the damaged fibre on the papyrus the right hand edge of the nib shed some ink and tailed off into a hair stroke. But

24. *Paléographie romaine* cit., p. 128.

when the first stroke was crossed, its ink was still wet. The dry right hand edge of the nib caught some of the wet ink already on the papyrus, drawing it in a slender bow of a new hair stroke by capillary attraction. All this is clear through a strong lens (Plate VIIb).

Now we have observed the ductus in the faulty letter of line 2, you will see that CONIUNX has been re-written above the line. Its second stroke is paler than the first. A small dot of ink midway between the upper limbs of X in line 2 may be an indication that the words is to be re-written. The X's of lines 1 and 3 will be found to follow the same ductus.



Oxyrhynchus Virgil. P.S.I. 1183a 'Quadreginta'

The only letter remaining unmentioned is M of ANIMAE, which is clearest in lines 1 and 3. It is 4.5 mm. high × 12 mm. wide.

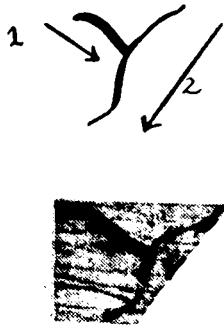


The strokes follow the same order as P.S.I. 1183a, but without a base serif on the first left hand stroke.



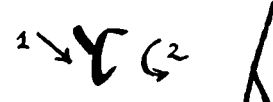
Oxyrhynchus Virgil P.S.I. 1183a Hawara 24

The final coda to make in this catalogue of letter forms is to draw attention to the ductus of Y in TYNDARIDIS in Hawara



24 verso. In all its three clear occurrences it is written with two movements: a left hand diagonal descending from high left to mid-line followed by a sinuous stroke in a single movement from high right touching the right hand of the first stroke and ending at the base line with a curve to the left. This ductus is paralleled in the *Letter to Macedo* of c. 17-14 B.C.

(P. Vindob. Lat. 1 b)²⁵ col. II, 15 LYCISC[o



(Plate VIII) and a Roman inscription of the reign of Domitian C.I.L. VI 33470²⁶.



This is quite opposite in form to P.S.I. 1183 a, where as M. Mallon rightly shows, the first stroke is made oblique from the top left to the mid-line and descends vertically finishing in a serif. The second stroke rises from the mid-line to upper right.



Hence in these early hands we have two distinct modes of writing Y, a difference which is also reflected in the varied ductus of hypsilon.

The lines of the Oxyrhynchus text are unevenly spaced. Between line 1 and 2 are c. 32 mm., between lines 2 and 3 21-25 mm., between line 3 and 4 23-27 mm. and between line 4 and 5 circa 27 mm. The warping of the fragments makes this difficult to measure with precision, but the much greater distance between lines 1 and 2 is obvious. There are re-workings above the line of $\Upsilon\Upsilon\Upsilon\Upsilon\Upsilon$ of $\Upsilon\Upsilon\Upsilon\Upsilon\Upsilon\Upsilon\Upsilon\Upsilon\Upsilon\Upsilon$, and $\Upsilon\Upsilon\Upsilon\Upsilon\Upsilon\Upsilon\Upsilon\Upsilon\Upsilon\Upsilon$ of $\Upsilon\Upsilon\Upsilon\Upsilon\Upsilon\Upsilon\Upsilon\Upsilon\Upsilon\Upsilon$ in l. 2. The loose fragments visible above l. 1, which are copied at the foot of the transcript are possibly from similar re-workings after an error.

The scribe employs a modular height of 7 mm. which A, G, S and the left hand of X rise above. The left hand of N, A, R and the

25. J. MALLON, R. MARICHAL, C. PERRAT, *L'écriture latine de la capitale romaine à la minuscule*, Paris 1939, Arts et Métiers graphiques), Planche VIII, item 11.

26. See the discussion on the ductus of this letter in GORDON, *Contributions to the Palaeography of Latin Inscriptions* cit., pp. 119-122.

‘ Scilicet ut coniunx uideo reddatur Atridi
procumbat uilis Teucrorum uictima Achilles? ’³¹

Similarly Valerius Flaccus in *Argonautica* I 151 produces the phrase *nos animae faciles*.

Any lines which can give rise to this amount of imitation have something which is memorable in them. We learn something more about the Latin writing schools of the 1st century A.D., and perhaps this piece will find its place in future manuals of Latin palaeography³².

31. Compare also *Illos Latina* (= *Poetae Latini Minores* ed. A. BAEHRENS, Vol. III xviii, Lipsiae 1881), ll. 265-266

Dum iaceas in amore tuo, nos bella geremus
Scilicet et nostrum fundemus in hoste cruorem!

32. I am grateful to Professor E. G. Turner for much advice in the preparation of this paper, particularly on the dating of the Greek document.