A Centurial Stone from Shavei Tziyyon.

Justus Meyer

The discovery of two milestones at Shavei Tziyyon, one of them bearing an inscription, was reported by Dr. M.W. Prausnitz in 1967. "According to its inscription... it appears that it had been put up five miles from 'Akko and twenty six miles from Tyrus" comments Prausnitz on the stone which bore an inscription.[1] In the introduction to his "Excavations at Shavei Zion" (Rome 1967) he gives the grid reference of the location of this stone as 1586/2656.

The column is now kept in the courtyard of "Beth Yehoshu'a" in Shavei Tziyyon. Made of local korkar stone, it was originally cylindrical with a diameter of about 35 cm. As one side is damaged its cross-section now tends to the elliptical, tapering off towards the top. The height is 95 cm; its lower end is broken off, while the flat top seems to be original.

On the undamaged side three, possibly four, lines of an inscription are preserved, the uppermost being 41 cm below the top of the column, the third, 14 cm above its base. A possible fourth line, if not a fortuitous scratch, is of such poor workmanship compared with the upper lines, that it must be considered a later addition and I propose not to deal with it in this paper. As the upper three lines are very close to one another, the space below them suggests that originally no fourth line existed, though this is not ruled out completely.

The three upper lines read:

Δ XVI
XV
AΔIA

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1 *Hadashot arkhaeologioth* 10 (April 1967) 21 (Hebr.).

The height of the larger letters varies from 10 to 12 cm, but the *delta* in the first line is only 4 cm high. All three lines are complete at their right hand end, but begin in the damaged zone. One or more letters may have to be restored in each line.

In two publications concerning the Roman Road in Western Galilee[2] I accepted the *cippus* as milestone MP 309A of the Roman road from Antiochia to Ptolemais, but in a conversation in July, 1980, Professor Th. Pekary of the University of Münster (Germany) argued that the column could scarcely be a milestone, as inscriptions on milestones usually begin with the name of the ruler or official who put it up. He suggested seeing it as a boundary stone.

As such it must belong to Colonia Ptolemais Veteranorum, mentioned in numerous sources, amongst them on a stele, now in the Municipal Museum of Nahariyya,[3] found only one and a half kilometres north of the site recorded by Dr. Prausnitz as the location of the *cippus*.

Its inscription shows it belonged to the *limitatio* of the Roman colony.

The *delta* in the first line is to be read as an abbreviation of the word *decumanus*, and another *delta* or a *sigma* is to be restored before it, making the reading of this line either (Δ)ΔXVI or (Σ)ΔXVI, standing for (*dextra*) d(*ecumani*) XVI or (*sinistra*) d(*ecumani*) XVI.

Considering the cippus a centurial stone which was set up at the intersection of the sixteenth *decumanus* with the fifteenth *kardo*, we would expect to restore two letters in the second line, standing for CK or VK, before the numeral. A reading might be (KK)XV or (VK)XV standing for (*citra kardinem*)XV or for (*ultra kardinem*)XV.

The inscription contains Greek letters together with Roman numerals. Although Greek was the language of the eastern half of the Roman Empire, at first the Roman government used Latin only. Gradually the use of Greek also penetrated the administration, but in our inscription we have Greek letters conveying Latin technical terms. It is difficult to decide whether the Greek letters in the third line stand for initials of Latin words or represent a Greek word.

The Greek lexicon contains a long list of verbs beginning with αδια, always indicating a negation. Prof. S. Applebaum of Tel Aviv University has suggested that this line might be short for ἀδιαίρετος ἀδιανέμητος, or ἀδιαμέριστος. The first alternative finds support in Papyri from Egypt,

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2   *Nofim* 11/12 (autumn/spring 1978–79) (Hebr.).
3   Published by M. Avi-Yonah in *QDAP* XII (1946) 85/86.

where the word is used as a technical term applying to plots of land owned by several owners, but not divided topographically, each owner having a share in the whole plot.[4]

If, on the other hand, we consider that the third line represents Latin abbreviations, we are reminded of a Gracchan *cippus* bearing the letters A.D.A.I. (*agris dandis adsignandis iudicandis*).[5] This association might solve the problem, although these Gracchan *cippi* are far removed in space and time from our column, which probably should be dated to the late Roman period, possibly to the third century.

In applying the data of the inscription to the map, we are faced with a number of uncertainties, which cannot be resolved, due to lack of corroborative evidence. In order to arrive at a possible place for the *groma* we shall resort to the more normal practices of the *agrimensores*, as summarized by Dilke.[6]

The first uncertainty, which could only be resolved by the appearance of new evidence, consists in the fact that the stone was not found *in situ*. It is reasonable, however, to suppose that it was found not far from its original location, as in the same area, around Shavei Tziyyon, milestones have been found at distances corresponding to the probable mile-stations along the Roman road. Thus we may take the grid reference recorded by Dr. Prausnitz as being, with a certain margin of error, the location of the intersection of the sixteenth *decumanus* with the fifteenth *kardo*.

To calculate the distance between the *cippus* and the possible location of the *groma*, we have to know the orientation of the base lines, the distance of the *limites* from one another, and the method of numbering the *limites*.

As to the distance between the *limites*, i.e. the size of the *centuriae*, we quote Dilke (p. 84): "The normal size of a 'century' was a square of 20×20 *actus*... One may suspect that after the Augustan age this size became so standard that exceptions are virtually non-existent." Accordingly we shall assume a distance of 20 *actus* = 708 m between the *limites*.

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4   F. Preisigke, *Wörterbuch der griechischen Papyrusurkunden*, I (Berlin 1925) col. 21 says: 1) räumlich ungeteilt (von einem Grundstück, welches mehrere Besitzer hat, doch so, daß jeder seinen Anteil rechnerisch, also etwa in Form von Anteilscheinen besitzt). I have to thank Prof. Th. Pekary for turning my attention to this explanation.

5   *CIL*, I² 719.

6   O.A.W. Dilke, *The Roman Land Surveyors* (Newton Abbot 1971).

Concerning the method of numbering, we must consider two possibilities:
a) Beginning with the base-lines, DM (*decumanus maximus*) and KM (*kardo maximus*) we have to establish the positions of DI and KI according to Dilke (p. 90): "... *limites*, if they were the main ones next to the central pair, could be labelled DII or KII."
b) Castagnoli[7] however thinks "i decumani a destra del decumano massimo avevano la sigla DDI... DDII ecc., quelli a sinistra SDI... SDII ecc." and correspondingly of course for the *kardines*.
As there is no evidence aiding a decision which numbering should be accepted, we shall explore two alternatives.

The orientation of the Roman grid also involves some uncertainties. Dilke says (p. 56): "Centuriation was sometimes orientated exactly or approximately from the compasspoints, sometimes from existing roads, sometimes (as in Dalmatia) from geographical features."

Orientation on the compass-points meant that the *decumanus* might run east-west or north-south, thus opening up two alternatives. The distance of the location of the *cippus* from the DM is longer by 20 *actus* = 708 m than that from the KM.

Calculating the distance of the *cippus* from the base-lines we find:
a) according to Dilke-
15×708 m = 10,6 km for the distance from the DM
14×708 m = 9,9 km for the distance from the KM
With the aid of the theorem of Pythagoras we calculate a straight distance of 14,5 km from *cippus* to *groma*.
b) following Castagnoli —
16×708 m = 11,3 km distance from the DM
15×708 m = 10,6 km distance from the KM
The direct distance in this case would be 15,5 km.

In this way we arrive at four possible locations for the *groma*, which must lie south of Shavei Tziyyon, as a northerly position would be outside the territory of *Colonia Ptolemais Veteranorum*.

The grid reference of these four locations would be:
a) With the *decumanus* running east-west and numbering the *limites* according to Dilke:

7   F. Castagnoli in: De Ruggiero, *Dizionario epigrafico de antichità Romana*, IV, 1382.

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east 1586          north 2656
+      99          ./.   106
     1685                2550
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with the decumanus running north-south

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east 1586          north 2656
+     106          ./.    99
     1692                2557
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b) numbering the *limites* according to Castagnoli, we arrive at 1692/2543 with the *decumanus* running east-west, and with the *decumanus* running north-south at grid ref. 1699/2550.

These four possible locations for the *groma* form a quadrangle of about one kilometre sidelength in the plain of Naḥal Ḥilazon, east of the road Aḥihud-Shefar ʿAm. The view for sighting with the *groma* is here open only towards the west, the narrow plain being hemmed in by hills on the north and south. It is probable that the *agrimensores* chose a more convenient spot for stationing the *groma*. We should, therefore, discuss orientations other than those bearing on the compass points.

Dilke writes of orientation on geographical features in Dalmatia (p. 150): "Most of the centuriation follows the north-west/south-east line of the Adriatic coast." In our case an orientation from the coastline seems improbable, as in the relevant area, south of the latitude of ʾAkko, the coast of Haifa Bay is curved, and probably was so also 2000 years ago. Moreover, elevations suitable for surveying lie six to ten kilometres inland.

An orientation on an existing road seems more plausible. The well known road from Antiochia to Ptolemais, however, lies outside the possible area of the *groma*. On the course of this coast road south of ʾAkko we have only conjectures. There is, however, another road from ʾAkko-Ptolemais to Tzippori-Diocaesarea which requires discussion, as it crosses the area where the *groma* may have been.

While the course of this road through the hills towards Tzippori is well preserved, with many remains extant, it is less so from the road station at Debbet el-Khan (grid ref. 1660/2513) towards ʾAkko. The ancient track remains, however, in use and there is no doubt about its course, as it is shown on Avi Yonah's Map of Roman Palestine (1939) as a straight line from the road-station north-westward.

If this road served as *decumanus maximus,* we have to look for the *groma* at a distance of 14,5 km or, depending on the method of numbering the *limites,*

of 15,5 km, from the *cippus* in Shavei Tziyyon. The distance from the *cippus* to the road-station at Debbet el-Khan is 16 km and the *groma* may very well have stood here, where a number of milestones have been found, or, perhaps a mile farther to the north-west, at grid reference 1648/2523, where the modern map also shows a triangulation point, 18 m above sea level.

Such a location is not without its problems, as it is situated next to the border of the territory of Ptolemais-'Akko, as shown on the Map of Roman Palestine. The borderline between the territory of 'Akko and that of Tzippori was not fixed by Avi-Yonah on the evidence of data in the field. He adduces[8] documentary evidence that 'Ibbilin, the nearest town to the east of Debbet el-Khan, belonged to Tzippori. We do not know how far the fields of 'Ibbilin extended towards the west, and we must regard Avi-Yonah's borderline as tentative. The distance from Debbet el-Khan to 'Ibbilin, however, is only about three miles.

On the basis of the distance from the location of the *cippus* at Shavei Tziyyon, also because of the many elevations favourable for surveying in this area, we suppose that the *groma* must have stood in this landscape of low hills, north-west of Kebbet el-Khan.

We have a few observations to add.

One of them is, that we have taken the *cippus* to mark the intersection of the sixteenth *decumanus* with the fifteenth *kardo*. But instead of an intersection the inscription may give the number of a *centuria*. For our calculation concerning the location of the *groma*, however, this may not make a difference, if we rely on Dilke (p. 92): this numbering, he writes "left only the fourth side of the 'century', that farthest from the centre, free to receive a stone recording the 'century' number."

Another question is, whether we have been right in restoring only the signs for KK or VK in the second line of the inscription. The numeral in this line is quite clearly readable, but as the X is damaged on its left side, another X had possibly been cut in the damaged zone on its left, making the *kardo* the twenty-fifth instead of the fifteenth. The distance between the location of the *cippus* and that of the *groma* would in that case be 20 km or 21 km, depending on the numbering of the *limites*. As the *groma* should have been located, however, near the centre of the fields to be surveyed, certainly not outside

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8   M. Avi-Yonah, *Geografia historit shel Eretz Yisrael*, (Jerusalem 1962) 134, n. 14. (Hebr.).

them, or even in a marginal location, we think that the restoration of an X in the numeral is excluded.

Finally a reflection on the date of the inscription and possible information to be gained from it. The relatively late date of the centuriation leads to the question, whether it was a renewal of an earlier grid or the first parcellation in the territory of Ptolemais. The inscription from Nahariya mentioned initially, dated to 58 C.E., speaks of the Colonia Ptolemais Veteranorum. We may suppose that at this date a distribution of land to the veterans was undertaken, with a survey necessitated for the purpose and thus the *cippus* from Shavei Tziyyon documents a renewal.

An appendix to the interpretation of the Cippus from Shavei Tziyyon.

Shimon Applebaum

We are all indebted to Mr. Justus Meyer's identification of the centurial *cippus* at Shavei Tziyyon and to his interpretation of the inscription. This is the first centurial inscription found in this country from which certain inferences can at present be made. Two others from elsewhere, one found before the Shavei Tziyyon stone, and noted and published after Mr. Meyer's identification, are known. (See *SCI*, VI (1983) Another stone, found by Professor E. Sukenik many years ago, (S. Applebaum ap. *Shomron, Collected Papers and Sources*, edd. Dar, Roth (Tel Aviv 1971) 151 sqq. (Heb.), B. Isaac, Y. Roll, *Roman Roads in Judaea*, I, *The Legio-Scythopolis Road*, (Oxford 1982) 105, is problematic.

Mr. Meyer's conclusion that the central point (*groma*) of the centurial grid, at which its two main base-lines intersected, was in the neighbourhood of Debbat el-Khan, comes very close to the truth. It is with full awareness of this fact that I venture to add what I believe to be the final solution of the problem, the result of an investigation based on Mr. Meyer's epigraphical interpretation, which he was so kind as to communicate to me.

In the south of the Plain of 'Akko one axis is to be observed which was certainly a centurial boundary. This is the old road running approximately east-west connecting Tamra (169251) westward with Ḥirbet 'Ayyit and passing south of Tell Dayyikh. A very straight section of this line south of Tell Dayyikh may be taken to represent the original ancient boundary. The actual orientation of the line is 16 degrees north of east-west. If it is produced westward to meet a line drawn from the Shavei Tziyyon *cippus* at right angles to it, the point of intersection is in the sea at 154 8 2551, giving a distance of precisely 16 *centuriae* each of whose western sides measured 710 metres (i.e.

710×16). It can therefore be deduced: 1) that the *centuriae* of the Ptolemais centuriation measured 710×710 m. = 200 *iugera*, minus the necessary deduction allowed for intervening roadways;[1] 2) that the east-west axis from Tamra is the *Decumanus maximus*; 3) that the central point, i.e. the intersection of the *Kardo* and the *Decumanus maximus* (the *groma*) lies at a distance of 15 *centuriae* eastward from the intersection at 1548 2551, i.e. approximately three kilometres west of Tamra at 16535 25100;[2] 4) that the centuriated area, therefore, extended south of the line Tamra-Ḥirbet 'Ayyit. The last conclusion is indeed confirmed by the fact that several roadways south of that line in the area east of Qiryat Byalik and north of Kefar Ata are orientated parallel with the assumed *Decumanus maximus*. It may further be noted that the ancient roadway from Tell Keison, reaching the *Decumanus* to south at right angles just west of Ḥirbet 'Ayyit, coincides with the boundary of a *centuria*, being the requisite distance (two *centuriae*) from the *groma* to eastward. To its west, an air photograph of the British Mandatory period shows that the Arab field plots preserved with precision the axis of the Roman *Kardo*.[3] South of the *Decumanus*, the Tell Keison-Ḥirbet 'Ayyit road turns south-south-westward towards the modern Apheq. This is a Roman road evidently developed subsequently to the laying out of the grid.[4]

The area available for the field-system south of the *Decumanus* is not very large, since the land of Gabba Hippeon bars the extension westward near Ḥirbet Jedor,[5] and the area of the Pagus Vicinalis ended, according to its boundary dedication, at Kefar Ata.[6] However, this need not mean that the colony's boundary turned north-west at Ḥirbet Jedor, since three kilometres southward from Kefar Ata was Kefar Sasai

1   For the widths of roads marking boundaries of *centuriae* and their subdivisions see O.A.W. Dilke, *The Roman Land Surveyors* (Newton Abbot 1971) 38; F. Blume, K. Lachmann. A. Rudorff, *Die Schriften der römischen Feldmesser* I (Berlin 1848) 239 (Liber Coloniarum); J.P.S. Bradford, *Antiquity*, 21 (1947) 197 sqq.; 24 (1950) 90.

2   It is to be noted that Tamra, the ancient Kefar Tamrata, (*Meg.* 18a), was a Jewish village. Cf. Y. Ben Zevi, S. Klein, *Sepher ha-Yishuv* (Jerusalem 1978) p. 98 s.v. (in Hebrew).

3   For the similar existence in the Po valley and in France of plots whose orientation perpetuates the axes of Roman centuriation, cf. Dilke, op. cit., 145, fig. 40; 147, fig. 41 and p. 190.

4   It is frequent to find Roman roads cutting across centuriated areas without reference to the latter's divisions.

5   See *SCI* IV (1978) 135, n. 4.

6   *QDAP* XII (1946) 86–87; *AE* (1948) 143.

(Ḥirbet Sas), and the scholars were at odds whether this Jewish village belonged to 'Akkó or to Tzippori (Sepphoris).[7] For this reason we are bound to deduce from the Gabba boundary stone that the city owned an enclave of land within the territory of Ptolemais.[8] It is accordingly difficult at present to determine the southern limit of the colonial centuriation.

Nor as yet do we know the full area of the centurial grid northward, or whether it extended into the hill country to the east. But the Shavei Tziyyon *cippus* tells us that the *Decumanus* stretched for 15 *centuriae* eastward, i.e. approximately four kilometres into the hills, to within a kilometre of Yirka. This might permit the conjecture that the grid did actually extend into the hill-country, that is, east of the *Kardo*. The mountainous area included in the known grid is more or less within the triangle whose angles are Tell Birah, Kefar Yasif and Julis,[9] and amounts to some 6 1/2 square kilometres, or 2,600 *iugera*, equal to 13 *centuriae*.

The entire coastal plain west of the hills and within the territory of Ptolemais, covers some 184 square kilometres. With the hilly area just mentioned, the area amounts to some 76,200 *iugera*, and if the whole was parcellated, each man among 1,500 settlers would have received 50 *iugera* of land.[10] With this may be compared the allotments of the colony of Parentium in Dalmatia, where each settler recevied 54 *iugera* in an area of 90,000 *iugera*. The number of veterans has been estimated at 1,640 men. On this estimate (50 *iugera* per settler), it becomes possible that no systematic allotment was carried out east of the *Kardo*, and a parallel to this arrangement is to be found in association with an unidentified city illustrated in a Vatican manuscript's text of

7   *Tos.*, *Gitt.*, I, 3.

8   Enclaves of city-territories within areas not their own are found elsewhere in the Roman Empire; eg. Valentia and Tegna belonged to the territory of Lugdunum — CIL XIII,·249–250; in Syria — Samosata; cf. A.H.M. Jones, *Cities of the Eastern Roman Provinces* (Oxford 1971) 457, n.50.

9   The second and third villages were Jewish in the talmudic period.

10 The figure 1,500 is based on the number of legionaries likely to have been released annually from the four legions which furnished the colonists of Colonia Ptolemais. Within the number 1,500 may be compared the 1,800 settlers of Parentium (M. Suiče 'Limitation of Roman Colonies on the Eastern AdriaticCoast', *Zbornik instituta za historijske nauke u Zadru* 1935, estimates the colonial group at 1,640), the 2,600 settlers of Pola (on an area of 130,000 *iugera*), and probably some 1,500 at Colonia Victricensis (Colchester). Possibly relevant are the 3,000 praetorian veterans settled at Augusta Praetoria (Aosta).

Hyginus.[11] The picture shows a walled town, and if we assume for the sake of clarity that the south was on the right and the north on the left, the limit of the colonial territory on the west is marked by a river; centuriated areas are seen to the north and the south of the city, but the *Kardo maximus* is the limit of both along the river bank (i.e. on the west), hence there was no centuriation across the river.

But where Ptolemais is concerned, the above conclusion raises the problem, what happend to the native citizens of the city, and were all of them deprived of their holdings? In view of considerations which space prevents us from outlining here, but which concern the city's status when the colony was founded, this possibility cannot be entertained,[12] the less so if we interpret the word AΔIA — on the Shavei Tziyyon *cippus* as ἀδιαίρετος, ἀδιανέμητος or ἀδιαμέριστος i.e. 'not divided out'. There are four possible alternatives: 1) that the previous landowners were now restricted to the hill country and to Mount Carmel, at least part of which remained in possession of the city; 2) that the number of legionary settlers numbered far fewer than the 1,500 suggested here in the light of other data and parallel cases; 3) that they received smaller allotments, the centuriation being carried out in order to share the tract fairly between legionaries and citizens; 4) that the Greek population of Ptolemais had declined disastrously during the first half of the first century C.E. The third and fourth alternatives seem to me the most probable, but it is wise to leave the decision to future research, which might assist us by the discovery of measurable sub-divisions of the *centuriae*.

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11   Reproduced in Dilke, op. cit. 154, the lower picture.
12   The subject is discussed in my as yet unpublished paper on Colonia Claudia Ptolemais. I have there concluded that the civilian citizens of Ptolemais were merged with the veterans and retained equal rights with them.