

D. PARASANGS IN XENOPHON'S *ANABASIS*

Another set of problematic Achaemenid numbers are the parasang-measurements in *Anabasis*. These come in two contexts. First, they are used in reference to the army-marches in five sections of the trip: (a) Sardis to Cunaxa, (b) Median Wall to R.Zab, (c) Just after R.Zab to Villages N of Mespila, (d) R. Centrites to a little south of the Armenian Village, and (e) R. Phasis to Trapezus. The biggest gap is between (c) and (d) and corresponds to the land of the Carduchi, an area not subject to the King and only intermittently in friendly relations with Achaemenid authority (3.5.16). Secondly, they appear as measurements of (a) man-made objects,⁵⁸ and (b) the distance between armies.⁵⁹ The essential issue is how Xenophon acquired these measurements, most particularly those in the first category. But the difficulty starts at a still more fundamental level, because the very nature of the parasang is controversial.

1. The nature of the parasang

1.1. Many believe the parasang (like the *farsakh*) represents the distance covered in one hour.⁶⁰ Such a distance would vary according to terrain. It would also apparently vary according to season (since the ancient hour varies with the length of the day). WILLIAMS 1996: 285 offers a slight variant: the parasang as the distance before everyone on a journey or march needs a rest. He also adduces a modern parallel. « In American light infantry platoons soldiers are required to know the number of steps they need to walk 1 km. It is logical that the Greeks had the same practice: one man kept track of the steps he had taken and passed forward the count every five stadia or so. After 30 stadia everyone had a rest ». This is a practice which could result in some people acquiring a good instinctive sense of having covered a given distance. But in postulating it Williams has moved decisively towards the idea of the parasang as a spatially measured distance.

Herodotus indisputably regards the parasang as a spatially measured distance, one used both for road-measurement (where *half*-parasangs turn up: 5.53) and for land-surveying (6.42), and states the equation 1 parasang = 30 stades three times (Hdt 2.6, 5.53, 6.42). Other values can be found - 21 (the view of 6th c. AD Persians, Iberians and Lazi: Agathias 2.21), 40 or 60 (Strabo 518), 4

58. Artaxerxes' ditch = 12 parasangs to the Median Wall (1.7.15), the Median Wall = 20 parasangs (2.4.12), Larisa's circumference = 2 parasangs (3.4.7), Mespila's circumference = 6 parasangs (3.4.11). None of these is a very satisfactory estimate.

59. The Greek and Persian armies encamped one parasang apart during the joint-march (2.4.10). Armenians report the Persian army as one parasang away (4.5.10).

60. OLMSTEAD 1948: 157, 299, FRYE 1963: 128, LENDLE 1987: 25, MÜLLER 1994: 24. GRAF 1994 appears not to comment on the matter.

Roman miles (Tabula Peutingeriana) — but no surviving ancient source imagines that the parasang is not in principle an exact measurement. When Pliny 6.124 says different Persians give different values for the *schoenus* and parasang he means only what might be said of stades (cf. Strabo 518). It is not evidence for the « undefined parasang ». Xenophon makes no attempt to explain « parasang ». If he actually thought it was a measure of time, how did he expect the reader to understand this? To our knowledge the only previous explanation in a Greek source is Herodotus'. Could Xenophon rely on his readers having got a non-Herodotean view of the matter from some other — presumably quite familiar — source? It is hard to imagine what that source could have been. Hardly Ctesias — for it would be astonishingly bad luck for the tradition not to have preserved for us the information that Ctesias took an un-Herodotean view of parasangs.

It is worth explicitly contrasting the *farsakh* with the stade or the North American use of « block » (adduced in this context by DOVER 1970: 438) — both of which can provoke complaints of inexactitude. The stade and the block are visually defined « inexact » measurements. They arise because one can see a stadium or a block and carry the image in one's mind as a point of reference. But the *farsakh* is temporally defined. It is a hard to see why anyone should ever talk about a *farsakh* rather than an hour's journey — unless because the word originally existed to convey a precise spatial idea but degenerated into a time-indication because the institutional environment which had invented and defined the spatial *farsakh* (i.e. parasang) disappeared. (Compare and contrast the mile, which survived the demise of the Roman Empire because [a] Latin survived as a multi-national *lingua franca* and [b] the word mile displayed its own definition [thousand (paces)]. Even so Germans came to apply « Meile » to a distance much greater than a Roman mile.) I therefore agree with e.g. GABRIELLI 1995: 110 n.2 and I assume that when Xenophon spoke of the army marching five parasangs he was intending to make at least as « exact » a statement as when he or other Greeks spoke of distances in terms of relatively large numbers of stades.⁶¹ « Exact » does not, of course, necessarily mean « accurate », and HORNBLOWER 1994: 26f has recently stressed the elasticity of stade-measurement in Greek historians. In the case of Xenophon's parasangs, the suggestion of exactitude ought to be relatively credible so far as concerns the figures for army movements since Xenophon took part in those movements and the rates at which

61. Is it in the end reasonable to allow that the *beru* is an exact measure but insist that the parasang should not be? Whence the desire to keep Iranians primitive by Assyro-Babylonian standards? Incidentally is it just coincidence that 30 stades = one parasang and 30 US = one *beru*?

parasangs are covered in days of travel are heavily concentrated in a quite narrow range. The situation feels similar to that described by Williams (above).⁶²

1.2. Parasang, though a Persian word, so far survives from the Achaemenid era only in Greek. But (by way of slight excursus) we can recover from the Persepolis Fortification archive more truly Persian use of terms associated with two functions for which parasangs were — according to Greek sources — used: land-surveying and road measurement. (Measurement of large man-made structures is not represented.)⁶³

On the one hand we have officials called *karamaraš* (23 texts; 18 individuals known by name), men who almost always receive rations under royal authorization, and whom STOLPER 1977 (dealing also with Babylonian attestation) connects with land-registration and the tax-regime.⁶⁴ On the other hand we have 22 texts covering 13 named individuals which speak of people « counting » or « computing » roads or use the title *dattimara* (and variants) or *KASKAL hašira*, interpreted by Hallock as « road-counter ».⁶⁵ In nearly half of these texts (covering seven of the individuals concerned) the title or reference to road-counting is found in conjunction with *ištibara* or *irtibara* or *irištibara* or *šikak kutira* (all translated « spear-bearer »), a term which also appears by itself in a further 12 texts involving eight individuals in addition to those appearing in « road-counting » texts.⁶⁶ Both categories of person virtually always travel with a royal

62. Things are different with other people's estimates of man-made objects (cf. n. 58).

63. Published tablets appear in HALLOCK 1969 and (with PFa numbers) HALLOCK 1978. Information about unpublished Persepolis Fortification tablets (with references in the form V-2041) derives not from the tablets themselves but from copies of R.T. Hallock's working transcriptions. These transcriptions are of high quality and accuracy but not fully collated or verified. A similar *caveat* applies to unpublished tablets originally read by Cameron which retain Fortifications numbers, and to unpublished Aramaic dockets read by R.A. Bowman.

64. 779, 1245, 1256, 1277, 1537, 1988, 2050; PFa 29; K2-207, K2-308, K2-1370, K2-2101; P-1377, P-2319, P-2556, P-2558; Q-211, Q-493, Q-1027, Q-1552, Q-1673; V-2261, V-2655.

65. 1284, 1307, 1567; PFa 15, PFa 19, PFa 21, PFa 22, PFa 30, PFa 31; P-481, P-588, P-844, P-1863, Q-621, Q-937, Q-1219, Q-1647, Q-1814, Q-2525, V-2041; Fort.6749; Bowman 487. 19 texts use *datimara*, of which 8 also use *ištibara*. Only five texts (PFa 19, PFa 22, PFa 30, Q-1219 and V-2041) use Elamite verbal roots meaning « count » or « check » (cf. n. 68). Only one text (PFa 30) not only uses *both* titles but also describes the persons involved as « counting » a road, while three texts associate « counting » with *ištibara* (PFa 19, PFa 22, V-2041).

66. Road counters also called « spear-bearers »: 1307; PFa 15, PFa 19, PFa 22, PFa 30, PFa 31, P-588, P-1863; Q-937, Q-1647; V-2041. Additional « spear-bearers »: 1286, 1537 (with HALLOCK 1978: 114); PFa 23; P-1747, P-2465; Q-739, Q-900, Q-1189, Q-2522; V-2195, V-2265, V-2493.

halmi (PF 1537 and PFa 19 are the only exceptions, with authorizations respectively from Šaman [otherwise unknown] and Parnaka), and PFa 22 and PFa 30 bring groups of road-counters into direct personal contact with the King. In three texts (PFa 19, 22, V-2041: 15) people described merely as « spear-bearers » are said to « count the road ». Elsewhere such people are recorded inspecting royal sheepfolds (P-2465), making enquiries of the *markadarap* (V-2265: the man involved is also known as an « investigator » [V-1057]) and counting workers (P-1747 [« royal » workers], V-2493), so we cannot assume that all « spear-bearers » are (only) road-counters, and an entry in PFa 31 (which notes that Nakmanda the *irišibara* and his companions received wine and then adds « they are *datimarašbe* ») may show that « road-counters » are a subset of « spear-bearers » (*i.e.* road-counting is only one function of *išibara*) and that (*pace* HALLOCK 1978: 114f) the « spear » is not simply a surveying instrument.

Nonetheless « road-counting » is a function of « spear-bearers » and it is therefore interesting in our present context to find that Kamezza (a spear-bearer involved in road-counting in V-2041: 15) reappears with a group of *karamarašbe* in P-2556 and that PF 1537 (*cf.* HALLOCK 1978: 114) describes one Barnuš as *karamaraš* of the *išibara*.⁶⁷ Road-counting is at least part of the same range of official inspection, measurement and land-registration: and given the culture of exactitude displayed by the Fortification and Treasury archives it would be paradoxical, to say the least, to assume that either road-counting or land-survey were carried out in anything other than precise and well-defined units.

None of which, of course, establishes why « road-counting » might be necessary (land-measurement, by contrast, is unproblematic) — or frankly actually proves that it involved measurement of (long) distances.⁶⁸ One might

67. Just as a spear-bearer can count workers (P-1747, V-2493), so Ušbanuš the *karamaraš*(1245) is involved in « writing down the people » (Fort. 3562), an activity also associated with Daddama (1620), who elsewhere « makes enquiries » (1242-1243) and is called *pirrašakurra* = **frasakara* = « investigator » (Fort. 3568) — which in turn takes us back to the « spear-bearer » in V-2265.

68. KOCH 1993: 87 regards the operations of « spear-bearers » of PFa 30 and those of PFa 22,33 as specifically connected with royal journeys, *i.e.* they are checking out the road in advance of the King making use of it — more like security-staff than surveyors? Two Elamite verbal roots are used of road « counting »: one (*hašali-*: 3 occurrences) means « check, audit », the other (*muši-*: 2 occurrences) more exactly « count ». There is no apparent functional distinction between them here or in other contexts where both are used in the same context (*e.g.* in C2 texts). In Elamite *dat(i)imara* = OP **datihmara* (« Strassenkontrollleur »: HINZ/KOCH *s.v.*), the element *-hmara* is the same as in **karamara* (Elam. *karamaraš*: discussed immediately above) and **hmarakara* (preserved in Aramaic and Akkadian forms) = « accountant » (HINZ 1975: 86, 121, 147). In all these cases there may be some

wonder why road-measurement was still necessary so close to the heart of the empire at such comparatively late dates, though to ask that question is to betray possibly unwarranted assumptions about natural priorities — and the more one has to wonder why measurement would be necessary, the easier it is to believe that it might be delayed.

It would help to have better Babylonian or Assyrian analogies. The Assyrians' role as military road-makers (and indeed as developers of fast-courier systems: cf. GRAF 1994: 171f) particularly attracts attention but there is much less of consequence to show than one might hope — no evidence, for example, that building a road necessarily involved measuring it. (One can see in principle that defining sections to be built simultaneously by different groups of workers could require measurement, though presumably on a relatively small scale. More promising might be the definition of longer stretches of existing road for the purpose of assigning maintenance-obligations.) Figures in *beru* are not commonplace in Assyrian royal campaign narratives, but they do occur in reference both to army-movements and to other narrative-features;⁶⁹ WEIDNER 1966: 43 (discussing ADD 1096) postulates activity by Assyrian « Feldmesser » in S. Kurdistan; and there exists a late Assyrian description of the empire of Sargon of Akkad with quantified distances (VAT 8006: WEIDNER 1952/3, ALBRIGHT 1925) — a piece of up-dating which may also say something about Assyrian views of the contemporary world.

ambiguity as to whether the officials are counting things in the real world or checking other people's figures, but they cannot be dissociated from working with numbers. (I am indebted to Francois Vallat for advice on Elamite matters.)

69. (1) Esarhaddon's Bazu-country campaign (HEIDEL iii 11f; EPHA'AL 1984: 130f: cf. ARAB 2.520, 537): a journey through desert, salt-covered territory, without water 140 *beru* of land covered with sand, thorny plants and « gazelle-tooth » stone, 20 *beru* of snakes and scorpions which covered the ground like ants, 20 *beru* through Mount Hazu, the *hašmanu*-stone mountain.... « where none of my predecessors had gone ». (2) Esarhaddon (ARAB 2.557f): a series of *beru*-measurements in a lacunose text about marching from Egypt to Meluhha — partly desert, snake-ridden areas. (3) Assurbanipal: ARAB 2.823-825 [Rassam] has several *beru* measurements in an Arabian desert campaign. Single *beru* measurements appear in ARAB 1.785, 813 (Tiglath-Pileser III marching victoriously for 60 or 80 *beru* through Urartu), ARAB 2.20, 155 (Sargon pursues Uartians for 5 or 6 *beru*), ARAB 2.150, 163 (Sargon marches 30 or 12 *beru* in the Zagros). There are other miscellaneous items: ARAB 2.41, 70, 81, 92, 99, 185 (Uperi of Dilmun lives 30 *beru* away in the sea); ARAB 2.168, 210, 539, 544, 549 (a king comes 4 or 7 or 12 *beru* to kiss the king's feet or bring tribute); ARAB 2.163 (enemy's reaction when Assyrian army is a *beru* away); ARAB 2.170 (a waterfall audible for a *beru*); ARAB 2.254 (riderless chariots rushing about for 2 *beru*); ARAB 2.369, 377, 414 (1.5 *beru* canal); ARAB 2.851 (plain filled with corpses for 3 *beru*); ARAB 2.941 (60 *beru* of Elam laid waste); ARAB 2.989 (beacon set up every *beru*). VAT 9968 (WEIDNER 1966: 44f) provides unusually exact details of a trip from Assur to an area along Euphrates south of Mari (including figures in MAL).

In principle it is easy to say that the merit of exact road-measurement is that it provides a basis from which journey-times can be estimated (a) for various types of traveller and (b) in isolation from local informants at any particular point on the route. The knowledge that it is 450 parasangs from Susa to Sardis and of the lengths of the component parts of the road allows anyone to estimate how long all or parts of the journey would take for *e.g.* a horseman or an army — or any traveller(s) in fact who do not simply stop each day at the next of the 111 *katalusies* — and the longer the distance to which the estimate applies the more useful it is, since variations of terrain and so forth will tend to even out. But why such estimates might be thought to matter is impossible to know. Possibly it is a matter of attitude of mind, rather than specific need. One can see that it might not be particularly alien to the mentality of a king who had acceded in circumstances that stressed the vulnerability-through-size of his realm and who in other respects too was concerned to reduce imperial management to measurable order. Perhaps we see here the lineaments not so much of the *kapēlos* as the *emporos*. Or perhaps (more generally) we should stress that to measure and number things is to increase one's control over them.⁷⁰

2. Possible sources of *Anabasis* parasangs

2.1. Pre-existing Greek publications. In this view the parasang figures are inserted into Xenophon's personal narrative (however that was created, whether with or without camp-journal or private diary etc.) at the point of final composition. Opinions differ as to source: BREITENBACH 1966: 1650f postulated a periegetic document, CAWKWELL 1972: 22 spoke of Ctesias, MANFREDI 1986: 14 names Sophagenetus.

2.1.1. The Sophagenetus hypothesis simply shifts the problem: for « How did Xenophon get parasang figures » read « How did Sophagenetus get parasang figures ». Of course all hypotheses about external written sources shift the problem: such sources have to have acquired their figures from somewhere, and ultimately someone has to have measured a series of roads and recorded his results. There is always the question of who that someone is. But the Sophagenetus version shifts the problem in a relatively futile fashion (from one member

70. Hipparchus' Herms (cf. n. 76) reflect Peisistratid affirmation of centralized control in Attica. Roman milestones did the same thing on a much larger scale. For discussion of the interplay between quantification and imperial success in mediaeval/modern Europe cf. CROSBY 1997. Also relevant is NICOLET 1988, though mostly concerned with Roman phenomena which are more analogous to Persian royal inscriptions / iconography or archival practices. Quint.4.5.22 charmingly says that milestones help relieve fatigue by showing how much of a journey is accomplished, but such sophistication is only possible in a world already full of milestones.

of Cyrus' army to another) and so need not be discussed separately at this stage. In any case it is advanced only as an explanation for *Anabasis* I.

2.1.2. CAWKWELL 1972: 22 appears to assume *Persika* XXIII was a substantial geographical discourse. For this there is no clear evidence. 688 F 33 (from XXIII - Photius) merely says the work ended with the number of stathmoi, days, parasangs from Ephesus to Bactra and India and with a list of kings from Ninus to Artaxerxes. Also relevant, perhaps, are FF 53-54 from *On the Tributes of Asia* (quoted on the King's Dinner and — alongside two of Alexander's bematists — on the character of the Tapurians) and FF 55-60 from something variously called *Periodoi*, *Periēgēseis*, *Periploi* and *Periplous Asias*, a work quoted *inter alia* for the River Irus, the Colchian Amaranta Mountains and Paphlagonian Tirizanoi (immigrants from European Thrace), though also for Egypt, Umbria and the Skiapods of (?) Libya. But it is hard to summon much enthusiasm for the idea that either of these could have provided Xenophon with systematic quantitative information about precisely the routes he happened to be interested in (cf. 2.1.7).

2.1.3. Breitenbach 1966: 1650f says nothing about what sort of source he actually envisages (beyond mentioning Herodotus 5.52 as an example of a historical text derived from a « map with distances » — an annotated version of Aristagoras' map?). One reason advanced for inferring use of a periegetic source is the fact that Xenophon's parasang-record relates to areas within the empire where the army can be supposed to be moving on well-made « official » roads with stopping places (like Herodotus' Royal Road). Xenophon's persistent failure to refer to stopping-places might tell against this. But the caravanserais were irrelevant to an army's needs, and Herodotus' information implies that *katalusies* were not disposed along the Royal Road at a fixed number of parasangs. So mentioning parasangs did not imply any need to mention *katalusies*. Of course, Breitenbach's initial premise (parasangs correspond to imperial areas; lack of them to non-imperial areas) may be vulnerable. There are no parasang-measurements among the Carduchi. But is this because that area was not — never had been? — under Achaemenid authority and provided with (measured) official roads or because the mercenary army's passage through it was strenuously resisted with the result that information about distances travelled was not collected?

2.1.4. A particular descriptive formula for city-sites (involving use of *oikoumenē* etc.) runs through the same part of text as parasangs (i.e. as far as Trapezus).⁷¹ Subsequent Euxine cities just have a « Greek colony in land of GN » formula — which is also applied to Trapezus (i.e. Trapezus is described in

71. On this formula cf. GEYSELS 1974, though I am not entirely happy with his argument. (I shall return to this elsewhere.)

both ways).⁷² This pattern *might* be adduced in favour of a thesis which derived the parasang figures and the *oikoumenē* formulae from an existing descriptive text. But both the *oikoumenē* formulae and the parasangs could equally well be Xenophon's.

2.1.5. In *Anabasis* parasangs and *stathmoi* essentially go together — *i.e.* one almost never occurs without the other.⁷³ This highlights the extent to which the parasang framework is the same as the march-record framework and highlight the difficulty of thinking Xenophon has artificially glued externally supplied parasang-figures to his private march-record — or at any rate that this hypothesis could really be separated from the idea that Xenophon invented the figures.

2.1.6. Those passages where parasangs are used of things other than army-marches can be compared with passages in *Cyropaedia* which use parasangs (2.4.21, 3.3.28, 4.2.20, 6.3.10) and contrasted with ones in *Anabasis* which use stades,⁷⁴ and the conclusion is that in *Anabasis* Xenophon normally uses stades for these sorts of statements except in cases where he is consciously reporting what foreign informants told him. The interesting exception is 2.4.10: the Greeks and Tissaphernes are marching in the same direction with Tissaphernes in front, and Xenophon gives the distance between them as a parasang. I suggest that the contrast between this case and 1.10.4, 3.4.34, and 3.4.37 (where stades are used, but not in relation to armies marching together) illustrates the close association in Xenophon's mind between marching inside the empire and measurement in parasangs; and I suggest that it is more likely to reflect the terms being used around him at the time of the events in question than to be due to artificial importation of the term into his discourse at a (much) later stage. But I suppose it is conceivable that awareness of the use of the term at the time prompted him later to search out an appropriate periegetic source.

2.1.7. The *periēgēsis* hypothesis implies a source which covered all the routes Xenophon and his companions happened to use. Perhaps we can (just) accept that (if we can accept that a source of the relevant type existed at all)

72. Of Sinope it is said *Sinopeis oikousi en Paphlagonian land* — but that is different from the formula which describes cities as « inhabited » <not inhabited by anyone>.

73. Parasangs without *stathmoi* appear only in 1.7.20 + 1.10.1 (parasangs are only produced afterwards; and it is contextually clear that there is one *stathmos*) and 4.4.1 (contextually obvious that it is one *stathmos*). *Stathmoi* without parasangs: 2.4.12 (3 *stathmoi* to the Median Wall), 3.4.23 (not a straightforward formula passage), 4.6.1-2 (not formula). 4.6.4 is the only time when the formula says « x *stathmoi* at y parasangs per day » instead of « x *stathmoi*, y parasangs ». So although the parasang figures are strongly associated with the framework of *stathmoi* they are, numerically speaking, independent.

74. 1.10.4, 3.4.34, 3.4.37, 4.6.6, 4.6.11, 5.4.31, 6.3.2, 6.3.20, 6.5.32, 7.2.17, 7.3.7, 7.5.15.

— though some will think Thapsacus-Pylae a strange thing to find in such a text, and it is not clear that the Opis/Sittace — Carduchia section was entirely executed along the « main » road. One can see how Xenophon is supposed to have exploited such a source in *e.g.* the Anatolian section, where the army passes a series of settlements which ought to have been easy to identify in a *periēgēsis*. But what do we make of the Armenia to Trapezus section where in a very extensive space we have one named settlement (Gymnias), four rivers (Centrites, Phasis, Teleboas, Harpasus), one named mountain (Thekes) and a series of tribal names and where there are several examples of a phenomenon also encountered elsewhere, *i.e.*, parasang-measured marches with no named terminus? No detailed document which dealt with the same route as the one the 10,000 actually followed should have left Xenophon producing such a vaguely defined picture. But if he was starting with something no more detailed than Herodotus 5.52 (which does work with [large-scale] tribal names and rivers), then *Anabasis* 4.4.1-4.8.22 must have a considerable element of artificiality (for how could Xenophon possibly have *known* what the figures the document provided had to do with the route he had followed?) and one wonders why the desire to include parasang measurements was powerful enough to make this artificiality tolerable.⁷⁵ Perhaps we should adduce literary tradition (cf. 2.2.1).

2.1.8. More generally, if Xenophon was prepared to engage in artificial reconstruction, why are there any loose ends at all (*e.g.* stretches — even ones outside Carduchia — in which parasang measurements are missing)? How do we end up with the isolated pair of parasang measurements between the Zab and borders of Carduchia (for Larisa to Mespila and Mespila to some anonymous villages)? This makes no sense against background of a Herodotus-like periegetic document (why not break down a global parasang figure for Zab to Carduchia into « reasonable » components?) and little sense against the background of a detailed periegesis (why not use its information throughout — or, if he thought the periegesis deviated from his route, revert again to estimation?). Again, if he could judge that it was 4 parasangs from Pylae to somewhere beyond Artaxerxes' Ditch — a landmark which on Xenophon's view should not exist in any periegetic document from before 401 — and report that it was 4 parasangs from the *stathmos* before Cunaxa to Cunaxa itself, why could he not judge how many parasangs it was from the spot beyond Artaxerxes' ditch to the *stathmos* before Cunaxa?

2.1.9. The distance of four parasangs from Cunaxa to the previous *stathmos* is actually given as a parenthesis in the battle-narrative (not in a march-formula) and is qualified with *elegonto* - « it was said to be 4 parasangs ». Use of *elegonto*

75. It should, of course, be noted that this section presents the greatest difficulties in terms of modern topographical location, and that some investigators think a substantial amount of time and distance has gone missing from the record hereabouts (cf. MANFREDI 1986: 207-223).

(in any context) shows that (a) for some reason Xenophon wishes to draw attention to the fact that the material comes from hearsay and (b) the hearsay was current at or close to the time of the relevant event. So the estimate of 4 parasangs was contemporary but was hearsay, whereas every other parasang figure relating to distances marched is stated without qualification.⁷⁶ So *either* all other such figures were not « hearsay » (*i.e.* Xenophon for some reason regarded them as a piece of direct knowledge on his part, either because he had literally measured them himself (!) or because he derived the figure directly from someone else who had and whom he trusted) *or* they were in fact hearsay but in a frequently repeated formulaic context he decided not to mark the fact. In the latter case *elegonto* in 1.10.1 effectively marks *all* parasang figures (whether before or after Cunaxa) as contemporary hearsay — which at least guarantees that Xenophon is not copying figures later from an unrelated written source. In the former case we need to explain the distinction in status of the figures. What is implied is that the 4 parasangs for return to the camp before Cunaxa was a figure supplied contemporarily but not by the same person(s) or in the same way as normal figures. In effect this means *either* that that day's march had not been measured the way others were (and so Xenophon resorts to quoted *estimates* of the distance) *or* that any measurement there had been was for some reason not as directly accessible to Xenophon as usual (and he therefore reports it as hearsay). The second of these options strikes me as unconvincing (it makes Xenophon unduly hypercritical). The former is conceivably sensible, since the days immediately before the battle had been marched in careless fashion (1.7.19f) and are not provided with parasang measurements; and the Greeks retraced the last *stathmos* in the dark (2.2.7). Perhaps everyone had got too relaxed before the battle and was too alarmed after it to carry on measuring or noting any existing measurements — but that is an explanation which assumes that actual measurement was going on or that there were parasang markers visible along the road; it will not be consistent with any hypothesis about a periegetic document which might precisely have usefully filled in figures not noted at the time, if it could usefully be used at all.

2.1.10. It seems to follow from any rational reading of 1.10.1 that Xenophon was not using a pre-existing periegetic document. But other considerations outlined above, though supportive of the same conclusion, are hardly decisive.

2.2. What are the alternatives? If the parasang figures were not supplied from an entirely independent Greek publication and if we grant that a « Persian »

76. Contrast *elegeto* of the length of Median Wall. The figures for Artaxerxes' ditch and the circumference of Larisa and Mespila (cf. n. 58) are given without qualification. But the length of the Artaxerxes ditch (1.7.15) must be a matter of hearsay, and the other two probably are too.

publication could not be directly accessible (except in the special sense discussed under [c] below), there are five possibilities. All are problematic:

- (a) Xenophon invented the figures.
- (b) He counted hours of march, then reported them as parasangs.
- (c) He took the figures from road-side records — *i.e.* milestones.
- (d) The army contained bematists of some sort who measured the trip in stades and Xenophon turned their results into parasangs.
- (e) The army contained bematists who measured the trip in parasangs and Xenophon reported their figures in that form without trying to hellenize them.

2.2.1. Option (a) need not be an arbitrary exercise: Xenophon may have known that a parasang is 30 stades or that 5 parasangs a standard day's travel and applied this knowledge to his own records or recollections of the march. There is in fact considerable consistency of daily rates of march in parasang terms. (Low figures are certainly easily explicable in terms of the particular events of the parts of the march where they occur, high figures less obviously but still possibly so.) The phenomena *might* be consistent with the idea that Xenophon supplied parasang figures artificially on a basis of normal rates in the 5-6 range with adjustment up or down when he remembered some particular reason for doing so. But the hypothesis encounters various problems. (a) There is the problem we saw in 2.1.8 — namely gaps in the parasang record which seem inexplicable if Xenophon was inventing all of the figures anyway. (b) There is the question of why Xenophon should bother to invent parasang figures in the first place. The answer would have to be that existing literature (Herodotus 5.52f; Ctesias) prompted the idea that journeys in the empire ought to be so described.⁷⁷ But if

77. The existence of such figures for terrestrial routes was probably a cultural *differentia*. The way Herodotus cites the distance — given rather precisely as 1485 stades — from Athens to Olympia as measured from the Altar of the Twelve Gods (2.7) could suggest it was the zero point for a series of road-measurements. But most might be strictly local Attic — cf. Hipparchus' marking of the half-way point of roads to demes with Herms (Ps.-Plat. *Hipp.* 228Bf, CEG 1.304, CROME 1935) or CEG 442 = IG II² 2640 = IG I³ 1092bis, a 5th c. epigram (c. 440/430) giving the distance from the harbour to the Twelve Gods' Altar. The long-distance route in Hdt. 2.7 was obviously special: it might authorize the inference that measurements existed for Athens-Delphi but not necessarily for Athens-Sparta. (SALVIAT/SERVAIS 1964 publish a 5th c. Thasian « milestone » giving distances in *orguiai* from the city to (Alik) and to « the Diasion in the Demetrium ». Again religious sites are involved.) Thucydides and Herodotus (speaking of Greek contexts) almost never provide exact figures for terrestrial distances above 120 stades: the Athens-Pisa figure is one exception. The other is the estimate of Pylos - Sparta as 400 stades (Thuc. 4.3): an unusually long distance (though inaccurate) — but one which equally unusually for mainland Greece lay entirely within the territory of a single state. (Even in Herodotus' descriptions of non-Greek contexts, where figures over 120 stades occur several times, the only items strictly relevant here are the Royal Road description itself, and reports of distances Helioupolis-Thebes, Thebes-Elephantine [2.9] and Ardericca-Susa [6.119].) It was inevitable, given political

Xenophon is trying to satisfy his readers' expectations arising from such literary models why does he not take the trouble to say at least something about *katalusies*: such places may have been practically of little significance to the army, but they were part of the literary model. (c) There is the fact that for so much of the time a reasonable interpretation of Xenophon's narrative in terms of the real topography of regions traversed implies a very consistent value for the parasang: that is, there is arguably a degree of accuracy (as well as exactitude) which seems to exceed what could be achieved by even well-intentioned invention. (It certainly exceeds that disclosed by the selection of stade-measurements from other Greek historical texts discussed in Hornblower 1994: 26 — and they are figures which are in principle deemed to be exact measurements, not inventions.)

2.2.2. Option (b) is no doubt feasible, always assuming that a parasang does correspond to an hour's journey — a proposition for which there is no ancient evidence — and that there is any reason for Xenophon to have counted the hours in the first place (not an entirely straightforward activity in ancient conditions). That, having done so, he might convert them into parasangs could, of course, again [cf. 2.2.1] be due to « literary » expectations.⁷⁸

2.2.3. Option (c) supplies the simplest means for Xenophon to acquire the relevant figures, since markers along the road every parasang would relieve the traveling observer — whatever his motive for observation — of the bother of counting either hours or paces. (They would also, for example, be very useful in identifying particular sections of road for maintenance purposes.) But it runs up against the paucity of independent evidence for « milestones » before the Hellenistic era (when they turn up with Greek inscriptions in Macedonia, Anatolia and the vicinity of Persepolis [CALLIERI & BERNARD 1995], with Greco-Aramaic ones at Pasargadae [LEWIS 1978] and with Aramaic ones in Mauryan Afghanistan [LIVSHITS-SHIFMAN 1977]).⁷⁹ The claim that « parasang » comes from **frasanhva-* = Anzeiger, Verkündiger, indicator (Marquart: cf. SCHMITT 1967: 138; HINZ 1975: 97) is relevant here. Indeed the suggestion that the parasang as unit of length not

fragmentation in Greece, that no single consistent list of long-distance measurements could exist.

78. Mechanical transformation of hours into stades has been postulated of Nearchus (BRUNT 1976 ii 523f), perhaps a result of the passion for « exact » figures on the part of Alexander also evinced by his deployment of bematists (PEARSON 1966: 144).
79. The Mauryan one uses a unit (the « bow ») which on some reckonings is one hundredth part of a parasang and contains a word, *karapaty*, which may be the Persian for « army-road » or « public road » (**kara-pathi*). The location of the two inscriptions is strikingly consonant with Megasthenes' report that milestones appeared at 10 stades intervals (Strabo 15.1.30). The optimism of SALVIAT-SERVAIS 1964 about pre-Roman milestones in Greece essentially refers to hellenistic contexts.

only might be registered on some sort of road-side notice but actually presupposes « milestones » at parasang intervals is exactly what we want to hear — for it maximizes the chance that they would be widely encountered and could be postulated of all the areas in which Xenophon uses the term parasang. But is the etymology — or rather our understanding of what the etymology signifies — sufficiently certain to bear the weight of inference that we are wanting to place on it?⁸⁰ If building and measuring roads asserts the existence of a central power, then erecting even simple parasang- markers (the simpler the better from our point of view, to account for non-survival) makes this assertion visible through a form of subliminal advertising. This is not in itself alien to the *mores* of ancient near eastern empires, but is that a cogent enough reason to call into existence what is archaeologically a null class?

2.2.4. Options (d) and (e) both require us to postulate exact measurement of the route (by Greeks and/or Persians in Cyrus' army) in the course of the campaign. Such a practice is attested of the bematists in Alexander's invasion force but not explicitly (as far as I am aware) of any earlier Greek or Persian army.⁸¹ Option (d) also poses (again) the question of why Xenophon turned stades into parasangs (cf. 2.2.1, 2.2.2). Option (e) would naturally imply that the bematists in question are Persian (otherwise why count in parasangs?). This cannot be the case after Cunaxa, but we could say that the Greeks picked up a Persian habit. Yet, it is odd, if this *was* a Persian habit — or even just a peculiarity of the younger Cyrus' army — and if there was any good reason for it (a reason good enough for the Greek mercenaries to imitate it in trying circumstances), that it leaves no impact on the passages in *Cyropaedia* which deal with army marches. (Road-makers, by contrast, do appear: 6.2.36.)

The essential problem is that it is difficult to think of any good reason why the mercenary army — either before or after Cunaxa — would want to measure the distances it was covering. There is simply no discernible way in which it could assist the army to achieve its goal of making Cyrus King (before Cunaxa)

80. WIESEHÖFER 1982: 11 takes the etymology to prove the existence of milestones. Some dim perception of the etymological sense seems present in those fr. of Sophocles (125, 520 Radt) and Euripides (686 N) where *parasanges* allegedly meant « messenger » and in Hesychius s.v. *parasangilogoi* (? read *parasangei: angeloi*): cf. GRANTOVSKII & IVANCHIK 1995: 167. In Williams' terms (1.1) the parasang could be the point at which someone announces it is time for a rest. Then again in CHEVALIER 1976: 39 I find the following: « there were also *lapides tabularii* [sc. as well as milestones], stadia stones....The connection with the word meaning messenger (*tabellarius*) has led to them being interpreted as mounting stones for horsemen ». (Plut.*C.Gracch.* 7 refers to such mounting stones.)

81. Information about Alexander's bematists is less good than one might wish (cf. *FGH* nos.119-123; PEARSON 1966: 261; ENGELS 1978: 157f) but their existence is not in doubt (cf. FRASER 1994: 174f — sceptical as he is about the idea of a wider, Napoleon-like scientific entourage).

or getting safely home (after Cunaxa). Of course, one might at first sight say the same of Alexander. But we more readily accept his bematists partly because of other indications that his army contained « scientific » observers (but cf. n.75), partly because he was engaged from the start in the conquest and possession of an alien empire (or we are readier, if necessary, to assume that he was). So far as Cyrus is concerned our best bet might be to say that measuring the route was a strictly inessential task which he chose to have done because the route he was following was not the Royal Road and had therefore not been measured; and that the idea of this piece of disinterested enquiry appealed to someone in the Greek force (Xenophon?) enough for it to be continued even when Cyrus was dead and gone. But it is obviously very hard to make this sound terribly convincing.

2.2.5. One is left with the frustrating conclusion that every available explanation is or sounds unappealing. My instinct remains that the figures *are* real — the results of someone having carried out exact measurements — and that the « milestone hypothesis » may in the end be the least bad explanation of their origin. I am encouraged by Professor Briant's readiness to say during the discussion at Lyon that he was comfortable with the idea of milestones. But, whereas in matters transcendental and spiritual, those who believe without seeing deserve *makarismos* (*John* 20.29), in matters three-dimensional and archaeological there is no substitute for solid proof.

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