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The Persian Charts of the Greek Historians*

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ABSTRACT: In their nascent efforts at documenting and analyzing the past, the Greek historians of Persia, beginning with Herodotus, if not Hecataeus as well, were influenced by the intellectual strategies of the Achaemenids for managing their empire and its past, present and future history. The current contribution demonstrates that the Greek historians appropriated and experimented with the chart, with its penchant for rigorous, even obsessive categorization of people and resources, as an organizational format characteristic of Persian imperial administration. First I illustrate the pervasiveness of the charting impulse in the day-to-day imperial bureaucracy and the programmatic royal inscriptions of the Persian Empire. Secondly, I explore the engagement of Herodotus' *Histories*, Ctesias' fragmentary *Persica* and Xenophon's *Anabasis* with this writerly, typically Persian technique against these texts' oralistic backdrops and argue that the historians' respective treatments and uses of the chart correspond to their apparent attitudes towards imperialism and its technologies.

KEYWORDS: Achaemenid Persia, bureaucracy, empire, historiography, Ctesias, Xenophon.

In spite of the Herodotean legacy of separating the European West from an orientalized East, with echoes up to the present day,[1] the artificiality of such a boundary has already been highlighted by Arnaldo Momigliano, whose early interest in intellectual and cultural transfer across geographical boundaries, including from the Persian Empire to Greece, paved the way for the interdisciplinary cooperation that characterizes Achaemenid studies and, indeed, the modern flood of connectivity studies on the ancient world more broadly.[2] Momigliano

* It is a great pleasure to acknowledge here the invaluable and wide-ranging support which I have been fortunate to receive while working on this contribution. I am indebted to Paul Kosmin, John Dillery and Mark Schiefsky for their extremely useful comments and advice on the earliest versions of this paper. I am grateful to the Herodotus Helpline for the kind invitation to present on this topic in May 2021, and to individual members of the Helpline for their keen insights and bibliographical help, with special thanks to Paul Demont, Thomas Harrison, Elizabeth Irwin and Christopher Tuplin. The two anonymous reviewers also provided excellent suggestions and criticisms, which I hope I have been able to answer at least in part. I also thank Charles Bartlett for talking through aspects of this article with me. All errors of judgement, of course, remain mine alone.

[1] See especially Whitmarsh 2016.

[2] Momigliano 1975, with treatment of Greece and Persia at pp. 123–49. One may also compare the caution of Lewis 1985: 104 against treating Greece and Persia as if there were 'a political and linguistic iron curtain between' them; cf. Asheri 1983 esp. at 15–7. The anonymous reviewer reminds me that Momigliano's synthetic, cross-cultural interests can be traced back further in time. For both Burkert 1992: 1–6 (at p. 3; cf. Burkert 2004: 3) and Henkelman 2006: 808–9 (at p. 808), Eduard Meyer's scholarship, and particularly the broad purview of his *Geschichte des Altertums* (1884–1902), stands at the head of this tradition; indeed Momigliano 1966 [2012]: 25 proclaimed that 'of the historians of [his] time only Eduard Meyer has attempted to assess the place of the Persian empire of the Achaemenids in the formation of the civilizations of the Jews and of the Greeks.' For his part, Meyer 1911: 211, in writing the history of ancient Iran, looked back to Theodor Nöldeke's *Aufsätze zur Iranisches Geschichte*

was specifically interested in the Persian Empire's effects on the emergence of history-writing in Greece and in Yehud. Here it is useful to reconsider some observations made first in his 1961–1962 Sather Lectures and again in 1965.[3] In these contributions he pointed to several traits of post-Persian War Greek and post-exilic Jewish historiography, which he regarded as departures from previous modes of representing and accounting for the past among the ancient Greeks and Jews respectively. Among these novel features were several that characterize Achaemenid Persian (and other ancient Near Eastern) historiography and record-keeping, such as an awareness of 'elements of Eastern, and particularly Persian, story-telling', or narrative techniques,[4] an 'autobiographical style',[5] and some degree of influence exerted by the bureaucratic and archival habits of the Achaemenids.[6] While these characteristics amount to positive influences on the beginnings of history-writing in Greece and its new developments in Yehud after the Babylonian exile, Momigliano posited that both of these historiographical traditions independently represent a reaction against the Persian Empire.[7]

In an ongoing project, I return to Momigliano's early sketches and elucidate more fully, and with the benefit of scholarly insights from the intervening sixty years, some of the ways in which the first Greek historians, and particularly the Greek historians of Persia, were influenced by Persian intellectual systems for figuring the past. Even today there is a tendency to treat the emergence of history-writing as a distinctively Greek phenomenon, as another aspect of the 'Greek miracle' — and it is true that explicit methodological self-reflection first occurs in Greek writings about the past.[8] On the other hand, as Momigliano emphasized, this genre develops in the context of interactions with the Achaemenid Persian Empire.[9]

One avenue of Persian influence which Momigliano pointed to is the bureaucratic documentary habits of the Achaemenids. In the present contribution I examine the Greek historians' receptions of Persian imperial bureaucratic practice, with particular attention to the interface between these materials and narrative contexts. Building on the influential work of Oswyn Murray,[10] I argue

(Leipzig, 1887). For the current wave of connectivity studies, see e.g. Vlassopoulos 2013 (itself originally spurred by Momigliano 1975, as indicated on p. xiv), and such ongoing initiatives as NYU's Institute for the Study of the Ancient World and now Harvard University's Ancient Studies programme.

[3] Momigliano 1961–1962, published in 1990 as *The Classical Foundations of Modern Historiography*; Momigliano 1966 [2012].

[4] Momigliano 2012: 33.

[5] Momigliano 2012: 29.

[6] Momigliano 2012: 31–2.

[7] Momigliano 1990: 17; cf. Momigliano 2012: 25.

[8] See Machinist 2003; Hartog 2000.

[9] See also the second and third lectures in Momigliano's 1979 Grinfield Lectures, recently collated and made available online by Lea Niccolai, Antonelle Soldani and Giovanna Granata (= Momigliano 2016). I am grateful to Duncan McRae for bringing my attention to these lectures and for his useful insights on Momigliano's intellectual biography generally, and engagement with Greece and Persia specifically.

[10] Murray 2001 [1987], responding in turn to Momigliano's suggestion (in lectures presented in 1961 and 1965) of an Achaemenid influence on — or even impetus for — the quantitative

that one element of Achaemenid Persian discourse which Greek sources similarly evince is the practice of combining diegetic modes and subject matter hitherto compartmentalized for use in distinct categories of intellectual activity.[11]

In Darius' monumental inscription at Mount Bisitun (DB), writerly (or 'scribal'), bureaucratic documentary information is only awkwardly integrated into a narrative explicitly styled as an oral speech-act.[12] In his reading of Herodotus' *Histories*, one of the earliest large-scale presentations of Greek research on the Persians and other eastern peoples that survives to us, Murray detected in some passages a remarkably similar inconcinnity. For the famous Persian catalogues of Books 3 and 7, he posited the influence of a 'documentary mentality' which he regarded as 'not usual to Herodotus', nor, presumably, to other authors and texts which Murray would likewise have classed as fundamentally oral in nature.[13] Without here rehearsing Murray's arguments in full, we may note simply that his treatment left some room for the idea that a kind of 'documentary orality' could penetrate as far as Greece, if not so easily as the more abundant stream of Persianate narrative materials conformant to typical diagnostic criteria for oral transmission.[14]

I take a more liberal view of the extent to which a scribal mentality could infiltrate a Greek literary universe which is frequently characterized in its early stages as a sort of pristine sphere of rhapsodic and 'logopoietic' oral-performative craftsmanship.[15] The coalescence of various materials of 'oral' provenance in Herodotus' narrative has been amply documented. Herodotus' narrative teems with echoes and recontextualizations of Homeric story patterns, moral judgements, type scenes and language. These epic elements coexist with moralizing judgements from Athenian tragedy, oracular pronouncements from Delphi, plot types from international folktale and perhaps even local traditions of prose storytelling. I suggest here that such a nexus of 'oralistic' materials can, and does, also accommodate experimentation with the primarily scribal form of the chart — which I provisionally define as a documentary list with headings and an explicit

explosion and qualitative development of Greek and Jewish historiography (p. 35, with n. 42, citing Momigliano 1966).

[11] I hesitate to suggest that this aspect of Persian historiographical texts — and really only of the Bisitun Inscription — directly influenced Greek historiographical composition. At the present time I can, at most, only point to suggestive similarities.

[12] As I hope to demonstrate in a future contribution; for the awkwardness of DB's data points, and in particular its calendrical dates, see Tuplin 2005: 232–5.

[13] Murray 2001 [1987]: 37. For the *Histories* as an oralistic text, and for a characterization of the majority of its contents as a normative backdrop against which the Persian catalogues are here contrasted, as if they were intrusions into the narrative fabric of the text, see esp. p. 21 and n. 16, with bibliography at 17 n. 4.

[14] Murray 2001 [1987]: 38–44, esp. 40. See also Henkelman 2006 on Greek oral receptivity to Eastern materials.

[15] For the idea of Herodotus as the final member of a putative line of professional *logopoioi*, see Murray 2001 [1987]: 34 and Nagy 1990: 215–49 = Chapter 8; see however Luraghi 2001, 2006, 2009. See Möller 2001: 241–62, especially 252–4, with nn. 50 and 52, for a thought-provoking application of Murray's hypothesis to Hellanicus' development and refinement of annalistic chronography in a Greek context — a testimony, in her view, to an untraceable, but otherwise difficult to explain, intellectual indebtedness to the format and substance of Near Eastern royal annals.

summation (for example, a sum total of all items under one heading) — as a strategy for organizing and presenting information, and one that is strongly associated with Achaemenid bureaucracy.

I analyze instances of the documentary 'chart' as a specific subtype of list, as distinct from lists that (1) do not categorize their own contents according to one or more 'headings', whether actually inscribed at the head of a column or attached discursively to the list in question, and (2) do not culminate in some sort of summary, usually a sum total of the entries under one or more headings. For Umberto Eco, lists in general are characterized by their capacity for open-endedness and infinite extendability.[16] What I am calling the chart, by contrast, is a self-contained, closed entity whose finitude precisely makes it suited to bureaucratic and administrative use, since it functions as descriptive documentation whose summation is more important than its component parts (for example, the total sum of tribute at the end of an annual chart of individual contributions, whose headings might be 'imperial principalities' and 'amount paid'). I distinguish the chart from the sort of list frequently offered up in studies of ancient Near Eastern *Listenwissenschaft*, which may contain headings and proceed according to a rigorous and paradigm-setting logic or set of rules, but which themselves do not culminate in a usable sum total or an abstract expression of the principles governing their proliferation.[17] The most famous case is the Mesopotamian scribal lists which correspond to the Pythagorean theorem: the cuneiform lists provide, under discrete headings, the quantities *a*, *b* and *c*, such that $a^2 + b^2 = c^2$; but these lists of Pythagorean triples, which theoretically could be extended infinitely, are not capped off by a sum of the numbers in each column of the list (such sums would not be intrinsically useful anyway) or by an explicit formulation of the principle by which the numbers under the headings *a*, *b* and *c* are related.[18] The chart, then, is a utilitarian subtype of list, and one whose potential is most fully exploited when it is written down and available to reference.

For the chart as an administrative instrument, I adduce the receipts that make up the Persepolis Fortification Archive (PFA) texts, which document the movements and apportionment of food rations throughout the empire.[19] The

[16] Eco 2009: 9–18 distinguishes the 'list' from the 'form', which is not infinitely extendable; his discussion of 'pragmatic' lists (113–8), with their real-world referentiality, practical utility and ability to function as a type of 'form', is also apposite. Compare Goody 1977: 74–111 on the 'list' (analogous to my 'chart'), with attention to its containedness and its practicality. See also Kirk 2011: 10–7, 24–31, whose discussion of the potential extendability of some Homeric catalogues and differentiation of such material from 'inventories', lists which are clearly marked off at their beginning and end, has likewise influenced my approach towards different types of list. My thinking about these categories has been clarified by discussion with Paul Kosmin.

[17] On *Listenwissenschaft* see e.g. Smith 1978: 70–1, cited by Dillery 2015: 56 with n. 3, Goody 1977: 80–2, 93–9, Watson 2013: 486–7. For the non-utility of lexical lists (as the classic *Listenwissenschaft* type), cf. Goody 1977: 94.

[18] Damerow 2001. I am grateful to Mark Schiefsky for making me aware of this contribution. Of interest for the present study is Damerow's explanation of the Mesopotamian development in functionalist terms, i.e., as tables used by land surveyors.

[19] A great many of these texts were first published by R.T. Hallock, *Persepolis Fortification Tablets. The University of Chicago Oriental Institute Publications XCII* (Chicago, 1969). I have reproduced Hallock's texts and translations of tablets. See now the OCHRE database

mentality of the chart is evinced in the presentation of information both within a given document and across documents. Within single documents, we may find lists that correlate one category of quantitative and qualitative information (for example, the number of units of a certain commodity) with one or more separate categories (for example, the number of people to whom that quantity was distributed; further subcategorization of those people as for instance man/woman, adult/child, parent of a male child/parent of a female child), often with a summary total of quantities involved.[20] So for example PF 1236 charts the quantities of two types of grain (ŠE.GIG.lg and ŠE.X.lg) allotted to mothers of boys and mothers of girls, along with the total amount of each type of grain and the total number of mothers:

> 2 1/2 (BAR of) ŠE.GIG.lg (grain and) 2 1/2 2/2 (BAR of) ŠE.X.lg (grain), supplied by Marduka, Bakaradduš and his companion(s) acquired, and to each (of) 2 women (who) bore males was given 1 (BAR of) ŠE.GIG.lg (and) 1 (BAR of) ŠE.X.lg, and to 1 woman (who) bore a daughter was given 1/2 (BAR of) ŠE.GIG.lg (and) 1/2 1/2 (BAR of) ŠE.X.lg. In the 23rd year, first month. These 3 women are accounted (for at) Matannan (as) Paša (women) workers of (the woman) Irtašduna.[21]

This tendency to organize by 'headings' also determines the shape of documents which contain only one 'entry', so that different texts which register the same type of transaction conform to a sort of overarching template for the categories of information which they report (for example, the amount of a given foodstuff, name of official who supplied it, name of official who received it, purpose for which it was used, date).[22] I consider texts such as PF 1236 to be 'charts' even though they record these categories of information discursively; there are, however, PFA tablets which do present data within the graphic format of a table.[23]

of Fortification texts (which I have unfortunately been unable to access for technological reasons).

[20] For the range of possible categories, see e.g. number, species and sex of livestock slaughtered at PF 63; a list of quantities of different types of fruits designated as provisions at PF 644; even the age group of goats and sheep features among the categories that feature in PF 2007 (for which see the commentary of Hallock 1969: 66). Note that the summary total very frequently *introduces* a given text, rather than necessarily occurring at the end of a list of figures.

[21] [1]12 1/2 Š[E.GIG.lg 2 1/2] ŠE 1/2 X.lg kur-ma-in m 1/2 Mar-du-ka<-na> [3]m.Ba-ka-ra-ad-du-iš a-ak [4]m.akka-ya-še um-ma-ša [5]2 f.MUNUS.lg-ip GURUŠ.lg-na ku-ši-[6]iš un-ra 1 ŠE.GIG(!).lg [7]1 ŠE.X.lg hi *(sic)* du-nu-ka [8]1 MUNUS.lg DUMU.MUNUS.lg-na ku-[9]ši-iš 1/2 ŠE.GIG(!).lg edge [10] 1/2 1/2 ŠE.X.lg hi du-nu-ka 1/2 [rev.] [11]h.be-ul 23-um-me-ma [12]d.ITU.lg d.Ha-du-kan-nu-iš [13]3 f.MUNUS.lg-ip hu<-pi>-be m.kur-[14]taš f.Pa-šap f.Ir-taš-du-na-[15]na h.Ma-tan-na-an mu-[16]ši-ip.

[22] This observation about the 'shape' of given types of documentary text obtains in more than one sense: not only do texts recording a certain type of transaction contain analogous pieces of data, but the tablets on which they are inscribed are sometimes physically shaped, and internally formatted, differently according to the type of text contained. See Brosius 2003: 266–74, 282–3, and the recent observations of Stolper 2021: 7, 10–11 on the classificatory utility of visual markers and/or textual labels on the left edge of certain 'numbered tablets' in the archive.

[23] I thank the anonymous reviewer for making me aware of the existence of tabular PFA charts.

The PFA tablets provide a temporally and spatially specific snapshot of archival practice at Persepolis during the reign of Darius I, but Wouter Henkelman has shown that the bureaucratic systems to which these tablets attest were imported into other regional contexts according to a recognizable 'imperial paradigm'.[24] An important implication of this wide geographic and diachronic spread is the ubiquity of the imperial chart as an organizational technology. The use of the chart is not limited to receipts of the PFA type and analogous bureaucratic settings, however, but appears in quite another administrative context, specifically the dossier of letters sent to and from Aršāma, satrap of Egypt from at least 428 to 406 BC (to judge from the dates of the correspondence).[25]

In one of the letters (*TADAE* A6.2),[26] dated to 12 January 411, Aršāma reports to an official named Wahpremah on the inspection of a boat and subsequent recommendation for repairs.[27] The items needed for the repairs are presented in accordance with the logic of the chart as defined above. Like our exemplary PF 1236, this text is written in connected prose, but as Christopher Tuplin notes, three recent editions each 'present part of the text in tabular form, with headings and sub-headings'.[28] One of these editors, J. David Whitehead, even assumed an underlying, original chart, or multiple 'tables', as inscribed in 'official government estimate ledgers', from which the figures in the letter would have been directly copied — into the new graphical format of connected prose, complete with the contextual frame offered by the narrative of lines 1–9 and the instructions presented in lines 18–28.[29] Whitehead's attractive hypothesis is, of course, unverifiable; but the fact remains that the principles of the chart, and the related impulse towards rigorous categorization,[30] are present in the text in its current form. There

Tables appear particularly frequently among the 'Account' texts (or Type W) as designated by Hallock 1969: 57–69 (overview and discussion), 569–621 (transliterated and translated texts). Some of these texts, such as PF 1982, PF 1983 and PF 1984, consist entirely of a table followed by a notice such as 'This (is) the total (of) fruit at Tuppiruna, entrusted to Kullala the *apparnabara*. The account (for) the 18th (and) 19th years Mašika made afterwards, in the 19th year' (PF 1984, lines 14–19); others provide explicit summations of material presented in the table (e.g. PF 1986, rev. line 24, column iv, adding together figures from the five previous lines for a 'total 21 (*irtiba* of) fruit dispensed in the 18th year'). The editions of PFA tablets in Stolper 2021: 23–76 illustrate the tabular format of portions of these texts both in photographs of the tablets and in their transliterations.

[24] Henkelman 2017: esp. 169–74 on Arachosia; quotation at p. 173.

[25] On Aršāma, see now Tuplin and Ma 2020, a three-volume commentary on those letters from the Aršāma correspondence which are currently stored in the Bodleian Library.

[26] I am grateful to Christopher Tuplin for making me aware of this document.

[27] In addition to the edition as in *TADAE* (= Porten and Yardeni 1986) see also the editions of Whitehead 1974: 119–54 and Porten 2011. All references to this text make use of Porten and Yardeni's edition and translation.

[28] Tuplin 2020: 20 n. 58.

[29] Whitehead 1974: 122. On this basis he prints this part of the letter in tabular format, as being a restoration of 'the original ledger forms'. I note in passing the coexistence in this letter of notices of written composition ('Anani the Scribe is Chancellor; Nabuaqab wrote [it]', line 23; 'Sasobek wrote', line 25, in Demotic; 'Nabuaqab the scribe', line 28) with references to situations involving oral communication (the inspection of the boat) as well as oralistic formulas ('Mithradates the boatholder says thus', line 2; 'the Carians said thus', line 3; 'Arsames says thus', line 22).

[30] Cf. Tuplin 2020: 20 n. 58 on this point; for Tuplin, however, 'the bureaucrats' concern for

are five 'headings' encompassing four different categories of wood: namely, 'new wood of cedar and *'r*' (line 10), 'wood for the gunwale(?)' (line 12), 'wood of [old] strong cedar' (line 13), 'new cedar wood' (line 14), and 'wood of old cedar *ršwt*' (line 17). These headings are further categorized into four subheadings: item, location or purpose, quantity, and the measurement of each type in cubits[31] — though only one entry ('mooring post – for the prow(?) – one – two cubits', line 12) has all four components. Between the categories 'new cedar wood' and 'wood of old cedar *ršwt*' there even appears a sort of miniature chart which specifies the number and type of nails to be used: their quantities, purpose and lengths (lines 15–16), ending in a sum total of nails: 'all (told) nails: four hundred and twenty-five' (line 16). While no sum total of all the wood is offered, as for the nails, nevertheless the letter features a summary statement that 'these materials(?) are to be given into the hand of Shamou son of Kanufi, chief of the carpenters ... [sc. to make] repairs on that boat and let them make [them] immediately as order has been issued' (lines 21–22). Needless to say, the list is intended for a highly specific utilitarian purpose.

Not only is the chart a signature form of the day-to-day secretarial apparatus of Achaemenid imperial administration, as exemplified by the PFA tablets and the Aršāma letter,[32] but it is also sufficiently pervasive as to feature in official

specification of materials was not matched by a wholly logical categorization of those materials. Perhaps, of course, the fact that the text was not written in tabular form in the first place already points in that direction.' For the purposes of my argument, however, the charting impulse is the most important point. Indeed, I will argue below (in reference to Herodotus) that the mentality of the chart manages to communicate itself as an organizational principle or model, or even a stereotype, without necessarily being tied to specific (or correct) data sets.

[31] So analyzed and described by Whitehead 1974: 142, who likewise uses the terminology of 'subheadings' in his 'table'; cf. the four-column arrangement of Yardeni and Porten 1986: 99; similarly Porten 2011: 119–22, referring to the 'categories' (199 n. 37) of wood and maintaining the four-column arrangement.

[32] The anonymous reviewer calls my attention to two further exemplary instances of Persian charts. One is the customs account preserved, in palimpsest form, underneath a fifth-century text of the *Wisdom of Aḥiqar* from Elephantine (*TADAE* 3.7 = Porten and Yardeni 1993: 82–193, with discussion at xx–xxi; a translation with commentary also appears in Kuhrt 2007: 681–703). Yardeni 1994 reports on the text and its reconstruction from the fragmentary palimpsest, and in fact presents (at pp. 73 and 76) the templates (or 'formula[s]', p. 73) for the various types of entry; Lipínski 1994 corrects and refines several readings from Porten and Yardeni's edition; Briant and Descat 1998 offer a wide-ranging analysis of the text and its implications for our understanding of various Greek and Achaemenid economic and administrative practices; see now also the study of Folmer 2021, especially 269–86 on the organization of the document and structure of its entries, and pp. 277–8 for a standardized (and probably mentally internalized) template for the cargo lists. The Customs Account charts incoming and outgoing ships, the imperial taxes levied on them, and the commodities which they imported and exported. This information occurs in dated entries that span a ten-month-long sailing season (Porten and Yardeni 1993: xx, Yardeni 1994: 67, 69, Lipínski 1994: 66–7). A summation for the entire year occurs at the end of the text (Plate D, Verso, Columns 1–3, as in Porten and Yardeni 1993: 185–7), with summations at the end of each month as well (see Porten and Yardeni 1993: xx). For the practice of charting or listing movements of commodities over time, compare the Persepolis Fortification Archive's Journal (Category V) texts, as defined by Hallock 1969: 55–7 (texts at 522–69). Significantly, Folmer 2021: 296 argues that the paucity of Persian loanwords suggests that the Customs Account 'was not produced in a bureau that was under direct control

historiography. Its organizational and representational strategies are co-opted for the state-sanctioned historiographical production of Achaemenid scribes beginning with Darius I. The mentality and form of the chart underlies the presentation of materials in the 'summary' portions of the text of the Bisitun Inscription (DB). At DB §52, Darius recapitulates the names, ethnicities, royal claims/lies and territorial factions of the nine rebel liars, whose rebellions had been treated one by one in the foregoing campaign narrative section of the text. This concluding section caps off that narrative by collecting these salient categories of information into a unitary chart whose headings are made explicit in summary notices immediately before and after the list.[33] DB gestures towards the rigorous classification of the chart elsewhere as well: while Darius does not actually provide a sum total of his followers (that is, six) at §68, nevertheless each follower is individually inventoried according to the (virtual) headings of personal name, father's name and ethnicity (which in all cases is 'Persian', but is explicitly spelled out for each of the six). After DB, Darius' official propaganda continues to make use of this strategy and to exploit its capacity for serving as an index of organizational control. Darius' foundation-deposits at Susa (DSf, DSz) chart the provenance of materials used in the construction of the Apadana and the ethnicities of specialist craftsmen who worked those materials. I wonder whether this categorizing impulse goes beyond the medium of text to inform (or at least complement) the pictorial representation of stereotyped ethnic representatives of the lands subject to Persian control; the 'chart' form is realized through the anchoring of these graphic depictions to textual correlates in the form of labels (as at DNe, DSab, and A^{3}Pb).[34]

Having defined the chart and contextualized its prolific use in Achaemenid imperial administration and official historiography, I argue in the following case studies that Greek researchers of Achaemenid Persia evince some sort of awareness of the bureaucratic chart as an organizational form, and that they regard it as typically Persian.[35] As in the Achaemenid Kings' historiography of their reigns,

of the central Achaemenid administration'. Despite the local character of the document, its scribe(s) nevertheless reproduced a form typical of Achaemenid bureaucratic charting.

The second exemplary Persian chart, worth mentioning because it attests to an even wider geographical and cultural span for this phenomenon, is a fourth-century capitation list from Judea, published by Eshel and Misgav 1988 and interpreted as an Achaemenid taxation document by Heltzer 1992 (and also Lemaire 2015: 86). This list charts personal names and taxes paid, with sum totals provided in line 13 of Side A and line 7 of Side B (see Eshel and Misgav 1998: 164–5). See further Lemaire 2021: 332–4.

[33] Beforehand, at §52: 'I smote them and seized nine Kings' (*adamšiš ajanam utā navā xšāyaθiyā agṛbāyam*); after the list, at §53: 'these are the nine Kings whom I seized in these battles' (*imaį¹ navā xšāyaθiyā, taya¹adam agṛbāyam antar imā hamaranā*) and at §54: 'these are the lands which became rebellious' (*dahyāva imā , tayā hamiçiyā abava*), picking up the charted lies/claims responsible for the rebellions. For the Old Persian text, I have used Schmitt's 1991 edition of the inscription; translations are my own.

[34] See n. 79 below.

[35] As Lewis 1985: 104–9 outlined, explanatory mechanisms for the diffusion of Persian materials to Greek recipients range from the presence of Greek-speakers in the imperial bureaucracy to the evidently successful execution of Darius' program of publishing DB widely throughout the Achaemenid Empire (compare the copies of DB found at Babylon and at Elefantine). Rollinger and Henkelman 2009: 340–4 advise caution about the former proposition, though they ultimately affirm (at p. 343) that 'there can be little doubt that the milieu of the

the Greek historians juxtapose this structure with prose narrative or description. Accordingly, I will examine the forms and applications of the chart employed in Herodotus' *Histories* and Xenophon's *Anabasis*, two written texts whose engagement with the Achaemenid Empire relies on their audiences' familiarity with traditional poetry and with other types of 'oral' literature (for example, oratory and its forms and tropes). I also speculate about what Ctesias' practice may have been like. These Greek historians imitate Persian documents (in the form of charts), which are presented as authentic reflections of, or even direct products of, Persian administrative processes — such as when Herodotus lists Darius' tributary districts or Xerxes' troops. Alongside these strongly focalized lists, we also find Greek experimentation with the chart form in contexts where it cannot be straightforwardly motivated as a mimetic compositional exercise, that is, as a Persianate document strongly associated with a Persian agent for reasons of narrative 'flavour' and verisimilitude. Of particular interest are those cases where a Greek researcher manages to collect and organize information that properly belongs to the Persian King's administrative purview — as when Xenophon charts parasangs and stages through the *Anabasis*. These charts are sometimes set apart from the narrative and sometimes occupy the interstices of narrative, but they nevertheless stand in the text alongside materials that are oralistic by virtue of their engagement with recognizable oral/aural types of literature and/or which simulate oral environments, such as the delivery of speeches before an internal audience.[36]

chancellery at Persepolis was polyglot and that Greeks were in contact with that bureaucracy, or rather that they were on some level integrated into it.' For points of contact, see also the prosopographical study of Hofstetter 1978, as well as Miller 1997: 3–133 (with useful theorization of Greek receptivity to Persian cultural materials at 243–58), Briant 2002: 123, Burkert 2004: 99–109, Rollinger 2006, Rollinger and Henkelman 2009 (with specific reference at p. 345 to Greco-Persian trade interactions as attested in the Customs Account), Rollinger 2016. Asheri 1983: 15–82 enumerates and theorizes instances and processes of intermediation, with a specific focus on the 'intermediate band' ('fascia intermediata') or frontier zone in Western Anatolia between Greek and Persian spheres of political control; see already Mazzarino 1966: 166–72 for the suggestion of a Lycian-Persian, 'Harpakid' influence on Herodotus' story of Cyrus' accession.

[36] A salient consideration here is how the Greek audiences of Herodotus, Ctesias and Xenophon would have received the historians' essays in Persian documentation, especially when neither the historians nor their audiences would have ever seen a PFA tablet or other real administrative document from the Persian empire. While I have characterized the historians' charts as scribal and writerly, my definition of the chart does not exclude oral presentation of this material. As I will indicate later on, the charts' potential for usefulness is only *maximally* realized if we imagine them as written and consultable; but the fact that the chart can be — and in the Greek texts always is — presented in connected prose allows it to be communicated aurally as well as by the technology of reading. Even though the chart originates in a writerly and bureaucratic context, then, its flexibility between written and aural media means that there is no need to make a hard and fast distinction between these two modes. (For literacy and orality as a continuum during the Classical period, see Thomas 1992 and Kirk 2011: ix–xi). Likewise I do not dwell (with Havelock 1963; Goody 1977: 81 and 108–111) on the activation of any radically different quality of mind involved in the production and consumption of the chart as a written phenomenon in Greek historiographic texts. Instead I take a functionalist and formalist point of view: the chart is especially distinguished by its exploitability — e.g., to document actual quantities of food, record actual distances, provide specific numbers of troops or, as we will see, to simulate actuality by offering up this kind of information in this

While my examination of charts is oriented towards their Persian uses and connotations, the audiences of the Greek historians would have been exposed to the format already in a Greek environment.[37] As Kai Ruffing has rightly noted, a probable model for Herodotus' Persian Tribute List (which I treat as a chart below) is the monumental Athenian Tribute Lists on display in the city.[38] While Ruffing emphasizes that these lists were the 'inspir[ation]' for Darius' Tribute List in the *Histories*, I would characterize them as a sort of intermediary between Persian and Athenian imperial bureaucratic practice and, on the Greek side, as a development which contemporary historians of the Achaemenids would have seen as a Persianizing move.[39] Certainly this attitude towards the Tribute Lists and the Athenian imperial apparatus which engineered it underlies Herodotus' provocative description of the Persian levies under Darius as φόροι, 'tributes' (the terminology employed by the Tribute Lists) rather than as δασμοί, 'shares' (the normal technical term in Greek for payments made to the Persian King).[40] In spite of this incidental function as commentary on present-day Athenian imperialism, however, the narrative context of Darius' chart makes clear — as I will demonstrate below — that Herodotus associates the form with Persian administrative activity and the developmental history of Persian bureaucracy; any comparison with the Tribute Lists remains implicit.

The shared imperialist elements of the Athenian Tribute Lists[41] as a Greek model of the chart and of their Achaemenid counterparts account for the treatment of this form by the Greek historians of Persia.[42] Interestingly, despite these

format. Writing enhances the ability of such material to be referenced and cross-referenced but does not amount to a *sine qua non* for the construction and use of the chart. Conversely, the 'oralistic' materials with which I contrast 'scribal-bureaucratic' material are obviously accommodated by the medium of writing (in the historiographical texts under examination) but are not associated with imperial bureaucratic apparatus. Instead they are characterized by traditional story patterns and hallmarks of originally oral genres.

[37] For the Greek, and especially Herodotean, tendency to invest writing with Persianate (or generically Eastern) associations in general, see Steiner 1994: 127–85.

[38] Ruffing 2009: 334–5; cf. Ruffing 2018: 152 (whence his postulation that Darius' list was 'inspired by the Athenian Tribute Lists.') I am grateful to Paul Kosmin for suggesting that I engage with the Tribute Lists. The standard edition of these inscriptions remains Meritt, Wade-Gery and McGregor 1939–1950; though Kallet-Marx 1993: 164–70, 191–4, cited by Ellis-Evans 2019: 170 n. 42, exposes some problems with these editors' textual reconstructions and historical conclusions.

[39] Ruffing 2018: 152.

[40] Cf. Ruffing 2018: 152.

[41] On which elements see Ellis-Evans 2019: 169–71, who treats the fascinating phenomenon whereby, for ideological and political purposes, the Athenians included vastly more tributary cities, with higher payments, in the year 425/424 than actually paid tribute or even were commonly considered cities.

[42] As the anonymous reviewer notes, Thucydides' description (at 2.13.3) of the Athenian tribute — a description without Persian allusions — is entirely different from Herodotus' chart of tribute paid to Darius (again, a Persian chart expressed in terms of the Athenian technical term φόροι). Thucydides (in the voice of Pericles) does not list allies and their contributions, but merely provides the total amount of 'tribute' (φόρου) per year, and that with an explicit approximation: ἑξακοσίων ταλάντων ὡς ἐπὶ τὸ πολύ φόρου, 'six hundred talents of tribute for the most part.' Other potential sources of money for the Athenian war effort are listed (at 2.13.3–5), but these are capped only with the notice χρήμασι μὲν οὖν οὕτως ἐθάρσυνεν αὐτούς,

potentially negative associations, Herodotus and Xenophon are willing to use charts not only mimetically, to describe the operations of Persian Kings, but also to organize their own material; as we will see, these writers do so especially in textual environments that could either be construed as hinting at imperialist, that is, panhellenist, ambitions (Xenophon) or as attempting to demonstrate and warn against the nascence of imperial tendencies (Herodotus). The historians' acceptance of and experimentation with the chart[43] as an intellectual tool characteristic of the Achaemenid repertoire represents a more neutral attitude than is typical of their receptions — and overt problematizations — of some different strategies of Achaemenid historiography, namely, Persian uses of monumentality and the specific stance of the Persian historian as judge-king.[44]

I begin my examination of the Greek historians' reception of Persian charts by considering Herodotus' incorporation of this kind of material into the narrative framework of the *Histories*. Confidence in Herodotus' ability to use, let alone generate, such scribal-bureaucratic forms is superficially at odds with some prevalent characterizations of Herodotus' project. One of these obstacles is Herodotus' engagement with epic poetry. The *Histories*' indebtedness to Homeric poetry encourages the reading of Herodotus' catalogues against epic exemplars, perhaps at the risk of minimizing the role of other potential inputs.[45] Scholarly focus on the Homeric aspects of Herodotus is sometimes bound up with the classification of the *Histories* as more or less oralistic, either by intellectual limitation on Herodotus' part (as an 'early' prose writer) or, conversely, by express design — perhaps specifically to accommodate the needs of an audience in the strict sense.[46] The reading of the *Histories* as an oral text in turn fosters the aforementioned reluctance to accept that a foreign 'bureaucratic' mindset and the characteristic markers of bureaucratic, scribal-documentary discourse could actually gain traction in 'Western' thought and praxis if they were not accompanied by exemplary documentary models.[47] I will address these objections as I re-examine the 'documentary' lists of Herodotus in their broader narrative context.

First, it cannot be seriously doubted that Herodotus had Homeric epic in mind when framing his own undertaking.[48] As countless readers have noticed, a programmatic announcement of the formative influence of ἔπος, 'epic' on his

'and so as far as money, he [Pericles] thus cheered them [the Athenians] up' (2.13.6), without a summation.

[43] Differently, Steiner 1994: 148, for whom 'Herodotus will have none of their [sc. Eastern Kings'] charts.' She and I have arrived at the terminology of the 'chart' independently.

[44] I plan to discuss these characteristics of Achaemenid historiography in a future contribution.

[45] The other side of this interpretative coin is to see Herodotus' lists as Hellenized versions of real Achaemenid documents (perhaps mediated through another Greek source like Hecataeus of Miletus).

[46] Cf. n. 13 above. Among numerous treatments of this question are Crane 1996: 1–9, who judged that Herodotus was incapable of using the technology of writing to its full potential; similarly Boedeker 2002; at the other extreme, Slings 2002, with an analysis of Herodotean language from the perspective of formal Discourse Analysis and a concomitant assessment of the historian's use of oralistic diegesis as intentional and artful.

[47] Cf. e.g. the reservations of Murray 2001 [1987]: 36.

[48] See the recent *Histos* Supplement (Matijašić 2022) on this question.

project already occurs in the prolegomenon to the *Histories*; Herodotus provides a record of events and achievements μ[ὴ]... ἀκλεᾶ γένηται, 'so that they not end up without fame'.[49] The lexeme κλέος, '(aural) fame' is so closely associated with ἔπος as a narrative medium that it has been interpreted as functionally synonymous (in some of its contexts) with ἔπος as 'epic/heroic poetry'.[50] Its various connotations stem, of course, from the Indo-European root **ḱleu̯-* 'to hear' (~Ved. *śráv-*, etc.), to whose e-grade the deverbative result noun κλέος is built. As is well known, the basic semantic range of this noun in Greek encompasses 'fame' (cf. Latin *fama*), 'renown', 'glory', achieved by accomplishing something so great that it deserves to be told and heard of, and then retold and reheard of in what becomes an oral epic tradition — the metapoetic objective or motivation of the characters who feature in such a tradition.[51]

The presence of Homeric keywords and themes in the *Histories* does not, however, exclude the simultaneous incorporation of topics, themes and diegetic strategies from vastly disparate traditions. I call attention to a comparable phenomenon in the Bisitun Inscription of Darius the Great, where specific details, cognate lexemes (in the Old Persian text, at least), societal mores and even the moral telos of the inscription strongly recall elements of the Avesta, or perhaps a cognate corpus of orally preserved Masdayasnian ritual and/or hymnic material.[52] These potential traces of Iranian oral-poetic traditions coexist in DB with a vast assemblage of ideas and phraseology culled and adapted from a number of different cultures, literatures and institutions, some far removed in space and time.[53] A full understanding of the text and its strategies must go beyond reference to any single one of the traditions from which it draws.

To locate the impetus for a given Herodotean passage solely in Homeric precedent, to the exclusion of other possible sources or influences, is equally problematic. A case in point is one reader's unqualified assertion that, in the catalogic description of Xerxes' military force (7.61–99), 'Herodotus seems clearly to have based the pattern of his narrative on the *Iliad* [that is, on the Catalogue of Ships at 2.494–760].'[54] I aim to show how the historian simultaneously exploits associations with Homeric poetry and produces in that environment a document which he represents as being authentically Persian; accordingly, I take this very catalogue as my first example of a 'Persian chart' in Herodotus.

[49] See e.g. Gould 1989: 49; Murray 2001 [1987]: 34; Asheri in Asheri et al. 2007: 73 on ἀκλεᾶ in Herodotus' Proem; and now the discussion of Tuplin 2022: 296–7.
[50] See Nagy 1999: 15–20 (1§2–1§5); cf. 28–9 = 2§3.
[51] I accept this reading of Nagy 1999: 16–7 = 1§2 (again, cf. 28–9 = 2§3).
[52] See especially Skjærvø 1999 and 2005.
[53] On this complex assemblage, see Root 1979.
[54] Boedeker 2002: 97–116, 103 with n. 16, citing Erbse 1992: 125–7. I am sympathetic to Erbse's passing descriptions of the catalogue as a 'table' ('Tafel,' 125) or 'table of peoples' ('Völkertafel,' 127), though he neither elaborates on this idea nor explicitly compares Herodotus' list to a bureaucratic table or chart.

Xerxes' troops

Let us first examine the Homeric echoes which precede Xerxes' list and its narrative context. Herodotus primes the audience to expect a Persian War reworking of the Homeric Catalogue of Ships, but then uses this atmosphere of allusivity to highlight his critically different method for the treatment of similar types of material.[55] Both lists feature serial descriptions of each military contingent, with such common elements as the naming of respective leaders, number of ships supplied (where applicable), geographical-ethnic makeup or provenance of each group, and additional related details, variously categorized (in Homeric studies) as 'anecdotes',[56] 'elaborations'[57] and 'augments'.[58] For both Homer and Herodotus, these accretions often contain genealogical notices and information that more or less qualifies as ethnographic; these notices are evidently triggered by the geographical-ethnic heading in question (or by the leader of the contingent in Homer).[59] The difference in methods and aims for collecting all of this information — including the sources on whom Homer and Herodotus claim to draw — corresponds to the formal and generic differences between the poet's and the historian's exposition.

Each catalogue is preceded (immediately in Herodotus; with some intervening 355 lines in the Homeric text) by an account of suggestively similar systems for measuring the number of infantrymen in the Trojan War armies and in Xerxes' army.[60] In the Homeric passage, Agamemnon proposes a technique for counting up the troops:[61]

εἴ περ γάρ κ' ἐθέλοιμεν Ἀχαιοί τε Τρῶές τε
ὅρκια πιστὰ ταμόντες ἀριθμηθήμεναι ἄμφω,
Τρῶες μὲν λέξασθαι, ἐφέστιοι ὅσσοι ἔασιν,
ἡμεῖς δ' ἐς δεκάδας διακοσμηθεῖμεν Ἀχαιοί,
Τρώων δ' ἄνδρα ἕκαστοι ἑλοίμεθα οἰνοχοεύειν,
πολλαί κεν δεκάδες δευοίατο οἰνοχόοιο.
τόσσον ἐγώ φημι πλέας ἔμμεναι υἷας Ἀχαιῶν
Τρώων, οἳ ναίουσι κατὰ πτόλιν...

[55] See Nicolai 2013: 144–6 for a sketch of similarities between Book 7 of the *Histories* and Book 2 of the *Iliad*.
[56] Beye 1964: 346.
[57] Powell 1978: 260.
[58] Edwards 1980: 92, with n. 25 citing Beye 1964: 346 and Powell 1978: 260.
[59] See Edwards 1980: 81–3, 92–100 (with additional bibliography at 83 n. 5) for discussion of the questions of the antiquity (or traditionality) and the strength of associations between the fairly 'static' reportage of a given contingent's homeland — leader — number of ships, on the one hand, and on the other hand the specific type and content of additional materials 'triggered' by that heading, over the history of the Homeric poems' development.
[60] I am grateful to Paul Kosmin for pointing out the compatibility — and allusiveness — of these two metrics, rather than just the differences between them.
[61] For the text of the *Iliad*, I have used the 2011 Teubner edition of Martin L. West; all translations of Greek texts are my own.

> For if we, both Achaeans and Trojans, should wish to take trusty oaths, ratified by sacrifice, and both be counted up — and if the Trojans would be reckoned according to how many of them are at home (i.e., natives of Troy), and if we Achaeans should be arrayed in groups of ten, and each of our groups should severally choose one of the Trojans to be its wine-steward, then many groups of ten would lack a wine-steward. So much more numerous do I say the sons of the Achaeans are than the Trojans who live in the city. (*Iliad* 2.123–30)

> ἐξηρίθμησαν δὲ τόνδε τὸν τρόπον· συναγαγόντες ἐς ἕνα χῶρον μυριάδα ἀνθρώπων καὶ συννάξαντες ταύτην ὡς μάλιστα εἶχον περιέγραψαν ἔξωθεν κύκλον· περιγράψαντες δὲ καὶ ἀπέντες τοὺς μυρίους αἱμασιὴν περιέβαλον κατὰ τὸν κύκλον, ὕψος ἀνήκουσαν ἀνδρὶ ἐς τὸν ὀμφαλόν. (3) ταύτην δὲ ποιήσαντες ἄλλους ἐσεβίβαζον ἐς τὸ περιοικοδομημένον, μέχρις οὗ πάντας τούτῳ τῷ τρόπῳ ἐξηρίθμησαν. ἀριθμήσαντες δὲ κατὰ ἔθνεα διέτασσον.[62]

> They counted up (the troops) in the following way: they collected ten thousand men into a single space and packed them together as much as possible, and then drew a circle around them from the outside. After they had drawn a circle around these ten thousand and let them go, they put up a wall coterminous with the circle, whose height reached up to a man's navel. Once they had made this wall, they had other troops step into the enclosed space, until they had counted them all up in this way. After counting them, they arrayed the troops according to ethnicity. (Herodotus, *Histories* 7.60.2–3)

The superficial resemblance of Xerxes' process of circumscribing *myriads* to the Homeric metric of assigning a *decad* of Achaean warriors to a single Trojan as their cupbearer — together with the shared vocabulary of counting (ἀριθμηθήμεναι 'be counted' at *Iliad* 2.124; ἐξαριθμῆσαι 'be counted' at *Histories* 7.59.2, and again, twice, in the passage above) — does enough to establish a reference to Homer, with the express purpose of employing that reference as a critical point of departure.[63]

Agamemnon's fanciful, impossible notion of a rationally (that is, mathematically) determined *symposion*-under-truce fits its narrative context by foreshadowing, in rather concrete terms, the eventual power dynamic that will prevail among the victorious Achaeans and their Trojan captives. Such a meditation on fate and the necessary eventual accomplishment of the 'will of Zeus' (Διὸς ... βουλή, *Iliad* 1.5) would, generally speaking, not be out of place in the teleological, over-determined arc of Herodotean moral and narrative logic.[64] Herodotus' focus

[62] I have used Wilson's 2015 OCT edition for the text of Herodotus' *Histories*.
[63] See also Tuplin 2022: 322–4 for similarities and differences between the Herodotean and Homeric passages.
[64] On Herodotean teleology, see e.g. Gould 1989: 63–85 (in terms of historical causation and its multiple threads), Grethlein 2013: 185–223 (in narratological terms).

in this instance, however, is on the ingenuity and successful agency of Xerxes in ascertaining the information he wishes to know: note the repeated use of the aorist ἐξαριθμῆσαι (7.59.2), especially as resumed in the finite form ἐξηρίθμησαν at 60.2 and 60.3, and containing a preverb (ἐκ-) with 'completive' force, over against the Homeric simplex of non-finite ἀριθμηθήμεναι (in the aforementioned instance at 2.124, and lexically *hapax* in the *Iliad* as we have it).[65]

The process as Herodotus depicts it, moreover, does not make nearly so charming a scene as its symposiastic counterpart; instead, men are 'rounded up' within a restrictive enclosure, like animals.[66] By contrast, the Homeric method of counting the troops, if it were ever attempted (and indeed, the contrafactuality, the impossibility, of this proposition is — significantly — registered at 2.123–124: εἴ περ γάρ κ' ἐθέλοιμεν ... ἀριθμηθήμεναι, 'for if indeed we should wish ... to be counted up') would not even result in an absolute count of soldiers on either side — a number expressly offered by Herodotus. Instead, this process would yield the information Agamemnon himself already knows, and makes explicit, without having to undertake the picturesque calculus he describes: namely, the high ratio of Achaean soldiers to Trojan (note the relative terms of Agamemnon's assessment: τόσσον ἐγώ φημι πλέας ἔμμεναι υἷας Ἀχαιῶν | Τρώων, 'so much more numerous do I say the sons of the Achaeans are than the Trojans', 2.129–30).

Another instance of allusive differentiation emerges from Homer's and Herodotus' respective treatments of their sources for the catalogue. For the Homeric poet, the need for divine knowledge and assistance in reporting the contingents of Agamenon's army is famously made explicit. The Olympian Muses are invoked as sources on the grounds that they 'are goddesses, and are present, and know all things' (θεαί ἐστε, πάρεστέ τε, ἴστέ τε πάντα, 2.485), whereas the poet's knowledge is limited to aural perception of details passed down as part of the epic tradition (ἡμεῖς δὲ κλέος οἷον ἀκούομεν, 2.486). The metapoetic significance of the word κλέος ('epic poetry') reinforces the artificiality and self-conscious traditionality of the catalogue that follows. The relationship between poet and material is very different from the bureaucratic practicality and efficacy which Herodotus ascribes to Xerxes and which the historian co-opts for his depiction of the results of Xerxes' muster. Whereas the Homeric poet recites a sort of 'living' list, performatively accessed from the repository of traditional epic material by means of superhuman help, Herodotus' list of Xerxes' troops is presented as the unique result of a specific human effort at one time and place. Xerxes' forcibly practical method for counting the troops is of a piece with the direct line drawn between his volition to carry out the muster and the fact of getting it done; compare the matter-of-fact narration of the process at 59.2: ἔδοξε ... τῶι Ξέρξῃ ὁ χῶρος εἶναι ἐπιτήδεος ἐνδιατάξαι τε καὶ ἐξαριθμῆσαι τὸν στρατόν, καὶ ἐποίεε ταῦτα, 'the place seemed to Xerxes to be suitable for drawing up and counting the army, and he did this'.

This prospective description of events — Xerxes' distributive 'drawing up' in one place (ἐνδιατάξαι) and summary 'numbering of troops' (ἐξαριθμῆσαι τὸν στρατόν) — prefigures the sum total offered by Herodotus and the shape

[65] *LSJ* s.v. ἐκ C.2.
[66] Cf. Christ 1994: 174 on the inhumaneness of Xerxes' methodology.

of Herodotus' list, whose organization mimics Xerxes' distribution of troops on the ground, κατὰ ἔθνεα, 'by tribes' (7.60.2). The narratological placement of his catalogue makes it clear that Herodotus perceives himself as engaged in an Achaemenid intellectual enterprise. Bookended between vignettes of Xerxes' assessment of his troops, Herodotus' catalogue is strongly focalized as a Persianate undertaking, and it becomes difficult to differentiate between the intellectual activities of Xerxes and his bureaucratic apparatus, on the one hand, and of Herodotus on the other.[67] Xerxes' efforts to order and count the troops (at 7.59–7.60) thus immediately precede Herodotus' catalogue, while Xerxes' efforts to make a qualitative survey of the forces come immediately after:

> Ξέρξης δέ, ἐπεὶ ἠριθμήθη τε καὶ διετάχθη ὁ στρατός, ἐπεθύμησε αὐτός σφεας διεξελάσας θεήσασθαι. μετὰ δὲ ἐποίεε ταῦτα, καὶ διεξελαύνων ἐπὶ ἅρματος παρὰ ἔθνος ἓν ἕκαστον ἐπυνθάνετο, καὶ ἀπέγραφον οἱ γραμματισταί, ἕως ἐξ ἐσχάτων ἐς ἔσχατα ἀπίκετο καὶ τῆς ἵππου καὶ τοῦ πεζοῦ. ὡς δὲ ταῦτά οἱ ἐπεποίητο, τῶν νεῶν κατελκυθεισέων ἐς θάλασσαν, ἐνθαῦτα ὁ Ξέρξης μετεκβὰς ἐκ τοῦ ἅρματος ἐς νέα Σιδωνίην ἵζετο ὑπὸ σκηνῇ χρυσέῃ καὶ παρέπλεε παρὰ τὰς πρῴρας τῶν νεῶν, ἐπειρωτῶν τε ἑκάστας ὁμοίως καὶ τὸν πεζὸν καὶ ἀπογραφόμενος.
>
> Xerxes, once the army had been counted up and arrayed in contingents, felt a desire to drive through these personally and take a look at them. Afterwards he did so; and driving through them on a chariot, he went up to each people, one at a time, and asked questions about them, and the scribes were writing it up in the meantime, until he had come from one extreme of the line to the other, both the horse and the infantry. And when he had done this, after the ships had been drawn down to the sea Xerxes disembarked from the chariot and got onto a Sidonian ship. Sitting beneath a golden awning, he sailed around to the prows of the ships, making inquiries about each of them in the same way as the infantry, and having it all written up. (7.100.1–2)

Xerxes' actions map directly onto what Herodotus has just done: after providing the aforementioned count of all the troops at 7.60 (cf. ἠριθμήθη here), he has drawn them up in an array (cf. διετάχθη), subdivided them into ethnic contingents, and surveyed them one by one (παρὰ ἔθνος ἓν ἕκαστον).[68] Like Xerxes, Herodotus begins his review with the land army (καὶ τῆς ἵππου καὶ τοῦ πεζοῦ) and proceeds to the naval forces, whose entries continue in the same format (ὁμοίως καὶ τὸν πεζόν). Xerxes is depicted not only as a spectator here but also as an active

[67] I have been anticipated in my analysis of this passage by Grethlein 2009: 205–7 and Grethlein 2013: 190–1; we have each taken Christ's 1994 study (esp. at pp. 174–5) as a point of departure here. My focus, however, is on Herodotus' ability and desire to generate — and make use of — an intellectual form which he conceives of as Persianate.

[68] A similar point is made by Christ 1994: 174, on the 'intrusion' of Herodotus' catalogue into the frame of Xerxes' 'investigations'.

enquirer (ἐπειρωτῶν); moreover, he causes all of this material to be written up (ἀπέγραφον οἱ γραμματισταί; ἀπογραφόμενος). When Herodotus generates his own catalogue in terms of the methodology outlined here, he subsumes the roles of Xerxes and the γραμματισταί into a unified action. Significantly, he is not merely a γραμματιστής along for the ride: the language he uses to characterize his own discursive activity closely resembles the vocabulary he uses for Xerxes' review. Moving through his own catalogue from one ethnic contingent to the next, Herodotus describes himself (at 7.77) as διεξιών — a conventional narratological metaphor for sequential exposition,[69] but suggestive in light of the structure of the textual catalogue and Xerxes' perusal of its physical counterpart; Xerxes' analogous movement through the real space of the arrayed forces — διεξελαύνων, on a chariot — is merely more grandiose in scale.[70]

Agamemnon's proposed methodology in the *Iliad* has a closer analogue in a Herodotean scene that is placed after both the formal conclusion of the catalogue of troops and Xerxes' immediately subsequent review of the forces so catalogued (7.100). Xerxes asks the exiled Spartan King Demaratus whether he thinks the Greeks will offer resistance to his invading forces. The discussion that ensues has been cited as an example of Xerxes' arithmetic preoccupations — in this instance, with the comparative quantities of Hellenic and Persian troops — as a barbarous concern that contrasts pointedly with the Hellenic preoccupation with ἀρετή and political freedom.[71] We note the tension between qualitative and quantitative concerns expressed in Demaratus' injunction to Xerxes: 'concerning number, don't ask how many they are that they are able to do this' (ἀριθμοῦ δὲ πέρι μὴ πύθῃ ὅσοι τινὲς ἐόντες ταῦτα ποιέειν οἷοί τε εἰσι, 102.3).[72] Xerxes' response recalls Agamemnon's confidence in his own superior numbers — and his calculations even include the signature ten-men-to-one ratio (7.103.1; 104.2) — but his argument is ultimately about which constitution and worldview (Hellenic poverty, νόμος 'custom' and freedom, versus Persian abundance, homogeneity and subservience to one man) will render its troops ἀξιόμαχοι, 'worthy in the fight' (101.2), rather than simply a sheer contest of numbers.[73]

David Konstan was right to point up this recurrent nexus of oppositional themes in Herodotus' work: Persian – quantifying (counting; measuring) – greed/desire – display – externalization of value, over against Greek – qualifying (and/or refusal to participate in quantification) – ἀρετή 'excellence' – poverty –

[69] Cf., in the same phrase, the spatial connotations of the expression κατὰ τὴν Κιλίκων τάξιν, 'at the position/place of the Cilicians', which in this context properly refers to narrative placement.

[70] A further hint that Herodotus' undertaking is focalized from a 'barbarian' point of view is his choice of the ethnonym Ἀσσύριοι 'Assyrians' for the people described at 7.63; he remarks that Σύριοι 'Syrians' is the Greek designation, while Ἀσσύριοι is what they are called 'by the barbarians' (ὑπὸ ... τῶν βαρβάρων).

[71] Konstan 1987: 65–6; Christ 1994: 174–5.

[72] Herodotus exploits the derivation of idiomatic οἷός τε 'able' from the adjective οἷος 'of such a sort' in order to place quantitative ὅσοι and qualitative οἷοί τε in antithesis. For the opposition of quantity and quality in this episode, cf. Steiner 1994: 145–6.

[73] Differently, Christ 1994: 174–5 n. 23.

intrinsic-value.[74] Such a depiction of barbarian Kings, and especially Persians, does, after all, reflect a kernel of historical truth, insofar as some of these interests and tendencies are independently typified in Achaemenid royal monuments and other official propaganda. The Achaemenid practice of listing and counting — imperial territories, tributary lands, resources collected for the palace at Susa, Achaemenid ancestors, rebels defeated by Darius, bondsmen of Darius and so on — and of prominently displaying these reckonings on sites of regal splendour, are, as we have discussed already, among the salient features of this propaganda. The monumental inscriptions are programmatically conceived as externalizations of historical data, for the consumption of audiences present and future.

It has been amply (and often derisively) shown that the exact contents of Achaemenid textual materials, whether inscriptional or documentary, were frequently lost or garbled in transmission by the time they reached Herodotus at the Greek periphery.[75] Hence, for example, Herodotus' lists of Persian territories do not precisely match their supposed Achaemenid models either in terms of the constituent members of a given list or in their logical arrangement (for example, by a geographical principle). I argue, however, that the organizational methodology of the chart successfully reached Herodotus and informed his presentation of information about Achaemenid tribute and troops.

This process works in the opposite direction of a Herodotean method that others have demonstrated before: namely, the embellishment of received information about barbarians in narrative terms that conform to familiar elements of Greek literature and discourse, such as extant story patterns and contemporary intellectual debates.[76] Herodotus certainly engages in this reshaping of factual material in order to fit his own historical vision and his literary project. This behaviour, however, does not rule out the possibility of structural influence from the traditions and institutions into which he inquires.[77] Some aspects of the expression of the Persian catalogue of troops are just as natural to Greek literary traditions as they are to Persian documents — for example, in Herodotus' choice to devote space to the name and genealogy of the Persian commanders of each ethnic contingent. He even populates the list with some details that correspond to extant poetic descriptions of Trojan War heroes.[78] But even if Herodotus echoes previous

[74] Konstan 1987.

[75] E.g. Armayor 1978, Balcer 1987, West 1985.

[76] See e.g. Dillery 1992 on the plausibly Iranian/Masdayasnian detail that Darius was unwilling to approach the corpse of Queen Nitocris, and the elaboration of this detail into an episode that conforms to Greek, and particularly Herodotean, narrative types and themes — even to the point where the story contradicts the piece of information that motivated it.

[77] John Dillery now draws my attention to the possibility of an additional layer of cultural exchange and intercultural accretion of tradition, in which narratives originating from Greece are metabolized by non-Greeks and subsequently re-presented anew to Greek outsiders (like Herodotus) as if these stories had originally been non-Greek; see Dillery 2018, esp. 25–6, accepting (with reff. at 25 n. 38) the conclusions of de Meulenaere 1951: 47 and Lloyd 1976: 9–12.

[78] As discussed by Armayor 1978: 4–9, who alleges (at p. 8) that 'Herodotus' exotic costumes and weaponry are not those of Persepolis but rather of Homer, Hesiod, and the lyric poets, where we find brazen helmets, iron-studded clubs, and linen breast-plates, and the animal skins of Paris and Menelaus and Hector and Patroclus and Agamemnon and Dolon, not to

Greek materials in his generation of his catalogue of troops and has the Homeric Catalogue of Ships in mind as a specific point of comparison, nevertheless his list shares the mentality (if not the specific content) of Achaemenid charts, whether documentary or inscriptional.

The 'headings' in Herodotus' catalogue of troops reflect the topical concerns of certain Achaemenid monumental inscriptions, with their paired interest in naming/listing peoples serially and depicting them in terms of stereotyped ethnographic traits that serve to define the entire group — specifically, dress and armament. In the Achaemenid sources, these depictions are artistic (as, for example, on the Apadana reliefs, or on Darius' tomb at Naqš-ī Rustam (DNa; DNe), or on Darius' monumental statue at Susa (DSab), with its labelled pictures of subjects; a tradition important enough to merit continuation by Artaxerxes II or III in A^3Pb)[79] and occasionally verbal: the inscriptions designate 'pointed-hat Scythians' and '*petasos*-wearing Ionians' as ethno-political groups.[80] In Herodotus, they are strictly textual, but expressed in language that registers a pictorial attentiveness to space, proportion and directionality.[81] In the Homeric Catalogue of Ships, by contrast, the entry for any national contingent tends to reserve descriptive epithets not for a people as a whole, but for geographical locales and individual commanders. These formulaic epithets are by nature conventional, even when they do correspond to the reality of Hellenic geography or to the internal logic of the text.[82] Because these adjectives are formulaic and ornamental, the Homeric list tolerates their repetition, even when they comprise the full extent of an item's descriptive elaboration (for instance, ἐϋκτίμενον πτολίεθρον four times, plus two more instances of areas that are ἐϋκτίμενος; ἐρατεινός five times; πετρήεσσα three

mention Herodotus' names and numbers and imagery'.

[79] See Briant 2002: 172–8 on lists of this type; for translations, commentary and illustrations, see Kuhrt 2007: 500, 502–3 (DNa), 477–82 (DSab), 483–4 (A^3Pb); see Schmitt 2000: 25–32 and Plates 1–5 for an edition (with commentary) of the Old Persian text of DNa; Schmitt 2000: 47–9 and Plates 23–31 for the captions which make up DNe; Schmitt 2000: 119–22 and Plates 56–68 for the captions in A^3P.

[80] These stereotypes form a systematic typology that is attested both in the Achaemenid centres and on the periphery; see Summerer 2007 for discussion of an Achaemenid tomb painting at Tatarlı which exploits typical iconographic representations of Persians and Scythians in order to 'depict an exemplary Persian victory over enemies, who are conveyed as a unified ethnic group by their uniform costumes and pointed caps' (p. 3). Summerer emphasizes (pp. 19–20) that it is difficult to tell which specific sub-group of Scythians is intended, but I find it significant that the people depicted in the painting are instantly legible as Scythians (of whatever sort) simply because of their apparel. Cf. Wu 2014: 218–20, 238–42, 246–53, esp. at 239.

[81] For example: the Arabians carry spears on their right side, πρὸς δεξιά (7.69.1); the Sarangae wear shoes that go up to the knee (πέδιλα ... ἐς γόνυ ἀνατείνοντα, 7.67.1); the Moschi have small spears with long spearheads (αἰχμὰς σμικράς· λόγχαι δὲ ἐπῆσαν μεγάλαι, 7.78). West 2011: 263 likewise draws attention to visual elements in the description and endorses the theory that it could have been inspired by Mandrocles' painting of Darius' army at the Bosporus. See Kirk 2011: Chapter 2, esp. pp. 54–5, 58–66, on Herodotus' activity as a collector-in-writing of physical objects, including their specific placement in the places that contain them.

[82] A systematic appraisal of descriptive epithets in the catalogue is undertaken in the commentary of Kirk 1985; for a conventional epithet that happens to be accurate in context, see e.g. p. 191 on *Iliad* 2.496: '[the epithet] πετρήεσσαν, 'rocky,' is suitable for the Aulis site – and many others, of course.'

times — all of them occurring consistently in the same metrical *sedes*).

Herodotus' entries eschew the vague, picturesque quality of such epithets — again, applied to entire cities — to hone in prosaically on details of clothing, headgear and weapons.[83] If one ethnic contingent has equipment similar to another's, then Herodotus often refers his audience to the previous description, or at most registers specific points of departure, rather than repeat himself: so at 7.66.1, the equipment of the Arians is described wholly in terms of his previous treatment of the Medes and Bactrians (Ἄριοι δὲ τόξοισι μὲν ἐσκευασμένοι ἦσαν Μηδικοῖσι, τὰ δὲ ἄλλα κατά περ Βάκτριοι).[84] This discursive technique points forwards as well as backwards: the audience is told about the Calybean/Lasonian contingent (at 7.77) but made to wait until the Cilician entry, later on in the catalogue (7.91), for details about their 'equipment' (σκευή), so that Herodotus does not have to describe it twice: τὴν αὐτὴν Κίλιξι εἶχον σκευήν, τὴν ἐγώ, ἐπεὰν κατὰ τὴν Κιλίκων τάξιν διεξιὼν γένωμαι, τότε σημανέω (7.77).[85] It is as if Herodotus has substituted a scribal notation with the force of '*ditto*' or '*idem*' — with an added *confer*, for cross-referencing entries — for content that he could have chosen to restate, in multiple entries.[86] This abbreviating strategy is entirely alien to the execution of the Homeric Catalogue of Ships, where each one of Homer's locales is summoned up individually into the audience's imagination, however fleetingly and however much cast in conventional, sometimes repetitive terms.[87] It is certainly more at home in a writerly, even scribally minded, context, where a reader could follow up Herodotus' internal references and look up the expressed antecedent or postcedent of a given catalogue entry. It may be objected that Herodotus' catalogue is not very long, but when he states (for example) that the Sagartians 'have equipment between the Persian and the Pactyian' (σκευὴν ... μεταξὺ ἔχουσι πεποιημένην τῆς τε Περσικῆς καὶ τῆς Πακτυϊκῆς, 7.85.1), the reader benefits from being able to refer all the way back to the beginning of the catalogue for the Persian σκευή (7.61) and then to the brief note on the Pactyian σκευή (7.67.2) in order to execute the comparison and thus attempt to imagine what the Sagartian σκευή must be like.

This method of cross-comparison may already be present in the researches of Hecataeus, on whom Herodotus is thought to have drawn in assembling his catalogue.[88] In *BNJ* 1 F 284, Hecataeus uses a similar shorthand — and moreover in a similar context, namely, the description of local customs of dress: ἐν δὲ

[83] Cf. Tuplin 2022: 323.
[84] 'The Arians were equipped with Median bows, but in all other respects they had the same equipment as Bactrians.'
[85] 'They had the same equipment as the Cilicians, which I will describe when I get to the contingent of the Cilicians as I proceed (in my narrative).'
[86] West 2011: 262, following Lewis 1984: 601–2, imputes the forward reference not to a discursive mentality of Herodotus, but simply to his reversal of the order of exposition in his written source. Such a process for the transmission of this specific information is of course possible, but I think it is equally symptomatic of the unitary structure of the documentary chart Herodotus attempts to present here. See also Goody 1977: 78 (and cf. pp. 104–5) on the 'decontextualisation' of items facilitated by their placement in a list.
[87] Elmer 2010: 290–5 offers a useful treatment of this quality of Homeric narrative, with reference to earlier discussions at p. 290.
[88] So Lewis 1985: 116–7, following Armayor 1978: 8.

πόλις Ὑώπη· οἱ δ' ἄνθρωποι ἐσθῆτα φορέουσιν οἵην περ Παφλαγόνες.[89] We do not know where, or if, Hecataeus provides the description of Paphlagonian clothing on which the present statement depends for its meaning (unless this information is taken for granted). The state of preservation of Hecataeus precludes a secure analysis of his organizational structure in particular, and so it is unclear whether Hecataeus anticipated Herodotus in his creation of a unified and self-contained catalogue of the Persian army's ethnic contingents, σκευαί, and commanders, or if Hecataeus' description of the clothing of a particular city's people is only incidental, merely triggered by the mention of that city regardless of the broader narrative or expository context.

It is tempting to suppose that Herodotus pointedly collects and compresses this kind of material into his Persian army list as we have it, especially since his information is explicitly bound to, and presented as a snapshot of, the singular moment of Xerxes' review of Persian forces mustered en route to his campaign against the Greeks. Even if Herodotus gathered prosopographical materials from Persian documents, or from Greeks who came into contact with them before Herodotus, and then grafted ethnographic and mythographic details, collected from different sources (like Hecataeus), onto that information,[90] he nevertheless is at pains to present them as a unified, integrated set of data.

By structuring his entries in such a way that they begin to take shape as a sort of rudimentary, cross-referenced encyclopaedia of ethnic σκευαί, Herodotus creates a list that acts as a kind of usable, consultable document, rather than a performative set-piece like Homer's.[91] It is, moreover, the sort of document that the imagined Achaemenid King, with his ethnographic interests, might cause his scribes to generate and use for imperial ends: it collects, records and occasionally evaluates ethnographic accounts. These data include (allegedly) auto-ethnographic reports of ethnonym provenance (for example, the Medes' account of their change in ethnonym from 'Arians' to 'Medes' at 7.62.1; the Bithynians at 7.75.2; the Hellenes' accounts of the names of the Ionians and Aeolians, at 7.94 and 7.95.2, respectively), alongside non-local traditions about ethnonyms (for example, the Macedonians' account of the Phrygians' name change, 7.73). In this vein, Herodotus provides the indigenous name for the Persians' headwear (τιάρας καλεομένους πίλους ἀπαγέας, 'soft caps called *tiaras*', 7.61.1)[92] and the Scythian name for a weapon they use (a type of axe called *sagaris*, 7.64.2); other regionally

[89] 'Next is the city Hyope; its people wear the same kind of clothes as Paphlagonians do.' Herodotus' and Hecataeus' shared ethnographical interest in dress was noted by Armayor 1978: 8, who also observed that they shared a habit of 'nam[ing] ... those who equipped themselves with the gear of other nations'.

[90] As Lewis 1985: 117 supposed.

[91] For Herodotus' awareness of the utility of such a list, we may compare the episode where Hecataeus of Miletus — as a character in Herodotus' narrative — uses a catalogue of peoples under Darius' control as an argument to inform military policy (5.36). We cannot know whether the real historian Hecataeus conceived of such a collection in the same way (or even whether he actually compiled a catalogue of subject nations).

[92] The origin of the Greek word τιάρα is unclear; there is no such word in extant Old Persian. See Calmeyer 1993. In the same passage, ἀναξυρίδας 'trousers' may also be a Persian loanword, though Herodotus does not draw attention to its foreign provenance by including a modifier such as καλεομένας 'called'.

specific equipment is not explicitly named by its native designation, but is nevertheless described as ἐπιχώριος, 'local; particular to that country' (eight times in the catalogue).[93] This term might well be applied to the Achaemenid portraits of the contingent peoples of the empire: each delegation represented on the Apadana is differentiated as being ἐπιχώριος in terms of national dress and equipment (at least as it is perceived, and then typified and broadcast, by the Persian King who now exerts control over their land). Herodotus' display of intellectual mastery over local information — here, local styles of equipment and local traditions of memory — bespeaks a similar set of interests, and it is reasonable to suppose that his presentation was influenced by some transmitted permutation of an Achaemenid template. Even if its constituent parts are not all drawn directly or accurately from Achaemenid documents, in other words, the potential for a 'documentary' mindset has been realized.

I note only in passing that this writerly or documentary quality of Herodotus' (written) catalogue coexists happily with information that is framed as aural/oral in origin:[94] the aforementioned accounts of the origins of ethnonyms are presented in terms of speech (ὧδε λέγουσι Μῆδοι, 'thus Medes say', 7.62.1; ὡς αὐτοὶ λέγουσι (sc. Βιθυνοί), 'thus they themselves (the Bithynians) say', 7.75.2; ὡς Ἕλληνες λέγουσι, 'as Greeks say', 7.94; ὡς ὁ Ἑλλήνων λόγος, 'as is the report of Greeks', 7.95.1; ὡς Μακεδόνες λέγουσι, 'as Macedonians say', 7.73), and Herodotus ends the catalogue with the declaration ἐς μὲν τοσόνδε ὁ ναυτικὸς στρατὸς εἰρήσθω, 'let the nautical force be spoken about to this extent' (7.100.1). The discourse of DB moves back and forth too between the proclamatory voice of Darius and the documentary-style discourse of calendrical dates, casualty numbers and other statistical realia, which, though presented in the voice of the Great King, suggest the intervention of the scribes who have composed the text; the same tension is present in the other Achaemenid inscriptions, where what 'the King says' is written on stone.[95]

The act of self-consciously Persianizing mimesis that underlies Herodotus' list of Xerxes' troops is all the more remarkable in light of the fact that Herodotus' information reaches him by way of Greek sources and intermediaries as much as from a true Persian 'documentary core'. It is striking that he has composed a structurally coherent catalogue whose focuses or salient 'headings' are similar to the concerns of some Achaemenid models (like the inscriptions, with their pictorial focus on ethnonyms and ethnic σκευαί; or a putative documentary list of

[93] At 7.64.1, 64.2, 67.1, 67.2, 72.1, 74.1, 79.1, 91, almost always of τόξα 'bows' or κράνεα 'helmets'.

[94] Luraghi 2001 (see especially 146–7) has argued persuasively that such references ought not to be taken literally; I think it is significant that Herodotus' 'discourse of ἀκοή' (as Luraghi puts it, p. 152) still explicitly uses the metaphor of aural transmission.

[95] The ubiquitous formula of the royal inscriptions, in its Old Persian version, is *θāti xšāyaθiya* [*king's name*], 'King [X] says'. On the written and oral speech of the Great King, and its implications for the development of Greek historiography, see Corcella 1996, Ceccarelli 2005, Ceccarelli 2013: 101–30, esp. 125–6 on 'the complete homology between [the Persian] King's words and King's writing' as presented by Herodotus. In a future contribution I will address at length the model provided by the King's speech, with particular attention to the enunciative and authoritative stance taken by the Greek historians of Persia.

Persian commanders) but does *not* always offer the same data points as those Achaemenid models. Herodotus has managed, in other words, to emulate a documentary form and mindset without completely or accurately reproducing the contents of a unitary original — and to encourage his reader to understand his process and his results as conforming to what he perceives to be the operations of an Achaemenid King.

Darius' Tribute List

Herodotus does less to suggest an identification of his own working methodology with that of Darius in the other great Persian catalogue of the *Histories* (at 3.89–97), namely Darius' Tribute List.[96] Instead, the list is strongly focalized as being an intellectual and administrative product of Darius himself at a specific moment in time, and as being exemplary of Darius as the proverbial 'shopkeeper' (κάπηλος) of the state.[97] In other words, the list Herodotus gives is presented as if it were an authentic output of Persian bureaucratic administration under Darius.

That Herodotus conceives of the list in this way is suggested by its placement after the description of Darius' organizational reforms, which prefigure the structure and contents of the list: Herodotus insinuates that the list he gives is a reproduction of the direct results of Darius' process.[98] The mimetic pretensions of this list, then, are analogous to those we saw for the army list, where the actions Xerxes takes immediately before and after the textual bounds of the list map directly onto its contents and order. In the tribute catalogue, similarly, Herodotus' seriated entries, explicitly headed with ordinal numbers, pick up the notice that Darius divided the empire into twenty ἀρχαί, 'realms' (3.89.1), each characterized as a νομός, an 'administrative district' for taxation purposes; the reader is meant to understand that Herodotus' numbering has been taken over from Darius. The inclusion of the Persian word for the ἀρχαί/νομοί — that is, σατραπηίαι 'satrapies' — further contributes to this impression of Herodotus' source. The definition of each ἀρχή/νομός, either in terms of its constituent peoples or its geographical boundaries, likewise is a direct reflex of Darius' organizational scheme as depicted by Herodotus. Finally, the presentation of amounts of tribute assessed for each district also conforms to the standard set by Darius. Before and after the list, Herodotus provides his readers with the means to convert eastern weights to more familiar Hellenic units, and even performs some conversions for them (at 3.89.2 and 3.95, respectively), but within the catalogue itself he nonetheless chooses to record the tribute for almost all entries in terms of the Babylonian silver talent.[99]

[96] On this list see Ruffing 2009.
[97] Cf. Ruffing 2009: 329–30.
[98] Admittedly a longer process than Xerxes' review of his troops, but the resulting chart in each case is a unitary and panoptic document generated by a Persian King and his scribes. Steiner 1994: 146–7 similarly characterizes the present passage as 'deliberately [suggesting] a kind of shorthand or abbreviated notation such as an accountant, trader, or royal bookkeeper might use in his written records' (p. 147).
[99] He does reckon the sum of *all* the tribute in terms of the Euboean standard at the end of the catalogue (3.95.2).

It may be objected that Herodotus' structuring of his catalogue and the information it contains in terms of Darius' actions is both natural and obvious in the present instance — or perhaps predetermined by the shape of the Athenian Tribute Lists, as discussed above.[100] I think it is significant, however, that the same type of focalization and iconicity is used for Darius' catalogue as Herodotus has employed for Xerxes' — over against other instances of ethnic and ethnographic lists, to which I will return.

Herodotus' remark (at 89.3) that Darius was the first Persian King to exact a predetermined amount of tribute (as opposed to δῶρα, gifts in kind) indicates that the historian's interest in πρῶτοι εὑρέται, 'original inventors', can extend to the origins of a systematized, bureaucratic practice. The comment about Darius' national evaluation as a 'shopkeeper' of the state (ἐκαπήλευε πάντα τὰ πρήγματα, 'he acted as a shopkeeper with regard to all affairs', 89.3) suggests further that Darius' bureaucratic-administrative approach to national government is the driving force behind the creation of the districts and, ultimately, the Tribute List.[101] The catalogue is accordingly shaped in a way that Herodotus imagines to be the embodiment of such a mindset and method.

This sensibility accounts for the structural coherence of the present catalogue as a discursive strategy — the fact that it is by far the longest Herodotean list to use ordinal headings, and the veneer of organizational streamlinedness suggested by the relative simplicity of its contents (that is, constituents of νομός 'district' – amount of tribute – νομός + ordinal number)[102] and paucity of explanatory authorial interventions and anecdotal material within the catalogue itself. Interestingly, this kind of material *does* occur in a postscript to the ordered list (at 3.97), where Herodotus describes and accounts for various exceptions to the tributary system (specifically, exemptions and contributions in kind). Both the content and the form of these (non-)entries distinguishes them from the 'official' list of twenty: rather than simply name each group and their customary payment, Herodotus appends uneven *variorum* politico-historical and ethnographic commentary to them. These groups are listed organically and not seriated.

The diachronic considerations of some of these scholarly accretions also sets them apart from material allowed in the catalogue proper. Herodotus' chart purports to represent an administrative reality at the specific moment of its establishment by Darius (compare the aorists of ἀρχὰς κατεστήσατο and ἐτάξατο φόρους, 3.89.1). Even subsequent additions to the tributary system do not intrude into the body of the 'document' itself as distinct entries in the catalogue, but are registered after Herodotus' calculation of the total annual tribute.[103] This temporal specificity enhances the documentary pretensions of Herodotus' chart.

[100] Again, see Ruffing 2009 and Ruffing 2018: 152 for this claim.
[101] See Tuplin 1997: 373–82, Steiner 1994: 147, 164, Kurke 1999: 71–80, Ruffing 2009: 329–30, Ruffing 2018: 152–4, 157–8 for discussions of the καπηλεία of Darius.
[102] Mirrored by Herodotus' characterization of his own list: αὗται μέν νυν ἀρχαί τε ἦσαν καὶ φόρων ἐπιτάξιες, 'these, then, were the districts and the impositions of tributes' (3.97.1).
[103] προϊόντος μέντοι τοῦ χρόνου καὶ ἀπὸ νήσων προσήιε ἄλλος φόρος καὶ τῶν ἐν τῇ Εὐρώπῃ μέχρι Θεσσαλίης οἰκημένων, 'however, after time went by, both other tribute was coming to him from the islands and that of the inhabitants of Europe as far as Thessaly', 3.96.1.

Once again, Herodotus has managed to emulate a form which he conceives of as Persianate and documentary — the product of a Persian bureaucracy put into place by Darius. In this instance, just as with the list of Xerxes' forces, we face a disconnect between the data presented in that form and the facts on the ground. While no single extant Persian document lists districts and their assessed tribute, documentary evidence suggests that some of Herodotus' groupings of peoples are incorrect and that he has got other details wrong.[104] His source appears not to be inscriptional, either: as others have noticed, Herodotus' catalogue of tributary peoples does not correspond to any of the various inscribed lists of Darius which explicitly enumerate 'the lands which bore [him] tribute'.[105] Herodotus purposefully replicates a documentary structure in the context of a discussion of bureaucratic innovation, but not its actual contents.

Greek catalogues

Herodotus' receptivity to the bureaucratic form of the chart is affirmed by his ability to use it for material that is strictly Greek, though still in the immediate context of interactions with Persians (that is, battles with them). At 8.1 Herodotus lists the ships in the Greek fleet at Artemisium. This list totally eschews the ornamentation typical of Homeric catalogue in favour of a structure that often presents the bare minimum of information: rather than repeat the entire syntagm 'X provided/manned Y ships', most of its entries take an identical, abbreviated form '[ethnonym] δὲ [number]' (for example, Αἰγινῆται δὲ ὀκτωκαίδεκα, Σικυώνιοι δὲ δυοκαίδεκα, Λακεδαιμόνιοι δὲ δέκα, Ἐπιδαύριοι δὲ ὀκτώ, etc.).[106] This list is also distinct from the Homeric catalogue insofar as Herodotus caps it off with a functional-looking summary total of ships (8.2.1) and explicitly registers the organizational principles or headings of the list in such a way that they accurately and completely map onto its contents: 'I have told also how great a quantity of ships each (contingent of Greeks) furnished' (εἴρηται δέ μοι καὶ ὅσον τὸ πλῆθος ἕκαστοι τῶν νεῶν παρείχοντο, 8.2.1).[107]

The list of Greek ships at Salamis (8.43–8) is more elaborate overall, though some of its entries take the same bare bones form as those of the Artemisium list.[108] The expanded entries of the chart evince similar characteristics and

[104] Kuhrt 2007: 625 n.1, with bibliography.
[105] Kuhrt 2007: 625 n. 1. These lists are presented in DB, DPe, DSe and DNa, and, interestingly, evolve over time — from the twenty-three lands/peoples mentioned in DB (§6), to 25 in DPe (§2), 27 in DSe (§3), to a culminating twenty-nine listed on Darius' tomb (DNa §3). The interest in enumerating tributary lands is thus authentically Persian and indeed extends through the entire length of Darius' inscriptional career, from his inauguration to his entombment.
[106] 'Aeginetans, eighteen; Sicyonians, twelve; Lacedaemonians, ten; Epidaurians, eight', etc.
[107] By contrast, the prospective frame provided by the question οἵ τινες ἡγεμόνες Δαναῶν καὶ κοίρανοι ἦσαν, 'which were the leaders and rulers of the Danaans,' at *Iliad* 2.487 — even when combined with the categories outlined in the statement ἀρχοὺς αὖ νηῶν ἐρέω νῆάς τε προπάσας, 'then I shall tell the leaders of the ships and all the ships' (2.493) — only gives a partial overview of the contents of the Catalogue of Ships.
[108] Especially at 8.43: Σικυώνιοι δὲ πεντεκαίδεκα παρείχοντο νέας, Ἐπιδαύριοι δὲ δέκα, Τροιζήνιοι δὲ πέντε, Ἑρμιονέες δὲ τρεῖς, 'Sicyonians furnished fifteen ships, Epidaurians ten, Trozenians five, Hermioneans three'.

preoccupations to the list of Xerxes' troops that was so carefully represented as the authentic result of Xerxes' own bureaucratic assessment. The first similarity I point to is the toleration of shorthand that requires the reader to refer elsewhere to obtain information. In the Persian muster list, these cross-references were internal to the 'document'; in the Salamis list, Herodotus refers the reader to a separate document. The reader must consult the list of ships at Artemisium in order to make sense of entries like 'Megarians furnished the same complement as they had at Artemisium' (Μεγαρέες δὲ τὠυτὸ πλήρωμα παρείχοντο τὸ καὶ ἐπ' Ἀρτεμισίῳ, 8.45) and 'Styrians furnished the same ships which they had at Artemisium' (Στυρέες δὲ τὰς αὐτὰς παρείχοντο νέας τὰς καὶ ἐπ' Ἀρτεμισίῳ, 8.46.4).[109]

The second similarity is in the type of 'extra' material permitted in the list, in addition to the main headings of ethnic contingents and number of ships. Xerxes' list supplemented its primary headings of ethnonym, σκευή and commander, with notices of diachronic changes to ethnonyms, variously explained as eponymy resulting from relevant genealogy or migration. Herodotus' list of Greek contingents at Salamis shares this interest in nomenclature (compare the sequence of names for the Athenians at 8.44.2) and origins; compare the Leucadians' ethnic and geographical provenance, registered in addition to their complement of ships: 'Leucadians [contributed] three (ships), these being a Doric people, from Corinth' (Λευκάδιοι δὲ τρεῖς, ἔθνος ἐόντες οὗτοι Δωρικὸν ἀπὸ Κορίνθου, 8.45). The penchant for geographical and ethnic categorization, prefigured in Xerxes' Persianate catalogue, becomes so strong that it acts as an organizational principle for the chart. The contingents fall under four major geographical headings: Peloponnesians (ἐκ μὲν Πελοποννήσου at 8.43, framed by οὗτοι μέν νυν Πελοποννησίων ἐστρατεύοντο at 8.44.1), people from the 'outer' part of the mainland (οἵδε δὲ ἐκ τῆς ἔξω ἠπείρου, 8.44.1), islanders (νησιωτέων δέ, 8.46.1) and people living beyond Thesprotia and the Acheron River (8.47). Within these categories, the contingents are further subdivided and organized by ἔθνος (Dorians, Ionians, Dryopes, Macedonians), with reference to colonial *metropoleis* where applicable. By ordering and categorizing Greeks in these terms, Herodotus participates in a top-down process of conceptual control analogous to the methods he attributed to Xerxes.

A third similarity is the implied relationship between the chart and its narrative context. Like Xerxes' muster list, the Salamis list purports to represent a unitary quantitative assessment of an entire group all at once. Herodotus creates this impression by situating the list after the event of the ships' gathering together at the same place and time (8.42.1), where their coherence as a group is emphasized by their uniform subjection to the authority of one nauarch (8.42.2). The sum total of ships presented at 8.48 is thus intended as a plausible count not only of the Greek fleet in its entirety but also of all ships present at the specific moment of their gathering. A critical difference in this regard is the occurrence of an ἀριθμός ('count') without an explicit ἐξέτασις 'review'. No Persian King, outfitted with his

[109] Such entries co-occur with entries that both establish an equivalence with the number at Artemisium *and* make that number explicit: compare at 8.46.2 μετὰ δὲ Αἰγινήτας Χαλκιδέες τὰς ἐπ' Ἀρτεμισίῳ εἴκοσι παρεχόμενοι καὶ Ἐρετριέες τὰς ἑπτά ... μετὰ δὲ Κήιοι τὰς αὐτὰς παρεχόμενοι, where Herodotus chooses not to repeat the number of Cean ships he had recorded in the Artemisium list (i.e., two ships and two penteconters).

natural complement of bureaucratic administrators, is present to engineer the collection of the data for the catalogue; but nevertheless the list that Herodotus offers here is very similar to his Persian documents in its format, interests and organizational strategies.

Aristagoras' map and Herodotus' stations

For two of his Persian catalogues, then, Herodotus self-consciously attempts to ventriloquize the scribal-documentary intellectual activity of Persian Kings — whether of Darius 'the shopkeeper' in concert with inaugural administrative reform, or of Xerxes with his bureaucratic apparatus (the γραμματισταί). Herodotus' mastery of the Persianate form of the chart is so sophisticated that he is able to employ it for his organization and presentation of Greek materials. Against this backdrop we turn to the remaining Persian 'catalogue' of Herodotus. The brief list of stations and distances on the Royal Road (5.52–3) is not presented as a production of any Persian King, but is rather framed as Herodotus' own response to, or improvement upon, the famous map which Aristagoras of Miletus presents, with explanatory comments and annotations, to King Cleomenes of Sparta (5.49.5).[110]

I have argued that Darius' and Xerxes' catalogues exhibit a high degree of structural cohesiveness: the entries in each of these lists adhere to a fixed rubric informed implicitly by the narrative frame of the list. Aristagoras' and Herodotus' paired accounts of Anatolian geographical space behave differently. They form a diptych in which Aristagoras offers a miniature Ionian-style *periegesis* that (by definition) proceeds from land to land in the geographical sequence in which a traveller would encounter them, and Herodotus lists distances between locales on the Royal Road in direct responsion to Aristagoras' ordering of material.[111] The reader gains the fullest picture of Anatolian geography and ethnography by collating these two strings of data — but Herodotus nevertheless sets them into opposition with each other narratologically and explicitly.

There are a few oppositions at work here. One has to do with the representational power of the written word. Herodotus is at pains to demonstrate Aristagoras' reliance on the physical map in order for his exposition to make sense; this motive accounts for his insistence on maintaining the mimetic fiction of Aristagoras' deixis (both linguistic and gestural) throughout his speech. Herodotus, by contrast, tackles this act of verbal delineation of space — pointedly, covering the same geographical territory as Aristagoras — without requiring a visual aid.[112]

[110] Purves 2010: 144–6 treats Herodotus' list as 'a corrective to the perspective offered by the map' of Aristagoras (at p. 145); Pelling 2007: 195–9 is more ambivalent about the relationship between the 'correctness' of Aristagoras' map and Herodotus' list of distances and focuses instead on the implications of Herodotus' written exposition over against Aristagoras' oral argumentation. See also the discussions of Branscome 2013: 105–49 = Branscome 2010 and Steiner 1994: 147–50.

[111] Cf. Branscome 2013: 107, 128–9, adapted from Branscome 2010: 4, 21–3.

[112] A point emphasized in the discussion of Purves 2010: 118–58, esp. at 132–8, 144–9, who reads this episode as a set-piece that affirms the 'hodological' and 'countercartographic' character of Herodotus' work as a whole, from the micro-level of paratactic prose style to the macro-level of organization of *logoi*.

Another opposition is drawn between the types of information offered by Aristagoras and Herodotus. In keeping with the *periplous*/*periegesis* tradition, Aristagoras focuses on ethnographical data (like the description of Phrygians as πολυπροβατώτατοι ['with extremely abundant flocks'] and πολυκαρπότατοι ['with extremely abundant crops'], or the mention of variant ethnonyms for the Cappadocians/Syrians);[113] fittingly, these notices are appended to peoples, rather than lands, as the 'headings' of the list. Herodotus, in his own list, replaces these ethnic headings with their corresponding toponyms, which trigger geographical data, including the number of stations on a given segment of the Royal Road and its distance in parasangs.

Strictly speaking, the categories of information included in Aristagoras' presentation are things in which Herodotus does take an authentic interest elsewhere in the *Histories*. His catalogue of Libyan peoples (4.168–197), for example, follows a similar logical template (periegetic and by ethnic groups) and similarly traffics in ethnographic facts of local custom, political relationships and material resources.[114] As a more typical Herodotean catalogue, however, the list of Libyan peoples also incorporates geographical details, including the reckoning of distances, into a single, unified exposition, rather than separating these strands. It is not the case, in other words, that Herodotus finds geography a more worthwhile intellectual exercise than ethnography per se. In the context of the Royal Road list, however, his presentation of geographical material, and in particular, specific measurements of distance, is framed as providing more accurate results than the methodology of Aristagoras and his ethnographically oriented catalogue.[115]

Herodotus presents his findings in terms of measurements according to a Persian standard — the parasang.[116] Just as he opts for an eastern unit in the Tribute List, so here too he helps his reader to convert between Greek and Persian standards (at 5.53), but adopts the Persian measure throughout his list of distances. Furthermore, Herodotus' member of these paired lists is slightly less discursive

[113] At 5.49.5 and 5.49.6, respectively. See Rood 2006: 294 for periegetic — and specifically Hecataean — features of Aristagoras' exposition; he contrasts Aristagoras' and Herodotus' descriptions at 294–5.

[114] As noticed already by Branscome 2013: 122 = Branscome 2010: 17.

[115] Cf. the remark εἰ δέ τις τὸ ἀτρεκέστερον τούτων ἔτι δίζηται, ἐγὼ καὶ τοῦτο σημανέω, 'if someone should still seek something more accurate than these, I will indicate this as well' (5.54.1), referring to Aristagoras' and Herodotus' respective calculations of the amount of time it takes to travel from the Aegean coast inland to Susa. Cf. Branscome 2013: 141–4 = Branscome 2010: 33–5. See Henkelman 2017: 69–70 on Achaemenid correlation of travel times (stages and days) with distances (parasangs) in order to provide a functional — as well as rigorously controlled — map of imperial territory. Relevant to this point, compare the observation of Branscome 2013: 139 = Branscome 2010: 31 that Herodotus' list, 'in contrast to Aristagoras' account ... includes both *spatial* and *temporal* spheres' (emphasis in Branscome 2010).

[116] See also Almagor 2020: 148–60 on Herodotus' list of distances on the Royal Road, composed in parasangs. In Almagor's analysis, Herodotus is generating an elaborate mockery, with parasang measurements that deliberately produce 'an excessive aura of exactitude' (p. 153). However that may be, I think Almagor is onto something when he suggests (p. 157) that 'a natural reaction to Herodotus' account is that he has combined parts of two *real* routes to produce an *imaginary* single one' (emphasis Almagor's). This conclusion of his accords well with my hypothesis that Herodotus purposefully emulates the form of the Persian chart without necessarily reproducing any authentic documents.

than Aristagoras' (which consists of ethnicity – anecdote – neighbouring ethnicity – anecdote – and so on) and virtually maps out a list or chart (of number of stations and distance in parasangs) through the linear space of the inland journey described in the text. Herodotus is willing to use a Persian-style chart, then, with Persian measurements, in order to build up a test-case of his methodological superiority over Ionian traditions of inquiry.[117] In this instance, at least, the chart as intellectual tool overrides the Ionian-style *periegesis*.

I refer to one final instance of Herodotean attention to bureaucratic operations that is apposite here. In addition to imposing other formal measures on the Ionians — measures which Herodotus says were 'extremely useful' (κάρτα χρήσιμα, 6.42.1) — the Persian satrap Artaphernes did the following:

> ταῦτά τε ἠνάγκασε ποιέειν καὶ τὰς χώρας σφεων μετρήσας κατὰ παρασάγγας, τοὺς καλέουσι οἱ Πέρσαι τὰ τριήκοντα στάδια, κατὰ δὴ τούτους μετρήσας φόρους ἔταξε ἑκάστοισι, οἳ κατὰ χώρην διατελέουσι ἔχοντες ἐκ τούτου τοῦ χρόνου αἰεὶ ἔτι καὶ ἐς ἐμὲ ὡς ἐτάχθησαν ἐξ Ἀρταφέρνεος· ἐτάχθησαν δὲ σχεδὸν κατὰ ταὐτὰ τὰ καὶ πρότερον εἶχον.
>
> He compelled them to do the aforementioned things. In addition, he measured their territories by parasangs, which is what the Persians call a distance of thirty stades; and after measuring by these parasangs, he assessed amounts of tribute for each (city). These amounts of tribute have continued to be in place, from that time up to my day, just as they had been assessed by Artaphernes. And he assessed them in nearly the same terms as before. (6.42.2)

Measurement by parasangs is the foundational part of the bureaucratic process for assessing tribute. Not only does Herodotus recognize this method as a fundamental step in establishing Achaemenid administrative practice, but he also sees its potential for enduring institutional stability: as Kurt Raaflaub has pointed out, Herodotus hints at an Athenian appropriation of this Persian imperial method for the administration of Athens' own empire, and at the very least pointedly uses the signature terminology of the Athenian tribute system (φόρος, 'tribute' as opposed to δασμός, 'share' as a plausible reflection of Old Persian *bāji-*, 'tribute; the King's share').[118] There is also a suggestion of the accuracy and authoritativeness of the

[117] It may be objected that a Persian chart *is* (or would be) in fact the most accurate data about Persian imperial infrastructure and geography; but it is nonetheless interesting that Herodotus chooses a Persian-style chart as an explicit comparandum to the less accurate results of Ionian-style *periegesis* and cartography. Herodotus focuses on Aristagoras' geographical account here, but this set-piece, with its authorial interventions, invites broader methodological reflections.

[118] See Ruffing 2018: 152, Raaflaub 2009: 98–101 on this slippage; cf. Wallinga 1989. I find the arguments of Murray 1966 compelling in regard to the historical realities of tribute assessed in Ionia but follow Raaflaub in accepting that Herodotus here intends, perhaps provocatively, a picture of institutional continuity to the extent of 'the very fact of annual tribute assessment that continued from Persians to Delian League to Athenian empire' (p. 101). Cf. Stadter 1992: 795–7, who reads in Herodotus 'a parallel between the Persian empire and the Athenian *arche*'

results of this process, insofar as the tributary districts and their contributions end up being very close to what they had been before Artaphernes' assessment (σχεδὸν κατὰ ταὐτὰ τὰ καὶ πρότερον, 'in nearly the same terms as before'), even though he goes to the trouble of surveying and measuring the land anew (μετρήσας κατὰ παρασάγγας, 'having measured by parasangs').

It is this association of the apparatus of imperial bureaucratic administration with accurate measurement that informs Herodotus' impersonations of Persian documentary practice, at least as he perceives it (and perhaps as intermediated and/or stereotyped by his informants). This is not to say that Herodotus' Persians have a monopoly on institutions that succeed in collecting accurate information; for such operations, we tend to think rather of the Egyptian priests and the vastness of their accumulated knowledge.[119] The Persians are different because of the inextricability of official collection of knowledge from the uses of the state — uses with which Herodotus, conducting research as a private citizen, cannot always identify his own undertaking.[120]

Herodotus' conception of the place of administrative-looking data in his historical overview may be hinted at in miniature by his intermittent habit of explicitly withholding reportage of information which he claims to have in hand. Usually his pretext for such omissions is religious euphemism, but there are also cases where his motivations are different.[121] At 7.224.1 Herodotus suppresses a list of names of the 300 Spartiates who died at Thermopylae, even though he specifically describes them as 'nameworthy' (ὀνομαστοί) and emphatically claims to have found out all of their names. The only name he provides in this context is that of Leonidas, set off from the rest by the description ἀνὴρ γενόμενος ἄριστος, 'a man who proved best', and by the focalizing collocation καὶ Λεωνίδης τε ... καὶ ἕτεροι μετ' αὐτοῦ ὀνομαστοὶ Σπαρτιητέων ('both Leonidas ... and the rest of the nameworthy Spartiates with him').[122] While the elision of this material makes good practical sense (insofar as a list of three hundred personal names would be exceptional even for the *Histories*), Herodotus' decision to call attention to the existence of such a list and his mastery of it is striking. Rather than rehearse all the names, Herodotus makes a qualitative judgement that simultaneously ranks Leonidas as ἄριστος 'best' and allows his name to stand in for all the other (unnamed) ὀνομαστοὶ Σπαρτιητέων.[123] Exercising a similar critical prerogative, Herodotus

(p. 797). The situation to which Herodotus refers must be somewhere between a 'continuation' and a 'parallel'. On δασμός and *bāji-* as 'the King's share' see Murray 1966: 153–4, developed further by Sancisi-Weerdenburg 1989, esp. at 137–8.

[119] Cf. e.g. Luraghi 2001: 151–4; Moyer 2011: 59; Dillery 2018: 24–5, 33.

[120] I am essentially convinced by this conclusion of Christ 1994: 199–200 but wonder whether there is more at stake here than Herodotus' conviction that 'his inquiry is intellectually and ethically superior to theirs [i.e., the kingly inquirers he treats]'. See also Demont 2009, esp. p. 197, 201–3.

[121] See Erbse 1992: 126–7 on these omissions; for Erbse they indicate what sort of subject matter Herodotus did and did not deem appropriate for history.

[122] In the same passage, Herodotus similarly truncates the list of Persian casualties implied by the phrase ἄλλοι τε πολλοὶ καὶ ὀνομαστοί, 'many other nameworthy people'.

[123] Differently Steiner 1994: 140–2, who regards Herodotus' treatment of the suppressed list as an effort 'to privilege oral over written commemoration' (p. 141). See also Tuplin 2022: 367 on the communal nature of Spartan *kleos* at Thermopylae. Compare Bloomer 1993 on

explicitly excuses himself from providing a list of names of Persian taxiarchs at 7.99.1 except for Artemisia, 'on the grounds that he is not compelled' (ὡς οὐκ ἀναγκαζόμενος) to mention them.[124] Here too Herodotus' editorial decision is couched in terms of qualitative evaluation: Artemisia's exceptionality is a matter of Herodotus' own judgement (μάλιστα θῶμα ποιεῦμαι, 'I consider it especially amazing').[125] We may note that this critical intervention occurs at the end of the list which Herodotus presents as Xerxes' intellectual product (a fiction, moreover, which is reinvigorated in the very next section by Xerxes' responsibility for the collection of the data in the catalogue).

The juxtaposition of available data sets that are dangled in front of — and then explicitly withheld from — the reader, and Herodotus' self-conscious presentation of the most salient data point from the set, suggests something about Herodotus' attitude towards the documentary lists Kings are able to produce. Pausanias (3.14.1) tells us that the names of the 300 Spartiates were all recorded together on a stela; the act of collecting these names and the monumental format of their publication both suggest a top-down process of coordination of physical and intellectual resources. In this respect the list of names of the 300 is structurally similar to an imperial Persian list of military personnel. In both instances, Herodotus' faculty of discernment overrides the compulsion (often obeyed elsewhere) to reproduce a document in its entirety. I suggest provisionally that in suppressing these documents by means of superlative evaluation of their contents, Herodotus reacts against a quantitative character he perceives in them.[126]

In keeping with this attitude, Herodotus does not represent the *Histories* as being a Persianate undertaking and does not conceive of it as such; indeed, he famously frames his entire inquiry *in opposition to* the findings of the Persian λόγιοι. I have argued that Herodotus recognizes the intellectual and imperial potential of bureaucratic collection and arrangement of data, and that he closely associates this process with the Persian Kings at the top of the political system on which it depends. His own experimentation with its methods and forms demonstrates Herodotus' receptivity to and interest in them, though I cannot say whether he views their admixture in turn with 'oralistic' and narrative materials as a Persianate style of discourse.

Herodotus' practice of 'superlative judgment'.

[124] He likewise omits the names of indigenous commanders of ethnic contingents at 7.96, with similar excuses (lack of 'compulsion,' ἀναγκαίη, to include them; sufficiency of the named Persian commanders to stand in for the entire list because they outranked the local commanders). Nicolai 2013: 145 has compared this Herodotean *recusatio* to Homer's professed inability to recite the names of the common soldiers at Troy. Herodotus may well intend such an allusion, but he is also reacting against the panoptic pretensions of a full documentary list.

[125] In the passage immediately preceding this one, Herodotus names the 'most nameable' (ὀνομαστότατοι) Persian officers beneath the rank of general. The force of the superlative is evaluative here too.

[126] This opposition appears not to be far from Herodotus' mind in either context; both of these suppressed lists occur shortly before separate conversations between Xerxes and Demaratus about the quantity and quality of Greek soldiers.

We are left with a sketchy, atmospheric, and not very satisfactory picture of vague 'areal' influence. Herodotus does not seem to be aware of the Bisitun Inscription or, apparently, any of the other Achaemenid royal inscriptions, nor does he correctly reproduce authentic Achaemenid documents. Nevertheless, it is an interesting coincidence that, after he has exhaustively researched the Persians, their subjects and their neighbours, he synthesizes this information into an account of the rise and 'fall' of the Achaemenid Persians in a way that renders Herodotus the first Greek writer to combine pseudo-documents (which he treats as hallmarks of accuracy and correctness) with familiar Hellenic narrative patterns that are oral in origin and often moralizing in tenor. The resulting mixture is oddly similar to the interplay of materials that occurs in DB — an inscription written for the consumption of the very peoples researched by Herodotus. The fact of resemblance cannot prove inheritance or even influence, however.[127]

We will now consider the next Greek writers to engage with the Persian Empire on the scale that Herodotus does.

Ctesias

Unfortunately, the fragmentary nature of Ctesias' corpus makes it difficult to assess his receptivity to the chart as a conceptual and organizational form. We might have thought him uniquely well positioned to reproduce the content and form of native Persian records in light of his claim to have served under Artaxerxes II for seventeen years and, during that time, to have consulted βασιλικαί διφθέραι, 'royal parchments', not extant to us, for the purpose of his historical inquiries.[128] It is unclear what these would have been like, however — and whether Ctesias actually had access to anything of the sort.[129]

Photius' summary of the contents of Ctesias' work testifies that there were lists at the end of his *Persica* in twenty-three books:[130]

> ἀπὸ Ἐφέσου μέχρι Βάκτρων καὶ Ἰνδικῆς ἀριθμὸς σταθμῶν, ἡμερῶν, παρασάγγων. κατάλογος βασιλέων ἀπὸ Νίνου καὶ Σεμιράμεως μέχρι Ἀρτοξέρξου. ἐν οἷς καὶ τὸ τέλος.
>
> The number of stages, days, parasangs, from Ephesus to Bactra and India. Catalogue of Kings, from Ninus and Semiramis to Artaxerxes. And here also the end. (*FGrHist* 688 F33 = Photius §76)

It is unclear from this passage whether Photius means that Ctesias provided only the total ἀριθμός of all the stages, days and parasangs between Ephesus and

[127] As I continue my ongoing project on the practice of historiography between Persia, Greece and Yehud, with attention to other, related influences of Achaemenid history-writing on the Greek and Jewish historians of Persia, I hope that I will be able to shed more conclusive light on this question.
[128] At *FGrHist* 688 F 5 in Jacoby (as in Lenfant 2004) = Diodorus Siculus 2.32.4.
[129] See discussion in Llewellyn-Jones and Robson 2010: 58–61, with further bibliography.
[130] For the text of Ctesias, I have used Lenfant's 2004 edition; the translation is my own.

Bactra, or if he would have offered a fuller chart of stages, days and parasangs between major junctions on the road system linking these two endpoints (similar to the divisions in Herodotus' Royal Road passage). Wouter Henkelman suggests attractively that Ctesias' 'description of the road in terms of way stations, days and parasangs (in that order) would seem to echo a Persian way of looking at the imperial space', and it is tempting to assume a panoptic schema which encapsulates all of the territory controlled and managed by the Great King.[131]

We can speculate further about the κατάλογος βασιλέων: I imagine that Ctesias gathered together into a unitary list (or chart) pieces of information which had been mentioned before, in the narrative portion of his text, but which had been presented individually and in concert with coverage of the relevant King. In the narrative fragments, Ctesias appears to provide any given King's regnal length at the moment when he describes that King's death. The fact that Photius, our source for the final catalogue, reproduces some examples of this tendency in the course of his summary of the narrative (for example, death and regnal length of Cyrus I, in F9; death and regnal length of Cambyses, in F13; compare the collocation of Semiramis' death and regnal length in an anonymous *On Women* [F1c], which refers to Ctesias) suggests that the practice goes back to Ctesias and tells against interpolation by his transmitters purely on the basis of information presented in the concluding list.[132] In this case, Ctesias' κατάλογος βασιλέων may have been a sort of appendix or chart that could have reorganized intermittent details from the narrative into a single document (like the summary §52 of DB). King lists are a long-lived tradition in the ancient Near East,[133] but they occur as self-contained compositions rather than as an epilogue to extended historical narrative. The narratological context for these lists — that is, their placement at the end of the text — is tantalizing: the juxtaposition of an accounting for the full temporal span of Persian (and even pre-Persian) history with a panoptic and functional accounting for the space of the Persian domain strikes me as a most effective — and Achaemenid-inflected — means of capping Ctesias' exhaustive treatise on the Persian Empire.[134] Beyond these culminating synopses of Persian

[131] Henkelman 2017: 70; see however the doubts of Almagor 2020: 160–8, 184–5 as to the authenticity of these final catalogues.

[132] See also Almagor 2020: 162. It is more difficult to tell whether the list in Diodorus 2.34.5–6 (= F5) of five Median Kings and their regnal lengths was original to the Median section of Ctesias' work, or if Diodorus has supplied this information here on the basis of regnal lengths in the concluding catalogue of the *Persica*. The picture is complicated further by the fact that Diodorus' testimonium about Ctesias' recourse to βασιλικαί διφθέραι immediately precedes this Median King list.

[133] See especially Glassner 2004.

[134] My analysis here has been enriched by discussion with Paul Kosmin. See also Almagor 2020: 162–3. The anonymous reviewer suggests that, in addition to the closural function this list would have, a further narratological motivation could be provided by the last episode of *Persica*'s narrative: namely, the 'arrival of Ctesias at Cnidus, his homeland, and at Sparta' (F 30 = Photius §75, Κτησίου εἰς Κνίδον τὴν πατρίδα ἄφιξις καὶ εἰς Λακεδαίμονα). The subsequent (standard?) list of 'days, stages, and parasangs' — however these may relate to the route traversed, from east to west, by Ctesias himself — would thus be apposite here, and also provide an opportunity for Ctesias to elaborate on, or correct, Herodotus' list. Ctesias' King list would likewise outdo Herodotus' sequences — not really lists — of Lydian Kings (1.7) and

imperial space and time, it is difficult to assess Ctesias' attitudes towards such lists and their putative scribal or official origins. The vagaries of textual transmission were kinder to the *Anabasis* of Xenophon of Athens, another eyewitness of events in Persia during the reign of Artaxerxes II.

Xenophon

Xenophon, by contrast with Herodotus and Ctesias, does not use the extended catalogue as a literary and organizational form. The *Anabasis* does include some shorter lists that enumerate, in summary fashion, the troops that marched inland with Cyrus (at 1.2.3; supplemented by the arrival of more Greeks at 1.2.9) and the contingents on either side of the battle at Cunaxa (1.7.10–12). These lists evince something of the 'chart' mentality in the coherence of their entries; so for example the Greek troops that muster with Cyrus are all registered according to the same format: name of general + ἔχων + number of hoplites (+ number of γυμνῆται 'slingers', πελτασταί 'peltasts', and/or τοξόται 'bowmen', where applicable). This organization is maintained for both segments of the list (that is, the generals present with Cyrus at Sardis, at 1.2.3, and those who joined up later at Celaenae, 1.2.9), despite the intervening section of narrative. We are encouraged to read these lists together by the summary total for all units that immediately follows: καὶ ἐνταῦθα Κῦρος ἐξέτασιν καὶ ἀριθμὸν τῶν Ἑλλήνων ἐποίησεν ἐν τῷ παραδείσῳ, καὶ ἐγένοντο οἱ σύμπαντες ὁπλῖται μὲν μύριοι χίλιοι, πελτασταὶ δὲ ἀμφὶ τοῦς δισχιλίους (1.2.9).[135]

The fact that this list is broken up across the narrative text to accommodate the logical order of events expressed in that narrative, however, represents a new development from the unitary lists presented by Herodotus and Ctesias. On the one hand, Xenophon resonates with Herodotean practice by suggesting an association between Cyrus' action of performing an ἐξέτασις 'review' and ἀριθμός 'count' and the text's concomitant presentation of the troops' contingent groups and total count.[136] On the other hand, Xenophon does less than Herodotus to focalize the

Median Kings (1.102–3, 107.1); cf. Almagor 2020: 163. For Ctesias' *aemulatio* of Herodotus, see Dillery 2018: 50–2.

[135] 'And then Cyrus made a muster and count of the Greeks in the *paradaidā*/park, and all the hoplites together amounted to 11,000, and peltasts approximately 2,000.' Paul Kosmin suggests to me that the park setting is intrinsically significant; in a future contribution, I will analyze the paradise as a site at which the Persian King — or would-be King, in this case — gathers and displays his imperial resources. On the focalizing gaze of Cyrus, see Grethlein 2013: 56–9 (emphasizing its narrative function of creating *enargeia* 'vividness'). For the text of Xenophon, I have used Dillery 1998 (a revision of Brownson 1922), with my own translations.

[136] Note that the same process of ἐξέτασις and ἀριθμός of the army, when carried out by Anaxibius of Sparta (at 7.1.11), does *not* result in a count of the troops; rather, his efforts to control the army ultimately result in chaos and panic. In Thucydides, whose text primarily engages Greek rather than Persian material, the Athenian and allied generals perform an ἐπεξέτασις 'new review'and ξύνταξις 'organization' of the expeditionary force to Sicily (6.42.1), but the resulting chart of assembled forces occurs slightly after the moment of inspection: namely, en route to Sicily, where the enumeration occurs between the framing phrases 'with so great ... an armament ... they were crossing' (τοσῇδε ... τῇ παρασκευῇ ... ἐπεραιοῦντο, 6.43), and τοσαύτη ἡ πρώτη παρασκευή ... διέπλει ('the first armament, this numerous, ... was sailing through', 6.44.1). Thucydides' presentation is arranged according to headings and their respective totals (e.g., 'triremes, all told, one hundred thirty-four', τριήρεσι ... ταῖς πάσαις τέσσαρσι καὶ

list as the unitary intellectual product of a Persian ruler and his information-gathering bureaucratic apparatus. He dispenses with the strongly deictic introductory and concluding brackets that Herodotus uses to set off a given list from its narrative context and to suggest its formal and conceptual self-containedness.[137] Instead, Xenophon privileges the order of his narrative exposition, so that the two halves of the list adhere not to each other, as a unified whole, but instead are attached to the narrative events that trigger them (that is, the separate moments when the generals in question bring their several armies to join Cyrus). The list as a form is thus spread out in order to accommodate the diegesis whose interstices it occupies.

This integration of prosaic, scribal-minded data points into a narrative framework is demonstrated most strongly by the famous pervasiveness of Xenophon's notices of distances marched: σταθμοὺς *X*, παρασάγγας *Y*, 'X stages, Y parasangs'.[138] These elements of the formulation are nearly constant, elaborated only by the occasional further specification of the type of terrain (for example, σταθμοὺς ἐρήμους πέντε, 'five stages in the desert', 1.5.1),[139] and frequently accompanied by descriptions of cities that are so repetitive it has been suggested that Xenophon's terminology ('large', 'inhabited', 'prosperous', etc.) approaches the valence of technical vocabulary or shorthand.[140] The regularity of these entries (*stathmoi*, parasangs, and the often conventionalized and monotonous registration of the landmarks that separate them) is appropriate to a chart; this is the case even though the corresponding entry according to the implicit heading 'Journey from Place A to Place B' must be inferred from the narrative. Once again, Xenophon does not present these data in the unitary format of a self-contained chart but instead spreads out the individual entries so that, in spite of their conceptual and formal relationship to one another, they are triggered

τριάκοντα καὶ ἑκατόν), and he introduces each of these headings with the structure [type of ship or soldier] + [appropriate form of ὁ πᾶς/ξύμπας 'the entire', 'in total'] + [number]. The entries are characterized by internal (and typically Thucydidean) *variatio*, however; and rather than systematically enumerate the contingent parts which constitute the total numbers, Thucydides instead highlights the contributions of one or two city-states (twice highlighting the Athenian contingents), sometimes in explicit contrast to the collective contributions of 'the rest of the allies' (τῶν ἄλλων ξυμμαχῶν / ξύμμαχοι οἱ ἄλλοι). The use of the chart in this context is apparently imperial in tone, rather than Persian.

[137] See Kirk 2011: 50–8 on the morphology and semantics of list-bracketing in Herodotus. She has argued that this kind of bracketing encourages us to see Herodotean lists as self-contained 'collections' of items or data.

[138] See Rood 2010 for a discussion of how Xenophon's systematic manipulations of his own framework illuminate the changing relationship of the Greek armies to the landscapes and territories so described. I agree with Almagor 2020: 175–7 that the (unitary) lists of total parasangs and stages travelled are probably an interpolation.

[139] Instances of the formulation are catalogued and treated by Rood 2010.

[140] Geysels 1974: 30 on πόλις οἰκουμένη, with an interpretation accepted by Brulé 1995: 12–3. Tuplin 1999: 334–5 expressed reservations about their conclusions, but his own description of these notices as 'formulae' nevertheless captures the conventionality and the typologizing function of Xenophon's language; cf. his description of the same phenomenon in Tuplin 1997: 410 as 'a particular descriptive formula'; in Tuplin 1991: 48 n. 4 he went as far as to posit 'the triumph of formula over actuality' in a few specific instances. Compare also Brulé's explanatory gloss on these adjectives: 'épithètes que Xénophon combine les unes avec les autres' ('epithets which Xenophon combines with one another') (p. 12).

by, and subservient to, the movements of the army within the narrative.[141]

One of the cumulative effects of this chart, despite its interstitial placement, is a sense of veracity — especially when the data so arranged perform an iconic function in the narrative.[142] The veneer of accuracy which these numbers and units build up is so strong as to be capable of disguising and suppressing what may be as much as a three-month gap in Xenophon's reportage of the journey from Armenia to Greece. This lacuna was detected only after careful scrutiny of the geographical, meteorological and botanical-apiological details of the account, which Robin Lane Fox has shown are a mismatch with the chronology implied by Xenophon's reckoning of time within the narrative (that is, according to stages and parasangs).[143] This technique of concealing information — perhaps inexpedient information at that[144] — behind an exterior of specific, 'accurate-looking' data of time and distance recalls strategies used by Darius and his scribes in DB and by the cuneiform cultural tradition of royal apologetic on which they drew.[145] Once again, I do not mean to suggest that Xenophon took over such a method directly from any specific Achaemenid exemplar, but he does exploit the corroborative and legitimizing power of scribal or bureaucratic-looking information for the veracity of his account in a similar way.

Another effect of the chart is to build up a picture of Xenophon's diligence in reporting the march distances. This quality is related to, but distinct from, the impression of authenticity and is much more difficult to motivate, especially after

[141] The anonymous reviewer is correct that Xenophon's notices do not properly constitute a chart as defined in this paper, insofar as the historian does not provide a sum total of the parasangs and stages registered throughout the text. I wonder, however, about the fact that Xenophon's presentation encouraged the transmitters of *Anabasis* to append their own summation to the very end of the text, as if it were felt necessary, or at least natural, to provide a total for these figures (and, moreover, to do so by way of closure for the entire work). As Purves 2010: 172–6 and Rood 2010: 56, 58, 60–1 noticed (cf. notes 149–50 below), Xenophon's practice of recording parasangs and stages drops off as the Cyreans approach the Greek world; perhaps his failure to bring closure to the chart is a further step (alongside the interstitial situation of these entries within the semi-emplotted *nostos* narrative) in the 'hybridization' of models (I owe this terminology to Charles Bartlett) — not only Greek and Persian, but documentary and oralistic. Perhaps Xenophon would have supplied a total figure if his journey had ended in the Persian heartland.

[142] Rood 2010: 55 (with earlier bibliography) linked the senses of iconicity and 'actuality'.

[143] Lane Fox 2004: 37–46, with bibliography; calculation of the length of the temporal gap at p. 43. Following an earlier hypothesis that Xenophon specifically passes over the winter of 401/400 in silence, Lane Fox locates the gap — a 'Snow Lacuna' — somewhere between *Anabasis* 4.4 and 4.7 (pp. 44–5). Brennan 2012 attempts to close the gap to about one month (at p. 335), a timespan which he regarded as 'the product of cumulative errors and omissions' and as not 'substantial' (p. 336), by arguing for a later date for Cunaxa and by anchoring Xenophon's descriptions of weather, terrain, and crops to average regional meteorological/climatological statistics for Anatolia (and to his own travel experiences). I am sceptical of this degree of positivistic identification with Xenophon's descriptions, given the specificity of the one-time journey of the Ten Thousand. In any case, a gap remains, whether of one month or several; the important point is that the numbers do not quite add up, even though Xenophon presents his march-distances without qualification.

[144] Lane Fox 2004: 43–6 endorses this view and summarizes some previous guesses as to what Xenophon might have omitted and why.

[145] I will address this topic at length in a future contribution.

the loss at Cunaxa shifts leadership of the army from Persians to Greeks. The difficulties are twofold: Xenophon's interest in reporting these distances is remarkable in literary terms and extremely strange in logistical terms.

I will first address the extraordinariness of Xenophon's notices as a literary device. Interest in geographical distances is an incidental rather than a regular preoccupation of previous Greek historiography, and the use of distances as a structural framework for narrative is unprecedented (as far as we know) before Xenophon.[146] It is true that Herodotus (in the Royal Road passage discussed above) and Ctesias (*FrGrHist* 688 F33, also discussed above) provide lists of distances between locations in the Persian Empire, but it is doubtful that Xenophon's notices of distances were inspired primarily by these literary forerunners. Xenophon's journey, after all, is highly specific and represents itself as being particular to the actual experience of one group of people at one moment in time. Herodotus' static account of standardized distances, by contrast, is expressed in the impersonal terms of a timeless, *hypothetical* traveller on the Royal Road (compare Herodotus' intermittent anchoring of distances to the indefinite personal referent implied in the participles διαβάντι, πορευομένῳ, διεξελάσαντι, etc.). This vantage is similar insofar as Herodotus' distances are expressed as an itinerary — but the critical difference is that Herodotus' presentation is in terms of a generic referent rather than a specific party.[147]

Xenophon's diligent reportage is qualitatively different both in the particularity of his route and in the hyper-focus of his data points: he breaks down distances into units of several days/*stathmoi* at a time, whereas Herodotus presents bigger chunks, that is, the distances and number of staging-posts between entire territories.[148] In light of this focalization and this level of detail, it is difficult to suppose that Xenophon's sustained engagement with a similar species of material is entirely motivated by considerations of generic conformity.

Two nearly contemporaneous studies of how Xenophon shapes and employs this information in the *Anabasis* shed light on one function of the

[146] Though the registration of distances may perhaps be an interest of at least some periegetic texts: Marcianus of Heracleia attests (at §2 of his epitome of the *periplous* of Menippus of Pergamon = BNJ_2 709 T6) that Scylax of Caryanda provided distances — not further specified — in terms of number of days' sail. Interestingly, however, Scylax's *periplous* was generated in a Persian imperial context: namely, at the command of Darius I (see Herodotus 4.41.1–3 = BNJ_2 709 T3).

[147] This sense is confirmed by the generic second-person singulars employed in one sentence of his description: ἐπὶ δὲ τοῖσι τούτων [sc. τῶν Κιλικίων] οὔροισι διξάς τε πύλας διεξελᾶις καὶ διξὰ φυλακτήρια παραμείψεαι (5.52.2). Indeed, the total number of royal inns on the route is expressed in terms of an indefinite, hypothetical traveller: καταγωγαὶ μέν νυν σταθμῶν τοσαῦταί εἰσὶ ἐκ Σαρδίων ἐς Σοῦσα ἀναβαίνοντι. Such presentation makes sense as a foil to Aristagoras' map for invasion; this point is developed by Rood 2006: 294–5, for whom Herodotus' language here is typical of 'the proper geographical style' (p. 264) and by Purves 2010: 144–7, who elsewhere stresses (pp. 160–1) the experiential quality of Xenophon's distances. Differently Branscome 2013: 140–2 = Branscome 2010: 31–3, who sees these indefinite referents as facilitating the reader's participation in the narrative. On the difference between the presentations of Herodotus and Xenophon, cf. Almagor 2020: 174.

[148] Here we may adduce the difference in usage between the Herodotean *stathmos*, 'staging-post' (closely associated with καταλύσιες, 'inns'), and Xenophontic *stathmos*, 'day's worth of marching' (accomplished specifically by the Cyreans).

march-distance formula. Tim Rood has demonstrated how its character changes across three major phases of Xenophon's exposition: from the formal stability of the *stathmoi* and parasangs which Cyrus 'progresses' (ἐξελαύνει) up-country, to the more uneven coverage of *stathmoi* and parasangs which the Greek troops 'marched' (ἐπορεύθησαν) back to Trapezus, and the decay of the formula after Trapezus.[149] Alex Purves performed a similar analysis of the formula and reached compatible conclusions about its iconicity, with emphasis on the sense of disorientation imparted by the decline and abandonment of the framework.[150] In this schema, the parasang as a unit of measure (over against a Greek standard) is maintained, Rood suggested, partly for atmospheric reasons.[151] This judgement must be correct, but it fails to account completely for the pervasiveness of the material and for its high specificity — symptoms of a selectiveness of focus that is odd against the backdrop of a text that does not always insist on exoticizing the Persian landscape.[152]

Rood's and Purves' analyses also fail to account for the exceptionality of Xenophon's information in logistical terms — a question which raises the problem of his sources for the march distances. With Rood and Purves, I am more confident in the prospect of scrutinizing Xenophon's calculated presentation of these data than in making a firm judgement about their provenance, and I am hesitant to take a definitive side in the argument as to whether Xenophon generated them himself, that is, from a contemporaneous record, or pulled them from some pre-existing treatment of distances and stages.[153] On the balance of probability, however, I am inclined to think that Tuplin's suggestion that Xenophon personally counted (putative) mile-markers on the journey is (in his words) the 'least bad explanation' and to accept his argument that Xenophon's use of the distance formula would probably be more consistent if it had been fabricated wholesale or extrapolated from periegetic texts.[154] Wouter Henkelman has recently offered cogent support

[149] Rood 2010: 55–62.
[150] Purves 2010: 169–77.
[151] Rood 2010: 62 states that 'th[e] parasangs ... do not just map space, they also give an impression of place. That is, their presence in the first four books creates an Eastern flavour and their absence in the final three books, after the Greeks have returned to the sea, to a world of Greek cities, creates an appropriately different flavour.' Cf. Huitink and Rood 2019: 149 on the measurement of Larisa's circuit wall in parasangs (at 3.4.7): 'the use of parasangs suggests that X. is either reproducing local sources ... or self-consciously orientalizing.' Compare also Almagor 2020: 178–9. Purves 2010: 185–6 does not explain the use of parasangs per se but associates the turn from parasangs to stades after Trapezus with the Greeks' (imagined) return to a Greek landscape which they are now able to make sense of in familiar Greek terms.
[152] See Brulé 1995 for the Hellenicity of Xenophon's landscape, where some localities' conformity to Greek expectations, and others' exact inversion of these norms, are two sides of the same ethnographic coin; differently Purves 2010: 180–4, who emphasizes its alienness.
[153] Rood 2010: 64–5; Purves 2010: 170–1, taking a similar approach to the material as Rood, recused herself from treating the question too. Tuplin 1997: 414–47 argues for a diary and presents a full discussion of the problem, with bibliography, at 409–17; Cawkwell 2004: 55–9, updating his own earlier conclusions, maintains that Xenophon relied on external sources.
[154] Tuplin 1997: 412; quotation from p. 417; reaffirmed in Tuplin 2007: 7, with a tentative description of mile-markers as 'parasang-boards'. Contra Almagor 2020: 181–3, ultimately insisting on a Herodotean model for Xenophon's reportage while allowing (p. 183) that 'Xenophon may have noted down the days and estimated distances in a diary and readjusted them

to this idea by pointing to the phenomenon of Hellenistic mile-markers as a probable Achaemenid holdover.[155]

In this connection, we may note that one salient quality of Xenophon's engagement with bureaucratic-looking data in the *Anabasis* is his selectiveness. He does not evince the same omnivorousness or exhaustiveness as Herodotus, whose documentary-minded coverage ranges from particulars of domestic administration (for example, Darius' tributary districts, or the annual return from Babylonian fields) to assessment of the military (the catalogue of Xerxes' force) to the itemized holdings of international sanctuaries. Xenophon is aware of other types of administrative activity than the military-logistical counting of troops and of distances marched,[156] but he does not participate in their functions or present relevant findings (for example, provincial revenues). The data which Xenophon presents are so closely associated with the logistics of his own experience that the narrative itself bolsters the plausibility of Xenophon's generation of these data.[157] This relationship between author and data is rather different from that of the *Histories*: Herodotus' information is the synthetic product of wide-ranging, synoptic research, whereas Xenophon's proffered 'documents' are experiential.[158] What looks like a compositional exercise in Herodotus, then, achieves a new functionality in Xenophon's account. As has already been noted, the precise utility of Xenophon's documentation is harder to diagnose than its impression of functionality.

Given the plausible authenticity of Xenophon's information as data gathered en route in real time (or, at the very least, Xenophon's solicitousness to give that impression about his data),[159] we are faced with the strangeness of the whole enterprise — whether real or illusory — of army personnel gathering and recording that information in the first place. Tuplin's aporia illuminates the difficulty:[160]

> 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) or getting safely

when he began writing'.

[155] Henkelman 2017: 63–80.

[156] Cf. Xenophon's encomiastic remarks on Cyrus' promotion of οἰκονόμοι 'stewards' who prove themselves capable both of providing for and generating revenue from their jurisdictions (*Anabasis* 1.9.19). Xenophon does treat such matters elsewhere (in *Cyropaedia*; see Almagor 2020: 169).

[157] For logistically significant lists, also compare Xenophon's descriptions of local provisions, whose specificity Tuplin 1991: 49 adduces in support of a contemporaneous record of the march. Of particular interest for the present study is Tuplin's comment (at 49 n. 5) that 'P. Calmeyer suggests to me that there is a genuinely oriental tone in this listing of the "specialities" of the various villages'.

[158] See Grethlein 2013: 53–91 on the experiential construction of the *Anabasis*.

[159] A problem is the (in)accuracy of Xenophon's data, whose suspicious neatness and potential correspondences with Herodotean data Almagor 2020: 177–81 demonstrates. Nevertheless, such a sustained impression of diligent reportage requires more motivation, I think, than compositional engagement with Herodotus' relatively brief list of distances.

[160] Tuplin 1997: 416–17.

> home (after Cunaxa) ... So far as Cyrus was 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.

It is tantalizing to imagine Xenophon engineering the collection of these data on the ground — to think that he commissioned or personally performed a task analogous to what may have been part of the official repertoire of the bureaucratic apparatus of Achaemenid Kings, and perhaps a function of enough importance to merit attention even from aspiring Kings (if we suppose that Xenophon got the idea from Cyrus).[161] Was Xenophon aware of the overlap between these projects and his own chart of stages and parasangs? He does imply that his were not the only efforts to collect this data.

Tuplin has pointed out a range of possible implications of the unusual report of the distance between Cunaxa and the site from which all of Cyrus' troops marched in the morning before approaching the site of battle.[162] This distance is unique insofar as it is information explicitly sourced from others.[163] Rather than conforming to his habit of expressing distances as the internal object of Cyrus' progress or the army's march, Xenophon notes, with an odd collocation, that 'the parasangs of the route were said to be four' (τέτταρες ... ἐλέγοντο παρασάγγαι εἶναι τῆς ὁδοῦ, 1.10.1). Tuplin is right that this notice effectively amounts to the distance the army marched that day, but that is not Xenophon's primary characterization of the journey. Instead, it is focalized through the Persian officer Ariaeus and his barbarian troops, whose flight from Cyrus' camp at Cunaxa 'to the *stathmos* from which they set out in the morning' supplies the content of the ὁδός whose length is reported to Xenophon as four parasangs. This difference in focalization helps to explain the aberrant formulation of the distance in parasangs: this detail of Ariaeus' flight need not conform to the shape of entries in Xenophon's chart of march distances accomplished by the army.[164] While Xenophon does not express an agent for ἐλέγοντο, there is some temptation to associate the report, and the collection of the data, with Ariaeus' barbarian troops, or perhaps with the Greeks who bring intelligence on Ariaeus' position on the day after the battle, as well as a message from Ariaeus himself. The echo at 2.1.2 of the previous phrase 'the *stathmos* from which they had set out on the previous day' encourages an

[161] See Tuplin 1997: 406–7 on possible functions of 'road-counters' (*dattimara* / *KASKAL hašira*) mentioned in the Persepolis Fortification tablets.
[162] Tuplin 1997: 412–3; Rood 2010: 63 explained the incorporation of the oral source for this distance as a marker of uncertainty or 'cognitive confusion' appropriate to the conditions (both actual and literary) of the battle. See also Almagor 2020: 182.
[163] See Grethlein 2013: 86–8 on other passages with past-tense source references and how they are 'embed[ded ...] in the action'.
[164] The collocation παρασάγγαι ... τῆς ὁδοῦ is unparalleled in the *Anabasis*.

association between the reported parasangs at 1.10.1 and the intel presented at 2.1.2, though it is impossible to tell whether the parasangs were measured by the Greek scouts or by the Persians who were the object of their reconnaissance.[165] In any case, Xenophon insinuates that other parties engage in calculation of distances; in this instance, he has been able to access their results and has relied on them for his own reportage. Once again, it is striking that Xenophon was (or wants us to believe he was) so diligent in compiling these data that he would go to the trouble of consulting another contemporaneous source for them.

The latent consideration that pervades most accounts of Xenophon's motives for reporting stages and parasangs, including strictly narratological or literary analyses of his reportage, is an idea of control. For Purves, the failure of the parasang as a viable measure in the most difficult parts of the Anatolian landscape corresponds to the Greeks' lack of control over their environment, as illustrated by their inability to order that landscape conceptually.[166] Tuplin remarked on the general association between measurement and control, especially as an 'attitude of mind' proper to Persian Kings.[167] For some students of the *Anabasis*, Xenophon's framework of distances aims at prospective control by furnishing a road-map for a future Greek invasion of Persia;[168] this idea resonates with George Cawkwell's reading of panhellenist strains in the text, which hints at the empire's weakness through its representations of Persian characters' fearful attitudes towards Greek fighters and Cyrus' approval of Greek freedom.[169] Each of these interpretations traffics in the assumption that parasangs, and measurement by parasangs, are inextricably linked to questions of imperial management.

On my reading, Xenophon's collection and structural deployment of these data serves as an index of a bureaucratic mindset that is regarded as Persianate: an impulse to record and quantify, and particularly to do so in the homogenizing terms of an imperial standard unit. At *Histories* 6.42, Herodotus had depicted Artaphernes measuring land by parasangs; in the *Anabasis*, Xenophon performs and records the measuring. We witness a striking overlap of process, of product (that is, the chart as a preferred form for presenting data), and of usage: numbers of parasangs and of troops fulfil both a verifying function in Xenophon's narrative and perhaps a commemorative function, just as similar types of data had done in DB.[170]

[165] For the phrasing of Ἀριαῖος δὲ πεφυγὼς ἐν τῷ σταθμῷ εἴη μετὰ τῶν ἄλλων βαρβάρων ὅθεν τῇ προτεραίᾳ ὡρμῶντο (2.1.2), compare at 1.10.1 φεύγουσι διὰ τοῦ αὐτῶν στρατοπέδου εἰς τὸν σταθμὸν ἔνθεν <ἔωθεν> ὡρμῶντο, 'they flee through their own camp to the stage whence they started out at dawn' (accepting Gemoll's supplement ἔωθεν, printed by Brownson 1922: 92 but not by Dillery 1998: 136 in his revision of Brownson's text).

[166] Purves 2010: 168–77; a further contrast is drawn (at 174–5) between Xenophon's attempts to order the landscape and the successful structures of spatial control which Persian Kings imposed on it.

[167] Tuplin 1997: 409; cf. Henkelman 2017: 69–70, 72, 77. See also Almagor 2020: 169,179.

[168] Though, as the anonymous reviewer cautions, the specification of distances can achieve the opposite effect as well, as in Herodotus' corrective description of the Royal Road; cf. Almagor 2020: 174.

[169] Noted by Rood 2010: 52 with bibliography at n. 4, Cawkwell 2004: 64–7.

[170] On this aspect of DB, see Kosmin 2018. I shrink from positing with any sort of confidence that Cyrus could have measured his march to Cunaxa with a view to a commemorative

My purpose has also been to show how seamlessly Xenophon has integrated this kind of information, with all of its bureaucratic trappings, into the action of his narrative.[171] Moreover, I wish to emphasize that this 'scribal' mentality coexists in the *Anabasis* not only with an unfolding narrative, but also with a preponderance of explicitly oral environments and materials — for example, assemblies that form the backdrop of rhetorically embellished speeches and conversations in direct speech; overt references to oral sources for military and logistical intelligence (for example, defectors from King Artaxerxes and war captives at 1.7.12; cross-examination of captives in order to get directions at 3.5.14–17); conversations with incidental barbarians which Xenophon tells us must be conducted through interpreters. He even asserts an oral source for some of his bureaucratic-looking data, including the number of soldiers and chariots in Artaxerxes' army at Cunaxa ('there were said to be ...', ἐλέγοντο εἶναι..., 1.7.11) and (as we have already seen) the distance between Cunaxa and the previous encampment.

Xenophon's 'documentary' notices co-occur not only with this sort of oral material, but are also fitted into a narrative that engages with traditional oralistic story patterns of the oldest and highest pedigree, that is, Homeric and other νόστος 'homecoming' poetry. The *Anabasis* does not rely entirely on the emplotment of its details onto the familiar or traditional story framework (as it could perhaps easily have done) of *nostos*; but Xenophon exploits those associations in a strongly intertextual way.[172] Leon of Thurii assimilates the military 'toils', πόνοι, of the Ten Thousand to the wanderings of Odysseus by likening the army's putative opportunity to sail home in ease from Trapezus to Odysseus' direct, effortless (indeed, sleeping!) voyage from Phaeacia to his homeland: ἐπιθυμῶ δὲ ἤδη παυσάμενος τούτων τῶν πόνων, ἐπεὶ θάλατταν ἔχομεν, πλεῖν τὸ λοιπὸν καὶ ἐκταθεῖς ὥσπερ Ὀδυσσεὺς ἀφικέσθαι εἰς τὴν Ἑλλάδα (5.1.2).[173] The body of soldiers accepts this sentiment — and, implicitly, the comparison — with an outcry of approval: 'they shouted that he had spoken well' (ἀνεθορύβησαν ὡς εὖ λέγει, 5.1.3).

function for such data in future apologetic designed to accommodate his usurpation. Tuplin 1997: 408 with n. 69 discusses the use of distances (measured in *beru*) in Assyrian narrative accounts of royal campaigns as a phenomenon that is not standard, but is attested in a number of compositions from multiple Kings (including Esarhaddon and Assurbanipal); Tuplin's data suggest a correlation between *beru*-measurements and campaigns in the desert (a feature of Cyrus' journey registered by Xenophon's mention of 'desert marches', ἐρήμους σταθμούς). I wonder whether such Assyrian texts (or at least some inkling of their strategies) would have been a sufficiently pervasive part of the current repertoire of scribes that Cyrus (and/or his imperial partisans) could have looked to them as models.

[171] Cf. Rood 2010: 55–6, who has illustrated Xenophon's skilful exploitation of the 'iconic' quality of the *stathmoi*-parasang formula to engage readers as virtual participants in the journey of the Ten Thousand.

[172] For the complication or denial of *nostos*, cf. Grethlein 2013: 76–83. See however Purves 2010: Chapter 5, who has read the *Anabasis* as a 'refiguring of the epic *nostos* plot' (p. 165). Building on earlier treatments (cited at 163–5) of intertexts between the *Anabasis* and the *Odyssey*, she has read these allusions as informing a terrestrial, fourth-century *Odyssey*, where the strangeness of inland Anatolia functions as a counterpart to the (largely maritime) terrors of Odysseus' journey, and where Xenophon brings to bear the intermediate development of the *nostos* as a paradigm for colonization.

[173] 'I want to cease from these labours already and, since we have the sea at our disposal, to sail the rest of the way, and to arrive in Greece stretched out like Odysseus.'

In another episode with traditional echoes, a Homeric lexeme is employed in an illustration of the impassability of Carduchian terrain. The army's captive informants allege that, when a massive royal Persian force once made an expedition to Carduchia, none of its members had returned home (οὐδέν' ἀπονοστῆσαι) because of its δυσχωρία, 'difficulty of terrain' (3.5.16). The verb is a striking choice, unparalleled in Xenophon, but formulaic in Homer, always in the phrase ἄψ ἀπονοστήσειν (four times in the *Iliad*, twice in the *Odyssey*).[174] In fact, one of its contexts is in the Phaeacians' arrangements for Odysseus to return home at last and without further struggle (*Od.* 13.6)—the same Homeric moment referenced by Leon of Thurii. The root of the verb, νόστος 'homecoming', is redolent with traditional associations; beyond its primary signification, it practically amounts to a *terminus technicus* for a story type (and even genre of poetry) of which the *Odyssey* is exemplary. The heroic and traditional echo here is subtle but pointed: a royal Persian army had failed to achieve its own homecoming from Carduchia, but the Ten Thousand choose to brave this terrain anyway (3.5.17) and are therefore all the more impressive for managing to pass through it successfully as they work to achieve their own νόστος.[175] Of course, the fact that Xenophon taps into these associations of oral-poetic storytelling does not preclude him from continuing to observe his bureaucratic practice of dutifully recording march distances.[176] He has managed to synthesize the chart mentality and its functionalist dimensions with emplotted, culturally familiar and culturally significant narrative.

The fact that Xenophon embraces the chart as a means of collecting and presenting information, and that he employs it in order to structure his Persian odyssey, suggests a positive or at least appropriative attitude towards this intellectual strategy from the repertoire of Achaemenid historiography. As we have seen, Herodotus and Ctesias were also receptive to the chart and its uses, though Herodotus sometimes pointedly offered up traditional Greek alternatives when organizing his own material (like the non-list of the 300 Spartiates), perhaps in order to dissociate his own historiographical methods from a practice which he elsewhere associates with the Achaemenids.

Conclusion

The Greek historians of Persia, then, regarded the rigorous list-making and charting habit of the Achaemenid imperial bureaucracy (so pervasive as to be used by Kings too) as a useful and powerful organizational tool; indeed, Herodotus had seen the Athenian Empire adopt it wholesale in the monumentally inscribed Tribute Lists enumerating payments made by its allies. While Herodotus, Ctesias and Xenophon each experimented with the chart, whether as a stand-alone form (as in Herodotus' presentation of Xerxes' arrayed troops) or in the interstices of

[174] Cf. Purves 2010: 183 for the epic resonance of this word.

[175] A goal whose elusiveness and narratological deferment Purves 2010: 163–9, 192–5 rightly emphasizes. Cf. Grethlein 2013: 80–3. See Ma 2004 on fourth-century complications of the notion of 'homecoming'.

[176] I wonder whether it is significant that the poetic and heroic valences implied by ἀπονοστῆσαι are marshalled to overshadow a portion of the march (and of the text) from which the *stathmoi*/parasangs formula is absent (i.e., the Carduchian section as a whole).

narrative (like Xenophon's parasangs), they all tended to associate this tool with imperialism. In some cases, as we have seen, the association was hardly negative: by tracking the stages and parasangs of his journey through the Achaemenid hinterland, Xenophon offered his readers the outlines of a functional map of conquest — not only the one which Cyrus the Younger attempted to use in his failed coup, but one which panhellenist invaders of Persia might refer to in the future. Other Greek experiments with the Persian bureaucratic chart evince a suspicious attitude towards its imperial applications: rather than apply this reifying, commodifying technology to his data, Herodotus explicitly effaces the names of the 300 Spartiates and instead uses his critical and diachronic vantage as historian to offer an evaluation of which of them proved 'best' (ἄριστος) over the course of battle.

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