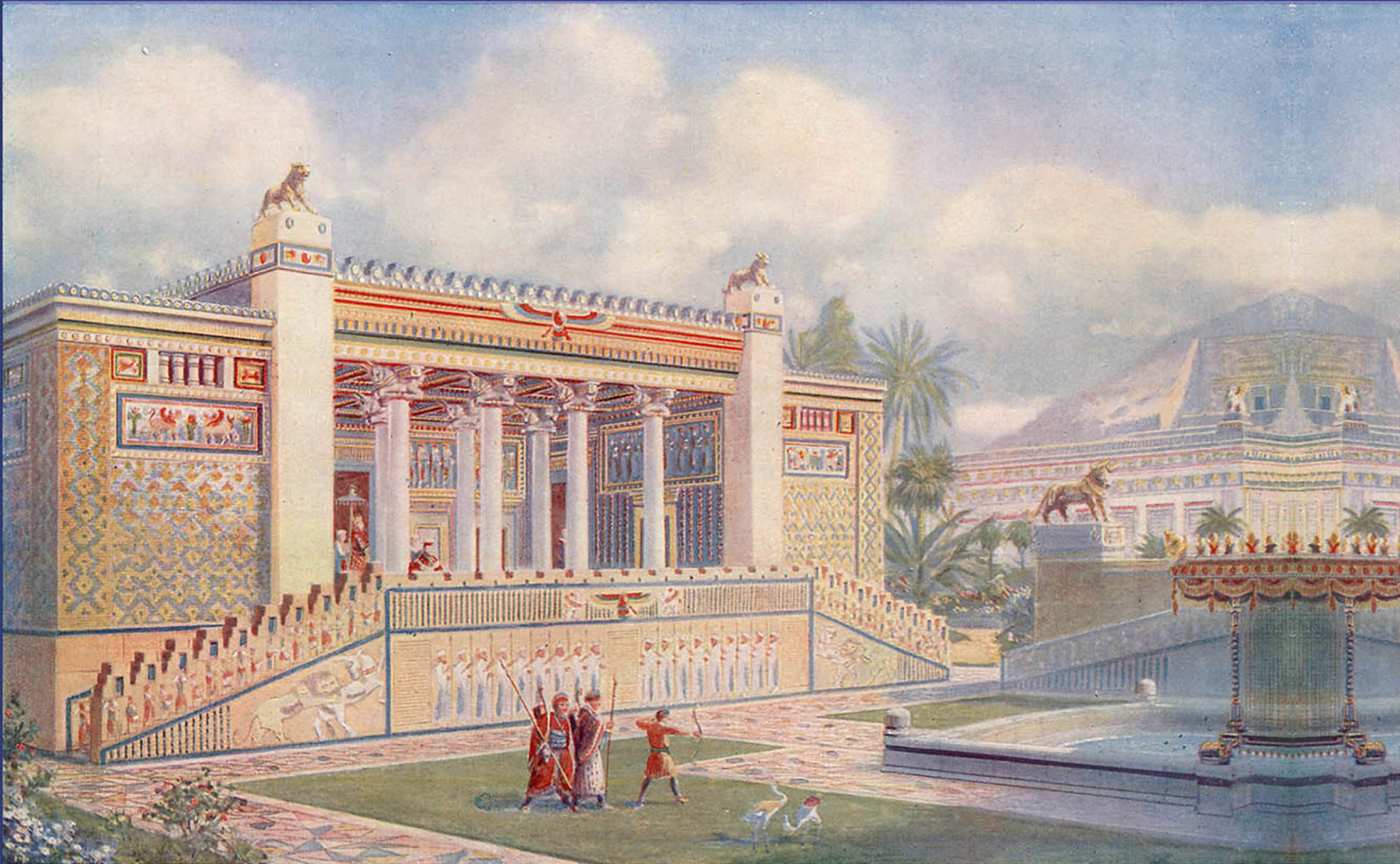


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Bruno Jacobs, Wouter F. M. Henkelman,
Matthew W. Stolper (Hg./Eds.)

Die Verwaltung im Achämenidenreich Administration in the Achaemenid Empire

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Herausgegeben von
Reinhold Bichler, Bruno Jacobs,
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Die Verwaltung im Achämenidenreich

Imperiale Muster und Strukturen

Administration in the Achaemenid Empire

Tracing the Imperial Signature

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und altorientalischer Überlieferungen«
aus Anlass der 80-Jahr-Feier der Entdeckung
des Festungsarchivs von Persepolis,
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Herausgegeben von/Edited by
Bruno Jacobs, Wouter F. M. Henkelman,
Matthew W. Stolper

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Die Herausgeber

Imperial Signature and Imperial Paradigm: Achaemenid administrative structure and system across and beyond the Iranian plateau

Wouter F. M. Henkelman, *Paris**¹

To Christopher Tuplin, in appreciation

1. *Of seals and satraps, camels and milestones* p.45; 1.1. *Seals* p.47; 1.2. *Satraps* p.49; 1.3. *Camels* p.55; 1.4. *Milestones* p.63; 2. *Institutional landscapes: from Hidali to Ecbatana, and from Čogā Miš to Tell Jemmeh* p.80; 2.1. *The district level: the case of Achaemenid granaries* p.82; 2.1.1. *Čogā Miš* p.84; 2.1.2. *Tell Jemmeh* p.86; 2.1.3. *An institutional landscape* p.92; 2.2. *The sub-satrapal or 'provincial' level: treasures* p.97; 2.2.1. *Hidali* p.97; 2.2.2. *Takht-e Ġamšīd* p.99; 2.2.3. *Arachosia* p.102; 2.3. *A network of networks* p.109; 2.3.1. *Susa* p.113; 2.3.2. *Ecbatana* p.129; 2.3.3. *Taoce and other βασιλεια* p.135; 3. *The earth far and wide* p.150; 3.1. *Arachosia* (bis) p.150; 3.1.1. *Qandahār and Gandhāra* p.151; 3.1.2. *Arachosia in the Fortification archive* p.157; 3.1.3. *A Fortification archive in Arachosia* p.169; 3.2. *Epilogue: Pāṇini's scribe* p.174; *Appendix 1: text editions* p.187; *Appendix 2: Achaemenid Gandhāra* p.208; *Bibliography* p.218

1. Of seals and satraps, camels and milestones

Sometime in the Fall of 325 BCE, Alexander, on his march through Gedrosia, reached a place, perhaps the Turbat oasis, boasting a grain supply large enough to feed his starving and exhausted army. Arrian, our main source for this ep-

* EPHE – mondes élamites et achéménides; UMR 7528 – mondes iranien et indien. I extend my gratitude to Bruno Jacobs, Amélie Kuhrt, and Matthew Stolper for commenting on an earlier draft of this paper; any remaining errors are mine.

Most Elamite texts cited in the following pages can be accessed, albeit often in tentative editions, in the OCHRE database accessible *via* oi.uchicago.edu/research/projects/persepolis-fortification-archive. Select text editions are presented in *Appendix 1*. Sigla used: ADAB = Aramaic text in Naveh / Shaked 2012; Fort. (as in 'Fort. 8866') = Elamite PFA tablet edited by G.G. Cameron, collated by R.T. Hallock, C.E. Jones and M.W. Stolper, collated and published by A. Arfae (2008a) and cited after re-collation by Henkelman; Fort. (as in 'Fort. 1316-101') = Elamite PFA tablet edited by Stolper and, when cited hereafter, collated by Henkelman; NN = Elamite PFA tablet edited by Hallock, collated and prepared for paper publication by Henkelman; PF = Elamite PFA text published in Hallock 1969; PFS = Persepolis Fortification seal; PT = Elamite Persepolis Treasury Archive (PTA) tablet published in Cameron 1948; PT 1963 = Elamite PTA tablet published in Cameron 1965. Elamite and Old Iranian measures of capacity are converted to metric volume, taking 1 QA (between 0.92 and 0.97 l.) as the approximate equivalent of 1 l.

isode, up to this point never ceases to impress on his reader how destitute and unexplored the region was: mostly a desert (ἔρημα, VI.22.2), with myrrh trees of which the commercial use had never been recognized (22.4), traversed only by a difficult route, without provisions and water (23.1), alongside a barren coastal strip (23.2), with no anchorage and only the primitive shelters of handful of miserable fishermen surviving on brackish water (23.3). The sudden find of an abundance of grain comes somewhat as a surprise, all the more so because Arrian hardly gives any context for it:¹

Once Alexander had reached a place in Gedrosia where grain (σῖτος) was more plentiful, he distributed what he had seized among the baggage trains, marked it with his own seal (σημηνάμενος τῇ ἑαυτοῦ σφραγίδι), and ordered it to be conveyed to the sea. But while he was going towards the halting stage (or: way station; σταθμόν) nearest the sea, the troops, including the guards themselves, paying little regard to the seal, used the grain, sharing it out among those suffering most from hunger.

(...) For his own part, he (Alexander) sent Cretheus of Callatis to convey the supplies as much as he had been able to gather by forays from the country to provision the force sailing round with the fleet. The inhabitants also were commanded to grind grain as much as they could and convey it down from the interior parts together with dates and livestock for the army market (ἐς ἀγορὰν τῷ στρατῷ), and he sent Telephus, one of the Companions, to another place with a small supply of ground corn.

What is presented here in a deceptively casual way is, as argued below, a brief glimpse of an institutional landscape, reminiscent of that documented by the

1 Arr. *Anab.* VI.23.4–6; translation adapted from P.A. Brunt (Loeb Classical Library, 1983). Much less detail is given in Strabo XV.2.5; the episode is only indirectly referred to by Plutarch (*Alex.* 66.3) and not at all by Curtius (IX.10.8–16), Diodorus (XVII.105.6), and Justin (XII.10.7). Although Arrian renders the whole operation as if it happened in a rather haphazard way (cf. below), Brunt goes too far in translating σῖτον τε ὅσον δυνατοὶ ἦσαν (23.6) as “all the grain they could spare” (i.e., the inhabitants). Also, Arrian nowhere says that the grain was owned by the people ordered to grind it. For select commentaries on the Gedrosian paragraphs (VI.22–26) and discussion of the underlying sources see Seibert 1985, 175–78 (geography), Besenval 1994, 525–30 (geography, archaeology), Sisti / Zambrini 2004, 554–64 and especially Bosworth 1996, 166–85. The observations made by Stein during several campaigns in the region remain of great interest: see particularly Stein 1943, 212–27 and compare *idem* 1931, esp. 52–144 and *idem* 1937, 70–131. Besenval 1994, 523 briefly mentions pre-Hellenistic (perhaps Achaemenid) occupation of Mīrī Qalat (period V), just northwest of Turbat (on the site see also Stein 1931, 54–6); a later publication reports the presence of Durrah-i Bast ware (Besenval / Sanlaville 1990, 123). Though a precise dating of first-millennium Balōcīstān ceramic assemblages has not been reached as yet, Durrah-i Bast ware can plausibly be related to the Achaemenid period (cf. Magee 2004, 52 and Magee / Petrie 2010, 508–14).

Persepolis Fortification Archive (henceforth PFA), and Alexander's well-informed use of it.²

1.1. *Seals*

Though it is difficult to estimate how many mouths were to be fed with the grain supplies found by the Macedonians, and for how many days, the amount must have been considerable. The passage suggests that the grain transport was intended for Nearchus and the fleet, but feeding the land army itself certainly was no less of a concern for Alexander. This land army, including servants, concubines and children, "must have exceeded 30,000" as Bosworth estimates (1996, 181; cf. *idem* 1988, 142 "absolute minimum"). Even if the grain was barely enough for one day and perhaps not even that, and assuming that nothing of it actually reached Nearchus, we are still looking at some 45,000 litres, but probably it was much, much more. To be added are chaff and barley for horses and pack-animals in relatively large quantities, as there would have been little time and opportunity for pasturing and as the animals' energy demands would have been high in the rough climate. The amounts implicit in Arrian's narration were, in other words, not of the kind that one would stumble across in a simple rural settlement.³

2 Throughout this paper, I assume that the reader is broadly familiar with the institutional household economy centred on Persepolis and the material documentation that it left in the form of Elamite and Aramaic clay tablets as well as abundant seal impressions. Recent introductions to the three corpora known as the Persepolis Fortification archive (PFA), the Persepolis Treasury archive (PTA) and the Mountain Fortification find, and to the Persepolis administration as a whole, can be found in Garrison / Root 2001, 1–60; Briant 2002: 422–48, 938–43; Kuhrt 2007: 763–814; Henkelman 2008a, 65–179; *idem* 2013a–b; *idem* [forthc. 1]; Garrison [forthc.]; Azzoni *et al.* [forthc.].

3 Engels (1978, 144) projects a daily cereal consumption of 280,210 lbs. by an army of 65,000 men and 8521 animals; assuming that the grain was barley, that would amount to some 212,000 l., not including chaff. The figure is certainly an overstatement in terms of individual rations: PFA evidence suggests a minimum of 1.5 l./day (rather than Engels' 2.3) for adult men, and 3 l./day (rather than 7.6) for horses and pack animals. This would result in a daily consumption of 'only' 124,000 l. On the other hand, the ration scales cited here assume normal conditions; an army marching in adverse climatic conditions could not survive such a dietary regime for very long. Notably the heavy burden of (pack) animals and the lack of extensive pasture time imply higher minimal rations, hence closer to what Engels suggested. See Gabrielli 2006, 35–62, 86–94 for a detailed discussion on rations for horses in PFA. The most common ration scale for an adult man in PFA, 1 l./day, covers only two thirds of his calorific needs; additional sources of nutrition are strongly implicit in the system. Standard travel rations for adult men amount to 1.5 l./day; these are

Secondly, even if the place where Alexander obtained fresh provisions was a fertile and well-developed oasis (not explicitly mentioned, for rhetorical effect), there is still the problem of collecting the grain and grinding it – a labour-intensive and time-consuming task. In this context, reference may be made to the flour tax, a *corvée* obligation to grind grain, that existed in Achaemenid Babylonia (cf. n.117 below). Given the volume of flour required by Alexander and the limited time-frame, it can be categorically excluded that it could be produced without an organized labour infrastructure and a ready, experienced workforce. The references to dates and livestock are equally telling: if these occurred in meaningful volumes, that necessarily implies date plantations of some size (as well as organized pollinating, harvesting and storing) and livestock-breeding far exceeding the level of mere subsistence.⁴

full rations, yet still of a minimum level. See Koch 1983, Henkelman 2011a, and *idem* [forthc. 2] § 2.5, with further references.

As for the actual size of the army as it passed through Balōcistān: Bosworth's absolute minimum of 30,000 for the total of armed troops, servants, wives, and children strikes one as implausibly low, Engels' 157,000 (*op.cit.* 111) as rather high. The daily need in grain may have been a function of an army size that lay somewhere between these extremes. Assuming 1) absolute minimal rations of 1.5 and 3 l. for men and animals and 2) the ratio of troops/animals as proposed by Engels, this results in a volume lying between 55,000 and 275,000 l. Although Engels' projections are unavoidably flawed by the lack of a more solid documentary basis from primary sources (notably PFA), his work on the logistics of the Macedonian army remains valuable, if only because it alerts us to the immenseness of such operations – wholly unthinkable without a pre-existing (*viz* Achaemenid) infrastructure (see Engels 1978, esp. 110–18, 134–43 on Gedrosia). Compare the reflections of Briant 2012, 180–82, *idem* [forthc.], and, on the logistics of military operations within the empire and the availability of large stocks of staple commodities, *idem* 1986, 37–40.

An interesting parallel to the Gedrosian case is that of the satrapal stores of weapons, flour, wine and barley in villages centred around a royal centre (βασιλειον) in the region of Nineveh (Xen. *Anab.* III.4.17, .24, .31). On this episode see Briant 1986, 37f.; *idem* 2002, 371f., 452f., 1037f.; Kuhrt 2014. See also Briant [forthc.] on Alexander in Pārsa.

- 4 That the dates provisioned for the army were (all) wild, as Bosworth 1996, 179 infers, is not mentioned in the sources (Arr. *Ind.* 29.1, Strabo XV.2.7, and Theophr. *Plant.* IV.4.13 do not pertain to the same episode) and seems to go against the logic of Arrian's narration. See also *Ind.* 29.5, where Nearchus' troops find dates in the deserted dwellings of the inhabitants, hence suggesting stored products from date farming, and *Ind.* 27.2, where a date-palm plantation at Barna/Badra is described. Wild date palms produce much less than cultivated (and manually pollinated) ones; the idea of an army plucking fruit from whatever trees they happened to come across seems very unrealistic.

Finally, and most conspicuously, the passage mentions the unprecedented use of Alexander's seal in logistic context, apparently outlandish enough to be disregarded by his own people. In the way Arrian narrates the event, it would seem that the sealing practice primarily served as a means to prevent unwarranted consumption by the transporters, though containers marked with the royal seal image would also express Alexander's authority. There is, however, a strange inconsistency in the narration: why does Arrian relate the hardships in so much detail, but omits to inform us that the land army was to be fed with the fresh supplies? And could Alexander really have expected his starving troops to obediently transport the supplies down to coast? That they opened the containers to feed the hungry seems only logical; yet, we are told, it was a transgression that needed to be pardoned by the king himself (VI.23.5). One wonders, therefore, whether the anecdotal rendering by Arrian does not hide a more intricate distribution process – necessary in view of the shortage of provisions and the various army divisions involved – in which bag sealings played a role in terms of identification, jurisdiction and accountability. In conjunction with the volume of commodities and the implied labour structure, Alexander's way of handling the supplies naturally evokes the Achaemenid infrastructure with its granaries and storehouses, organized work force, and refined distribution system.⁵ Some of the logistic force of the kind known from the Persepolis Fortification archive shimmers through in Arrian's evasive account.

1.2. Satraps

The link with the institutional economy centred on Persepolis/Takht-e Ğamšīd may have been even more direct than suggested above: Kṛmāna (Elam. Kurmana; Carmania, Kermān) was closely connected to Pārsa, in analogy to the satrapy of Elam (cf. below). Kṛmāna's satrap at the time of Darius I, Karkiš (*Karkiš; cf. Γέρκις in Hdt. VII.82, 121), frequently moved through the Persian heartland, typically with extensive (armed) troops (*taššup, taššup hallinup*). He had a direct association with Paišiyāuvādā/Naširma(nnu),

5 There is a possibility that "his own seal" in the passage cited refers to the former royal seal of Darius III, which Alexander adopted as one of his two royal seals and which he is said to have used in Persian contexts (Curt. VI.6.6). The uses of the two seals (and possible echoes of the Persian one) have been extensively discussed by Baldus (1987), but rejected in a short response by Hammond (1995). The latter's argument of an (purportedly!) unreliable context is insufficient to discredit the rather specific information contained in Curt. VI.6.6. Baldus assumes use of the 'Asiatic' seal (i.e., of Darius III) in the case of the re-sealing of Cyrus's tomb (Arr. VI.29.10) and that of the Gedrosian episode (*o.c.* 399f.). See also Müller, this volume.



Fig. 1. Tal-e Zohāk/Pasā seen from the northwest (photograph W. Henkelman).

known from Bīsotūn as a military stronghold of Vahyazdāta and residence of Gaumāta/Bardiya, hence plausibly also an administrative centre. This last notion is underscored by the Old Iranian name, if indeed it means “place of writing, archive.” The town is likely to have been situated in southeastern Fārs (along with Mt. Pṛga and Tāravā) and may well be identical with the imposing, Achaemenid-occupied site of Tal-e Zohāk/Pasā near present-day Fasā (fig. 1). Kṛmāna hardly occurs in the royal inscriptions (only DSf/DSz refers to it as a source of wood); it may have been part of an even larger interregional unit centred on Pārsa. If Karkiš answered to the authority of the heartland, as has been proposed, that would easily explain his involvement in (military) matters in southeastern Pārsa.⁶

6 For the proposed configuration of Kṛmāna as part of Greater Pārsa see Jacobs 1994, 197f., 200 and *idem* 2006a § 1.1. For the various connections and activities of Karkiš see Henkelman 2010a, 704–13. As the Bīsotūn inscription relates, Gaumāta rose from Paišiyāuvādā/Naširma (DB_p I.36f., DB_c I.18, DB_b 15), and Vahyazdāta found fresh troops at the same site (DB_p III.42, DB_c III.13, DB_b 76). The etymology of Paišiyāuvādā/Pēšiyāuvādā as cited here goes back as far as Justi and is endorsed, among others, by Kent 1953, 194 and Tavernier 2007a, 74f. [2.3.37]; Schmitt 2014, 224 regards all solutions thus far proposed as indecisive. See on the two names of the place also Metzler 1977, 1057f. and on the historical significance particularly Wiesehöfer 1978, 51–54. On the Elamograph Beš/ziyamatiya see Tavernier 2007a, 74 [2.3.36] (reconstructing *Pēšiyāhvādiya-, variant of *Pēšiyāxvādā < Paišiyāuvādā-); compare Schmitt 1978a: 119f. The town or stronghold is generally

Another huge fortified site (75 ha) occupied in the Achaemenid period should be mentioned here: Qal'eh-ye Kūček in the Halīl river valley (18 km south-west of Ġīroft). A recent, tentative proposal identifying the site with the satrapal centre (ancient Kṛmāna) remains to be corroborated, but its existence at any rate underlines the development and control of the Kṛmāna region. Another case in point is Puruš (*Pōruš): Karkīš is once introduced as “satrap (in) Puruš” and en route to the same place (PF 0681). It therefore denoted an administrative subdivision and/or its centre. Unless one is willing to accept two places of the same name, Puruš may be identified with Ποῦρα, the town or district where the royal residence (βασιλεια) of Gedrosia was situated (Arr. *Anab.* VI.24.1, 27.1) and where Alexander allowed his army some days of rest. This probably indicates that Gedrosia fell under the control of the satrap of Kṛmāna. Though extensive, the territory purveyed by Karkīš finds its rationale in the major routes of the empire that transected it, notably the one leading to Arachosia and Hinduš. This latter aspect is illustrated in documents on travellers who came from Hinduš and whose travel authorisations were sometimes renewed by Karkīš. Finally, Kṛmāna's satrap presumably was responsible for the copper, iron, orpiment and cinnabar mines observed by Nearchus and/or Onesicritus (Plin. *NH* VI.26/98).⁷

believed to be situated in southeastern Fārs. Tal-e Zohāk has a history dating back to the third millennium and was settled in the early Achaemenid period. A previous identification (by Hansman 1975, 304–9 and others) of Tal-e Zohāk with Matezziš/Uvādaiča- can be excluded as PFA clearly shows that the latter was in the immediate vicinity of Takht-e Ġamšīd (so already Hallock 1977, 130 and *idem* 1978, 113; see esp. Sumner 1986; see also § 2.2.3 below). Tal-e Zohāk has a 22 m high central mound and an extensive lower site (680 × 750 m) surrounded by a rectangular moat. Apart from Achaemenid pottery (carinated bowl with averted rims) and mudbrick constructions (including a terrace built atop the prehistoric tell), a series of stone column bases (some rather large) and a small lion sculpture were found at the site. See Hansman 1975, 294–303 and *idem* 1999; Pohanka 1983; Tuplin 1987a, 201 (and 203); Miroshedji 1972 and *idem* 1990, 52, 64; Lamberg-Karlovsky/Magee 1999 and *idem* 2004, 33–36; Boucharlat 2005, 233f. See also Henkelman 2012a, 938.

Mt. Prga and Tāravā (Tāraavan-) both occur in the context of the initial stages of the Vahyazdāta revolt. The first is probably modern Fūrg, on the caravan road leading from Fasā to the south-east, about 100 km SW of Dārāb; the second is referred to by Ptolemy as Ταρούαβα (VI.8.13 [*var.lect.*]; see Metzler 1977, 1059) and is said to be in Carmania (rather than Persis), highlighting the integration of various regional subdivisions. The name seems to be continued in that of mediaeval Tārūm, on the same route as Prga/Fūrg, about two marches further to the east. See Henkelman 2012d, with references.

7 For Qal'eh-ye Kūček see Azadi / Ascalone / Peyronel 2012 (the identification with ancient Kṛmāna is briefly proposed on p.287); the site is already mentioned by

To summarize, evidence from PFA indicates overarching authority for the satrap in Kṛmāna, also in conjunction with the satrapy's place in a larger interregional unit. It included the valleys giving access to southeastern Fārs, regions east of Kermān proper, along the route to Hinduš, and arguably the islands in the lower Persian Gulf.⁸ Known places in this wide area are viewed

Stein (1937, 150), who mentions the possibility that the ancient satrapal centre was in the Ġroft area, but prefers a location at Kermān itself (*ibid.* 157 and cf. 136f.). For the identification of Puruš with Ποῦρα and see Henkelman 2010a, 705f.; see also n.10 below. For the name see Tavernier 2007a, 393 [4.3.171]. Ποῦρα is usually placed on the other side of the Ġāz-e Mūrīān depression (at or near Bampūr), but has not been identified with a particular site (see Stein 1943, 222f.; Besenval 1994, 525). Also relevant in this context are the Achaemenid levels (Period II) at Tappeh Yahyā (Magee 2004) and the various sites mentioned in Boucharlat / Salles 1981, 65f. As for the routes crossing Karkīš' region: three texts mention Indians travelling to the west or northwest with a *halmi* (in such contexts a "sealed travel authorisation") from Karkīš: PF 1437, NN 2041:18–21, and NN 2195:08f. Travellers from Hinduš more commonly carry an authorisation from Irdu(k)bama (see § 3.1.1 and *App.* 2). Mining: compare the Achaemenid (and Sasanian) salt mine of Dūzlākh (Čehrābād, Zanġān), apparently fairly extensive and conducted in an organized way (see Aali / Abar / Stöllner 2015, esp. 52–4). See also Ps.Arist. *Oec.* II.1.4 with the comments of Briant 2002, 400f. and Hdt. VI.119 with the comments of Henkelman [forthc. 2] § 2.5 n.67.

- 8 The possible inclusion of the islands is based on the Bagiya dossier. This person travels with the royal woman Ištīn, who may have been his wife (PF 0823); he receives rations as high as those for Parnakka (NN 2259:27–28; also PF 0823, NN 1662); he has a professional entourage of 100 or more *puhu*, "servants, aides" (same group in PF 1377, PF 1399, NN 0809, NN 2139; also NN 2206:13–16 and probably PF 1456) as well as his own *hasura* (NN 0136). He is travelling to Kṛmāna in Dar.19 (NN 1662) and from there, with an authorisation from Karkīš, to the King in the following year (NN 2259:27f.). His aides are also travelling from Kṛmāna (PF 1377, PF 1399, NN 0809, NN 2139, PF 1456, NN 2206:13–16) and once he himself is called a ^{AS}*kur-ma-nu*'-ia-ra, a "Kermāni" (PF 1377). Four related texts speak of one hundred *puhu*, "servants, aides," whom Hindukka is escorting from Kṛmāna to Susa (PF 1377, PF 1399, NN 0809, NN 2139; all with PFS 0223). This Hindukka is once called *iršara*, "leader" (NN 2139) and once *iršara kapnuški*, "head (of) the treasury" (NN 0809).

Taken together, the evidence suggests that Bagiya was a noble Persian (possible marriage with Ištīn), had a rank comparable to that of a satrap (as his rations imply), but was subordinate to Karkīš (whose travel authorisation he required). He is called "the Kermāni" although he was not the satrap of this region. His assistant, Hindukka, is identified as head of the treasury, probably because the hundred aides he travelled with were transporting tribute.

Perhaps it not too far-fetched, then, to identify Bagiya with Bagaeus, father of the Mardontes who commanded the islanders from the Persian Gulf in Xerxes's army in 480 BCE (Hdt. VII.80). The underlying assumption, for which there is no proof,

from different perspectives in our sources (Bīsotūn, PFA, Alexander biographies) and are therefore variously described or referred to as (royal) residence (Tāravā; Puruš), stronghold (Paišiyāuvādā; Prga), and administrative/political centre (Paišiyāuvādā; Puruš; Kurmana/Kṛmāna). This apparent variation, however, cannot hide that they were part of the same network.

The aforementioned Fasā and Dārāb plains, to which one may add that of Nīrīz, are described as fertile and productive in early Islamic sources and remain very attractive today; they arguably constituted corridors in a natural eastward and southeastward expansion of the Persian heartland in terms of centralized agricultural development, the defensive network, and interregional trade.⁹ It would seem that Arrian's elusive "place where grain was more

is that Mardontes' position was previously held by his father. If Bagiya/Bagaeus was the commander of the islands in the Persian Gulf during the reign of Darius, it would explain his travels and status, but also his presumable subordination to the satrap of Kṛmāna. Jacobs 1994, 198f. and 206 (and *idem* 2006a § 1.1.2) arrives at a similar conclusion for the situation in 325/24 BCE. See also Potts 2010, 529–33 and [forthc.] on the local hyparchs; see Boucharlat / Salles 1981, 68 and Khosrowzadeh 2014 on Achaemenid sites on Qešm. Furthermore, Bagaeus, father of Mardontes (II), may be the same as the Bagaeus son of Artontes (Mardontes I?), who was the hero of the Oroetus affair (Hdt. III.128) and whom Lewis already identified with our Bagiya (1984, 600; *idem* 1985, 112). Finally, Mardontes (II), may be the same as the adjunct-satrap of Susa, Mardunda (i.e., having a junior position before succeeding to his father); see § 1.4 n.52 and § 2.3.1 n.98. On various aspects of the Bagiya dossier see Giovinazzo 1995, 151f. (*puhu*), Brosius 1996, 28, 72, 143 (Ištin), Henkelman 2003a, 133f., *idem* 2008a, 414 (with full references), and Henkelman / Stolper 2009, 302. Koch 1993a, 16f. treats the dossier to some extent and concludes, based on Hindukka's role, that Bagiya was a satrapal treasurer. While this possibility cannot be ruled out completely, PF 0692 is certainly not relevant for it: the text speaks of Bakagiya (en route to do accounting: *mušin-zikkime huddaš*), not Bagiya.

- 9 Nīrīz in eastern Fārs, on the route to Kermān, is frequently mentioned in PFA (as Narezzaš, reflecting *Narēča) and constituted the easternmost larger town within direct purview of the Pārsa administration. It also boasted, if my analysis of the pertinent texts is correct, the tombs of Cambyzes and his queen, at which regular funerary sacrifices were offered during the reign of Darius I and probably beyond. The importance of Nīrīz, continued in the Sasanian period, must relate to its strategic position. See Henkelman 2003a and Henkelman / Miri [forthc.]. Note, in this context, the impressive water reservoir (with an estimated capacity of 720,000 m³) on the northern shore of Lake Tašk (on the other side of the salt lake system to which Nīrīz belongs), which Kleiss dates to the Achaemenid period (Kleiss 1992, 136–41, pls. 34f.; *idem* 2000, 755).

One more toponym may be mentioned here: Nupištaš, presumably pronounced /Nipištaš/ and reflecting *Nipišta-, lit. "written," hence "(place of) writings." The name perhaps points to an administrative centre and/or an archival facility of some kind (note the *īyan*, "court, palace," at Nupištaš mentioned in PT 02). As Schmitt

plentiful” – be it the Turbat oasis or a place in its vicinity – was essentially an extension of the same network, further into greater Kṛmāna and its eastern subdivisions.¹⁰

(1991) has shown, Nupīštaš is clearly part of the territory under purview of the Pārsa administration, yet Ptolemy puts Νιπίστα (*Geogr.* VI.8.13) in Carmania. Both perspectives, by analogy with the case of Paišiyāuvādā/Naširma (above), may be correct but this has to remain speculative as long as Nupīštaš cannot be located on the map. It is clear that identification with Naqš-e Rostam (as Gershevitch 1969, 177–9 and Hinz 1970a, 425f. previously suggested) is not very likely, but evidence for an alternative connection with the Tirazziš/Šīrāz region is as yet inconclusive (NN 0838 has workers from both places; the grain supplier mentioned, Uštana, is active at Tirazziš in PF 1105, NN 0359, NN 1105; he appears again with people from Nupīštaš in NN 1029). See Hallock 1977, 132 (southeastern Fahliyān), Schmitt *op.cit.* (Sīrḡān or Bāft; hesitant), Henkelman 2008a, 435 n.1002, and Arfaee 2008a, 14. Finally, the presence of a toponym *Nipīšta- in Pārsa proper, makes it even more unlikely that the verbal form *nīpīšta- (for expected *nīpīsta-) constitutes a loan from the conjectured ‘Median’ language, which in turn would show that the Persians learned the idea of script from or *via* the Medes (as Schmitt 1997). Regardless of the problematic significance and historical consequence attributed to a mere dialectal variation, it will be hard to deny that the Persians were confronted with writing in an Elamite (rather than Median) milieu.

- 10 Although I agree with Jacobs’ analysis (1994, *passim*; *idem* 2006a; *idem*, this volume) of the Achaemenid satrapies and sub-satrapies as a coherent and refined system, known to administrators throughout the empire (a view ever more clearly corroborated by PFA), I think that his assessment of the convoluted Gedrosia/Maka dossier (1994, 82–4, 230, 248–50) may be reconsidered in the light of new evidence. The current understanding of the archive unquestionably vindicates Jacobs’ connection of Kṛmāna to the heartland (Pārsa; cf. § 1.2), but simultaneously seems to subordinate Puruṣ (Gedrosia) to the latter unit – hence different from the perspective that takes Gedrosia/Maka as a main satrapy (*Hauptsatrapie*) subordinated to Arachosia (*Großsatrapie*). The main argument for the latter proposal is Alexander’s decision to put Gedrosia and Arachosia under the authority of the same satrap (Arr. *Anab.* VI.27.1). The passage relates an effort to repair a number of earlier, unsuccessful appointments; it may well reflect a new arrangement (note the alternative versions in Curt. IX.10.20f., Diod. XVII.81.2). At any rate, it does not support the often assumed identity of Maka (in the royal inscriptions) and Gedrosia (in the classical sources). Arrian and Strabo treat ‘Gedrosia’ as the name of a limited (tribal) area in western Balōčistān (Curt. IX.10.18 and Diod. XVII.105.3 are even more restrictive). PFA evidence lends decisive support to this view, as it distinguishes between 1) a unit defined by, or centred on, Puruṣ and governed by Karkīš, satrap of Kṛmāna; 2) a unit Makkaš (Maka) governed by Irdumašda and (later/earlier) by Zamašba (on the name Irdumašda see now Tavernier 2015). Finally, the so-called Durrah-i Bust ware from several sites in western Balōčistān, including Mīrī Qalat (Turbat), finds good parallels in Period II (500–250 BCE) at Tappeh Yahyā (Kermān). As Magee and Petrie note, this circumstance may reflect increased contact between the regions

1.3. Camels

What Alexander apparently also lacked (at least in sufficient numbers) during his ill-fated crossing of Gedrosia – and what may have constituted a far graver problem than the shortage of supplies – were camels. Arrian relates that Stasanor and Phrataphernes, the satraps of Areia and Parthia, guessing what trouble the Macedonian army would run into, sent on their own account a large number of transport animals and camels, large enough indeed to distribute them to all the officers and sub-officers (VI.27.6). Curtius, who graciously allows Alexander to be the initiator of the transport, similarly relates that the satrap of Parthia swiftly produced camels carrying prepared food (*cocta cibaria*) to relieve the army (IX.9.17f., 22).¹¹

Once again, these bits of information should give us pause to think. The prepared food, more suitable than fresh commodities in the warm and humid climate of southern Iran, already shows insightful planning on behalf of the satraps. But most important are of course the camels, the logical means of

within Achaemenid context (Magee / Petrie 2010, 514, 520; cf. Magee 2004, 52 and § 1.1 n.1 above). Taken together, the available evidence suggests that Puruš/Gedrosia was an administrative subdivision of Kṛmāna; it does not seem to have coincided with Maka.

Maka (Elam. Makkaš) had its own satrap, as explicitly mentioned in three texts (PF 0679, PF 0680, NN 2135); travellers going to Maka are once identified as Arabs (^{HAL}*har[-ba]-a-be*; PFA 17). The Akkadian versions of the royal inscriptions use Qadê for Maka, which points to the Oman peninsula. But PFA also implies connections with the Fahliyān region, Tamukkan, and the satrapy of Kṛmāna. The explanation may be 1) that these gave access (*via* Būšehr or Bandar-e ‘Abbās) to Maka; 2) that ‘Maka’ actually referred to a cultural and administrative entity on both sides of the lower Persian Gulf and the Gulf of Oman. The area thus defined has long known a cultural koinē and in some aspects still does (note also that the Sultanate of Oman controlled Gwādar and parts of the Makrān coast until 1958). See Potts 1985a–b; *idem* 1986 (connecting Makā with both sides of the Persian Gulf); Eilers 1986 (discussing, i.a., Mokrān and Μάκρων κόλπος [Ptol. *Geogr.* VI.7.17]); De Blois 1989 (stressing the Oman connection and the ancient name of Oman, Mazūn > Mačiya); Salles 1990, 114–9 (Oman); Henkelman / Stolper 2009, 305 (PFA evidence). To the relevant Fortification texts, Fort. 1035-101 and Fort. 2089-102 may now be added. The first mentions 172 Maziya, “Makians” (OP Mačiya- + Elam. plural ending -p) travelling to Makaš; in the second, 23 people are travelling from Makaš with an authorisation from Irdumašda.

- 11 On the military and logistic context see Briant 1986, 37; Olbrycht 2004, 174. The episode is only briefly evoked by Plutarch (*Alex.* 66.3); for Diodorus (XVII.107.7), whose account largely agrees with that of Curtius, see below. Travelling in Persian Makrān (part of ancient Gedrosia) under difficult circumstances in January-February 1932, Sir Aurel Stein was similarly relieved to receive a well-provisioned Persian escort mounted on camels (Stein 1937, 94).

transport in the regions crossed by Alexander and, in fact, an important factor in the overall ‘connectivity’ of the empire.

That it was the northeastern satraps who provided camels (and other transport animals) reminds one of the Bactrian camels presented by the eastern and northeastern delegations on the reliefs of the throne hall at Takht-e Ġamšīd.¹² Yet, the numbers involved and the apparent speed with which they were loaded with food and sent off to Alexander also betray the imperial context and point to a developed system, both in terms of the logistics of the operation, and in the implied large-scale breeding and herding. In this regard, Axvamazdā’s letter to Bagavanta concerning camel keepers in Achaemenid Bactria is of prime interest.¹³ The document relates to a surcharge levied from a group of royal camel-keepers and reveals that such people could be in possession of cattle, livestock and land. This context appears to imply that there was an organized economic structure designed to support camel herding and breeding, hence to enable regular camel caravans.¹⁴

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- 12 For discussion see Afshar 1978. The identification of the delegations bringing Bactrian camels remains, like that of other delegations, disputed; there is consensus, however, that they are from the northeastern satrapies. To cite a few proposals (among many others): Schmidt identified delegations 4, 7, 13, and 15 as those of the Areians, Arachosians, Parthians, and Bactrians (Schmidt 1953, 85–8, pls. 30, 33, 39, 41); Hinz was convinced that it had to be the Parthians, Arachosians (or Drangianans), Bactrians, and Areians (1969, 95–104); Roaf opted for Areians, Drangianans, Bactrians, and Parthians (Roaf 1974, 106–10, 113–5, 149); Jacobs thought of Areians, Drangianans, Bactrians, and Arachosians (Jacobs 1982, 81f., 84); Hachmann, finally, believed they were the Areians, Drangianans, Bactrians and Parthians (Hachmann 1995, 206–8, 213, 220). On camels in Achaemenid art see Pitchikjan 1992, 31–5, pl. 17 (dromedary on an Oxus gold plaque); Root 2002, 203f.; Potts 2004, 146, 151f.; Gabrielli 2009, 211f.
- 13 ADAB A1; see also B8 (camels on pasture) and C3:22. On A1 compare Briant 2009a, 149 and Tuplin 2013, 96f. The subject of institutional camel-breeding brings to mind the 2000 camels (besides many pack animals) that Sisimithres handed to Alexander in Sogdia (Curt. VIII.4.19–20; note that the camels are carrying *cocta cibaria*, as in the Gedrosian case). Incidentally, Arrian, referring to the same or a closely related episode, speaks of the great stores of the Rock of Choriene, containing grain, wine and dried meat, one-tenth of which was enough to serve as provisions for the army for two months (*Anab.* IV.21.10). Compare Briant 1984, 81–8 and Tuplin, this volume.
- 14 Graf (1993, 151; 1994, 172) has pointed out that, in Ptolemaic and Roman Egypt, the term *ἀγγάπια* denoted certain obligations for the support of the royal and imperial mail; it may, as he suggested, reflect an earlier institution akin to the Mesopotamian *ilku* service. This, in turn, invites comparison with the case of the royal camel keepers, the economic structure supporting them, and the role they may have played in the road system (trade, transport). Graf’s suggestion retains its value regardless of

In the Fortification archive, too, camels are regularly mentioned: in travel contexts, in stock inventories, as animals on pasture, and, as in Bactria, as royal animals. The camel bones found in Achaemenid stratigraphic context at Čoḡā Miš, an administrative centre in Khūzestān (cf. below, § 2.1.1), fit this institutional embeddedness. As for numbers: a group of 200 grazing camels occurs in a series of Fortification texts and one livestock account states a total of no less than 435 locally-bred animals.¹⁵ Such references indicate that the hundreds and even thousands of camels cited by the classical sources – carrying the King’s private treasure, the royal camp and provisions for the ten thousand Immortals – are certainly not beyond imagination.¹⁶

the etymology of Gk. ἄγγαρος, ἀγαρήτιον, etc.: OIr. **ham-kāra*- “der etwas erledigt” (Schmitt 2011, 327) or, as Graf prefers, Aram. **ingarā*’, “messagio” (cf. Ass. *egirtu/igirtu*, “letter” – Mancini 1995/96). The name Gaugamela was explained by popular etymology as “Camel’s House,” supposedly because it was made an estate for the maintenance of Darius I’s loyal camel (Strabo XVI.1.3; cf. Plut. *Alex.* 31.7); is this a clouded reference to an economic structure for institutionalized camel breeding?

- 15 Stock inventories featuring camels: PF 0331 (cf. Brosius 2003, 280 n.26), NN 0258, NN 0757:01-09 (435 animals), NN 2670, NN 2675, NN 2676. Hides from slaughtered camels: PF 0077. Rations for camel herds: PF 1077, PF 1950:01-06, PF 1018; for camel drivers: NN 1973. Royal camels: PF 1787 (also PF 1786, PFa 26, PFa 29:48’); cf. Briant 2002, 464f. “Camels of the road” (ANŠE.A.AB.BA^{MES} AŠKASKAL^{MES}-na), i.e., presumably in the express service: NN 2371:03-05. Compare Abulites’ gift of *dromades cameli*, famed for their speed, to Alexander at Susa (Curt. V.2.9–10, with the remarks of Gabrielli 2009, 211, 214) and Aelian’s reference to Sagaraean camel races (*NA* XII.34). Camels on pasture (*zarakkaš*): NN 1058, NN 1109, Fort. 3546. Collation of the last text (= National Museum of Iran BK 2045) and comparison with NN 1058 and NN 1109 yielded the following corrections of Arfaee’s edition (2008a, 242f.): in ll.6f. read *si- | ud-du-ma-ib-ba* (not *ri-ut du-ma-ib-ba* [the camels are hardly receiving tax!]), in l.8 read *i du-kaš-da* (not *ha²-^r du²-kaš*), and in l.11 read *za²-rak⁰-kaš* (not *ha²-^r du²-kaš*). Other rations for camels: PF 1711, PF 1845, PF 1957:07-08, NN 0471, NN 2265:16.

The word used for camel in PFa 26 (cf. above) is *zibbaru*, which Blažek 1999, 63f. connects to East-African forms such as Somali *dubeer*, “decrepit pack-camel.” There are some other technical terms that occur only in camel texts; together with ration scales they may throw some light on the subspecies that were present in the Pārsa economy. Beyond *C. dromedarius* and *C. bactrianus*, there is also the possibility of hybrids. Potts 2004, 153–61 argues for an early (Neo-Assyrian) date of camel hybridization; if it existed in their days, the superior qualities of the *bokh* would not have escaped the Achaemenids. Compare the arguments advanced by Gabrielli 2009, 215–18. On camel hybrids in general see Bulliet 1975, 143–45 and Potts *op.cit.* 155–58.

- 16 See notably Curt. III.3.24 (300 camels for the royal treasure), Dem. *Or.* 14.27 (1200 camels, *idem*) and compare Diod. XVII.71.2 (3000 camels for carrying the treasury

A travel party with travel guides riding camels (i.e., dromedaries) occurs in one of the letters ascribed to Themistocles (Ps.-Them. 20.28). Regardless of its doubtful authorship, the description the letter offers of the imperial road system chimes well with PFA.¹⁷ Among other aspects, this is true for the deployment of camels in travel context: they are frequently found on the road between Susa and Pārsa, but could also come from Gandhāra, as illustrated by NN 0431:¹⁸

⁰¹ 480 l flour, ⁰¹⁻⁰² allocation from Katukka, ⁰²⁻⁰³ a Ghandāri named Zakurra received as rations: ⁰⁴ he himself received 3 l, ⁰⁵ 10 men each received 2 l, ⁰⁶⁻⁰⁷ 160 men each received 1.5 l, ⁰⁷⁻⁰⁹ 120 servants each received 1 l, ⁰⁹⁻¹¹ 12 camels each consumed 3 l, ¹²⁻¹³ 31⁹ mules each consumed 2 l. ¹³⁻¹⁴ He (Z.) carried (showed) a sealed document (travel authorisation) from Irdatakma. ¹⁵⁻¹⁶ They went from Gandhāra to Susa. ¹⁶⁻¹⁸ 20th year, tenth month (Jan.-Feb. 501 BCE).

It is likely that the Gandhārans had travelled *via* the Kermān region, rather than taking the coastal route, but the text shows in any case the use of camels in the southeastern part of the empire. There are some snippets of evidence to add to this: Nearchus found (and ate) camels in a settlement along the Gedrosian coast (Arr. *Ind.* 29.5) and Marcianus of Heraclea, writing in the 4th century CE, knew of καμηλοβοσκοί, “camelherds,” inhabiting the coastal zone of Carmania (*Periplus* I.27).¹⁹

of Takht-e Ġamšīd). See Briant 2002, 256, 261, 527 and Gabrielli 2009, 209f. for further references. The evidence here cited inspires caution as to Bulliet’s assumption (1990) that camels were not used in large pack caravans in the Achaemenid period. For Čoḡā Miš see Delougaz / Kantor 1996, 11f. and pl. 257; Alizadeh 2008, 204. These publications cite the (leg) bones as being from *Camelus sp.*, i.e., without deciding which subspecies is represented.

- 17 As recognized by Briant 1992; cf. *idem* 2012, 188f. and Tuplin 2013, 55 with n.141.
- 18 For a collated edition of the text cited here see *Appendix* 1.1; Hallock’s uncorrected manuscript edition was cited previously by Giovinnazzo 1994a, 28f. and *idem* 1994b, 34; compare also Gabrielli 2009, 214f. For camels on the road between Susa and Pārsa see PF 1418, NN 1694 (implied), NN 2115, and NN 2547.
- 19 Strabo XV.3.1 uses the same term for people who, seemingly, are located in the north of Persis. To be precise, the geographer speaks of a hot and sandy zone at the coast, followed by flat and fertile lands, again followed by mountains towards the north. Arr. *Ind.* 40.2–4 essentially gives the same description. Though often cited as a description of the *whole* of Persis (as in, e.g., Henkelman 2012a, 932), several visits to the Persian Gulf coast (southern Būšeher and the Greater Lārestān region) have made me doubt the correctness of this reading. Perhaps the passage has a more limited scope, a view from the sea so to speak, involving 1) the arid, but generally narrow coastal strip, 2) the fertile (if irrigated) plains beyond these, 3) and the majestic, forbidding rise of the Iranian plateau. See n.136 below.

These references, disconnected as they are, evoke the *longue durée* perspective of the spread of the Arabian dromedary (*Camelus dromedarius*) and the ‘Bactrian’ or Asian camel (*C. bactrianus*) to the Near East and the development of southern trade routes, rivalling the Assyrian-controlled northern network. This fundamental change already started in the late second millennium BCE, but its full impact became tangible only from the Neo-Assyrian period onwards. It was made possible by the development of camel-based pastoralism on the Arabian peninsula, which in turn made trans-Arabian trade economically viable, and then led to the spread of the camel and camel caravan trade beyond Arabia proper.²⁰

It has often been emphasized how important the intensified connections between the Arabian peninsula (and perhaps northeastern Africa) and southern Babylonia were – Nabonidus’ Arabian strategy being a prime illustration of the shifting power balance. Tell Jemmeh, some 10 km south of Gaza, has yielded the most important material evidence pertinent to our case: though camel bones are present in layers dating to the Neo-Assyrian period, there is a dramatic increase in the Neo-Babylonian and Achaemenid strata (188 out of 328 datable bones).²¹ The remains are primarily from adult camels (dromedaries) and may therefore belong to older animals removed from service in long distance merchant caravans (rather than from animals herded by local pastoralists or bred by the inhabitants of the site). These caravans would presumably have been involved in the spice trade, but they may also have played a role in the transport of grain – stored in vast quantities at Tell Jemmeh (cf. below § 2.1.2) – to the nearest ports. The level of state control over the trade is hard to estimate, but the fact that an important administrative centre like Tell Jemmeh served as one of its end stations (where old or sick animals were discharged and sold to be butchered) indicates how much it was interwoven with the wider imperial realm. More generally speaking, the Neo-Babylonian and Achaemenid imperial hold, uniting regions from southern Babylonia to

20 See, among others, Bulliet 1975, 57–86; Briant 1982a, 128–45; Gibson 1991; Hausleiter 2012 (all with references). For the camel in the Neo-Assyrian period see Kuhrt 1999; Mitchell 2000 (p.192 on dromedaries deployed during military operations in Elam); Potts 2004; Herles 2008. It is important to stress that, whereas the Assyrians were familiar with camels and dromedaries and gradually introduced them in their armies, they never held effective control over the camel caravans as such.

21 See Wapnish 1981 and *idem* 1984. There are a number of clay dromedary figurines from the same site: Petrie 1928, 18 and pl.37 (mistaking the animals for oxen); Ben-Shlomo / Gardiner / Van Beek 2014, 813, 817, 819. Compare also the limestone incense altars with depictions of camels illustrated in Petrie 1928, pl.40.

the Levant, must have provided a critical stimulus for the southern caravan network.

What should be added to this picture is its continuation to the east: to Elam, and probably to southeastern Iran (Būšehr hinterland, Lārestān, Kermān, Balōčistān) and northwestern India.²² Such an extension is implied by PFA and other evidence cited above. It correlates well with the camel's, and more specifically the dromedary's, suitability to live in climatic conditions found in southern and southeastern Iran, where they play a significant role even today. And it agrees with the long-time presence of the dromedary in Iran (various sites in the Qazvīn plain, fourth millennium BCE) and India (various Harappan sites, end of the third millennium BCE). Incidentally, the other camel subspecies, the Bactrian, also occurs in Iran at an early date (late third millennium BCE or earlier); nine bones of *C. bactrianus* were found in late Middle Elamite layers at the Tal-e Malyān, the main Elamite administrative and commercial centre in Fārs. Here, too, interregional trade is the likely background.²³

22 I owe this idea to a short yet seminal paper by Gibson (1991), which sought to explain Elam's allegiance to Babylonia and the Sealand in the Neo-Assyrian period from its participation in the evolving southern trade network. Compare Radner 2003, 52; *idem* 2004, 162f.; Henkelman 2008a, 38f.; *idem* 2011b, 601 with n.67.

23 For the early attestations of *C. dromedarius* in Iran and India see Badam 1984, 349 and Potts 2004, 149, 151, 155 (with references); for its origin see von den Driesch 2014, with references. Suitability of the dromedary to the south Iranian terrain: Bulliet 1990. In 1943, at the age of 80, Sir Aurel Stein explored the Lasbēla principality of eastern Balōčistān with twelve camels; he also commented on the importance of the animal in interregional trade (Stein 1944, 196f., 199f.; cf. *idem* 1937, 70f., 94, 133, 231f.). Ġolāmrežā'ī 1990 notes that the current use of dromedaries is concentrated in the regions of Bandar-e 'Abbās, Mīnāb and in Balōčistān. For Malyān see Zeder 1984, 287, 300f. and *idem* 1991, 217, 219, 235–37. Apart from the bones excavated in the EDD structure, there are two more from other contexts. The finds have never been discussed in detail; the reasons for ascribing them to *C. bactrianus* are not apparent. For the earliest attestations of *C. Bactrianus* in Iran see Potts 2004, 149f. Compare also the discussion, by the same author (2008a, esp. 171–78, 186f., 190f.), of the Bactrian on the Gonur Depe silver vessel.

Potts 2004, 146f. addresses the issue of the name of the Bactrian camel – a misnomer, as he concludes, because its purported wild ancestor (*C. ferus*) lived and lives in China and Mongolia and its domestication probably also did not take place in Bactria proper. The question has recently become more complicated as doubts have been raised over the genetic descent of *C. bactrianus* from *C. ferus* (see von den Driesch 2014), but that does not neutralize all of Potts's objections. As for the name, Aristotle seems to have been the first to call the animal 'Bactrian' – see *HA* 2.1 498b (αἱ κάμηλοι ἀμφοτέραι, αἳ τε Βακτριαναὶ καὶ αἱ Ἀράβιαι) and 499a. One wonders, therefore, whether it reflects an Achaemenid context: a single political system

Though this is not the place to develop a detailed view on its implications for late Neo-Elamite and Early Persian history, the crucial change in inter-regional trade patterns may briefly be illustrated from Neo-Elamite context. The so-called Susa Acropole archive (late seventh or early sixth century BCE) refers to deliveries of myrrh and frankincense, hence pointing to trade with Arabia, *via* southern Babylonia, or with south-eastern Iran. Levantine connections are implied by the find of engraved tridacna shells (*T. squamosa*) at Susa; the spread of such objects – from workshops in Palestine and Transjordan to Greece, Egypt, Babylonia and Elam – is datable between 650/30 and 600/580 BCE. A comparable date may be assumed for the very rich inventory of the Arġān tomb, which included cotton textiles, actually some of the oldest samples found in the Near and Middle East and clearly pointing to connections with India. Such indications point to a trade network that stretched from the southeastern Mediterranean to Elam and probably to India, that notably flourished in the post-Assyrian period, and that was to a large extent dependent on the use of camels. This is not to deny the importance of marine routes in the Persian Gulf (despite the feared *šamāl* wind), but rather a plea to see them as parallel to land routes and as part of a larger network.²⁴

commanding a territory large enough to include regions in which both subspecies had been at home for a long time. The terms would then be intended as contrasting: the ‘Arabian’ dromedary which was most suitable for the southern regions, and the ‘Bactrian’ camel associated with trade to and from the northeast. In this, Bactrian merchants, if they were indeed responsible for a larger part of the northeastern trade (Henkelman / Folmer [forthc.] esp. § 4; Henkelman [forthc. 2] § 3.2), may have given their name to the animal they used, by analogy to the Arabs and the animals used in the spice trade. Note, however, that there is no exclusive dromedary zone, nor another one for Bactrian camels: both subspecies had spread beyond their traditional regions already before the Achaemenid period. Compare Briant 2002, 930 on the Bactrian camel in Egypt (hesitant to date its introduction to the Assyrian or Persian period).

- 24 The unexpected material wealth of the last phase of Neo-Elamite history should be seen in this context: the developing trade would have enabled, e.g., the chiefs of Samati to market the surpluses from a presumably largely (agro-)pastoralist economy (i.e., wool, textiles) in an interregional network and given them access to the staggering amount of silver now known as the Kalmākarra hoard. On Elam’s wealth and trade network see Henkelman 2008a, 28–39. For the evidence on the tridacna shells from Susa see Amiet 1976 (Susa); for recent surveys, with references, see Stucky 2014 (also for the date given above) and Caubet 2014. On marine trade routes in the Achaemenid Persian Gulf see Salles 1990; *idem* 1996.

For myrrh and frankincense see Hinz / Koch 1987 s.vv. GIŠ.li-ba-na-at and GIŠ.mu-ir-ri-um (also *ibid.* s.v. GIŠ.ni-hi.lg) and compare Arr. *Ind.* 41.7, Strabo XV.3.5; see Arr. *Anab.* VI.22.4–5 for southeastern Iran (cf. §1 above), with the comment by Salles 1996, 257. For the date (and importance) of the Acropole archive see

To return to Alexander: Diodorus (XVII.105.7), commenting on the same Gedrosian episode, relates, like Curtius, that Alexander sent requests for supplies and pack animals. He adds, however, the interesting detail that the animals sent were swift-running camels (δρομάδας καμήλους), hence probably *C. dromedarius*, the faster sub-species that performs best in an arid, hot climate and that historically was the more common one in southern Iran.²⁵

Henkelman 2011b, 603–10, with references. Note the mention of the Egyptian king in MDP 9 158:16f., the significance of which was first noticed by Hinz 1987, 126 (his chronological inferences are superseded, however; cf. Steve *et al.* 2002, 480, Tavernier 2004, 30, and Henkelman 2008a, 38). For the twelve (or more) cotton textiles from the Arġān tomb see Álvarez-Mon 2010, 30–42 and *idem* 2015 (also discussing the Neo-Assyrian evidence). By Hellenistic times, cotton was grown in the Persian Gulf region (Theophr. *Plant.* IV.7.7).

The Elamite version of the *Susa Charter* (DSf_c 30; contrast DSz_c 31) uses an Indian loanword (with Elamite suffix *-t*, hence adapted to Elamite morphology) for Indian Rosewood (*Dalbergia sissoo*; ġag): [GİŠ]še-iš-šá-ba-ut, reflecting Old Indian *śimpśapā* (Gershevitch 1958; cf. *idem* 1957). The Old Persian version (DSf_p 34) uses another word, *yakā* (also in DSz_c 31, GİŠ_{ia}-ka₄-a-um; cf. n.161 below), as does the Akkadian (*musukkannu*, DSf_b 24, DSaa 14). Though the Indian loan may date to the Achaemenid period, the use of different terms in the other versions suggests that it is older. It may indicate Elamite trade with southeastern Kermān and northern India (DSf mentions Kermān and Gandhāra), where the tree is common. In this context, the cereal species *tarmu* may also be relevant. As argued elsewhere (Henkelman 2010a, 750–53), *tarmu* is likely to represent a kind of emmer or einkorn. The word has no known Elamite or Iranian etymology, but may be compared to Skt. *dūrvā*- (and its immediate cognates), “(a kind of) grass, fodder, spelt,” to which O.Dutch *tarwa*, “wheat,” M.Dutch *tarwel/terwe*, “wheat” and Lit. *dirvā*, “field, arable land” are thought to be related (see Mayrhofer 1992, 739f. s.v. *dūrvā*-; Philippa 2009, 349 s.v. *tarwe*). Note that *tarmu* very often has the determinative MEŠ (*tar-mu*, *tarmu*^{MEŠ}, GİŠ_{tar-mu}, GİŠ_{tar-mu}^{MEŠ}, GİŠ_{tar-mi}), which, in Achaemenid Elamite, marks logograms, (phonetically pronounced) pseudo-logograms, historical spellings (with silent /h/), unusual pronunciations, abbreviations and *non-Iranian* loanwords. Though *tarmu* was probably pronounced /tarwu/, this can hardly have constituted the ground for the regular addition of MEŠ; rather, it points to a loanword that was not regarded by the (largely Iranophone) scribes as Old Iranian. Words from the Old Western Iranian dialects transcribed in Elamite are hardly ever marked with MEŠ as they were not felt to be ‘foreign.’ Whereas a Semitic origin cannot be excluded (but Akk. *tarmuš* and cognates denote a plant, perhaps lupine, not a cereal; see CAD T 238f. q.v.), an eastern connection (East Iranian, Old Indian) is for the moment the most likely option.

- 25 Compare also the fast crossing of the central Iranian desert, from Drangiana to Media, by Polydamas and two Arab companions on camelback (i.e., on dromedaries) described in Curt. VII.2.18 and briefly referred to by Diodorus (XVII.80.3, ἐπὶ δρομάδων καμήλων).

With the evidence from Tell Jemmeh, Takht-e Ġamšīd and Achaemenid Bactria in mind, it becomes clear that sending supplies on camelback to Alexander was not an *ad hoc* action, but an operation embedded in institutional structures and testifying to the longstanding and specialised deployment of camels in the Iranian lands.

Alexander would have been wiser if he had invoked the camel's help before entering Gedrosia; if so, taking the coastal route into Iran would have been much less arduous. Sir Aurel Stein, with first-hand knowledge of the terrain, indeed found it "curious" that Alexander appears not have used the animal: "Camels would have been particularly useful for the transport of heavier loads through Gedrosia, and much easier to feed" (Stein 1943, 226 n.2). Not only would they have been more valuable than mules and horses the Macedonians had at their disposal (not to mention the impractical wagons that kept sinking into the sand), but they could have carried heavier loads, hence lowering the pressure on scarce fodder supplies (in addition to their much lower water consumption). But perhaps the most favourable characteristic of camels in an environment such as that of coastal Gedrosia is that they will find the way, even at night, and even if it is obliterated by sand.²⁶ They could therefore have prevented the Macedonian army from losing track of its route, as actually happened during one of the marches in this region. This brings us to a last point: the very existence of a route and its apparent marking with road signs.

1.4. Milestones

In 1995, Pierfrancesco Callieri republished a road sign with distances indicated in Greek that had been found earlier, in 1978, at about 3 km southwest of the town of Marv Dašt (Callieri 1995). His brief and factual communication, in the proceedings of the Académie des Inscriptions et Belles-Lettres, was followed by a substantial commentary by Paul Bernard. Comparing similar milestones from the Ephesus region and from Pasargadae, both also dating to the early Hellenistic period, Bernard concluded that it marked a Greek inno-

26 See Ġolāmrezā'ī 1990, "The *bārgīr* (lit. 'load bearer') is the lead camel of the caravan. It may be either a male or a female. The *bārgīr* can find the desert routes, even on moonless nights and when the trail has been covered by shifting sand. Camel drivers believe that the *bārgīr* follows the stars. The animals have very good eyesight and can see great distances even in the dark; their hearing is also extremely acute, and they will take fright at any unfamiliar sound. The camel's sense of smell is also extremely strong, and camel drivers believe that it finds its way on cloudy nights by following the aroma of the '*alaf-e šab-bū* (herb bennet, *Geum urbanum*), which it can recognize from a distance of 200 km."

vation and, more important, reflected a radical break with the past (Bernard 1995, 75, 95):

[...] sa présence à Persepolis jette une lumière vive sur l'unité politique, administrative et culturelle que la conquête d'Alexandre et ses successeurs ont imposée au Proche-Orient et à l'Asie moyenne et qui faisait que le voyageur, en Perside comme en Macédoine ou en Ionie, disposait des mêmes indications routières gravées sur des pierres dressées au bord des routes.

L'innovation d'Alexandre consista à systématiser la mesure et le bornage des routes qui n'étaient pratiqués que sporadiquement, à implanter des bornes dressées à intervalles réguliers et portant des indications de distances calculées à partir de points importants sur les divers tronçons d'itinéraires, enfin à créer un corps spécialisé, les bématises, qui eurent pour tâche d'établir, sous une forme sans doute encore rudimentaire mais qui marquait cependant un immense progrès, un relevé du réseau routier tout en veillant à le matérialiser sur le terrain par des indications et des repères appropriés.

Knowing the intellectual programme that the late Bernard pursued during his prolific career, it is perhaps not surprising that he took the Marv Dašt inscription as a milestone in more than one sense, *viz* as a sign indeed of the “immense progrès” brought about by Alexander’s invasion and the Napoleonic ideal that supposedly inspired it. The reductive, antithetic view of the above citations can only exist, however, because the Achaemenid context is inadequately explored. Re-discussing the underlying perspective seems superfluous in this context, especially in view of the studies devoted by Pierre Briant to the related debate (going back to Huet and Montesquieu) on Alexander and the removal of the cataracts of the Eulaeus, Euphrates, and Tigris – long seen as a symbol for his rational and revitalizing economic spirit.²⁷ Also, the focus in what follows is not so much on the mundane question as to the existence or non-existence of Achaemenid milestones, but essentially on the efficiency and mentality of the Persian road system.

The Marv Dašt stone has a double inscription reading “sixty stades” (obverse) and “twenty stades” (reverse).²⁸ The 60 stades (11 km) probably are the distance to Takht-e Čamšīd, the 20 stades presumably state the distance

27 The main discussions can be found in Briant 2006 and *idem* 2008, with references to earlier treatments by the same author. See also Briant 2009b, esp. 172–76.

28 For the inscription see Callieri 1995 (correcting the earlier reading by Rahbar), with additional comments in *idem* 2007, 35f.; Bernard 1995, 78–82; SEG 45/1879 (where it is curiously said to have marked the “old royal highway from Susa *via* Persepolis to Ekbatana” [*sic*]); Canali de Rossi 2004, 144 no.247; Schmitt 2006, 354; Rougemont 2012, 129f. no.64.

to the next way station or village, perhaps at a crossing of the Kūr. The relatively short distances suggest, *prima facie*, a partition of a stretch of the road between two possible halting places, not the length of the road calculated “à partir de points importants” (Bernard 1995, 95) in absolute sense. The same observation applies to the Hellenistic milestones from Macedonia (twice 20, once 100 stades), the Aśoka road signs, and arguably the Mauryan ten-stades markers observed by Megasthenes.²⁹ The shortness and regularity of the distances (multiples of 10 or 20 stades) shows that the purpose of Hellenistic milestones was not to calculate long distances, but to break up day marches between halting places, hence presumably intimately linked with the (Achaemenid) system of way stations.³⁰

29 For the Aśoka inscription and Megasthenes see below. For the Macedonian milestones see references in Callieri 1995, 67f. (cf. SEG 45/1879 comm.). As demonstrated by Callieri, the inscription on the Ephesus milestone (I.Eph. 3601) is somewhat exceptional in its phrasing and statement of distances; it may be older than the others.

30 It is not excluded that the Greek distances on the Marv Dašt road sign correspond to Achaemenid measures of distance. This matter hinges on the nature (fixed or variable) and equivalence value (21, 30, 40 or 60 stades) of the parasang, but also on variable nature of the stade and, ultimately, on the question which definition of the foot (Greek or Near Eastern) is implied (see generally Bivar 1985, 625–30, 637f.). Agathias’ explicit criticism of Herodotus’ and Xenophon’s use of the term parasang and his claim that (in his days) Persians used it for a distance of no more than 21 stades (*Hist.* II.21.6–9) deserves notice in this context. If an Achaemenid parasang of about 20 stades is conceivable, the Marv Dašt milestone would simply express the Greek equivalent of three (obv.) and one (rev.) parasangs respectively. This would tally well with the regular unit of 20 stades on Hellenistic milestones (cf. above), and the road markers at each 10 stades in Mauryan India (i.e., at each half-parasang). Finally, and for what it is worth, there is the supposed ‘edict’ of Alexander in one of the letters to Olympias in the earliest version of the Greek *Alexander Romance* (rec. α II.21.10f.). The passage on the royal roads is clearly corrupt (the Greek tradition of α is known through a single manuscript); I understand it to refer to distance markers at each half schoenus (i.e., 1 parasang; 20 or 30 stades). Although most translators take the passage to refer to signs at each *single* schoenus, the first of two Armenian translations of α (Arm a) endorses my alternative reading. This translation, generally faithful to the original, describes a road starting at the gorges of the Euphrates and having signs at “intervals of a half mile and a mile” (cited from Wolohojian 1969, 106; I could unfortunately not check the Armenian term; Arm b was not accessible to me). This strikes me as a transposition of ‘signs at each half and whole schoenus’ and potentially as an indication of a schoenus + parasang system (cf. Purves 2006 on the nature of the schoenus and Achaemenid use of such measuring ropes). Later Greek and other recensions of the *Romance* offer a more clear, yet also less explicit version of the relevant passage (for a convenient conspectus of the successive Greek versions see Stoneman / Gargiulo 2012); this is also true for the

A connection to the Achaemenid past is not difficult to imagine for other elements in the same dossier. The bilingual Aramaic/Greek milestone from Pasargadae, for one, may have continued the administrative use of Aramaic, which was particularly strong within the travel system.³¹

The Aśoka inscription (a kind of road panel), inscribed on a protruding rock near the Laghmān river (Ġalālābād, Afghanistan) and situated along the old road to Bactra, provides another telling case. It not only states (apparently) several distances in ‘bows’ (1.8), but also describes the route as *krpty* (1.7), plausibly a loan from Old Iranian **kāra-paθī*, “army road.” That the Mauryans built on Achaemenid antecedents in the development of their communications is *a priori* likely in view of its scale. One of its main routes, known as royal road by Megasthenes (Strabo XV.1.11, Arr. *Ind.* 3.4), ran from Taxila to Pāṭaliputra and from there to India’s eastern shore. Aśoka himself, in his seventh *Pillar Edict*, describes the network as having way stations and wells at fixed intervals; it explicitly refers to similar creations by earlier rulers. The exact interval length is a matter of controversy, but probably lay between 16 and 29 km, hence comparable to the average distance between Achaemenid way stations. Megasthenes (Strabo XV.1.50) additionally mentions distance markers at intervals of ten stades. These were placed on the authority of rural magistrates (ἄγρονόμοι [O. Stein]; ἄγορᾶνόμοι mss.) charged with land surveys, water distribution, taxation, the custody of the roads and other matters relating to the countryside. As Thapar recognized, this description is likely to reflect the Mauryan *rājūka* or *rājūgāhaka*, “rope-holder” (cf. *rāju*, “rope, rope measure”). Such magistrates were charged with survey and assessment of arable land (as the designation suggests), but also with other sources of non-urban revenue; they held judicial authority and settled legal disputes associated with the areas of their competence.³²

Latin translation of *a* by Iulius Valerius (Rosellini 2004; Callu 2010). Obviously, the *Alexander Romance* cannot simply be regarded as yet another historical source on Alexander, but I fully agree with Canali de Rossi that it should be included in the dossier on the milestones (2004, 145). Its relevance would, moreover, increase if *a* dates to the second century BCE (as I think it does); also, most scholars agree with Merkelbach’s thesis of a still earlier *Briefroman*, which may already have included the passage under discussion.

- 31 For the Greek version of this inscription on the obverse and reverse see Lewis 1978; Callieri 1995, 69f.; *idem* 2007, 34f.; Bernard 1995, 75–77; SEG 45/1880; Canali de Rossi 2004, 145 no.248; Schmitt 2006, 354, Rougemont 2012, 130–32. For the Aramaic (below the Greek on the obverse) see Bivar 1978.
- 32 See discussion in Thapar 2012, 134–8 (also *idem* 2013, 305), where the magistrates are described as the “backbone of the rural administration” (p.137). They are, i.a., mentioned in *Pillar Edict* IV (entirely devoted to the *rājūkā*) and in Kauṭilya’s

Bernard tentatively ascribes the Mauryan distance markers to Greek influence (1995, 89–92), but the context unmistakably suggests otherwise: the use of Aramaic, the possible Iranian loanword in the Laghmān II inscription, the network of way stations continued ‘from earlier kings,’ the centralized care of the roads by regional officials – all these evoke, if anything, the institutional landscape of the Achaemenid empire.³³ The role of rural magistrates charged with *measuring* in broadest sense, moreover can be fruitfully compared to the corps of lance-bearers and more specifically with the road-inspectors and registry officials of Achaemenid Pārsa (cf. below).

The statements of distances expressed in Persian parasangs in Xenophon’s *Anabasis* are another important element. As the word παρασάγγης (**frasan-hva-*; MP *frasang*) probably means something like “herald,” one is naturally inclined to think of road signs expressing, by inscription or by mere presence,

Arthaśāstra (notably II.6; the text is probably post-Mauryan, though). Compare also Fussman’s interpretation of the *vacabhūmīkā* of *Rock Edict XII* as “(officer[s]) in charge of journeying (people)” (Fussman 1974, 386–9). For the intervals between the resting places on the Mauryan roads see Thapar *o.c.* 103f. n.138, explaining that the *yojana* (4 *kos*) variously measures between 5 and 9 miles; the 8 *kos* interval mentioned by Aśoka therefore amounts to 10–18 miles (c. 16–29 km). Thapar nonetheless assumes intervals of 9 miles, taking this to be the distance after which a traveller would need a rest; the underlying unit is, however, more likely to have been distance that one could cover in a whole day.

For the Aramaic (or, with Humbach, Irano-Aramaic) Laghmān II inscription and the interpretation of *krpty* see Davary / Humbach 1974, Davary 1981, 55f. (with pls. 3–4), and Schwiderski 2004, 42f. with further bibliography. The inscription is paired by another, shorter one (Laghmān I), which is no longer extant, but which was situated on another rock in the same valley; compare Tuplin 1997, 415 n.79 (noting that the distance between the two signs agrees with Megasthenes’ stretches of ten stades) and Falk 2006, 247–50 (overview of both sites, with plans and full references). Fussman 1974, 381–5 argues that the Laghmān II inscription (as well as the Qandahār bilingual) was not a text from Aśoka proper, but made in his name by local authorities; this does not diminish its value for the overall road network, however. For translations of *Pillar Edict VII*, see Sircar 1975, 66–9 and Thapar 2012, 394–6; the roads are also evoked, yet more briefly, in *Major Rock Edict II*. Compare the regular tours undertaken by provincial administrators in *Major Rock Edict III*, which Scialpi (1984, 62) related to similar practice in the Achaemenid empire; tours made by the administrative leadership as well as lance-bearers are well-attested in PFA (see below). For the rock edicts see Schneider 1978 (synoptic editions and translations).

- 33 Cf. Graf 1994, 187, who estimates Achaemenid influence to be “not unlikely.” Incidentally, von Hinüber argues against *inscribed* milestones in Mauryan India (1989, 19f.), which would make them more akin to the simple distance markers posited for the Achaemenid empire (cf. below).

a spatial distance. Christopher Tuplin, while inclining to favour this view, cogently warns against calling into existence “what is archaeologically a null class.”³⁴ Road signs, though unfortunately never described in detail, are indeed invoked in the classical sources, however. One of the reasons Alexander ran into trouble in Gedrosia was exactly because sand had obliterated the road *and the signs* (τὰ σημεῖα) marking it (Arr. *Anab.* VI.26.4). Such signs, even if they were simple sticks, only needed to be placed at regular distances (of, e.g., one or a half parasang) to function practically like the Marv Dašt milestone, viz as markers of fractions of a day’s travel between two way stations.³⁵

The Gedrosian example brings us to the core of issue, as it indicates that even in this inhospitable region there actually was an official route, that it was marked by some kind of signs, and hence was presumably maintained under local or state authority. The issue, as stated above, is not so much the existence or non-existence of milestones, but the physical and mental hold on the imperial space. For Bernard, there is a notable difference in this respect, occasioned by Alexander’s introduction of surveyors (the bematists), milestones, and a fixed unit of distance (the stade). Unsurprisingly, the value of the PFA documentation on road surveyors is downplayed as “trop grévé d’incertitudes” (1995, 87 n.77; cf. below), whereas the parasang is contrasted to the stade as a variable unit indicating only *grosso modo* the space covered in an hour of travel (*ibid.* 88). To be sure, Bernard is not alone in this last matter, but the contrast he draws is nevertheless revealing.

34 Tuplin 1997, 415. For the etymology of the word parasang, see Schmitt 1967, 138 (accepting Markwart’s “Anzeiger, Verkünder”) and Nyberg 1974, 76. See also Wiesehöfer 1980, 11.

35 Compare Briant 1997, 80f., citing various inscribed and non-inscribed boundary and territory markers as possible parallels for milestones. His doubts are noted by Rougemont (2012, 132), who additionally stresses that there is no certainty that the Pasargād and Marv Dašt inscriptions date to the reign of Alexander or the period shortly thereafter (Peucestas). To the monuments listed by Briant, one may add the Aramaic inscriptions on field boundary markers by Artaxias I, king of Armenia (early second cent. BCE). Some of the inscriptions are carved into rectangular stones with dentate upper edges (evoking Achaemenid crenelations). Though historical tradition (Moses of Khoren *Hist.* II.56) credits Artaxias with setting up boundary stones, the use of Aramaic (and the palaeography) undoubtedly points to the influence of Achaemenid chancelleries and raises the question whether their use in Armenia may not be older. See Périkhanian 1966; *idem* 1971; Naveh 1971; Russell 1986. As for the road signs mentioned by Arrian: Stein connects the episode to the road between the Turbat oasis and the coastal town of Pasnī, which, in his words, passes through “a maze of low sandy hillocks, apparently wind-eroded” (Stein 1943, 221, 225f.).

Clearly, there is no *a priori* reason to consider a state using time to measure distance as less self-aware, or having a lesser hold on its own territory. In fact, it is hard to maintain that statements of absolute spatial distance (in Greek stades or otherwise) would have marked an “immense progrès” (*ibid.* 95), if they were unaccompanied by some indication of travel time based on knowledge of the highly changeable terrain. For this very reason, Alpine hiking trails have signs indicating hours, alongside, or in lieu of, a distance in kilometres. In other words, a (somewhat) variable unit of distance that related to travel *time* would essentially be a pragmatic and rational way of dealing with spatial distance in a landscape as varied as that of Iran.

The ancient parasang, however, is an unlikely candidate for the role of Achaemenid indicator of travel time. As Tuplin and others have shown, classical sources invariably take it as a unit that could be directly converted to Greek and Roman measures of spatial distance and that was applied not only to stretches of the road, but also to such things as city walls (Xen. *Anab.* III.4.7, 11), a defensive trench (I.7.15), and the Median Wall (II.4.12).³⁶ Herodotus describes a land survey done in parasangs; it was ordered by Artaphernes on the territory of the Ionian cities in order to provide a basis for levying taxes (VI.42). The parasang may not have been extremely accurate by modern standards, but classical sources leave little doubt that it was a fixed Achaemenid unit of spatial distance.

The travel stations (σταθμοί), by contrast, were a logical way to express travel time. The spatial distance between them varied, presumably according to the terrain; the aim was arguably to create stretches coverable in a single day by average travellers.³⁷ In principle, stating the number of stations would be tantamount to a statement of distance in time. A one-to-one correspondence of day marches and travel stations on all the roads is unlikely, however: there may have been stretches with more stops, or less, according the intensity of traffic, the need to provide dedicated stations for fast travellers, etc. In short,

36 See esp. Tuplin 1997, 404–6 stressing, p.405, that “no surviving ancient source imagines that the parasang is not in principle an exact measurement.” Debord 1995, 91–3 illustrates this on the basis of parasang indications for stretches of the royal road in Asia Minor and arrives at a value of about 5 km. One may imagine a development by which such a fixed measure, representing the spatial distance one could cover in about an hour, would eventually evolve into a unit of time-distance, viz the much later *farsakh*. But the reverse approach is by no means admissible (despite Bernard): explaining the ancient from the modern measure. See also Rood 2010, 52–54 on the definition, and *passim* on the use and meaning of the term parasang in Xenophon’s *Anabasis*.

37 See Henkelman / Jacobs [forthc.] for references on archaeologically attested way stations and their intervals.

to plan one's journey and make optimal use of the system one would need the number of parasangs, stages, *and* days – exactly the sort of data Ctesias is said to have provided about the route from Ephesus to Bactria and India (F33 Lenfant). Whether Ctesias obtained his information from the Bactrian traders whom he mentions a few times or from others, his 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.³⁸

Whereas the universalist attitude of the royal inscriptions requires an unconditional claim of rulership over this earth “far and wide,” the empire's administration necessarily operated a more precise system to meet its needs and purposes. In doing so, it is likely to have simultaneously used the two parameters found ubiquitously in the sources: time (stathmoi, days) and linear space (parasangs). It may additionally have deployed distance markers at fixed distances (parasang signs), which measured and partitioned the intervals between the way stations (giving total distances of sometimes four, sometimes five, etc. parasangs). According to this hypothesis, *inscribed* milestones – if they were a Macedonian innovation – would have added little more than a surface layer to a system that embodied, more than anything, the hold the Achaemenid administrators had taken, and sometimes forged, on their imperial space. Whereas Canali de Rossi has a point in taking the milestones to show “un impegno dei greco-macedoni nel controllo del territorio” (2004, 144), that should not be understood as a contrast with the preceding period: the level of Achaemenid control was not lower in either physical or mental terms.³⁹

38 Compare also Herodotus' statement about the road from Sardis to Susa in stathmoi and parasangs (V.52–54) and the regular combination of stathmoi and parasangs in Xenophon's *Anabasis* (Tuplin 1997, 411).

39 The matter of the Macedonian bematists is too complex to be treated *in extenso* here, also because it presents a rather mixed bag. To me, it suggests anything but the decidedly rationalist corps applying the strictest methods to a ‘Survey of Persia’ that some have recognized in it. The clearest evidence comes from two inscriptions concerning a certain Philonides, one from Olympia (with ancient copy; Siewert / Taeuber 2013, 97 no.43; cf. Paus. VI.16.5), the other from Aigion (SEG 14/376). Whereas the second is a fragmentary honorary decree, the first is a votive inscription identifying Philonides as Alexander's ἡμεροδρόμος and as βηματιστής τῆς Ἀσίας. As Tzifopoulos (1998; cf. *idem* 2013) has demonstrated, this suggests a connection between a service of light-armed military messengers and some kind of measuring or surveying. Hesychius explains the verb βηματίζειν (q.v.; he considers it Macedonian dialect) as “measuring with your feet.” Taken together, this implies pace-counting by professional messengers/runners (cf. Bernard 1995, 92 n.94). Other sources, gathered by Jacoby under FGH 119–23, qualify this picture. Pliny (*NH* VI.21.61f.) cites the bematists Diognetus and Baeton for a number of distanc-

In all this, the complexity and extent of the Pārsa administration as reflected in PFA – our main window on Achaemenid administrative practice – should be constantly born in mind. Accountants in Takht-e Ġamšīd knew, e.g., exactly how much barley had been allocated as fodder for ducks, geese and other fowl at remote Hunar in year 17 of king Darius (presumably 3–4 years before they drafted the account); they furthermore noted which amounts had been transferred to and from nine different places in the same district (NN 0574). There are hundreds of similar cases in the archive. Are we really to assume that all this data was available and verifiable, but that only a vague inkling existed as to the geographical position of Hunar and

es on roads in the northeastern parts of the empire, adding that Alexander's own letters endorse the figures (i.e., confirming the link with a courier system). Yet, it should be noted that the known titles of works by bematists – Baeton's Σταθμοὶ τῆς Ἀλεξάνδρου πορείας and Amyntas' Σταθμοὶ (Ath. X.442b) – point to a description of itineraries, presumably listing way stations, hence in the tradition of Ctesias' work on the number of way stations, days and parasangs (ἀριθμὸς σταθμῶν, ἡμερῶν, παρασαγγῶν) from Ephesus to Bactria and India (F33 Lenfant).

The connection in fact seems to be broader than this: Athenaeus (*l.c.*) mentions Baeton and Amyntas as describing the tribe of the (Caspian) Tapyri to be so addicted to wine that they anoint themselves with it (*viz* to treat and disinfect their skin; cf. Ael. *VH* III.13); he immediately adds that Ctesias says the same in Περὶ τῶν κατὰ τὴν Ἀσίαν φόρων. A comparable case is found in Ath. II.67a–b, where both Amyntas and Ctesias are cited on Persian oil production (see also Henkelman 2011c, 165, 169 on Amyntas' zoological observations). Such references indicate that the works of the bematists were embedded in the long-standing 'Persica' tradition and derived part of their material from predecessors, part from Persian informants, and sometimes from oral traditions.

One testimony is very striking in this last regard: Pliny (*NH* VII.2.11; cf. Strabo XV.1.57) cites Baeton, surveyor of Alexander's journeys (*itinerum eius mentor*), as the source of a story on forest people with backward turned feet yet running very fast, roaming around with the wild animals. These people supposedly could not breathe in another climate and none of them had ever been brought out of their territory. Compare this to the story of the wild Apple-Eaters barking like dogs and unaccustomed to civilized life: in the *Alexander Romance* (rec. β, II.33), Alexander orders a naked girl to be brought to one of them, with fatal consequences. While this last story is reminiscent of the Enkidu and Šamḥat encounter in the *Gilgameš Epic* (SBV I.134–210; see Henkelman 2010b, 330, 336 n.58), Baeton's pseudo-ethnographic narration evokes an earlier episode, that of the savage living with wild animals as if he were one of them. The creature's exposure to human culture forebodes his untimely death. Though Enkidu is its most celebrated protagonist, the folktale of the Wild Man and the Courtesan is found elsewhere too, notably in India (see most recently Abusch / West 2014). It is probably much older than the *Gilgameš Epic* and may have circulated in many forms, also in the Persian period; both traditions referred to here seem to be related to it.

other towns, or how far they were removed from the centre in terms of space and time? The high level of control over people and commodities implied at all administrative levels, in conjunction with the intricate overall hierarchy, descending (in two mutually controlling branches) from the director down to a supplier in the smallest hamlet, strongly suggests otherwise. The variety and consistent use of sealing protocols, too, implies a range of jurisdictions, shared responsibilities and, above all, a certain awareness of these among central and local officials.

This physical and mental hold on things naturally extended to travel rations, travel authorisations and the supplying of the way stations, but it is also visible in the care of the road network as such. This is particularly clear in the case of road surveyors or road inspectors:⁴⁰

PFa 19 (seals: PFS 0625s left edge; PFS 2771s rev.)

⁰¹ 21 l flour, ⁰²⁻⁰³ allocation from Umbaduš, ⁰³⁻⁰⁸ Irdabada the lance-bearer (*šukurum-kutira*) together with his five companions, received (as) rations. ⁰⁸⁻⁰⁹ They surveyed the road (*datiš mušiš*). ¹⁰⁻¹¹ He (I.) carried a sealed document (authorisation) from Parnakka.

PFa 22 (unsealed)

⁰¹ 6 l wine, ⁰²⁻⁰⁴ a lance-bearer (*šikak-kutira*) named Irdabada received; ⁰⁴⁻⁰⁵ 6 men each received 1 l. ⁰⁶⁻⁰⁸ They had inspected the road (KASKAL *hašašda*) and were approaching the King. ⁰⁸⁻¹⁰ He (I.) was coming to Susa and carried a sealed document (authorisation) from the King. ¹¹ 22nd year (500/499 BCE).

PFa 30:08-10 (entry in a journal; seal: PFS 0120)

⁰⁸ 30 (1 wine a man) named Ambaduš (and) his 4 companions, lance-bearers (*sikak-kutip*) (and) road inspectors (*dattišmarašbe*), ⁰⁸⁻⁰⁹ (who) previously crossed (the region) ⁰⁹ (and) have surveyed (*mušāš*) the road (of) Ramitepe ⁰⁹ (and who) afterwards, according to (written) instruction, went ⁰⁹⁻¹⁰ (and) waited at Hadaran until the King came ¹⁰ – they received (it as) rations. ¹⁰ (During) 6 days, eighth month, 21st year (Oct.-Nov. 501 BCE). ¹⁰ Each received 1 l (per day).

NN 0885 (seals: PFS 0018 left edge; PFS 2889 rev.)

40 My translations of PFa 19, PFa 22, and PFa 30:08-10 differ slightly from those given by Hallock (1978, 123f., 131f.); the seals were kindly identified by Mark Garrison. For the Elamite texts see Hallock 1978. An edition of NN 0885 is presented in *App.* 1.2. For the pseudo-logogram ^{GIS}šī-kak^{MES}, “lance,” and other terms for lance-bearer (*šukurum-kutira*, *ripi-kutira*, *irtibarra/ištibarra*) see Henkelman 2002 (used quite liberally by Velázquez Muñoz 2013, 16–9). Compare also Tamšakama, lance-bearer (and messenger?) in the service of Xerxes (NN 1657, published in Henkelman 2011d).

⁰¹ 21 l flour, ⁰¹⁻⁰² allocation from Mirayauda, ⁰³⁻⁰⁵ a lance bearer (*sika-kutira*) named Baka-dadda received. ⁰⁵⁻⁰⁶ 6 men each received 1.5 l, ⁰⁷⁻⁰⁸ 12 servants (*puhu*) each received 1 l. ⁰⁹⁻¹⁰ He (B.) carried a sealed document (authorisation) from the King. ¹⁰⁻¹¹ They surveyed the road[?] (*bardu[?] mušaš*) ¹¹⁻¹³ 22nd year, ninth month (Nov.-Dec. 500 BCE).

The verbs used to describe the activities of the lance-bearers in these texts are mundane in PFA context: *haš(š)a/i-*, “to inspect, reckon, make an inventory” and *muša-*, “to add up, account (for), control, survey.” The first can refer to deposited commodities, accounts, tablets, and royal *kurtas*; the second to workers, grain, young animals, and accounts.⁴¹ A comparison between PFa 19 and PFa 22 confirms that *haš(š)a/i-* and *muša-* are near-equivalents. The same may be assumed for KASKAL-*hašira*, “road inspector” and *dattišmaraš(be)*. The second transcribes Old Iranian **dāti-(h)māra-* (with Elamite plural ending); it literally means “road counter(s),” but the available contexts (especially PFa 30:08-10) suggests the wider meaning of “road inspector” or “road surveyor.”⁴²

Road surveyors are currently attested (or can be assumed) in 33 texts and journal entries in PFA, often in groups of 6 *šalup*, “free men” (receiving flour, wine, and oil) and 12 *libap*, “servants, subordinates” (receiving flour only).⁴³ They constituted a regular phenomenon, not merely concerned with

41 For *haš(š)a/i-* see, e.g., PF 0252, PF 0298, PF 1152, PF 1958:16, NN 0998, NN 1747; for *muša-* see, e.g., PF 1201, PF 1247, PF 1280, PF 1824, NN 0258, NN 0473, NN 2206:35, NN 2493:42-45.

42 KASKAL-*hašira*, occurs in NN 1219 (PN ^{AŠ}KASKAL[!] ^{MES} *ha-’ši’-ra*); the plural KASKAL-*hašip* in NN 2041:14-17 (^{GIŠ}*ši-kak*^{MES} ^{HAL}*ku-ti-ip* “^{AŠ}KASKAL^{MES} *ha-ši-ip*, “lance-bearers, road inspectors”). For **dāti(h)māra* see Hinz 1975a, 86 and Tavernier 2007a, 419 [4.4.7.28f.]. Hallock (*apud* Hinz *l.c.*) already proposed “surveyor” (instead of the more literal “road counter”); see also *idem* 1978, 112, 114f. See also the comments by Briant 1991, 73; Graf 1994, 174; Tuplin 1997, 406f.

43 When receiving wine and oil, the *šalup* are listed without their subordinates. *dattimara(p)*, team of Ambaduš: PF 1307 (6+12), PF 1566 (6; *datimarap* not mentioned), PFa 30:08-10 (5), PFa 21 (6), Fort. 6749 (6+12 [implied]); team of Ašbazana: NN 1023 (6; *datimarap* not mentioned), Fort. 7093 (6); team of Bakabaduš: NN 0621 (6), NN 1814 (6); team of Bakadad(d)a: PF 1297 (6+12[?]; *datimarap* not mentioned), NN 0885 (6+12; *idem*); team of Bakagiya: PF 1567 (6); team of Ir[...]da: PF 1284 (4[?]), NN 2525 (4); team of Irdabada: PFa 19 (6; *datimarap* not mentioned; cf. Hallock 1978, 112), PFa 22 (6; *idem*), PFa 23 (6; *idem*); team of Irdawiš: PFa 31:21-22 (7); team of Mišadda: NN 0588 (6), NN 0937 (6[?]), NN 1863 (6), PF 1343 (6+12, PN spelled ^{HAL}*mu-iš-šā-ud-da*; *datimarap* not mentioned); team of Nakmāda: PFa 31:23-24 (18[?]); team of Rašdauka: PFa 15 (6+12); team of Šaššakka: NN 0481 (6); team of Ubaruda: NN 1647 (6); team of Ukbaruš (perhaps = Ubaruda): NN 0904 (6+12; *datimarap* not mentioned); team of Uraštukka: NN 2325 (6; *datimarap* not mentioned); team of Ušpirda: NN 0844 (5); team of [...]iš: Fort. 0819-101:14, 16, 35

the movements of the court, but a standing, specialized unit charged with the inspection of the roads in broadest sense. Also, they appear to have been part of a larger, professional corps of “lance-bearers” entrusted with surveying, auditing, keeping registries and, presumably, determining the basis for various kinds of taxation. People belonging to this corps were highly mobile and toured the countryside with royal or satrapal authorisations.⁴⁴

(6+12); team of [...]: Fort. 0906-102 (6). KASKAL *hašira/hašip*, team of Ibbaka: NN 1219 (12); team of Kamezza: NN 2041:14-17 (3).

- 44 Some individual “lance-bearers” appear in more than one capacity (such as road surveying + making registries), suggesting a closed, professional corps with a range of interrelated tasks. This is, e.g., true for Kamezza: he and his colleagues surveyed the road in Dar.19 (NN 2041:14-17) and were making a registry of *taššup*, “people, troops” in Dar.27 (NN 2556: ^{HAL}*taš-šū-īp* [*tal*]-*li-iš-^cda*); they also occur as “accountants” (*muššap*) in NN 0516 (see Tuplin 1997, 407; Henkelman 2002, 22–24). The *dattimara* Bakadad(d)a of NN 0885 (and PF 1297) may be the same as the Bakadada acting as auditor in NN 0217 and NN 0540 (also, without title, in PF 0831, NN 1222), though this case is less certain (cf. Henkelman 2002, 25–8). Dadda(ma) is ‘writing down people/troops’ (making a registry or muster roll) in PF 1620, acts as auditor in PF 1242 and several other texts (cf. below) and appears as *tuppira*, “scribe, secretary,” inspecting royal *kurtas* in NN 1747 (compare the “scribes of the army/people” in Babylonia; Stolper 1985, 30f. with n.116). The case of Te(a)tukka, ‘chamberlain,’ registry-official and tax-collector is discussed in Henkelman 2003a, 162–4, *idem* 2008a, 320 with n.739, and Tuplin 2008, 332. Other crossover examples are cited by Stolper 1977, 263.

Apart from road surveying, lance-bearers are attested in at least two additional roles. One is that of **frasaka(ra)-*, “investigator, auditor,” transcribed in Elamite as *pirraššakka*, *pirrašakurra* and in Babylonian as *iprasakku* (Eilers 1940, 5–10, 16–23; Stolper 1985, 31 n.116; Tavernier 2007a, 420f. [4.4.7.38–39]). A variant form, **frabaka-* is transcribed in Elamite as *pirrasaka* (Tavernier *l.c.* [4.4.7.43]). In PFA, the term is attested in NN 0217, NN 0540, NN 2265:10-12, and Fort. 3568. The last of these mentions a Daddama and an anonymous colleague, presumably the same as Dadda and Mannanda, who occur together in NN 1747, NN 2493:42–45, 46–48, 49–51 and, presumably, PF 1620 (Mannada alone in NN 2522; Dadda(m)a in PF 0817, PF 1242, PF 1243, NN 0479). From these attestations, it appears that Daddama was an Aramaic scribe (*tuppira* KUŠ *ukku*), Mannanda a lance-bearer; together they reckoned workers (*kurtas mušašda*), questioned people (*mil hapišda*), made or updated a registry of people/troops (*taššup tallišda*), and inspected/reckoned royal workers (*kurtas EŠŠANA-na haššišda*). See also Stolper 1977, 263f., Henkelman 2002, 17–20, Tuplin 1997, 407 n.67, and *idem* 2008, 370.

The second additional role is marked by the term *karamaraš*, from Old Iranian **kāra-(h)māra-*, literally “people count” and, as appellative, “people counter” (Tavernier 2007a, 408f. [4.4.3.6]). Their activity is sometimes expressed in Elamite as *taššup tallišda*, lit. “he/they wrote down people/troops” (as, e.g., PF 1620) or *taššup ... mušaš*, “they reckoned/registered people/troops” (Fort. 1081-104). The Iranian word appears as *karammaru* and *kalammaru* in Late Babylonian texts, where it is a cate-

The evidence on the administrative corps of lance-bearers has two notable parallels, both of which deserve more comment than can be given here. The first, less direct one, is the case of Antimenes, charged by Alexander with the care of the road network of Babylonia, keeping up the stock of the way stations, levying the tithe from caravans, and keeping a registry of slaves. The other, more striking one, is that of the rural magistrates in the Mauryan Empire whose tasks, it may be recalled, included land surveying, water distribution and irrigation, various forms of taxation, the control of the roads, and the placement of distance markers.⁴⁵

gorical term for various kinds of official rolls kept by the Persian authorities. These may be lists of state-imposed obligations (the up-keeping of irrigation networks) or royal registries of titles (houses, chattel) and associated taxation, perhaps also muster rolls for the army (Stolper 1977, 259–66; *idem* 1985, 28–31; *idem* 1989; compare Jursa 2008, 608f. and Baker 2011, 317–20, with further references; see also Tuplin, this volume). Though *karamaraš*/**kāra*-(*h*)*māra*- need not have implied exactly the same in the heartland as in Babylonia, the context was probably similar (registration, control, taxation). Interpretation of *karamaraš* as “registry, registration official” fits all contexts. In one case (NN 2465) a lance-bearer and *karamaraš* (reading uncertain) inspects a royal sheepfold (Henkelman 2002, 21f.). Other relevant texts are: PF 1245, NN 1747, NN 2465, NN 2493:42–45, 46–48, 49–51 (full references in Tuplin 1997, 406 n.64, to which add NN 1059:32'–35', NN 1620). For lance-bearers and *karamaraš* in PFA and their tasks see Tuplin 1997, 406–9; Henkelman 2002. Azzoni / Dusinberre 2014, 6–8 discuss the case of lance-bearer Zamuš, who occurs in both the Elamite and Aramaic PF texts. Compare also the *miramara* of PFa 11 and NN 1690 (collated), according to Hinz literally a “Mann-Zähler,” **vīra*(*h*)*māra*- (Hinz 1975a, 263; cf. Tavernier 2007a, 436 [4.4.7.125]).

- 45 For the Mauryan ἀγορανόμοι/ἀγρονόμοι see above. Antimenes is mentioned in Ps.-Arist. *Oec.* II.2.34 and 38. His title, ἡμιόδιος[†] has variously been emended to ἡμιόλιος (Schneider) or ἡμερόδρομος (Wilcken), with a clear preference for the first (see notably Van Groningen 1933, 194–7, 203f.; Guizzi 1992, 411–17; Valente 2011, 252–4). The attestation of the word ἡμιόλιος in a letter from Eumenes II, inscribed on a stele from Mahmutisar, Phrygia (I.44) clarified its meaning substantially and allowed Helmut Müller to describe its holder as a high financial official charged with taxation, the care of the royal domain, and infrastructure (Müller 2005; for the text see Jonnes / Riel 1997 and references in Müller *op.cit.* 355 n.3). He rightly takes this as weighty, if not decisive, support for the emendation of ἡμιόδιος[†] to ἡμιόλιος in the *Oeconomica* (*ibid.* 362–4). It may nevertheless be pointed out that the 16th century Latin translation by Joachim Camerarius, which in various other cases is based on a now lost *vetus liber*, has *curatione ei data viarum*. This means that either Camerarius already read ἡμιόδιος[†] and his translation reflects his own tentative interpretation of it, or his text had a different term that unambiguously expressed the care of the roads. As for the registry of slaves and its apparent association with a kind of taxation, Briant 2009a, 165f. makes the attractive suggestion that it may actually be an Achaemenid heritage, *viz* the institution known in Babylonian

Whether the lance-bearing road surveyors in PFA also measured routes and placed distance markers cannot be established at present. Be that as it may, evidence from Achaemenid Babylonia makes it clear that such procedures indeed existed and may have been part of regular control operations.⁴⁶ These concerned also the *width* of the road, presumably to prevent farmers from encroaching on what was, after all, a manifestation of central power. This same sentiment is found in Pseudo-Aristotle's evocation of the responsibilities of Condalus, hyparch of Mausolus: to traverse his administrative territory (like Parnakka in Pārsa), receive and register animals as 'gifts' (a form of taxation), and selling the profit from trees that projected over, or had fallen on, the royal roads (*Oec.* II.14).⁴⁷ The last charge reveals a conception of the road network, maintained at high costs by the Achaemenid state, as something that was very much royal, even in its physical manifestation. It explains why the road surveyors in the heartland belonged to the corps of lance-bearers, whose title in the first place identified them as officials in the service of the crown and vested with special executive authority, rather than as armed forces *per se*. If the lance-bearers were anything like the *δορυφόροι* and *μηλοφόροι* of the classical sources (cf. Briant 2002, 261f.), they must have inspired awe by

as *karammaru/kalammaru* (cf. n.42 above). See also below on the way stations. On the episode see also Le Rider 1998 and *idem* 2003, 299–310, 316–9 (arguing that Antimenes may have been responsible for Alexander's mint at Babylon); Briant 2002, 364f., 453; *idem* 2012, 188; Valente 2011, 251–5, 260f.

- 46 BM 79746 is a unique document from the Ebabbar archive in Sippar dealing with measuring a stretch of the royal road (08.Cyr.). Jursa, in his publication of the document, argues that the operation should be seen in the context of the obligations resting on the temple as landowner. He additionally presents evidence on the legally enforceable care expected from the road's abutters (notably preventing inundation by irrigation schemes: BM 74463, 03.Cyr.). Note that BM 79746 (I.13) mentions beams from date palm wood; were these for establishing (scrutinizing) the prescribed *width* of the road?
- 47 The remainder of the paragraph speaks in garbled fashion of two other taxes imposed; some elements may reflect oral traditions or at least misunderstanding of existing practice. See the commentaries by Van Groningen 1933, 99–104 and Valente 2011, 180–4; see also Tuplin 1987b, 146 and Binder 2008, 223f. Because of a lacuna, the passage on the fallen trees can only be understood with the help of the Latin translation by Camerarius; based on this, it may be taken to imply a claim by the state on the fruits of the trees bordering the road and the timber of those that fell on it (see Valente *l.c.*). Also relevant is Hdt. I.115.3, where Thracian farmers are said to have the deepest respect for the royal road and refrain from cultivating the land occupied by it.

their physical appearance. This, and their mandate, arguably made them the most conspicuous image of royal authority outside the major centres.⁴⁸

The administrative hold on the road system (and the countryside) necessarily was accompanied by a mental grip on the imperial network. This is true for the highest authorities, obliged as they were to replenish the stores of the way stations or the cisterns along desert routes.⁴⁹ It is manifest in the apparent ease with which Aršāma's secretary enumerates the administrative regions (with their leading officials) through which the route from southern Mesopotamia or Susa passes towards Egypt (Porten / Yardeni 1986, A6.9). But it can equally be construed for humble way station suppliers in the heartland. The evidence from PFA implies that these people were able to recognize the official seals of the king, court officials, royal women and, notably, those of most of the satraps. Also, they knew that 'their' road did not stop at the next way station, but continued all the way to Gandhāra, or Egypt, or Sogdia. Indeed, individuals and groups from such regions passed over it fairly regularly and would present sealed travel authorisations issued at Memphis, Bactra, Sardis or in fabled India. As Colburn rightly notes, the psychological effect such encounters had on local administrators should not be underestimated: it must have been major factor in the 'connectedness' of empire.⁵⁰

Coherence as a function of the road system can be argued at various levels, including that of the groups of *kurtaš* (dependent workers) sent to and

48 Note the occasional direct connection with the court (PFa 22, PFA 30:08-10) and the sealed travel documents carried by the surveyors, often issued by the King. Compare also Aelian's remark about clearing the road between Susa and Media from scorpions in advance of the King's progress (*NA* XV.26; cf. Ps.-Arist. *Mirab.* 27 [832a]). Despite the fact that the lance-bearers of PFA are not, at least not in the first place, military units, one is reminded of Xenophon's remark about Achaemenid road construction (*Cyr.* VI.2.36). According to his testimony, spearmen, archers and slingers discharged from active duty (τοὺς ἀποδεδοκιμασμένους) could be enrolled in road-building units. Such units, however, operated in conjunction with the movement of armies.

49 For the way stations see Ps.-Arist. *Oec.* II.2.38, "Antimenes ordered the satraps to keep up the stock of the storehouses along the royal roads (θησαυροὺς τοὺς παρὰ τὰς ὁδοὺς) in accord with local regulations." Although the text speaks of supplies sold to the armies, it seems likely that the same or similar stores served regular travelers at the way stations. For the duty of Egyptian administrators to replenish water supplies in the 'Syrian desert' (east of the Nile) see Hdt. III.6.2–7.1; compare *ibid.* III.9.1–4 on cisterns in the Arabian desert.

50 Cf. Colburn 2013, esp. p. 47, "the knowledge that Persepolis or Susa lay at the other end of a road might have been a powerful unifying force in the creation of an imperial identity." See also Kuhrt 2014 on the essential role of the roads and communications network.

from every corner of the empire and sometimes clustered at, e.g., construction sites doubling as veritable multi-ethnic hotchpotches.⁵¹ More pertinent to the current case is the example of the many travel guides and fast messengers that traversed the king's lands by means of the well-kept roads and the celebrated express service. One Šaddamišša, for example, travelled to the King of Kings carrying an authorisation from Parindadda/Pherendates, satrap of Egypt, in the first month of Dar.27. In the eleventh month of the same year we find him *en route* again, from Susa (Mardunda/Mardontes) to the King, and in the next month he is heading once more for the court, now coming from Sardis (Irdapirna/Artaphernes).⁵² Such breath-taking speed shows the success generated by immense investments in the communication and road network, which must have added significantly to the cohesion of the empire (cf. Colburn 2013). Conversely, it also must have made a huge impact on the people who operated the network: the suppliers, grooms, scribes, porters, guards manning the watch towers, and, indeed, road surveyors – in short the personnel who, more than anyone, embodied what we know as the King's Road.

One could even argue, to anticipate the main conclusions of this paper, that the officials involved, certainly the middle and higher ranks among them, were not only aware of the network they were part of, but also of this network as a *system*. This awareness arguably existed no less among administrators in Kṛmāna than it did in Pārsa. Here too, way stations at regular intervals, as well as the logistic structures supporting them, may be assumed: the intensive traffic with the eastern and northeastern satrapies, as attested in the

51 See the case of Bactrian and other *kurtas* at Tamukkan, Barniš, and Uzikurraš, discussed in Henkelman [forthc. 2] §§ 2.2, 2.5.

52 Šaddamišša (*Satamēša-, Tavernier 2007a, 310 [4.2.1576]; cf. Šaddamišša/*Ṭatamēša-, *ibid.* 329 [4.2.1731]) travels from the king to Matezziš (Persepolis region) in I/23 (PF 1380), and from Susa to Pārsa in III/23 (PF 1379), implying that he travelled from Pārsa to Susa between those dates. The cases cited above, from Dar.27, are NN 2472 (Parindadda → King, I/27), NN 0196 (Irdapirna → King, XI/27), and NN 2045 (Mardunda → King, XII/27). In NN 0196, Šaddamišša and his colleague are called *ṭīr²-ra²-da²’-zi-iš*, **fratačiš*, “express messenger, express service” (Tavernier 2007a 421 [4.4.7.40]). All three attestations from year 27 pertain to allocations by Haturdada, presumably at Kurdušum; his way station seems to have been a favourite stopping place for people in the *pirradazziš* service (cf. PF 1315, PF 1319, PF 1320, PF 1321, PF 1329). The term **fratačiš* (Tavernier 2007a, 421 [4.4.7.40]) is now also attested in Aramaic: Azzoni [forthc.]. For Irdapirna (*Ṛtafarnā-, Artaphernes) of Sardes/Lydia see Lewis 1977, 2 n.2; for Parindadda (*Farnadāta-, Pherendates) of Egypt and Mardunda (*Vṛdvanta-, Mardontes), lieutenant of Bakabana at Susa, see Henkelman [forthc. 1].

Fortification archive, could not have existed without these. This is the world that Alexander found himself in on his return march from India.

That districts with institutional granaries, satrapal economic and military networks, large-scale use of camels, and well-developed and well-managed roads – in short empire-wide administrative systems – were intact, or largely intact, at the time of the Macedonian invasion and that these actually enabled its success has been repeatedly stressed, notably by Pierre Briant. Recalling the anecdote of young Alexander questioning Persian ambassadors at his father's court on the lengths of their roads and character of the inland journey (Plut. *Alex.* 5.2), Briant writes (2002, 373):

It could (...) be said that, for the enemies of the Great King to have any chance of success, they would have to take the Achaemenid theatre of strategic operations or, in other words, to turn to their own advantage the logistics the Persian authority had established to ensure its survival.

This perspective receives more and more substance from the growing corpus of administrative sources pertaining to the last decades of Achaemenid rule, including the recently-published Aramaic documents from Achaemenid Bactria (Naveh / Shaked 2012). These allowed Briant to draw up a vast imperial panorama in his “The Empire of Darius III in Perspective” (2009a; cf. *idem* 2010a, 83–8, 171–82), which seeks to connect sources from various parts of the Persian world and show the reality not only of administrative structures, but also of the imperial signature as it would have been evident to Alexander and his advisors.

The task of revisiting the relevant sources, especially with our increasing understanding of administrative practice, is far from accomplished, and notably the Alexander biographies still need to be systematically probed and read with ‘Fortification eyes.’ In this respect, Ruffing’s contribution to this volume requires qualification: the work of Flavius Arrianus may indeed be vague and evasive in this regard, but nevertheless yields important information on Achaemenid administration (*Verwaltung*, especially if understood to include local and regional structures and bureaucracies). The point is ‘simply’ to position his evidence in a wider context – Briant’s famous mosaic of sources – in order to evaluate it. The passage that started this section is only one example, but an instructive one: despite the dramatic setting and rhetorical hyperbole, it evokes institutional supplies and administrative centres, the use of seals and distribution schemes, the supra-regional competences of satraps, the integration of adjoining regions, specific know-how about the terrain, the organized

deployment of camels, and the up-keep of routes marked by road signs.⁵³ All of this does not turn the Gedrosian shore into a Persian paradise, but it does show that it was possible to cross the region in a relatively organized and civilized way. Most and for all the example has given us opportunity to study once again the complexity and impact of Achaemenid administrative and institutional structures as manifest in various contexts and on various levels: the ‘imperial signature’ that may be recognized with increasing confidence, especially with reference to the Fortification archive.

2. Institutional landscapes: from Hidali to Ecbatana, and from Čoḡā Miš to Tell Jemmeh

In what follows below, the main point will be that the institutional ‘Pārsa economy,’ centred on Takht-e Ġamšīd, was more than a traditional way of organizing production and labour. It was not merely an organic expansion of what preceded it in southwestern Iran, even though it owed a great deal to Neo-Elamite and, arguably, early-Persian structures.

Instead, I would venture the hypothesis that the Achaemenids were able to perceive the cloud of administrative networks, functional hierarchies, logistic protocols and bureaucratic conventions as a *system* that a) could be expanded and adapted according to the growth and development of empire, b) could be copied, and c) could be applied to manage, monitor and develop other regions of their empire, notably in its eastern half. More boldly phrased, the adapta-

53 In a recent study, Callieri (2013, 132; see also *idem*, this volume) discusses Arrian *Ind.* 38.8f., a passage on the mouth of the river Sitacus, plausibly the Mand (some 70 km SSE of the Būšeher peninsula; see Potts 2014 on the importance of this partly navigable river). Nearchus and his men, according to Arrian, ἐνταῦθα σῖτον καταλαμβάνουσι πολὺν ξυγκεκομισμένον κατὰ πρόσταξιν βασιλέως, ὥς σφίσιν εἶναι ἐπιτιτίσασθαι. Callieri takes ὥς as consecutive, rather than final, and translates “they found a large amount of wheat gathered by the order of the king, so that they could victual.” This interpretation assumes that the king in this passage is Darius III, not Alexander, as commonly assumed; the conclusion would then be that this is the first case of a royal storehouse connected to maritime routes. One could add that ξυγκεκομισμένον in this context could mean “taken in” (i.e., after harvest), rather than simply “gathered,” which would reinforce Callieri’s position. The main problem, however, is the identity of the king: Arrian uses βασιλεύς quite regularly to refer to Alexander (*Ind.* 20.5, 337–8, 34.1, 36.5, 42.5) and in the context of the *Indica* one does not expect a sudden reference to Darius III. Note also the other passages from the *Indica* to which Callieri rightly draws attention in this context (*o.c.* 131): the poles marking the navigable canal through the marshy coastlands of southern Khūzestān (41.2) and the multitude of ships seen at Apostana (in the ‘Asalūyeh region; 38.5).

tion, conceptualisation, and instrumentalisation of the traditional household economy of their heartland may well have been an essential feature of the imperial leap taken by the early Achaemenids and of the imperial persona assumed by Persian society.

The ‘imperial paradigm’ in my title therefore refers not only to the great potential of PFA as *the* fundamental source for Achaemenid studies, but also to a hypothesized conception of the administrative system it embodies as a model for creating further institutional economies, notably in regions with no or less developed pre-existing administrative systems.

What I will argue is far from new, at least not in the sense that intricate parallels between satrapal administrations on the one hand and that at the centre on the other have been highlighted before. One may even observe that this kind of comparison is becoming a standard way to assess new documentary sources from the satrapies. My contribution will therefore primarily lie in constituting and expanding several pertinent dossiers that not only show the imperial signature but may also suggest the attitudes behind it. The available evidence is more detailed and relevant than has hitherto been realized. When properly organized and contextualized, it reveals parallel structures and protocols, existing at various levels. These are, at least in some cases, strong enough to assume a conscious, determined, and systematic planning on the basis of well-understood and well-tested precedent: this is what I call imperial paradigm.

I hasten to add that my contention is a working hypothesis, which I can support in a number of case studies, yet not systematically explore. Whereas the preceding section (§1) aimed to corroborate the thesis of an imperial signature using a single testimony from Arrian as a starting point, the current one will investigate its application in various satrapies. By exploring the possible template function of the Pārsa administration by identifying parallel systems in Khūzestān and on the Iranian plateau, I hope to show that there was a ‘network of networks’ involving institutional economies of the Pārsa type and covering most of western Iran (and probably beyond). This will pave the way for a last section (§3), where I will test the thesis of imperial paradigm with the help of the Arachosian example; in addition, I will briefly illustrate its *longue durée* impact – arguably a function of its systematic coherence – in Mauryan India.

Another *caveat* is in place here: my approach aims to include all relevant evidence, but is limited in scope to economic networks, bureaucratic protocol and logistic infrastructure, generally on a local or regional level. Other domains of the Achaemenid world could be probed for indications of sys-

tematic planning and layout. “Das *System* der Provinzverwaltung,” as well as the wider political structure and military hierarchy of the empire have been analysed in much detail by Bruno Jacobs, who rightly stressed that the often-cited Persian pragmatism should not be mistaken to imply a constant flux in organisation and lack of fixed patterns.⁵⁴

2.1. The district level: the case of Achaemenid granaries

Herodotus (IV.124.1–2) relates how Darius, during his Scythian expedition of 513/12 BCE, erected eight large fortresses (τείχεα) at regular intervals of 60 stades at the Oaros river. Within their – admittedly quite hopeless – narrative setting little can be made of these structures. This changes when one compares the Iaxartes forts positioned at close proximity to each other, the string of fortresses lining the Oxus in the Surkhāndariyā valley, and arguably the network of Achaemenid-period strongholds in southern Judah.⁵⁵ The larger, imperial context still does not do much for locating the Oaros forts, or indeed for the general credibility of the Scythian campaign narrative; it bolsters, however, the institutional reading of the Herodotean passage. This is not limited to the logistic effort and advance planning needed for the construction, nor the regular layout and the communication systems (fire sig-

54 See, notably, Jacobs 1994 (esp. pp.97–116; citation from p.3, with added emphasis); *idem* 2003; *idem* 2006a; *idem*, this volume. The model operated by Jacobs (seven *Großsatrapien*, divided in *Haupt-* and *Kleinsatrapien*) may appear over-determined to some, but its founding assumption (that there was a systematic hierarchy of satrapies) seems undeniable, also in view of the mounting evidence from the Fortification archive. Jacobs generally does not treat what he calls *Kleinbezirke* (1994, 114), which is the sub-satrapal or ‘provincial’ level discussed in this paper.

55 For the Scythian expedition see the recent treatment by Tuplin (2010b), who deconstructs the Herodotean narrative and shows that the few *realia* mentioned in it do not enhance its overall credibility (see esp. p.287). For Tuplin, such items as the Oaros forts are “authentic in the sense that such things really did figure in the story-telling environment that was the only data-set available to Herodotos and his sources” (*ibid.* 301). The construction of the forts as a haphazard (and abandoned) action taken during the army’s advance makes little or no sense – see on this notably the discussion by Jacobs (2000; 2006b), who argues for the premeditated establishment of a border line at a defensible river (perhaps the Sal) as part of Darius’s northern strategy; only a garbled echo of this is to be found in the *Histories*. The opposite approach, questioning the existence of the fortress on the basis of the problematic context (so How and Wells 1912 I, 343; similarly Corcella in Asheri / Lloyd / Corcella 2007, 662) seems excessive. Iaxartes forts (‘cities’): Arr. *Anab.* IV.2.1, 3.1 (cf. Strabo XI.11.4); cf. Tuplin 1987a, 181; Briant 2002, 745, 747, 751f. 1027. Oxus: Stride 2005, 295–7 [*non vidi*], Wu [forthc.]; cf. Gardin 1995, esp. 100. Judah fortresses: see below, n.62.

nals) suggested by the regular, relatively short intervals between the forts. As Briant recognized in case of the Iaxartes forts, such sites were not exclusively defensive, but also functioned as “trading posts between the world of the steppes and Bactria-Sogdiana” (Briant 2002, 747). Tell Jemmeh, on the fringe of directly controlled Achaemenid territory and apparently a garrison site (cf. below), yielded abundant evidence for camel caravans (cf. § 1.3), thus providing another case in point. What matters most, however, is the (as yet patchy) evidence for the *network character* of frontier zones in various parts of the realm. The question rises whether we are dealing with yet another example of the imperial signature and the systematic mentality behind it.

The above example may lend some sense of concreteness to the discussion on the imperial-administrative landscape. In archaeological terms, this landscape is only very gradually becoming visible (and recognisable) to us, but the promise is certainly great. This is particularly true for approaches that seek to combine the evidence from documentary sources and the results from surveys and excavations. The Fortification archive, for one, abounds in localities with an administrative profile, indicating that ancient Pārsa must have been dotted with way stations, bird farms, livestock assessment stations, storage facilities of different types and size (wine, beer, fruit, cereals), plantations (paradises), estates (held in tenure by the institution’s higher officials), domains (of royal women and other members of the court), temples (with an economic role), various fortified structures, and, as we will see, local and regional ‘treasuries’ (craft centres, depots, administrative nuclei: §§ 2.2.1–2). That we are, as yet, finding only few of these in the archaeological record is a function of a previous concentration on the royal residences, not necessarily of a paucity of such structures.

Surveys and excavations in recent years have revealed precious clues for understanding the world of PFA. Logically, this is particularly true for Fārs/Pārsa, the archive’s immediate geographical context. Apart from the ever-increasing number of ‘pavilions’ (see below) and the identification of way stations, canals, and sections of the royal roads, we are now getting a clearer image of two micro-regions that were well developed in the Achaemenid period: Mamasanī (Fahliyān region) and the Tang-e Bolāgi (between Takht-e Ġamšīd and Pasargād). They yield new information on population density, settlement continuity (from the Neo-Elamite period), the royal road, production sites, storage facilities, and irrigation systems. All these aspects have a direct or indirect bearing on the institutional economy centred on Takht-e Ġamšīd. Most impressive is the evidence for regional design, as in the case of the water management in the Pasargād district, involving 1) dams and sluices to

control the water level in the tributaries of the Pulvār and protect the palaces as well as the royal road in the Dašt-e Morġāb, 2) a canal of several kilometres length that appears to have its inlet near Pasargād and runs through the Tang-e Bolāġi, 3) the continuation of this water conduit into the valley at a height of about five meters above the Pulvār, hence enabling irrigation of larger parts of its right bank.⁵⁶ Seen from the Persepolis archive, the relevance of this system lies in the plantations and irrigated fields (HAL.A^{MES} in the tablets) it made possible. It correlates with the abundant harvests in wine, fruit and cereals from the region, and with the presence of larger groups of workers. In other words, we are looking at the material infrastructure of an institutional economy.

More generally speaking, large-scale implementation of irrigation techniques (irrespective of the *qanat* problem) and coordinated cultivation of fringe zones would be another angle to approach the imperial signature at large. At this level, too, comparison between PFA and archaeological data makes eminent sense, as, e.g., shown in a recent paper that analyses Kyzyltepe in Uzbekistan from an institutional perspective.⁵⁷ As will be argued below, the same is true for the large granaries found at Čoġā Miš, Tell Jemmeh in Palestine, and elsewhere.

2.1.1. Čoġā Miš

Čoġā Miš, roughly 25 km east of Susa, was excavated by the Oriental Institute of the University of Chicago between 1961 and 1978. Deserted around the middle of the second millennium BCE, the site was re-occupied during the Achaemenid period, or perhaps slightly earlier, in the late Neo-Elamite period. Achaemenid occupation seems to have been concentrated on the southern half of the site and is best known through excavations in the so-called East Area. Here, the ‘Circular Structure’ came to light, a building quickly recognized as a granary by Delougaz. It has walls averaging 1 m in thickness – constructed from sundried bricks covered with mud plaster – and a base interior diameter

56 Correlates between PFA and institutional landscapes were first sought in a seminal paper by Sumner (1986), which, though partially superseded, remains of great interest. See, in general, Henkelman 2012a, esp. 943, 957–61 and *idem* 2013a, esp. 538–40, with references; for the Tang-e Bolāġi see now Callieri, this volume (§ 1.4), with further bibliography. For the water management in the Dašt-e Morġāb and Tang-e Bolāġi micro-region see Kleiss 1991; *idem* 1992, 131–6 (p.136, “*geplantes und überlegtes Hochwasserschutzsystem für die Palastanlagen*” [emphasis added; WH]); *idem* 2000; *idem* 2015, 33f., 94–9; Boucharlat / Feizkhah 2007, 18f.; Atai / Boucharlat 1991.

57 Wu [forthc.]; compare Henkelman [forthc. 2] § 3.1.

of 7.5 m. It was dug into much older layers and therefore initially assigned to the Proto-Literate period. The Achaemenid date was established “with great probability” on the basis of faunal remains (horse, camel) and shards found in the deepest part of the structure; it could be corroborated by comparison with Achaemenid-period granaries from the Gaza and Beersheba areas in Persian-period Palestine, notably those of Tell Jemmeh and Tell esh-Shari’a (below).⁵⁸

About 20 m. east of the Circular Structure (locus R18:304) was found, in the 1976 season, a small landscape-format clay tablet inscribed in Elamite cuneiform. Epigraphists consulted on the matter tentatively dated it to the Achaemenid (Hallock) or Neo-Elamite/Achaemenid (Stolper) period. Unfortunately, no continuous, meaningful sequence of signs can be read from the published photographs; isolated administrative texts generally are very difficult to understand. The ductus, however, clearly has more affinity with certain hands in the Fortification corpus than with, e.g., the late Neo-Elamite Acropole texts.⁵⁹ In close proximity of the tablet (apparently in the same locus) a clay sealing was found; it is described by the excavators in terms that bring to mind the uninscribed tablets from PFA (and related objects).⁶⁰

The evidence from Čogā Miš lacks a clear unifying context. Still, it does not take too much imagination to recognize the site as a local unit in an insti-

58 For the Achaemenid period at Čogā Miš see Delougaz / Kantor 1996, 10–18 and Alizadeh 2008, 41, 48, 190f., 204f. (faunal remains), 248–57. For the granary and comparison with Palestinian examples see Delougaz / Kantor 1996, 10–12, 403–9, pls. 8–9, 264; cf. Alizadeh 2008, 41, 45, pl.6. The excavators cautiously left open the possibility of an Iron Age III/Neo-Elamite II date for the Circular Structure, but clearly prefer an Achaemenid date. Note also the two graves found on the central terrace of Čogā Miš (Trench XIII Area), at least one of which was Achaemenid and included a strip of gold foil covering the deceased’s mouth and a silver band covering his (?) lower teeth; several arrow and spear heads; metal vessels; silver rings; the remains of a (sacrificed) animal (apparently a caprid) positioned on the legs (Delougaz / Kantor 1996, 13, 360, 370, pl.263).

59 On the tablet see Delougaz / Kantor 1996, 17, 437, and pl.5. Hallock’s undated letter to H. Kantor is cited *ibid.* p.17; Stolper expressed his opinion in a letter to Kantor dd. 24.09.77. See also Jones / Stolper 1986, 248 (“apparently Achaemenid”). The tablet format is well-attested among the Acropole texts, but also known from PFA.

60 Delougaz / Kantor, 1996, 17, “The clay is dense gray with no visible vegetal inclusions; one mica speck. The upper and side surfaces were smoothed; the lower surface is very uneven with string or knot impression entering from one side. An extremely shallow and incomplete impression covers part of the upper surface.” Neither the locus, nor the dimensions are mentioned in the report; the object is not illustrated. Note also the cylinder seal, found in secondary context on the High Mound and thought by Kantor to date to the Neo-Elamite or Achaemenid period (with an inclination towards the latter; Delougaz / Kantor 1996, 17f.).

tutional landscape, with a central granary and possible indications of book-keeping (the tablet) and the expression of local jurisdictions (the clay sealing). If this impression is correct, Čogā Miš would – considering its location – be the first town in the regional institutional economy centred on Susa (cf. § 2.3.1 below).

2.1.2. Tell Jemmeh

Tell Jemmeh at the Wadi Gaza has yielded a total of thirteen granaries: twelve on the central tell, one west of it. Sir Flinders Petrie, who conducted one campaign at the site (1926/27) and uncovered eleven of the granaries (fig. 2), dated these to the Persian period. Whereas Van Beek, who found two more granaries during a more recent series of campaigns (1970–78), doubted Petrie's dating and tended towards the Ptolemaic period, the final excavation report unambiguously reaffirms the Achaemenid date.⁶¹

The smallest granary at Tell Jemmeh has an interior diameter of about 5 m, the two largest ones have diameters of about 7.8 and 8.8 m. All are dug deep into the surface, at least 2.1 m. in case of one of the structures excavated by Van Beek (fig. 3). Insofar as they were completely excavated, all had rather thick walls: 70–80 cm in the structure just referred to, more in the case of the two larger granaries identified by Petrie. In one instance, where walls were preserved to a sufficient height, Petrie found evidence for an inward inclination. Based on this and iconographic evidence, he reconstructed a cylindrical building with a tall conical superstructure, hence a so-called beehive granary (figs. 4–5). Van Beek believed that at least one of the granaries he excavated was a straight cylinder with a flat roof (supported by a vaulted arch), and expressed doubt on Petrie's reconstruction; the final report remains undecided, but regards both shapes as possible. In a hot climate, however, a granary with a domed roof would be more advantageous.⁶²

61 Persian: Petrie 1928, 8f.; Ben-Shlomo / Van Beek 2014a, 14; Ben-Shlomo 2014a, 145f., 152; *idem* 2014b, 553f.; *idem* 2014d, 1064; see also Stern 2001, 413. Hellenistic: Van Beek 1983, 19; *idem* 1993, 672f.; Wapnish 1981, 120 n.89. Given the complex stratigraphy (the granaries are dug deep into the surface), the report does not exclude the possibility that the granaries started already in the 7th or 6th century, but otherwise insists on their attribution to Phase 4 and 3 and treats them as Persian. Van Beek's previous dating to the Hellenistic period is not discussed in the report.

62 See Petrie 1928, 8f. and pl. 14.2 and the interpretation of his data in Ben-Shlomo 2014b, 564 fig. 8.206. For Van Beek's alternative solution see Van Beek 1983, 18f. and *idem* (revoking Van Beek 1972, 245); discussion in Ben-Shlomo 2014b, 554. In a structure partially sunk into the earth and having a tall conical roof, the outer surface exposed to the sun at mid-day is minimal, whereas only the upper part of the interior is heated. If a structure is closed on top, hot air trapped in the cone, sealing the much

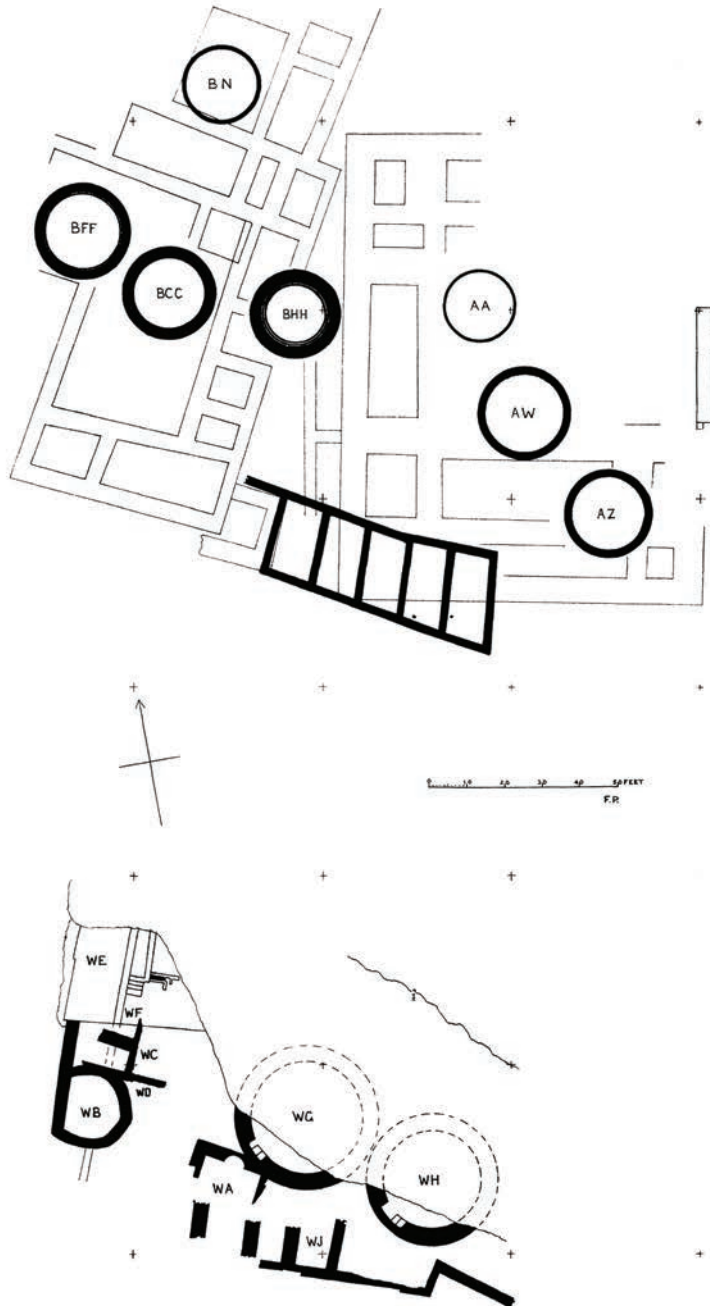


Fig. 2. Tell Jemmeh, 1:250 plan of the granaries excavated by Petrie (image reproduced and adapted after Petrie 1928, pl. XIII).



Fig. 3. Tell Jemmeh, one of the granaries excavated by Van Beek (photograph courtesy of David Ben-Shlomo; cf. Ben-Shlomo / Van Beek 2014a, 556)

Petrie found a large quantity of carbonized grain in one of his granaries, confirming the purpose their shape had already suggested. He furthermore calculated that one of the larger structures, from the floor “up to the spring of the top doming,” could have held about 167 cubic meters of grain. The one granary completely excavated by Van Beek (the other was only partially

cooler layers below (see Currid 1985, esp. 108; cf. Hosseini / Namazian 2012, 228f.). A comparable design, yet with ventilation opening on top, was until recently used in domed cisterns (*ābanbār*) and ice houses (*yakhčāl*, “ice-pit”) in Iran. Buildings of the latter type are studied in the remarkable monograph by Jorgensen (2012a), who compares them to ancient storage structures at Čoġā Miš and elsewhere (p.20). For the beneficial qualities of the conical shape see *ibid.* 158-61; compare Jørgensen 2012b and Hosseini / Namazian 2012. Note also that the conical dome is actually attested, on a smaller scale, in a silo pit at Tell Jemmeh (Ben-Shlomo 2014b, 548–51). Van Beek’s flat-roofed cylinder, especially when filled completely (as Van Beek 1972, 19 and *idem* 1986, 2477 suggests) would be very disadvantageous for the interior temperature control – an essential feature in any grain storage. Note that Van Beek’s reconstruction does not explain the thickness of the walls (typical of storage facilities with a conical superstructure; Jorgensen 2012a, 161). Also, as all published plans and photographs show, the two interior platforms or piers, which he saw as the bases of a vaulted arch, are actually not on a median line.

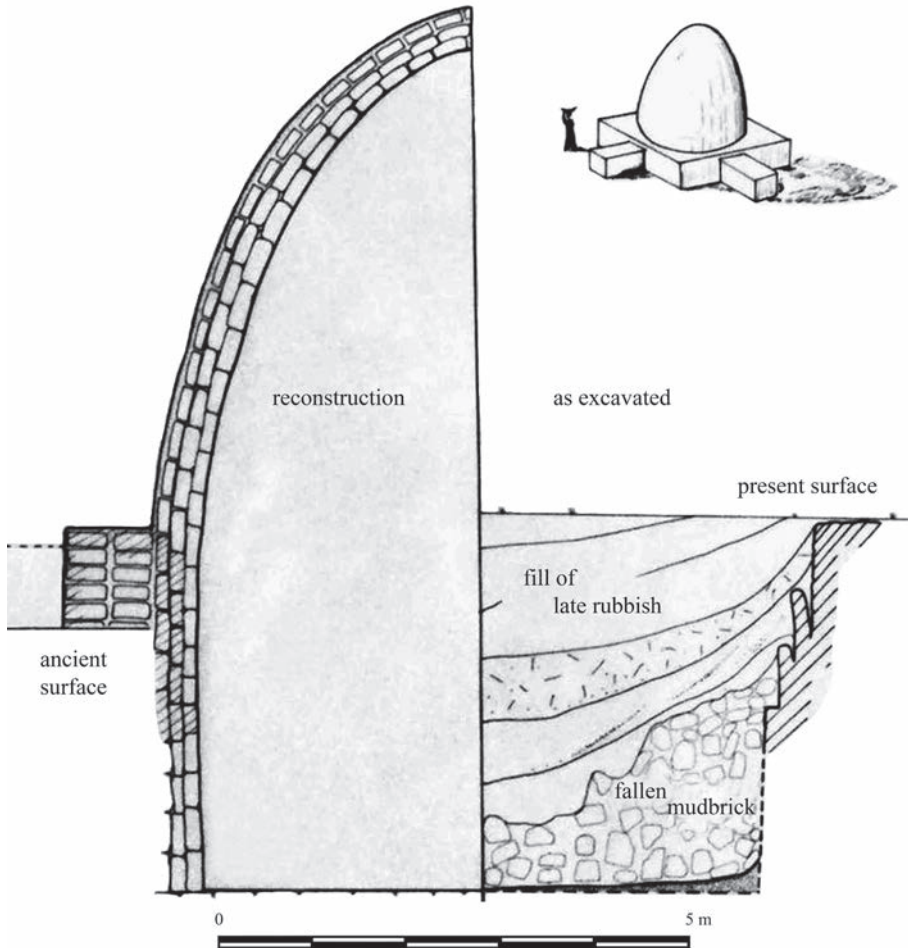


Fig. 4. Tell Jemmeh, Van Beek's reconstruction of the archaeological context of one of the larger granaries combined with Petrie's interpretation of it (image reproduced and adapted by courtesy of David Ben-Shlomo from Ben-Shlomo / Van Beek 2014a, 564)

uncovered) had an inner diameter of 6.1 m and was at least 2.5 m high (not including the roof construction), giving a volume of 73 m³. The size of this structure is comparable to the other, smaller granaries found by Petrie. The 13 confirmed granaries represent approximately 1,100 m³ of storage capacity, enough for 1,100,000 litres or 660 tons of barley. This is a minimum, for, as Petrie remarks, the Persian layers were badly eroded and the site has only very partially been excavated; additional granaries may well have existed. Even

in the current, incomplete view, a planned layout is nevertheless clear: the granaries were integrated in a larger complex, involving series of rectangular spaces tentatively identified as storerooms.⁶³

Six Aramaic ostraca were found within the Tell Jemmeh granaries, three others directly outside. Naveh initially dated them to the late Achaemenid period, leaving open the possibility of a Hellenistic date (evidently in response to Van Beek's aversion to a Persian date). A more recent treatment puts the ostraca firmly in the context of comparable corpora from Idumea and dates them accordingly to the "Late Persian and possibly early Hellenistic periods." The documents record transactions in barley and wheat, but also in wine and other commodities, perhaps from taxation; one personal name seems to be Arabic. Incised alphabetic signs on pottery seem to relate to storage and handling of grain. Other indications of the site's function are its strategic location and the find of Persian-type bronze arrow heads – these point to a garrison town (as it already was in the Neo-Assyrian period), hence part of a series of military sites in southern Judah.⁶⁴



Fig. 5. Tell Jemmeh, Petrie's reconstruction of one of the larger granaries (image reproduced after Petrie 1928, pl. XIV.2).

63 For the larger Van Beek granary (excavated 1971–72) see Ben-Shlomo 2014b, 554, giving slightly different measurements than Van Beek 1972, 245. Compare the second, partially excavated granary (1978), discussed in Ben-Shlomo 2014a, 145–48, 152. For the larger Petrie granary see Petrie 1928, 9. The estimates given there imply an aggregate storage volume of 2478 m³, much higher than my more conservative estimate of 1100 m³, but comparable in terms of the immense scale. The "Persian storerooms" are shown in Petrie 1928, pl.13 and 15.1. Van Beek estimated that "There may have been a few houses scattered among the granaries for officials and keepers, but most of the other buildings from this period appear to be warehouses constructed of two parallel walls and partitions formed by cross walls" (Van Beek 1983, 18). Ben-Shlomo estimates, however, that "Hardly any architecture relates to [the granaries]" (2014b, 554; compare *idem* 2014d, 1064).

64 For the Tell Jemmeh ostraca see Naveh 1992 and Misgav 2014 (citation from p.1033); see also Lemaire, this volume. Pottery with incised alphabetic signs: Ben-Shlomo 2014c. Arrow heads: Ben-Shlomo / Gardiner 2014. Fortification, garrison: Van Beek 1983, 12; Tuplin 1987a, 186–88. Network of defensive sites, possibly in relation

To this picture should be added the evidence from the great amount of camel bones from the Neo-Babylonian and Persian periods at Tell Jemmeh, suggesting an intensive, long-distance caravan trade (cf. § 1.3). As stated above, the administrative context implied by the granaries and the ostraca makes the role of the site in the caravan trade all the more conspicuous, as it suggests a profound and perhaps deliberate integration of economic systems.

Although the final excavation report on Tell Jemmeh here and there refers to the interregional or imperial context, it never seems to grasp the full implications of the materials found.⁶⁵ Since the site lies within the 300 mm isohyet and its annual rainfall tends to be concentrated in a relatively short period (Van Beek 2014, 18f.), irrigation would have been indispensable to guarantee regular harvests. Also, the site's immediate hinterland could never have produced the volume that it was able to store. The granaries imply, all by themselves, a much larger network, which could only be organized on state level. Such was also the thinking of Petrie, who seems to have realized much more than his successors how visible the empire is at Tell Jemmeh. His ideas about grain storages made purposely for a two-month campaign into Egypt with a 70,000 man force have been severely criticized, but at least attempted to contextualize Tell Jemmeh in a wider perspective. This is most clear in the following passage:⁶⁶

The Persian granaries show an unexpected branch of the careful preparations and organisation of that great civilising power, like the vast system of roads and the storing of treasure as an organ of government. Thus in every age it is seen how the material

with a fire-signal system: Stern 1982, 239f., 252 (also pp.50–3); *idem* 1990, 223; *idem* 2001, 371f., 413–6, 420–2, 443; Tuplin 1987a, 186–202, n.121; Edelman 2005, 308–10, 315–9 (p.316, on “the string of forts in the Beersheva Valley and Negev Highlands that clearly belonged to the administrative system of Judah”).

65 The final synthesis on “the significance of Tell Jemmeh” (Ben-Shlomo 2014d), pictures an interregional context and underlines the non-domestic nature of the granaries. It mentions, but does not evaluate, Petrie's theory about the site's function as a frontier settlement with grain stored for an Achaemenid invasive force. The evidence from the camel bones is mentioned only in passing and it is non-committedly taken to “testify to the commercial importance of the site for caravans and its connections to Arabia.” See also Ben-Shlomo 2014b, 558f., where the grain storage on the site is described as perhaps being of an “imperial level,” yet without further comments.

66 Petrie 1928, 30f. Stager (1971, 88) severely criticized Petrie's estimation as “far in excess of evidence.” His alternative proposal – granaries as the community's insurance against the vagaries of rainfall – completely misses the point Petrie was making: the scale of the operations evidenced by the excavations by far exceeds that of the community level.

remains at Gerar [Tell Jemmeh; WH] help in understanding the records that we have, and give the physical basis for history which substantiates the contemporary accounts.

As said, Tell Jemmeh was not alone in having Persian-period granaries: comparable examples are known from Tell Ruqueish (18 km southwest of Gaza) and from Tell esh-Shari'a (20 km northwest of Beersheba). In these cases, too, there is evidence for an administrative context, including Aramaic ostraca at Tell esh-Shari'a. Large circular granaries therefore were part of the Persian institutional landscape of the Gaza and northern Sinai regions.⁶⁷

2.1.3. *An institutional landscape*

Granaries with a circular floor plan have recently been reported from the fortified site of Seyitömer Höyük in Achaemenid Phrygia. Beehive or domed storage structures are already known in Elam in the fourth millennium (Susa II period) and are perhaps referred to in the Fortification archive.⁶⁸ Yet, the

67 See Oren 1993a (Tell Ruqueish) and *idem* 1993b, 1333f. (Tell esh-Shari'a). Compare also, in the same region, Tell el-Hesi, another logistic centre in the Persian period, with a series of pits with depths of up to 4.6 m. for the storage of wheat and barley (Bennett / Blakely 1989, esp. 63–7, 335–55; Betlyon 1991). For surveys of the Persian archaeological remains in the region, including the granaries, see Stern 1982, 22–9, 250–2, *idem* 2001, 412–16 and Edelman 2005, 281–331 (esp. 319–21). For estimations of the road network see Graf 1993, 160–8; *idem* 1994, 183f.; Tal 2005, 72–4 with fig.1. See also Borowski 1987, 71–83 for references to excavated Iron Age and Persian silos, granaries and storehouses. One may alternatively at the same administrative landscape through the lens of the 'Persian bowls' of standard format and size found at Tell Jemmeh, ubiquitous in the region, and notably used in the fifth and fourth centuries BCE (Salles 1991, 218–24).

68 Seyitömer Höyük: the structures are described as circular grain silos partially dug into the soil (their dimensions are not stated); Persian clay tags or bullae were found in a context that may associate them with the storage facilities (Kaptan 2010 and pers.comm. 25.09.2015; compare also Garrison, this volume). Beehive granaries are known from famous Susa II seal impressions (Amiet 1972 I: 103, no. 663, pl. 81), but are a wide-spread phenomenon in the ancient world, including Early Bronze Age Palestine (Currid 1985). In PFA, *tikrakkaš*, a loan from **tigra-ka-*, "pointed (structure)," occurs as a toponym and as the beneficiary or place of certain sacrifices (also, a sacred Mount Tikra occurs in Fort. 0499-101:1f.). Since storage facilities such as *hapidanuš* (**āpidānīš*, lit. "water reservoir," hence "storage, reserve"), *balum* and *pilu* could be the locus/object of cultic activity (Henkelman 2008a, 395–400, 541f.), it would be possible to assume a similar scenario for *tikrakkaš*. The problem, however, is that the term is not (yet) attested in profane context. Also, it is entirely possible that other terms referred the typical domed structure, notably *baribara(š/m)* (**paribāra-*). Etymologically meaning either "enclosure" or "roofed structure, silo," it invariably refers to storage facilities in the Fahliyan area, perhaps as a function of specific climatic conditions (cf. Garrison / Henkelman [forthc. 1] § 4.2). For contem-

importance of Tell Jemmeh, Čoḡā Miš, and related finds is not so much in the format of the domed or beehive granary, its invention or diffusion, but rather the administrative node it represents as indicated by bureaucratic context and storage volume. Two Tell Jemmeh granaries (the largest and one in the middle range) were preserved to a sufficient height to allow for a calculation of the (minimum volume) they could have held. The estimations below are based on the assumption that only the lower, cylindrical part served for storage (height indications below refer to this part, not the total height including the dome):

Site	interior diameter	preserved height	assumed height	volume	Persepolis quarts (q.)
Tell Jemmeh (large)	9.1 m	2.6 m	2.6 m	167,000 l	176,843 q.
Tell Jemmeh (middle)	6.1 m	2.5 m	2.5 m	73,060 l	77,366 q.
Čoḡā Miš	7.5 m	“well over 1 m”	2.5 m	110,450 l	116,960 q.

The figures given here should be taken *cum grano salis* given the uncertainties involved, but the general trend is reliable. The kind of storage capacity they suggest is comparable with data from the Fortification archive, but, as always, the comparison is not as straightforward as one would like. The tablets obviously do not state the form or dimensions of the granaries; the volume of harvested grain may vary considerably at any given location due to climate conditions, but also, seemingly, because parallel ‘accounts’ for the same place obscure the total capacity. Some examples of deposits of barley harvest (*haduš*) may illustrate these variations:

Text	seals	harvest	supplier	notes	responsible	location	date
NN 1632	PFS 0039s, PFS 0714	56,100 l	Mannizza	/	/	(Kaupirriš)	Ø/22
PF 0601	PFS 0039s, PFS 0148	121,400 l	Bakadušda	/	/	(Kaupirriš)	Ø/22
PF 0563	PFS 0039s, PFS 0148	62,000 l	Bakadušda	/	/	Kaupirriš	Ø/23
PF 0606	PFS 0039s; PFS 0813	2000 l	(Mazamanna received)	/	/	(Kaupirriš)	Ø/27

porary Iranian domed water reservoirs and ice houses of comparable shape see n.60 above.

Text	seals	harvest	supplier	notes	responsible	location	date
NN 2438	PFS 0002	103,200 l	Bakadušda & Karkiš	/	/	Liduma	Ø/20
NN 0139	PFS 0002	82,000 l	Bakadušda & Karkiš	/	/	Liduma	Ø/21
PF 0551	<u>PFS 0029</u> ; PFS 0195	12,600 l	Ammamarda	/	Šati-Šimut	Hišema	Ø/19
NN 0767	[PFS x]; PFS 2747	51,810 l	[...]	/	Miš-/ Uštanna?	Hišema	Ø/20
PF 0552	<u>PFS 0195</u> ; <u>PFS 0771</u>	56,490 l	Ammamarda & Basakka	/	Šati-Šimut	Hišema	Ø/21
PF 0553	<u>PFS 0029</u> ; PFS 0015	7870 l	Ammamarda & Basakka	for/from <i>kurtaš</i>	Miš-/ Uštanna	Hišema	Ø/21
PF 0554	<u>PFS 0029</u> ; PFS 0772	52,000 ⁺ l	Ammamarda & Basakka	/	Kitete	Hišema	Ø/21
PF 0555	<u>PFS 0029</u> ; PFS 0689	21,140 l	Ammamarda	/	Nariyapikna	Hišema	Ø/22
PF 0572	PFS 0045*, <u>PFS 0167</u>	47,450 l	Utira	(6800 l rainfed)	/	(Zila- Huban)	Ø/23
NN 2538	PFS 0052	24,230 [?] l	Mikrašba	/	/	Zila-Huban	Ø/23

As the table above shows, there may be several deposits of harvested barley during the same year, often involving more than one receiving supplier and, in the case of Hišema, several responsible officers (*šaramanna*). The particulars remain opaque: one wonders, for example, if the absence of month dates indicates one single annual barley harvest. Be that as it may, the texts do make an estimation of the aggregate storage *capacity* per locality possible, even if allowing for income at more than one point in the year (multiple harvests) and expenditure (consumption) between those moments. At Kaupirriš this capacity is minimally 121,400 and possibly 177,500 l (if the two deposits of year 22 were made at the same time); for Liduma it amounts to 103,200 l; for Hišema to at least 56,490 l (PF 0552), but probably more, up to 116,360 l (all three deposits of year 21). Similarly, at Zila-Huban, there is a capacity of minimally 47,450, possibly 71,680 l. Of course, all estimates are actually minimal, as the dataset is incomplete and even the highest values assumed need not correlate with completely filled storage facilities.

The impression gained here could be substantiated by reviewing the entire harvest dossier, but that would require a very detailed reconstruction of district files. For the time being one may refer to the following texts, which state the highest known deposits of harvested barley. I have selected these, as they

may be relatively close to the aggregate storage capacity of a certain class of granaries:

Text	seals	deposit	supplier	facility	responsible	location	date
NN 0044	PFS 2023, <u>PFS 2024</u>	113,640 ⁷ l	Umišduma	Ø	/	(Kurdušum)	Ø/24
NN 2207:1	no seal	120,050 l	Nariyamar-tiš	<i>pamiraš</i>	Ušbaka	Tamkan	Ø/22
PF 0585	<u>PFS 0002</u>	127,000 l	/	Ø	/	Zakzaku	Ø/23
NN 1420	<u>PFS 2754</u>	127,700 l	Ukbateya ⁷	Ø	Iršena	(?)	Ø/14
Fort. 0601-101	<u>PFS 0163</u> , PFS x	128,790 l	/	/	/	(Ullipitbena?)	Ø/20+
PF 0548	<u>PFS 0769*</u>	129,480 l	/	<i>kanti</i>	/	Anzar(inna)	Ø/24
NN 2298:9	no seal preserved	159,900 l	[...]	/	/	Parsaran ⁷	Ø/19
NN 0319	no seal	167,200 l	Attemanya	Ø	/	Irdumak- kanan	Ø/21

The trend indicated by this and the previous table is clear enough: the Persepolis economy had a class of storage facilities that could hold 120,000-130,000 l, and several more with still higher capacities. The first group is comparable with the Čoḡā Miš granary, the second with the largest one from Tell Jemmeh. Not all facilities reflected in PFA were as important as these. Zila-Huban seems to have had a smaller storage, comparable with the middle range granaries at Tell Jemmeh; the same is probably true for a series of other places. All this is obviously not to say that the Persians operated two or three strictly defined types of granaries throughout their empire, but perhaps it indicates the existence of certain storage classes relating to the size (hence importance) of the district. Within the institution centred on Takht-e Ġamšīd, such a model would have facilitated comparison between districts, hence control in the widest sense.

It is unknown whether the storage facilities implied in the above-listed texts were single structures, or whether they all adhered to the same architectural form. The Čoḡā Miš and Tell Jemmeh granaries, if indeed of the beehive or domed type, would have been impressive structures and visible from afar. They would have given a robust material reality to the institutional economy and created a psychological effect that modern eyes can only underestimate, but that surely did not fail to impress travellers passing by or *kurtaš* toiling on the blistering fields. The architectural format may well have been different in

Pārsa, but facilities holding the quantities mentioned above would anyhow be conspicuous; their ubiquitousness would furthermore bestow a regularity on the institutional landscape that would not have gone unnoticed.

The visible regularity of the institutional landscape, of which roads, way stations, and granaries and fortified places are examples, was the surface layer of a systematic layout.⁶⁹ The district centre or *entrepôt*, usually surrounded by a number of satellites, formed the smallest nucleus in the network in which the institution's DNA was still visible. A district centre typically had different departments (and storage facilities) for different commodity classes, each with at least one leading store keeper. In the larger centres, he would be assisted by several adjuncts responsible for specific activities (grinding, brewing, pressing oil, roasting barley). The *entrepôts* were furthermore manned by porters and other personnel, and by one or several scribes; the more important centres produced both Elamite and Aramaic (and uninscribed) tablets. Journal colophons furthermore indicate the standard cooperation between supplier and two controlling officials involved in assessment and accounting. More generally, mutual control is suggested by the frequent mention, alongside the supplier, of a 'ration & logistics' official (indicated by the term *šaramanna*), extraneous to the district centre, but cooperating with it in order to feed *kur-taš*, livestock and other groups and individuals figuring on his rosters.

The district centres developed their own ways of handling matters of detail, but simultaneously adhered to general guidelines; in both regards, a determination to be consistent is in evidence. Local scribes would, for example, use subtle variations in tablet format or in the notation of key elements to indicate particular operations or the activity of a subaltern store keeper. Such internal routines did not obstruct, but rather facilitated the processing of records into categories that the general administration needed to assess and document. At the same time, general protocols concerning the format of sealed and unsealed tablets, the position of the supplier's seal, counter sealing, statement of jurisdictions, etc. were very consistently applied – real exceptions are surprisingly scarce. In all this, centralized instruction and control is implied; the dossier on local investigations treated by Stolper (this volume) expresses precisely the maintenance of the desired order of standard protocols.

The size and density of the PFA network and the regular layout of its smallest nuclei preclude that it merely represents an organic village landscape brought under central control. Although continuity of settlement from the pre-Achaemenid period is more and more in evidence, the rise of empire must

69 For an attempt at understanding the district level of the institutional economy, see now Garrison / Henkelman [forthc. 1], from which the following remarks derive.

have had a tremendous impact on the organisation of the heartland. The grain storage capacities discussed in this section add an as yet impressionistic, but important aspect to the institutional landscape as it emerged under Darius and his predecessors. Given the regularity in many other aspects, the repetition of storage capacity of a certain range is probably no coincidence. The amounts correlate with data derived from actual Achaemenid granaries and probably represent structures of similar size and shape. My intuitive impression is that they reflect the way by which institutional districts were defined: not so much by regular amount of (arable) land, but by level of projected (grain) harvest, given such variables as soil fertility, climate, and possibility of irrigation. In other words, the evidence, limited as it is, suggests districts of varying size, yet with a comparable yield.

2.2. *The sub-satrapal or 'provincial' level: treasuries*

2.2.1. *Hidali*

The name of the venerable city of Hidali resounds in Neo-Elamite history as one of the main residences of the mobile Elamite court, as a refuge at the time of Assyrian invasions, as a locus for encounters between Elamites and early Persians from the highlands, not to mention the presence of an enclave of Babylonian businessmen. Lying within the sphere of direct political control of the Neo-Elamite state, Hidali subsequently came to be administered from Pārsa. In this, it illustrates a progressive westward Persianisation into the interculturally important Zagros piedmonts.⁷⁰ This process did not altogether

70 Ever since Hinz first proposed it (1960, 250f.), the Behbahān/Arġān region has repeatedly been suggested as location for Hidali. The idea is based on the erroneous assumption that the royal road led from Susa *via* Ahwāz to Behbahān (rather than *via* Rām Hormoz) and has met with scepticism in recent times (see, e.g., Potts 2005, 173–5; cf. Henkelman 2008a, 499–501). Despite its mistaken basis, the identification retains a certain attraction in view of the imposing site of Tol-e Homayūn near the old city of Arġān (and in close proximity of the site of the famous Arġān tomb), which would make it an acceptable candidate, if only in terms of its size. As for Sennacherib's reference to Hidali "in the distant mountains," I have come to think of the nearly-impenetrable hilly terrain that intervenes between the Behbahān region and lowland Khūzestān as answering to this description. Also, Huhnur/Hunar, located by Assurbanipal "at the border of Hidali" and identified with Tappeh Bormī in the Rām Hormoz, lies only 2–3 marches from Arġān; the two places can be located in the same district on the basis of PFA. For the identification of Hunar/Tappeh Bormī see Mofidi Nasrabadi 2005 (discussions with colleagues involved in the Bormī excavations convinced me that the doubts expressed by Alizadeh 2013 are unwarranted). The evidence from PF 2057 on the location of Hidali is not as clear

reduce the city to a sleepy backwater, however. In the Fortification archive, it recurs as a district centre of some importance as appears, e.g., from the balance of 180.000 l (or more) of *tarmu* (possibly emmer) deposited there.⁷¹ An eloquent text in this regard is NN 1564, an edition of which is presented in *Appendix 1.3*.⁷²

⁰¹ 260 l flour, ⁰² allocation from Karma, ⁰³⁻⁰⁵ (a man) named Mitraḫbadda, treasurer (*kan-zabara*), received (as) rations. ⁰⁵⁻⁰⁸ 107 free men each received 1 l, ⁰⁸⁻¹⁰ 153 servants each received 1 l. ¹⁰⁻¹² He (M.) carried a sealed document (authorisation) from Parnakka; ¹²⁻¹⁴ they went to the King (at) Susa. ¹⁴⁻¹⁶ Twelfth month, 21st year (Feb.-March 500 BCE). ¹⁷ The treasury (*kanzam*) that is located (at) Hidali.

The location of a treasury at Hidali coincides with the presence of silver-smiths, whose guard is mentioned a few times. Also relevant is the activity of a *mušin-zikkira*, “accountant,” arguably again in connection with the treasury and its administrative activities.⁷³ That this treasury was not simply a local craft-centre of the type common in PFA is furthermore borne out by the terminology used: Iranian *kanzam* (**ganza*-), lit. “treasure” (rather than *kapnuški*) and the rare appellative *kanzabara* (**ganzabara*-), “treasurer.”⁷⁴ The

as previously thought (Hallock 1985, 596): see Henkelman 2008a, 500 n.1158. For references and for discussion on the location and status of Hidali see Carter 1994, 74–6; Waters 2000, 56–60, 74; Stolper 2004a; Potts 2008b, 191–4; Henkelman 2003b; *idem* 2008a, 499–501 and index q.v.; *idem* 2011b, 582, 609. Assembly of the Babylonians at Ḫādalu/Hidali in the ascension year of Tammariṭu: Leichty 1983 (publication of BM 79013); Waters 2000, 56f.; Henkelman 2008a, 337f.; Henkelman / Stolper 2009, 276 n.14, 282; Henkelman 2012b.

- 71 The text, NN 1496, has [1?] ‘PI’ 8 ŠI ^{GIŠ} ¹ *tar-mu*^{MEŠ}; the total amount may therefore have been 18,000 BAN (c. 180,000 l.) or more. The deposit is made [^{AS}] *kán-du-ma*, either “(at) Kanduma” (cf. PF 0249) or “at the storehouse” (taking ^{AS} *kán-du* as a variant of ^{AS} *kán-ti*; cf. Henkelman 2008a, 398 n.915). Its account was drafted at Hidali, probably by the holder of PFS 0103*. This seal is used at various locations in the western Fahliyān region, always in the single-seal protocol (i.e., suggesting an overarching authority); see Koch 1990, 203, 205; Garrison / Root 2001, 161–3. For *tarmu* see n.23 above. On Hidali in PFA see also Koch *o.c.*, 202, 208–13, 300f. and index s.v. Hidali.
- 72 The importance of this text was already recognized by Stolper (2004a). See also Henkelman 2008a, 239 n.524 and *idem* [forthc. 1].
- 73 Guard of the silver-smiths, lit. “door-keeper of the silver-hammerers” (*el-nuškira* KÜ.BABBAR *kazzipanna*): PF 0874 (III/21), NN 1709 (VI/22), NN 1675 (XII/22). Accountant: PF 1259, PF 1276; perhaps also PF 0793 and NN 1469 (if Tammašda is the same as Zamašba in PF 1259).
- 74 *kanzabara* (**ganzabara*-) and *kandabarra* may be used as equivalent to singular *kapnuškira*, which often designates a treasurer-general of an entire administrative region. It is never used as alternative to plural *kapnuškip*, which refers to trea-

collocation of these terms with the name of Hidali in NN 1564 is not arbitrary, an impression bolstered by the fact that the flour allocations actually took place elsewhere, at Kurdušum. Add to this the size (260), composition (more servants than free men), and the destination (Susa) of the travel company, and it becomes clear that the text refers to the transfer of silver or valuables accumulated at Hidali to the royal court, perhaps in the context of regular tribute payments.

The kind of operation alluded to in NN 1564 is not unparalleled: ‘treasures’ are transported from Susa, Babylon, Kṛmāna, Maka, Māda/Ecbatana, and possibly Gandhāra and Hyrcania.⁷⁵ What matters here is, first, that there actually was such a thing as a (major) treasury at Hidali and secondly that it was part of an interregional network in like fashion as the treasuries of Babylon, etc. This raises the question as to the regional competence of the Hidali treasury and more specifically its status relative to that of the treasury at Takht-e Ġamšīd.

2.2.2. *Takht-e Ġamšīd*

The Persepolis Treasury archive (492–57 BCE) represents a branch of administration *separate* from that reflected by the Fortification archive. Rather than allocations in kind, it records salary payments (and probably other transactions) in silver. The archive is not a linear continuation of the redistribution system of the Fortification archive, yet with different means (silver). That it

survivors in general (craftsmen, scribes, etc.); instead, *taššup kanzabarrašbe*, “troops, treasury-workers” is once attested (see § 2.3.2 n.128). Cf. § 2.2.2 with n.77 below.

75 Susa: PF 1342, Fort. 1901A-101: 12', 14', 28', 29', Fort. 1912-103:48', 50', 51', 52', and probably Fort. 7862; Babylon: PF 1357 (see also Tolini 2011 I, 390); Kṛmāna: PFa 14 (also, implicitly, PF 1377, PF 1399, NN 0809, NN 2139; see n.7 above); Maka (Zamašba): Fort. 1912-103:44'; Māda: Fort. 1253-101:02'f., Fort. 1912-103:36'; Ecbatana: Fort. 1901A-101:51' (cf. below); Gandhāra: PF 1358 (cf. § 3.1.1 and *App.* 2 below and Tamerus [forthc.]); Hyrcania: Fort. 0895-101:03-07, Fort. 2173-101:06'-09' (see Stolper [forthc. 1] with notes *ad loc.*). In case of PF 1342, the transport of *silver* by a treasurer is made explicit; generally ‘treasure’ probably includes valuables of various kinds (such as the green chert vessels from Arachosia; cf. § 2.2.3). One may probably add texts in which *baziš* (*bāji-*, “tribute, tax”) is transported to Pārsa or Susa; most such transports come from Arachosia/Parikāna (PF 1495, NN 1898, NN 2149, NN 2580; see Tuplin 2008, 228–30). NN 1564 is exceptional for the number of people involved; larger groups are also mentioned in PFa 14 and PF 1495. On the transports in general see the comments by Briant (2002: 462f.) and especially Tuplin (2008, 328–30 and 2013, 108–12), who both compare the transference of treasure (*gnz'*) ordered in one of the Aršāma letters (TADAE A6.13).

succeeds the Fortification archive in time must be ascribed to chance preservation, not to changes in the redistribution model.

More important, the Treasury archive represents a *subordinated* level of operations. This follows, in the first place, from the absence of the ‘higher’ record and documentation classes (journals and accounts; Aramaic epigraphs). Its highest official – styled “treasurer” (*kapnuškira*, *kanzabara*), “treasurer (of) Pārsa” and “treasurer in the fortress” (i.e., Takht-e Ġamšīd) – was out-ranked by the general director of the Pārsa administration (Parnakka and his successors). And, thirdly, the purview of the Treasury tablets is limited to places situated in the so-called ‘Persepolis region’ (central Fārs), whereas the Fortification archive pertains to the Persepolis, Kāmfrūz, and Fahliyān regions as well as areas towards Ābādeh in the north and Borāzġān in the south.⁷⁶

For the above reasons, and despite their deposit in one of the empire’s most prestigious residences, the Persepolis Treasury tablets are technically a sub-satrapal archive. This limitation necessarily implies the existence of parallel organisations in the other administrative subdivisions of the Pārsa economy, an observation that leads us back to the case of Hidali. From the identification of a Treasury at this location, one may reasonably infer that it had its own staff and scribes, produced its own documentation, a ‘Hidali Treasury archive,’ which may have covered the entire ‘Fahliyān region.’ By analogy, the βασιλεια that Strabo (XV.3.3) situates in Gabae and Taoce may have hosted comparable institutions (cf. § 2.3.3) and the same may be assumed, perhaps, for the central ‘Kāmfrūz region.’ The presence of a treasury may have been a characteristic of administrative sub-satrapal divisions, perhaps to be identified as ‘provinces’ (cf. the use of *m^edīnāh*).

The perspective developed here decidedly qualifies the centrality of Takht-e Ġamšīd: not in terms of hierarchy or overarching authority, but in the delegation of its satrapal control and its documentary mission to nuclei with sub-satrapal competence. Though this is in itself logical and cogent in view of the distances involved, it has hitherto not been highlighted, mainly because the topographical limitation of the Persepolis Treasury archive had not been

76 For a discussion of the status of the Persepolis Treasury archive (PTA) as presented here see Henkelman [forthc. 1]. PTA texts are published in Cameron 1948; *idem* 1958; *idem* 1965; Arfaee 2008b; Jones / Yie 2011. For the division of the institutional territory in three regions (recognisable by ‘regional seals’ associated with ranges of interconnected toponyms) and the problem of the northern and southern clusters see Hallock 1977; *idem* 1978, 109; Arfa’i 1999; Henkelman 2008a, 118–20, 130–4, 493–6, 504; *idem* 2008b; *idem* [forthc. 3]. For the northern and southern clusters see also § 2.3.3 below.

sufficiently recognized. The discovery chimes well with the hypothesis that single units, such as the regional treasuries, could and would be replicated when the territorial purview of the central institution and/or the volume of its operations increased. The aforementioned βασιλεια at Gabae and Taoce may well have resulted from such a systematic expansion (see § 2.3.3 below).

Takht-e Ġamšīd offers two complementary perspectives on the function of *kapnuškira/kanzabara*, “treasurer.” The first is that of head of the branch of administration reflected by the Treasury archive, charged with the management of silver disbursements and the direction of the central treasury of a sub-satrapal administrative region. The Fortification archive, with its labour-oriented focus, introduces the same officials as directors of a branched organisation of local craft-centres or factories that processed wood, stone, leather and other commodities into intermediate goods and finished products. Grammatical number plays a decisive role in the associated terminology: whereas singular *kapnuškira*, “treasurer,” denotes senior staff or the official who had ultimate supervision of the treasuries/craft-centres in a particular region, plural *kapnuškip*, “treasury-workers,” denotes the actual personnel, ranging from specialized labourers to skilled craftsmen and local clerks.

As said, the Fortification and Treasury perspectives on the ‘regional treasurer’ are complementary: the head of a central treasury was simultaneously responsible for all the smaller local craft-centres in the same region. Consequently, Karkiš (not the satrap) and Šuddayauda, who both served as *kapnuškira* of the ‘Persepolis region’ (PFA), can be seen as predecessors of Baradkama, the earliest *kapnuškira* known from the Treasury archive. We even know the designation that came with this position: *kapnuškira/kanzabara Barša(š/n)*, “treasurer (at) Pārsa,” i.e., stationed at Takht-e Ġamšīd and surveying the surrounding administrative region. At the time of the Fortification archive, this official (or his office) used seal PFS 0001*.⁷⁷

⁷⁷ Karkiš and Šuddayauda appear as *kapnuškira* in NN 1069, NN 1411, NN 1724, and NN 2079. The description of their role as given here, based on Henkelman [forthc. 1], continues earlier views of Hinz, Koch and others, but with the important precision that there was a regional limitation to their competence. To describe them as “Hofschatzwart” (Hinz 1971, 261) is therefore inaccurate. On the extent of Karkiš’s and Šuddayauda’s authority see already the doubts expressed by Tuplin 1987b, 130 with n.79. Literature on the role of treasurers and treasuries in PFA and PTA includes Cameron 1948, 9–13; Hinz 1971, 265–9; Koch 1981; *idem* 1990, 235–9; Tuplin 1987b, 115, 130f.; Kawase 1986; Stolper 2000; Briant 2002, 428f., 450f., 940; *idem* [forthc.]; Tamerus [forthc.].

Apart from Karkiš and Šuddayauda, a few other individuals bear the designation ‘treasurer.’ They appear to be senior staff, positioned high enough to be eligible to relatively high rations, hence appearing in individual records. An example is

2.2.3. *Arachosia*

The “treasurer at Pārsa” naturally brings to mind the “treasurer at Arachosia” known from the formulaic Aramaic texts on green chert vessels (mortars, pestles, plates, and a few other objects) found in the Persepolis Treasury (fig. 6). Though there is a small series of known satrapal and sub-satrapal or ‘provincial’ treasuries that are broadly comparable to the treasuries/craft centres in Pārsa – notably at Babylon, Memphis and Elephantine⁷⁸ – the pertinent evidence is generally too patchy to allow for structural comparison. Achaemenid Arachosia, the origin of the stone vessels, forms the exception to this rule.

Whereas Bowman, against Cameron’s well-informed advice, doggedly pursued the unlikely ritual thesis, connecting the Aramaic inscriptions to a supposed *haoma* ritual (Bowman 1970; *idem* 1975), critical responses to his edition quickly formed a near-consensus as to their non-religious nature. Nowadays, the terse epigraphs, perhaps from the reigns of Xerxes and Artaxerxes I, are generally considered as bureaucratic in nature – Hinz aptly

Mirakkama, a *kapnuškira* explicitly said to be under the authority of Karkiš (the central treasurer) and recipient of six ewes, perhaps as a New Year’s bonus (PF 2070:25–7). The most conspicuous among such (rare) officials is undoubtedly Šarbaladda (var. Šalbaladda), variously introduced in parallel contexts as *tipira/tuppira kapnuškima*, “senior scribe/chancellor in the treasury” (PF 1947:17f., NN 2071:06–09, 25–28; probably, with Stolper [forthc. 2], Fort. 1995-102:06f.), *tipira kandabarra* (NN 0544:03, Fort. 2016-101:13f.), *tipira kapnuškira* (Fort. 2016-101:15f., 17f.), *tuppira KUŠ ukku* [...] *kapnuškima*, “senior Aramaic [lit. on skin/leather] scribe/chancellor in the treasury” (Fort. 1872-103:04–6), but also simply as *kandabarra* (PF 1947:19f.) and *kapnuškira* (NN 1034), or as *kandabara Baršaš*, “treasurer at Pārsa” (NN 2356:12–15) and *kapnuškira Baršaš* (NN 2493:09–11, Fort. 1355-101:08f.). This dossier is the subject of a recent treatment by Stolper, who gives editions of four of the pertinent texts (Stolper [forthc. 2]). Šarbaladda, presumably of Babylonian extraction, must have been the chief clerk and head of Aramaic record keeping at the central treasury of the Persepolis region. His relatively high rations (90 l barley and 30 l wine per month) are an expression of his rank (as already recognized by Lewis 1994, 25 and as discussed by Stolper *o.c.*). Nevertheless, he is clearly not *the* central treasurer as he lacks the administrative profile of Karkiš and Šuddayauda, with whose terms in office his own overlaps, or that of Baradkama and his successors (PTA). In Šal/Šarbaladda’s case, “treasurer in Pārsa” (attested in journal entries, not in letter orders) may be descriptive, not a formal designation. As for Mannuya the *kazabarra* who transports silver from Susa to Matezziš (PF 1342; cf. n.73 above), he probably was in office at Susa, hence vagrant in the Pārsa economy.

78 See Tuplin 1987b, 128–33; Briant 2002, 450f.



Fig. 6. Green chert pestle (head diameter 3.5 cm) inscribed in Aramaic (Oriental Institute, A23201 = Bowman 1970 no.77; photographs courtesy of the Oriental Institute of the University of Chicago).

speaks of “Verwaltungsvermerke” – and are taken to refer to an administrative structure in Arachosia.⁷⁹

The stone vessels and implements served as tribute in the broadest sense and are perhaps more adequately described as regulated gifts; they may have accompanied a tax in silver. At any rate, their true value, at least from the perspective of tribute obligations and accumulation of wealth, lay not in their shape, but in the material: hard and beautiful Afghan green chert.⁸⁰ The eye of the ancient beholder betrays itself in the explicit reference to various colour shades in the Aramaic texts. As a corpus of precious material processed into vessels and sent to the centre, it finds a parallel in the alabaster jars manufactured in Egypt and found at Susa, Takht-e Ġamšīd and elsewhere. These carry quadrilingual royal inscriptions which include – exceptional for such texts – a year date, a clear indication of an administrative and bureaucratic context. More broadly speaking, one may compare the exquisite (and often inscribed) diorite, granite, and serpentine tableware that Alexander’s civilizing forces smashed on the floors of the Takht-e Ġamšīd treasury, or the metal (silver?) vessels of standardized ‘international’ type carried by the tribute bringers on the staircase reliefs of the throne hall.⁸¹

79 This is not to say that the texts are completely transparent – far from it. In fact, a new edition and detailed analysis is a great desideratum, even more so in view of recent developments in the study of Achaemenid administration and bureaucracy. The dating is equally uncertain: whereas most scholars have followed Bowman (1970, 56–62) in assigning the material to the reigns of Xerxes and Artaxerxes I, decisive proof is lacking. Note that Bowman used quite arbitrary arguments such as a supposed Persian military insecurity after 480 BCE, which would have resulted in an increased recourse to the *haoma* ceremony (*sic!*; cf. the caution expressed by Delaunay 1974, 195 and Briant 2002, 940). Reviews of Bowman’s work include Bernard 1972, Levine 1972, Naveh / Shaked 1973, and Delaunay 1974; a useful synopsis is given by Hinz 1975b (the citation is from p.375). See also Williamson 1991, 42–49, 56 (with full bibliography in n.7), Stolper 2000, Tuplin, this volume, and Henkelman [forthc. 2].

80 This point was stressed by Bernard (1972, 173), but has received less attention than the shapes of the vessels, often related to a supposed *haoma* cult, hence to the question of Achaemenid Zoroastrianism. See also Krefter 1967, 431.

81 For the alabaster (or aragonite) Egyptian vessels see Westenholz / Stolper 2002 (with previous literature); these objects presumably were used as containers for sumptuary goods and thus represented *two* kinds of value (unlike the green chert objects). The regnal dates occur for the reigns of Darius and Xerxes. Royal stone tableware from the Treasury of Takht-e Ġamšīd: Schmidt 1957, 81–93; vessels of regular types on the throne hall reliefs: Calmeyer 1993, esp. p.160 (see also Dusinberre 1999, esp. 78, 100). Compare the correlation to the *siglos* weight standard in (sets of) Achaemenid silverware and ancient expressions of its value (notably in case of *phi-*

The Aramaic inscriptions state the names, designations and roles of the accountable officials, the place and the year, sometimes with additional specifications including the colour or the size of the object. With these key elements they are comparable to Achaemenid Elamite administrative records, notably the so-called memorandum texts. The same naturally holds true for the formulaic structure of the inscriptions, reflecting standardized bureaucratic protocol and a staff trained in its application. In this context, it deserves notice that most of the personal names are Iranian and that Arachosian Aramaic (like its Persepolitan and Bactrian equivalents) is replete with Iranian loans: as in Takht-e Ġamšīd, we are probably dealing with an Iranophone staff.⁸²

Closer analysis reveals that the texts on the stone objects reflect a satrapal network of production centres, fortified sites that were called *byrt* (lit. “fortress,” cf. the broad use of *halmarriš* in PFA), each with a local prefect or governor (*sgn*, cf. Akk. *šaknu*) and “sub-treasurer” (*pgnzbr*, reflecting **hupaganzabara*). Besides these individuals and the actual craftsman (or team leader), the central authority, the aforementioned “treasurer of Arachosia” (*gnzbr*’ *zy bhrḥwty*) plays a supervising role in the production, collection, accounting, and dispatch of the items. The presumed tributary context may be made explicit in the terms *škr* (cf. Akk. *iškaru*, a kind of tax obligation, but also materials to be delivered) and *bz/bzy* (presumably transcribing Old Iranian *bāji*-, “tribute”).⁸³ The highest authority mentioned is *not* the satrap, but the central treasurer: this underlines the bureaucratic orientation of the inscriptions.

In comparison with Takht-e Ġamšīd, a number of analogies, but also differences become visible. The local Arachosian workshops seem to correspond to the *kapnuškis* of the Elamite tablets, each also with their own staff and hierarchy. These were part of a centrally-coordinated network, headed by an

alae) in weighed silver: Vickers 1991; Gunter / Root 1998, 8–10; Carter 2001, 176–9; Briant 2002, 307.

82 For the Iranian loans in the Aramaic texts see Tavernier 2007a, 80 [2.4.5.2] (*kpwt* < **kapautaka*-, “greyish blue”), 405 [4.4.2.9], 412 [4.4.5.1], 413 [4.4.5.9], 422 [4.4.7.49], 432 [4.4.7.110], 441 [4.4.9.1–2] (*ḥšynpyn*, *ḥšynpn* < **axšainafaina*- and [*ḥš*] *nḥwyn* < **axšainaxvaina*-, “green-blue”), 456 [4.4.19.1], 521 [5.4.4.3], 522 [5.4.4.10], and 538 [5.5.3.14].

83 This is one of the more important aspects that requires further analysis. For now, see Levine 1972, 78; Naveh / Shaked 1973, 452; Hinz 1975b, 376f.; on *bzy/bz* see Naveh / Shaked *o.c.* 456 and Tavernier 2007a, 521 [5.4.4.3] (undecided). Indications of the size of the objects seem to fit the tribute context (see Bernard 1972, 170; Naveh / Shaked 1973, 455; Degen 1974, 126; Hinz 1975b, 384f.). For the use of *byrt* in Achaemenid contexts see Lemaire / Lozachmeur 1987; for *halmarriš* and *dīda*- see Rossi 2010.

overarching official, known as the “treasurer of Arachosia” and the “treasurer of Pārsa” respectively. The parallel can now be extended to the *ukbakand-abarra*, “sub-treasurer,” recently identified in a Fortification text and seemingly active, as in Arachosia, on a local level.⁸⁴

Though the analogy remains valid, there are some complicating factors. It would seem that the scale of operations is the largest divider. As far as our limited evidence goes, Arachosia had craft centres at *prkn*, *srk*, and *hst*; were these units within a single sub-satrapal (provincial) administration or rather (fortified) sub-satrapal centres of their own? In other words, on which level should one compare things?

The first of the three space names, *prkn*, probably reflects Parikāna-.⁸⁵ Transcribed in Elamite as Barrikana, it occurs as a travel destination and origin in the Fortification archive, hence as an administrative node of some kind (centre and/or region). It can form an ethnonym (Gk. Παρικάνιοι, Elam. *Barikanabe*), but can also be a unambiguous toponym (*prkn*). It presents therefore another case of a name used for an administrative region and its centre (see §3.1.2). This centre probably had a second name, Puzantiš, perhaps modern Bust (*ibid.*); for this one may compare the use of ‘Mataš’ and ‘Ağmadana’ for the centre of the satrapy Media. As travel destination and an administrative region with its own centre, Parikāna- finds its analogy in the subdivisions of the PFA territory and in sub-satrapal units or provinces attested elsewhere. If *srk* and *hst* are similarly to be understood as centres

84 Fort. 1872-103:07f., published in Stolper [forthc. 2], contains reference to rations received by Uššabaduš the ^{HAL}*uk-ba-kán-da-bar-ra* (**hupagandabara*); the context suggest that this individual was directly involved in the production of certain items, hence holding a position more akin to the Arachosian supervising sub-treasurer than to the high-ranking treasurer-general of Hidali or Pārsa. That sub-treasurers occur frequently in the inscriptions on the Arachosian stone objects and rarely (once) in the Fortification archive is unsurprising: in the Aramaic texts lower and higher treasurers are juxtaposed and explicit use of the term is therefore apposite. In PFA, heads of individual craft centres are rarely identified and, where they are, the context does not require expression of their subordination to the central treasurer. In principle, it is entirely possible that heads of local *kapnuški*, answerable as they were to the “treasurer of Pārsa” (or Hidali, etc.), had the designation of sub-treasurer. Incidentally, the “chief treasurer” mentioned by Cameron (1948, 10 with n.63, referring to Fort. 10192 = PF 2070) does not exist: instead of ^{HAL}*ka₄-ap-nu-iš-ki* GAL, simply read (with Hallock) ^{HAL}*ka₄-ap-nu-iš-ki-ra*.

85 For the other two toponyms, *hst* and *srk*, see Tavernier 2007a, 382 [4.3.88] and 396 [4.3.201], with previous literature. For *prkn* see *ibid.* 389f. [4.3.151]. Bowman considered but rejected the identification with Parikāna- out of hand (1970, 21), because “the Paricani are a people and not a fortress” (*sic!*). The connection with the Barrikana of the Persepolis tablets was already recognized by Bernard (1972, 176).

(βασιλεία) of such divisions, then the Arachosian network corresponds to that of Pārsa as a whole. There, it may be remembered, up to five sub-satrapal treasuries could be postulated (two at Hidali and Takht-e Ġamšīd; others perhaps at Kaupirriš, Taoce and Gabae). The analogy also suggests, however, that the Arachosian institutional landscape was less densely filled and concentrated ‘treasury’ (craft) activities in the central facilities. Furthermore, it turns out that the parallel between the “treasurer of Arachosia” and the “treasurer of Pārsa” is asymmetrical. In the Fortification and Treasury archive, the treasurer in Pārsa occurs as the highest official of his kind in the subdivision known as the Persepolis region. But as Pārsa/Takht-e Ġamšīd was also the satrapal centre, this officer may have been the senior among his colleagues. On an imperial level, therefore, he would act and be identified as the treasurer of the heartland satrapy of Pārsa. This is probably how the “treasurer of Arachosia” in the Aramaic texts – intended to facilitate the handling of tribute between Arachosia and Pārsa – should be understood.

It is interesting to recall at this point that Delaunay, who located *prkn*, *srk*, and *hst* at Takht-e Ġamšīd itself, argued that the Aramaic epigraphs were *too consistent* in terms of palaeography and redaction to have been written at three different locations.⁸⁶ We now know better than that: the Elamite fragments from Qandahār, for one, would not be recognized as foreign if they were mixed with the Persepolis Fortification tablets and the Aramaic of the Bactrian documents has given a new impulse to the idea of central scribal

86 Delaunay 1974, 206: “Si véritablement, les notices avaient été rédigées en trois localités distinctes et fort éloignées les unes des autres, nous verrions apparaître des différences soit de graphie, soit de présentation, soit de rédaction, différences peut-être menues mais du moins bien constatables” (cf. *ibid.* 203–10). Bowman, who confesses bewilderment over the designation “treasurer of Arachosia,” similarly judged the presence of high officers “in apparently scattered, possibly insignificant and certainly otherwise unknown ‘fortresses’ in remote Arachosia” to be unlikely; he found it even more improbable that the often “quite heavy and bulky [vessels] would have gravitated fortuitously from scattered remote places in the East” (Bowman 1970, 28f.; cf. *idem* 1975, 256). Equally detached from the historical reality of the Achaemenid empire is Gershevitch’s irritating pastiche, which, like Delaunay’s treatment, holds that the toponyms referred to spaces within the Takht-e Ġamšīd treasury (including a picturesque basement with a guard lying on a rug), that the stone objects were bought by visiting military “in the bazar at the foot of the terrace,” and that they were presented as gifts to the terrace commander (Gershevitch 1974, 53f.). The geological origin of the stone, the “treasurer of Arachosia,” the intricate network, and the plausible explanation of *prkn* as Parikāna, all render a location of the recorded procedures at Takht-e Ġamšīd highly unlikely. Nevertheless, Delaunay’s theory is followed by Briant, although with reference to alternative explanations (2002, 433, 941).

schools (cf. below §§ 3.1, 3.1.3). The consistency of the Arachosian Aramaic inscriptions is yet another testimony to the well-organized nature of the local bureaucracy, coupled with a systematic layout of the satrapal institutional space. This resulted not only in consistency throughout its geographical expanse, but also through time (the texts span a period of over 40 years). Efficiency and tidy-mindedness is but one explanation for this precision; need for accountability (and fear for repercussions) is arguably a stronger one. It explains why even the names of the actual craftsmen (or rather their team leaders) had to be mentioned: not an implausible detail on an imperial level, as Delaunay argued, but exactly the sort of information the centre was interested in when it rolled out the Arachosian administration.⁸⁷

The question of accountability leads us to a last aspect: that of the organisation of jurisdictions. Here, the comparison reaches its limits, as the Arachosian texts deal with manufactured objects, whereas the Persepolis archives are strongly labour- (or rather ration-)oriented. The two interlocking and mutually controlling branches of ‘storage and supply’ vs. ‘logistics and rationing’ that existed at Takht-e Ġamšīd cannot be simply projected on the Arachosian material. Still, and despite the fact that the Aramaic terminology remains insufficiently studied, it would seem that the hierarchical sequence identifies officials responsible for the handling of the objects (the sub-treasurers) as well as those charged with responsibility for the production process and presumably the organisation of labour (the *sgn*’ and, ultimately, the central treasurer). Also, that *three* functionaries are mentioned in the majority of the Aramaic texts, strongly implies distinct areas of competence and jurisdiction. Their parallel occurrence suggests competing or overlapping responsibilities and a layout that promotes mutual control, especially between the sub-treasurer and the *sgn*’. The administrative protocols in place in Arachosia therefore minimally point to the kind of ‘matrix-management’ (the term is from Aperghis) characteristic of the Pārsa economy.⁸⁸

87 *Contra* Delaunay 1974, 216, “Quel intérêt l’administration centrale de Persépolis a-t-elle de savoir que tel objet qui lui parvient de l’extrême est a été réalisé par un obscur contribuable dans telle forteresse? De telles précisions n’intéressent que les autorités locales dans le pays, pas l’autorité impériale, bien entendu.”

88 The matter hinges on the precise meaning, in this context, of the prepositions *qdm*, “before” (used with the sub-treasurer, occasionally with the central treasurer) and *lyd*, perhaps “under the authority of” (used with the *sgn*’ and, in the form, ‘*bd* ... *lyd*, with the central treasurer). Naveh and Shaked (1973, 451) showed that *qdm* may apply to situations where commodities are taken in, or deposited, at an administrative facility, e.g., at “the (store-)house of the king and before the scribes of the treasury” (Porten / Yardeni 1989, B4.4:12). It may be compared, functionally as well as lexically, with the *kurman* PN-*na* formula in Elamite, which describes the person

The case of Hidali has brought that of Arachosia a little closer to the heartland. It enables us, first, to describe the heartland ‘treasury’ network and hierarchy with more coherence than was previously the case. The Aramaic epigraphs describe an analogous Arachosian network. In as far as their limited scope may be relied upon, this network may have been flatter than that of the heartland. At the same time, the institutional layout and hierarchies cannot be seen as unrelated to those of Pārsa. The parallel encourages us to revisit other potentially relevant cases, such as the network suggested by Artaxerxes’ order to “all the treasurers (*gzbry*) in Across-the-River” (*Ezra* 7:21). On the level of division of jurisdiction and accountability, the comparison is not as fruitful, mainly because the Aramaic material requires further analysis. Thus, despite the clear analogy, it would be too early to conclude that the Persians were replicating a treasury system in Achaemenid Arachosia on the basis of the Takht-e Ġamšīd template. This conclusion may change, however, if the Elamite fragments from Qandahār and other relevant evidence are brought into the equation. More generally, I believe that to pose the question as to centrally-inspired treasury networks is both timely and apposite.

2.3. *A network of networks*

The treasuries and craft centres discussed before provide a useful lens to look at institutional landscapes, but they are, after all, only one part of a larger administration. A logical next step would be to lift the hypothesis of a systematic layout to a more general level, *viz* to that of the Achaemenid institutional household economies as such. The evidence for such an exercise is scarce and fragmented, but, as Kuhrt remarks in her treatment of the subject,

handling (taking in, registering, storing, distributing) commodities. The *lyd* and ‘*bd* ... *lyd*’ formulae could perhaps be compared with PN *šaramanna* in the Fortification and Treasury archives, an expression that identifies the official responsible for the ‘labour & logistics’ side of things. That *qdm* is sometimes used with the central treasurer would fit the comparison in the sense that he is ultimately responsible for the flow of certain items, but in practical terms delegates this aspect of his authority to actual treasurers/supply officers, while retaining supervision over the overall production process. That a *sgn*’ occasionally steps into the *role* of the ‘*pgnzbr*’ (if Naveh / Shaked 1973, 451 n.45 are correct in suggesting so) again reminds one of Takht-e Ġamšīd, where *šaramanna* officials may take the role of the supplier and will in such cases appear in the records in the *kurman* PN-*na* formula (see Garrison / Henkelman [forthc. 1]). For the interpretation of the Aramaic formulae see Naveh / Shaked 1973, 451f. (followed here), Delaunay 1974, 210–3, 216 (comparing the Persepolis archives), Degen 1974, 215f., Gershevitch 1974, 69, and Williamson 1991, 54, 56. For ‘matrix-management’ in PFA see Aperghis 1999 (the citation is from p.192) and Henkelman 2008a, 126–9.

“the quest is not hopeless.”⁸⁹ It entails, in the first line, a handful of tablets from Achaemenid Susa and a series of direct and indirect indications in the Persepolis Fortification archive. Other sources may be added, notably the large but seemingly very heterogeneous dossier of Late Babylonian legal texts pertaining to affairs conducted in Iran.

The Babylonian dossier includes documents drafted during travels by senior members of Babylonia’s entrepreneurial houses, files on shipments of commodities to Susa and the satrapy of Elam, and records on the organisation of teams of labourers sent to Iran by Babylonian temples. In more recent Assyriological studies, these three elements have been studied together on the assumption that they relate, directly or indirectly, to the presence of the Achaemenid court at Susa, Taoce, Ecbatana, etc. (cf. below). In a word, Babylonian commodities, labourers and élites are thought to have gravitated towards the King.

Though the holistic approach has proven to be very fruitful, especially in the case of Susa, the underlying assumption may be re-defined and widened. Apart from the physical presence of the court, the crown in wider sense, if not the local administrative grid of the Iranian satrapies may have provoked the aforementioned movements. This wider context is clearly relevant in case of labourers, but may also apply to the Babylonian élites and to some of the goods (animals, building materials, silver) that were sent eastwards. My *a priori* assumptions in this are 1) that permanent administrative structures existed at a range of locations in Iran, 2) that these cooperated with the mobile court administration when in residence, but did not cease to exist when it left, and 3) that they were nodes in an imperial network that formed the main background of the various exchanges between Babylonia and Iran.

This is not to say that the royal court played no role at all. Its presence at Susa had a major impact on regional and interregional food demand (hence transportation patterns) and compelled Babylonian (and presumably other) élites to flock to the residence and attend, as Waerzeggers unenthusiastically put it, the King’s New Year reception.⁹⁰ Conversely, the mobile court administration, which linked up with local administrative systems wherever it resided, undoubtedly had a paradigmatic and commanding status and presumably played a decisive unifying and uniforming role between regional entities.

89 Kuhrt 2007, 768 (see pp.814–25 for the pertinent sources). For other surveys of Elamite tablets and other evidence for PFA-like institutions see Jones / Stolper 1986, 248; Garrison 1996, 18f., 31–5; Garrison / Root 2001, 32–9; Henkelman 2008a, 78f.

90 Lecture dd. 30.06.2010, VU University, Amsterdam.

A second more general aspect is the nature of the Persepolis archives as seen from a *longue durée* perspective and in imperial context. It has recently been established that the institution reflected by PFA was in function by at least 518 BCE (cf. § 2.3.3 below); it was contemporary with – or even predated – the construction of Takht-e Ġamšīd itself. Very likely, it was more instrumental in its creation than previously assumed. This, in turn, links the archive with building activities at Pasargād, Matannan, Taoce and Ġumadēšu in the Persian heartland during the reigns of Cyrus and Cambyses, all of which would have been unthinkable without some local infrastructure taking charge of rations, rosters of work teams, transport of building materials, etc.⁹¹ The Neo-Elamite past is scarcely farther away with the late Neo-Elamite Acropole archive, probably dating to the first half of the early sixth century, hence only a few generations before PFA. Though it reflects a different branch of administration (handling of manufactured items), it is relevant in that it shows continuity (and development) of sealing protocols, tablet format, administrative terminology and bureaucratic procedures. Finally, predating the earliest preserved parts of PFA by little over a century, a centralized redistribution system in Khūzestān is known through a brief description in a Neo-Assyrian letter (ABL 281). Like its Achaemenid successor, but unlike more advanced Mesopotamian models, it appears to have directly managed large numbers of labourers who depended on the royal stores for their livelihood and whose rations were set by agents of the crown.⁹² In the same period, Assyrian sources mention a series of ‘royal cities’ (*āl šarrūti*, lit. “city of kingship”) in Elam,

91 There is extensive evidence to suggest the presence of larger groups of Lydians and Ionians at the construction site of Pasargād (see, most recently, Nylander 2006, with references); a document from the reign of Cambyses records Babylonian workers sent to Matannan to build the palace of the King (Henkelman / Kleber 2007 and compare Tolini 2011 I, 92–4). Daucé recently argued that the marks on the individual bricks in glazed and unglazed reliefs at Susa point to a strict supervision throughout the production and assembly process and explicitly invoked the kind of administration as evidenced by PFA (Daucé 2010, 332–4; see also Stolper 2015b, 524). Compare the staggering quantities, as estimated by Perrot, of bricks, gravel, stone and wood that went into the Susa palace and throne hall (Perrot 2010, 468–70). On Taoce and Ġumadēšu see § 2.3.3 below.

92 The importance of ABL 281, with the system it describes and the key term it uses (*šarnuppu* < Elam. **šarnup*, “those depend on apportioning, dependent workers”) was first recognized by Stolper (1978), whose analysis is partly misunderstood in the edition and commentary by De Vaan (1995, 246–8). For further comments see Waters 2002; Henkelman 2008a, 17–9, 128 n.285; *idem* [forthc. I]. On administrative terminology in the Acropole archive and PFA see Henkelman 2008a, 5f., 26, 35f., Tavernier 2007b, Basello 2011, *idem* [forthc.] § 3, and compare Henkelman 2011b, 603–10 on the *Parsip* in this archive.

including Bīt Īmbi, Dūr Undāsi, Haltemaš, Hidali, Madaktu, Pidilma, Pupila, and Susa. Their high number is exceptional in Assyrian descriptions of foreign lands, suggesting that the term refers to an indigenous concept, hence perhaps to a grid of administrative centres comparable to that of the βασιλεια in Achaemenid times.⁹³

If the Elamite incubator provided the *Vorlage* and impetus for the institutional economies created by the early Persians, it hardly gave the blueprint for the imperial leap taken by Cyrus and his Teispid and Achaemenid successors. The procedures of audit and investigation in PFA, as analysed by Stolper (this volume), imply the expectation that single units (storehouses, plantations, etc.) answered strictly to standard procedure. The journals and accounts piled up at Takht-e Ġamšīd were not merely intended as factual statements of income and expense, but also tools for monitoring the operatives of the system. Earlier, Jones and Stolper had already recognized that this policing function of the archive, while in itself unsurprising, may have had special significance in its chronological setting, *viz* at a time when the surging needs of the re-established and developing empire demanded that “a regional system of fortresses, storehouses, estates and villages – a system that certainly existed before the reign of Darius and probably existed before the Achaemenid imperial expansion” – be knitted into a tighter network.⁹⁴

It is precisely the imperial scale that makes the question as to the sister-archives of PFA pertinent. The groups of foreign workers who were, with apparent ease, included in the expanding and transforming *kurtaš* class and were deployed all over the Iranian lands; the transport of large quantities of commodities between the satrapies, notably to Susa; the logistics implied by the road system; the needs and impact of the itinerant court, both in the material sense and in the *modus operandi* it imposed – all these aspects raise the question as to how systematic the parallels between institutional networks were and with what determination, if at all, a network of networks was striven for. The use of Elamite as administrative language outside its native environ-

93 See § 2.3.3 below on the βασιλεια and compare Brinkman’s remark on ‘royal cities’ in the Aramaean areas under Elamite control (Brinkman 1986, 201). Ikeda’s study on *āl šarrūti* in Assyrian context (1979) takes it as a term for “royal residence” and explains the occasional occurrence of more than one such place in a particular region as an indication for summer and winter residences or the like. His explanation of the many Elamite royal cities conquered by Assurbanipal as a mere scribal exaggeration (*ibid.* 83 n.59) is unconvincing, however.

94 Jones / Stolper 2008, 47. On the levels of control and auditing see also Azzoni / Stolper 2015, esp. 43–7. Compare also the evidence on various registries cited in n.44 above.

ment is, for the same reason, of more than antiquarian interest. It touches upon the very nature of Achaemenid administration, if not on the Persians' own understanding of empire.

2.3.1. Susa

Though Takht-e Ġamšīd may have continued an older (pre-)Persian site at Matezziš/Ġumadēšu (§ 2.3.3), it was essentially a new foundation as one of the empire's key centres. Susa, by contrast, boasted a millennial political history when the Achaemenids first set foot there. Even so, the two residences together continued the age-old duality of highlands and lowlands. Their role of twin cities moreover found tangible expression in a parallel layout (preeminent fortified citadel, raised palatial area of comparable scale, exterior structures in a landscaped setting), architecture (near-duplicate audience halls) and iconographic program. This correspondence arguably continued into the administrative sphere, but here the direct evidence turns radically asymmetrical: Susa has yielded crucial evidence for Neo-Elamite precursor structures, but little for their Achaemenid successors, which by contrast are best documented in the Persepolis archives. Still, even the few snippets of direct evidence – two or three Achaemenid Elamite tablets and a small run of sealed bullae – are enough, when properly contextualized, to confirm the onetime existence of a 'Susa Fortification archive.'

In the past, it has occasionally been argued that most of Khūzestān was administered from Takht-e Ġamšīd. Though it is true that there was, as mentioned above (§ 2.2.1), a progressive westward Persianisation into the Zagros foothills bordering the Khūzestān plain, it is clear that the Pārsa economy did not reach further than Behbahān or Rām Hormoz.⁹⁵ One additional argument for this comes from the Late Babylonian sources from the reign of Darius I onwards. These abundantly document the shipment of vast quantities of food commodities to Susa under the *upiyātu* (table tax) obligation – this in preparation for the court's residence there in the months around the Persian New Year. In the same period, Babylonian élites, as mentioned, travelled eastward to attend court, settle legal disputes, pay taxes, and refresh their political con-

95 The only more recent proponent of the inclusive thesis, which seems inspired by a perception of the early Persians as conquerors of Elam, is Koch (1986; *idem* 1987: 240–1; *idem* 1990: 302, 307); the ascending view among students of PFA is that it pertains essentially to a territory roughly defined by the Nīrīz to Behbahān (or Rām Hormoz) axis. See, among others, Hallock 1977, 129, 131; *idem* 1978, 109; Arfa'i [Arfaee] 1999; Henkelman 2008a, 110–7. For my understanding of the term 'Persianisation' see Henkelman 2011b, 609f., 613f., *idem* 2011f, 8–11, *idem* [forthc. 3] § 3.

tacts.⁹⁶ Susa was, in other words, an imperial residence in the true sense of the word: a political condition with vast logistic implications. The commodities shipped to the city from Babylonia (and from Pārsa; cf. below) had to be checked, stored, and accounted for, not to mention their complicated redistribution. Also, impressive as they were, the streams of flour, dates and livestock coming from outside probably represent only part of what the ever-hungry court needed, especially considering that it seems to have resided in Susa relatively long. The city's hinterland, perhaps purposely kept free from dense settlement, logically contributed to the effort.⁹⁷ It seems *a priori* unthinkable that Susa would not have controlled production in its own environment. The question is not if, but in what form a regional administration existed.

The toponym 'Šušān' occurs over three hundred times in edited Fortification texts and is implied in at least two hundred more cases. In the vast majority of these, it was the origin or destination of travellers on the royal road, who, if coming from (or through) Susa would carry an authorisation by Bakabana or his lieutenant Mardunda. These may well have been the satrap and his adjunct, but in any case headed permanent administrative structures

96 See the extensive treatment by Tolini 2011, 255–86, 307–67, 459–89, especially pp. 307–34, where notably the link between the shipments of commodities, the Susian sojourn of the court, and the travels of Babylonian élites to the city is compellingly argued, thereby refining the earlier conclusions of Waerzeggers 2010. See also Joannès 1990; *idem* 2005; Stolper 1992a; Briant 2010b; Jursa / Schmidl, this volume.

97 This suspicion (it is not more than that) is based on surveys of the Susiana, notably that by Wenke, which suggested that the area between the Dez and the Karkheh was sparsely populated in the Achaemenid period. Wenke had to work with relatively imprecise ceramic parameters; Miroschedji subsequently showed that the hinterland of Achaemenid Susa was less empty than assumed and argued that the general phenomenon was older (Neo-Elamite). Still, the relative paucity of settlements in the said region is uncontested. Boucharlat has proposed to connect this phenomenon to Susa itself, which was not densely built in the Achaemenid period. Still, as he keenly observes, Susa was an important imperial centre that saw seasonal peaks in its population, at which periods it had a surging need for (temporary) residential space and staple commodities. See Boucharlat 1985, *idem* 1990 and *idem* 2005, 245f. with precisions on the Susiana surveys and various ways to interpret their results. One may add that the level of interregional planning implied in the staple transports from Babylonia and Pārsa (cf. below) strongly suggests that the Susa hinterland itself was drawn into the picture. Keeping it free from larger settlements, *viz* from unnecessary additional hungry mouths, would seem to be a sensible measure in this context. At the same time, this would preserve a large areal for agriculture, with only smaller (difficult to identify) settlements for the *kurtaš* toiling the fields. In this context one may think of Late Babylonian toponyms of the type 𒄩𒍪𒍪𒍪/𒄩𒍪𒍪𒍪 *ša* PN, "hut(s) of PN," which may refer to workers' camps (see CAD H 260 s.v. *ḫuššu* c and Zadok 1985, 169–77).

centred on Susa.⁹⁸ What this implied is made clear by the equivalent team at Takht-e Ġamšīd, that of Parnakka and Ziššawiš, who were likewise empowered to issue travel authorisations and who headed the vast structures of which the Fortification and Treasury archives are but a partial reflection.

Since travel authorisations were done in Aramaic and since official travel was an imperial affair that had to be accounted for, issuing *viatica* implies a logistic apparatus, a bureaucracy and an archive to register the travellers, prepare the necessary travel authorisations, and keep draft/duplicate documents for future control and auditing. In Takht-e Ġamšīd, this Aramaic archive probably resided in the chancellery of Parnakka, which also issued letter orders and other documents pertaining to the institution's internal sphere.

Some of the Achaemenid clay 'letter bullae' (Garrison's term, this volume) from Susa have multiple cord impressions on the reverse besides a format that makes them analogous to most sealings in the Aršāma dossier, to the one bulla in the Axvamazdā archive, to a number of Daskyleion bullae, to about twenty bullae found among the Murašû tablets, and to a few objects from the Mountain Fortification at Takht-e Ġamšīd. It is abundantly clear that all bullae adhering to this imperial standard, discussed at greater length in Garrison's contribution, sealed folded leather documents, presumably inscribed in Aramaic. They were summarily referred to in Elamite as *halmi* ("seal, sealed document") and in Aramaic as *htm* (*idem*); only Babylonian used the more explicit phrase *kunukku u* (KUŠ).šipirtu ("seal and (leather) document, sealed (leather) document"). We do not know what these documents entailed, but they logically pertained to a higher level of administration, hence perhaps comparable to the hypothesized director's archive at Takht-e Ġamšīd and the Aramaic documents from Achaemenid Bactria, which in part are from such an archive.⁹⁹

98 On Bakabana (*Bakapāna-: Tavernier 2007a, 137 [4.2.274]) see Hallock 1985, 591; Koch 1993a, 8–12; Briant 1991, 70; *idem* 2010b; Tuplin 1998; Arfaee 2008a, 25; Henkelman [forthc. 1]. On Mardunda/Marsunda (*Vṛdvanta-/*Vṛzvanta-: Tavernier 2007a, 356f. [4.2.1946, .1957]) see Koch 1990, 208f.; *idem* 1993a, 11f. ("Vize-Satrap"); Giovinazzo 1994a, 20–2; Henkelman [forthc. 1]. Lewis tentatively identified Mardontes son of Bagaeus – in his later life commander of the Persian Gulf islanders in Xerxes' army – with Mardunda, the "deputy satrap in Susa" (Lewis 1984, 600; *idem* 1985, 112); see further discussion in nn.8 and 52 above.

99 The relevant Susa bullae are GS 960 (Ghirshman 1954, 35, pls. 17.13, 50), Sb 1971 *bis* (Amiet 1972, 284 no.2203, pl.189), Sb 6846, Sb 6845, Sb 6842 (*ibid.* pp.286f. nos. 2228–30, pl.190), and perhaps Sb 6844 (*ibid.* p.286 no.2226, pl.190). See Garrison, this volume, for a brief discussion. More Achaemenid bullae, all with the same seal impression, were found in what Mecquenem called a foundation depot on the Tell d'Apadana (see Yoyotte 2010, 348), but which, as Stolper observes, "seems far more

Traffic between Susa and Pārsa was not only dense, but included many more than the usual messengers, groups of *kurtaš*, and high-placed persons. Fort. 1901A-101, for example, gives a whole list of people with various designations sent back and forth between Pārsa and Susa. Among them are (1.13') six or more *tuppi kantašma Baršaš ... Šušan lakip*, “scribes in the treasury (at) Pārsa ... sent (to) Susa.”¹⁰⁰ Such exchanges of administrative personnel indicate the presence of a Susa bureaucracy involved with ‘treasury’ matters – a circumstance echoed in classical tradition.¹⁰¹ More important still, it shows the interwovenness and compatibility of both institutions.

The most substantial evidence for administrative activities at Susa comes from two, perhaps three Achaemenid Elamite tablets. MDP 11 308 (Sb 13087) subscribes to the distinctive tongue-shaped format for records of the memorandum category, ubiquitous at Takht-e Ġamšīd. It was classified as Achaemenid by père Scheil on account of its seal impression (1911, 101), recognized as an important clue for Persepolis-like archives at Susa by Goossens (1949, 38), and interpreted as a memorandum-class record by Hallock (1969, 25). It is exactly analogous to a group of receipts for provisions required for the royal table in the Persepolis Fortification archive, yet the recorded 640 l of refined sheep ghee were requested from Susa and five other places, presumably in its vicinity. In the case of PFA such receipts are usually sealed,

likely to be a relic of administrative activity” (Stolper 2015b, 524). These bullae remain unpublished. Another, little-known comparandum is a rare *wax* sealing from Achaemenid Egypt in the Royal Museums of Art and History at Brussels (E.3077, briefly discussed by Overlaet in Gubel / Overlaet 2007, no.339). The *kunukku u šipirtu* phrase (with its variants) is discussed in Stolper 1985, 159f. (with reference to the letter bullae found among the Murašû tablets), the particular use of Aramaic *ẖtm* in Azzoni, this volume. For the Bactrian archive see Naveh / Shaked 2012 and Shaked 2013, with comments in Henkelman 2008a, 85, 2013a, 532 and [forthc. 2] §3.1. For the latest treatment of the thesis of an Aramaic director’s archive in Takht-e Ġamšīd, see Tavernier, this volume.

100 On Fort. 1901A-101 see also n.73 above. For the form *kantaš* (**ganda-*) see Stolper [forthc. 1] *ad* Fort. 2173-101.

101 Herodotus knew of Susa as place where the Great King stored his silver (V.49.7 [θησαυροῖ]) and Strabo (XV.3.21) elaborately described the treasuries and storehouses (θησαυροὺς καὶ παραθέσεις) built by successive kings on the citadel hill (ἐπὶ τῆς ἄκρας), hence presumably on the Acropole, fortified in the Achaemenid period. Strabo’s reference to all kinds of tribute commodities obviously reminds one of such things as the inscribed alabaster vases and the green chert artefacts from Takht-e Ġamšīd. At the same time, the reference to a series of treasuries may be suspicious, as it seems to evoke Delphi (see Jacobs [forthc.]). Curtius’ reference to the appointment of Callicrates as treasurer of Susa (V.2.17) suggests the continuity of the organisation (compare the case of Tiridates at Pārsa: Curt. V.5.2, 6.11).

according to the single-seal protocol, with either PFS 0093* (livestock) or PFS 0007* (all other foodstuffs). In what Stolper called “a startling observation,” Garrison identified the impression on the Susa tablet as that of the second seal, PFS 0007*. MDP 11 308 is thus not only connected to certain Fortification texts in terms of parallel contents, protocol and tablet format, but also by the very seal impressed on it.

Garrison’s discovery opened a new avenue of research on the mobile court’s proper administration, in which the holder of PFS 0007* was active. Our view of that organisation is limited to its external output: when resident in a particular town or centre, it would link up with the local administration, such as that of Susa, would draw commodities from it and issue sealed receipts in return, which the local accountants would then process within their own system. As Garrison recognized, the holders of PFS 0093* and PFS 0007* probably had wider duties beyond procuring ghee and geese, notably the redistribution of rations to the thousands depending on the institution known as the King’s table (cf., notably, Xen. *Cyr.* VIII.1.9 and Heraclides *apud* Ath. IV.145f.). It is safe to assume the bureaucracy proper to the immense court was as intricate as that reflected by PFA.¹⁰²

To the modern eye, MDP 11 308 may read as a series of expectations on behalf of the court officials and clerks responsible for its creation: that the local administration could deal with Elamite administrative documents; that it worked with the same tongue-shaped format (involving a knotted string inside the tablet) ubiquitous in Takht-e Ġamšīd; that it could recognize seal PFS 0007* and answer to the authority it expressed according to apposite protocol; that it could verify the information on the record and process it into its own registers and accounts. In all this, the existence of a local administrative system of the PFA type is strongly implicit. To this, explicit evidence is added in the form of the regular allocation formula (*kurman* PN-*na*), identifying the responsible supplier, hence an official in a local system that produced, stored and accounted for edible commodities, in this case quantities of clarified butter (a sensible product in the Susiana climate).

102 See Garrison 1996 (including a collated edition of the Elamite text) and the earlier remarks by *idem* 1991, 13–5, 24 n.31. See also Stolper 1992b (quoted above); Garrison / Root 2001, 68–70 (PFS 0007*); Henkelman 2008a, 78f., 110f. nn.243f., 238f. n.524; *idem* 2010a, 692 (court bureaucracy), 738–40 (ghee [“sheep fat” for GIS^{MES} *ra-mi* UDU.NITÁ^{MES}-*na* can be excluded in this case]); *idem* [forthc. 1] (court hierarchy); Briant 2010a, 33f. (qualifying MDP 11 308 as “L’implication la plus claire ... qu’il existait bien une administration royale a Suse, comme dans toutes les capitales satrapiques, et une archive dont cette tablette représente un temoignage erratique mais tres éloquent”).

The institutional economy referenced by MDP 11 308 was itself probably the author of a second tablet found at Susa. Published among Akkadian Sukkalmah-period legal records by Scheil, it was identified as Elamite by Hinz (1967, 329), and recognized as “probably Achaemenid” in date by Stolper (2004b, 63). The text is a record of deposit for an amount of barley *gal-lima*, “as/for rations.” Though there are no direct parallels in the Fortification archive, commodities are very often qualified by *gal*, arguably *the* central keyword of the entire system. Terse as it is, the document potentially implies a dependent labour force, and certainly a distribution system.¹⁰³

As mentioned, there is a larger Late Babylonian dossier relating to Susa and Elam; it includes texts drafted at Susa but found in Mesopotamia, often dealing with (silver) loans contracted by prominent Babylonians while at Susa, presumably in the context of settling tax obligations. But there is also a small group of Late Babylonian texts that were, as far as can be established, excavated at Susa itself. The documents – a sale of an orchard; an indenture for an apprentice musician (?); several marriage contracts – fall into two groups. Three pertain to the circle of the *ustarbaru* (‘chamberlain,’ a high court official) Šamu and date to the reign of an Artaxerxes. The remaining two are undated and of unclear affiliation.¹⁰⁴ What connects the five texts is the predominant Egyptian element in the proper names of those implicated in the transactions; more than once, Babylonian and Egyptian names occur within the same family. Scribal names, as far as preserved, are Babylonian; some Iranian names occur among the witnesses (such as Bandakku, *kumaru* in the cult of Nanaia). As Joannès underscored in his important discussion

103 See Scheil 1939, 109 [no. 468], Hinz 1967, 329, Stolper 2004b, 63 and *idem* in Fisher / Stolper 2015, 21. The tablet could be tongue-shaped, judging from the published hand copy. The sign forms look very close to those of PFA. No information on format, possible seal impressions or provenance is given by Scheil. Though Hinz (*l.c.*) referred to the Persepolis archive, he did not, apparently, doubt the date implied by Scheil’s inclusion of the tablet in the Old Babylonian series (similarly Hinz / Koch 1987 s.vv. *gal-li-ma*, *li-qa*, ŠE.BAR). See also Henkelman 2008a, 78 n.177. If Scheil’s copy is reliable (which is not necessarily the case), the text reads ⁰¹ 4 PI ŠE.BAR ⁰² *gal-li-ma* ⁰³ *li-ka*₄; if this were written on a PFA tablet, the implied unit of capacity would be the BAR (about 10 l) and PI would be used for “10,000” (Hallock 1950, 240), hence “400,000 (l) of barley delivered as rations.” It may be, however, that Susa scribes had retained the older value of 60 QA (about 60 l) for PI, which would give 240 l (not 360, as erroneously implied in Henkelman 2008a, 78 n.177). See discussion in Hinz / Koch 1987 s.vv. PI¹⁻².

104 For Achaemenid *ustarbaru*s (and *ša rēš šarris*) as high-ranking dignitaries see Henkelman 2003a, 117–29, 162–5, Jursa 2011, and Tavernier 2014, all with further bibliography.

Fig. 7. YBC 16813
 = Jones / Stolper 1986,
 247–53
 (photographs by Agnete
 Lassen, courtesy Yale
 Babylonian Collection).



of the texts, certain stipulations in the marriage contracts are unknown in first-millennium Babylonian law, but do have parallels in Elephantine and probably present another Egyptian element.¹⁰⁵

The Late Babylonian documents from Susa connect well to YBC 16813, published by Jones and Stolper (fig. 7). This unprovenanced Achaemenid Elamite tablet “resembles Persepolis Fortification texts in all general properties: shape, string holes on the left edge, seal usage, and ductus” (Jones / Stolper 1986, 247). Nevertheless, the tablet hardly belongs to PFA, as there are conspicuous differences in orthography and especially in the unparalleled use of an Akkadian month ‘Nušan’ (pronounced /Nišan/). For this last reason, the Yale tablet has been regarded as probably stemming from Achaemenid Elam,

105 See Joannès 1984 (Sb 11244 = TBER 78a and AO 26775 = TBER 93–94), *idem* 1990 (Sb 9385 and Sb 9078) and the fruitful discussion in Tolini 2011 I, 479–88. For the texts, including re-edition of the fifth text, originally published by Rutten in Ghirshman 1954, 83–5, see now Tolini 2011 II, 166–9, 205f., 213–6.

perhaps from Susa itself.¹⁰⁶ This suspicion may be strengthened in view of the Late Babylonian texts from Susa, as its contents will immediately reveal:

obv. 01 23 ^{GI}šir-du-ma-um 02 1 ^{GI}šQA.BAR QA ^{MEŠ}-na 20-ir-ma 03 ZÍD.DA ^{MEŠ} ši-mi-ut kur-
mán 04 ^{HAL} pá-r-nu-ma-na hi ka₄-la 05 ^{AN}ITI ^{MEŠ} 1-na li-e-ka₄ 06 be-ul 15-um-me-na ^{AN} 07
ITI ^{MEŠ} ^{AN} nu-sa-an-na¹ lower edge 08 hi¹ ^{HAL} áš-šu-ir-be-na 09 a-ak ^{HAL} mu-iz-ri- rev. 10 be-na ku-
ia-ráš hi-še 11 hi ka₄-la ^{HAL} har-ki-pi 12 hi-še ^{HAL} ti-pi-ra¹ ^{HAL} 13 mu-iz-ri-be-na li-iš-da 14
OOO na-áš

01-03 701.5 l of *šimit* flour, 03-04 allocation from Parnuma: 04-05 this (flour) was delivered (as) rations for one month, 06-07 year 15, first (Babylonian) month. 08-10 This (flour is) for ‘Assyrians’ and Egyptians. 10 (A man) named Kuyaraš 13 has delivered 11 this (flour as) rations 11-13 to the ‘scribe’ (*tipira*) of the Egyptians, whose name (is) Harkipi. 14 He said.

The occurrence of a “scribe of the Egyptians” suggests a community producing its own records and having a certain amount of internal autonomy. In fact, the document seems to suggest that Harkipi, whose name is probably

106 See Henkelman 2008a, 341 n.800 and Henkelman / Stolper 2009, 283 with n.37 (where the connection with the Late Babylonian texts from Susa is already suggested). On the tablet and its seals see also Garrison 1995. On Harkipi and the role of a *tipira* see Jones / Stolper 1986, 252; Tavernier 2007b, 6; *idem* 2008, 64; *idem*, this volume; Stolper [forth. 2]. Babylonian/Aramaic monthnames occur in Aramaic texts in the Fortification archive, but never in the Elamite tablets (see Stolper [forthc. 3]). The supplier mentioned in YBC 16813, Parnuma, has an Iranian name (*Farnavā-; Tavernier 2007a, 179 [4.2.569]); it is the name of several individuals in PFA, none of whom is a grain supplier, however. The interpretation of *šimit* as “wahrscheinlich weiß, vielleicht aber auch fein” (Hinz / Koch 1987 s.v. *ši-mi-ut*) is pure guesswork; still, the word may well be Elamite ([šim(i).t], with the common [t] suffix for materials) and perhaps a cognate of *šiman* ([šim(a).n]?). The latter term may occur alone or qualify flour in PFA and probably denotes a grain species (cf. Hinz / Koch 1987 s.v. *ši-man*).

Stolper’s hand copy of YBC 16813 in Jones / Stolper 1986, 249 unmistakably reads *na-áš* in l.14. The word is clearly separated from the rest of the text, positioned in the middle of the last line, as is common for exactly this phrase in PFA. Photographs of the tablet confirm the reading *na-áš*. The two signs are written closely together, almost as a ligature, but can be distinguished; the same semi-ligature regularly occurs in PFA. Neither in YBC 16813, nor in the Fortification archive, the signs should actually be read as one, despite Jones and Stolper (*l.c.* and p.252, tentatively reading *ḪAR* and explaining it as pseudo-logographic writing for *araš*), Vallat (1987, suggesting *ḪAR* = *mur*, supposedly meaning “en Ville”), and Giovinnazzo (1987, suggesting, without collation, to read *mur* for all text-final occurrences of *na-áš* in PFA). Collation of relevant PFA passages shows that *na-áš* is unambiguous in many instances and likely in others. Compare the critical remarks by Stolper 2013, 413 and his discussion of *naš*, “he said,” and other markers of quoted speech elsewhere in this volume.

Egyptian and whose designation actually implies more than writing, was responsible for the distribution of the flour among the intended beneficiaries, including Egyptians as well as ‘Assyrians.’ This furthermore shows that the collocation of ethnonyms (whatever the reality behind the second one) is neither coincidental, nor a bureaucratic fiction (as usually when ethnonyms occur together in PFA). Rather, it indicates some shared obligation, occupation, or other interest. Whereas there is no one-to-one connection with the five Late Babylonian texts from Susa, YBC 16813 may well pertain to the same milieu of expatriate and accultured Egyptians, who kept a certain degree of internal organisation and autonomy, but were at the same time integrated, at various levels, into local structures.¹⁰⁷ If the tablet does not stem from Susa itself, then it most probably comes from Achaemenid Elam. Given its format, phrasing and implied protocols it is likely to have been produced by one of the nuclei of the ‘Susa Fortification archive.’¹⁰⁸

107 Ctesias F13 §10 (Photius) claims that Cambyses deported 6000 Egyptians to Susa, a statement that is interesting for the above discussion, but problematic in view of the absence of any trace of Achaemenid occupation of the site before Darius I. I agree with Lenfant (2004, lxxi) that Hdt. III.14 may contain an echo of the same event, in the sense that the 2000 bound and gagged Egyptians paraded in front of Psammetichus evoke enslaved deportees. Though Herodotus relates their execution, it should be stressed that this element is required by the logic of the story he (re)tells, following the familiar development of a conqueror’s despotic order to kill the crown prince and other youths, the deposed king’s philosophical reaction (cf. Croesus), and the ensuing pity for the plight of the vanquished, which comes just moments too late, as the prince has been executed first. Egyptian artisans deported by Cambyses (to build palaces at Susa and elsewhere) are referred to in Diod. I.46.4. Note also the mention of Bēl-iddin, Egyptian and *rab miksi* (tax collector) in VS 4, 194, drafted at Susa and dated to year 3 of Xerxes; it is not clear whether this Bēl-iddin was actually stationed at Susa (edition and discussion in Tolini 2011 I, 268, 347f. and II, 240).

108 A few other documents may briefly be mentioned here. The three tablets excavated at Susa and provisionally edited by Paper (*in* Ghirshman 1954, 79–82, pl.24) are probably late Neo-Elamite or Early Persian (pre-Darius), judging from the palaeography and tablet shapes. Steve (1986, 8) compares nos.2–3 to MDP 11 308, arguing that they were found in the same layer that yielded one of the Late Babylonian contracts (Rutten *in* Ghirshman 1954, 83–5; cf. below); later, he nevertheless assigned at least one tablet (no.3) to the latest phase of Neo-Elamite history (1992, 23 [no.2 is not mentioned]).

BM 56302 was described by Walker as similar to the Persepolis Treasury tablets in shape (1980, 79f., referring to the tongue-shaped tablet format); its script is considered Achaemenid by Steve (1992, 24), but Jones and Stolper observe that, despite overall similarities, “the tablet differs in shape and ductus from the normal run of Persepolis texts” (1986, 248). Whereas the tablet is registered as coming from Sippar, it may come from a region where Elamite was used as an administrative

To recapitulate: for the case of Susa, there are 1) ‘letter bullae’ and persuasive circumstantial evidence for the existence of an Aramaic bureaucracy; 2) indications for a central treasury (as a storehouse and as an administrative node); 3) Elamite tablets and indirect evidence for a ‘Susa Fortification archive’; 4) a record showing the court’s cooperation with the underlying local institutional economy. A group of at least 21 documents from the Persepolis Fortification archive may be added to the last category. As a group, they have in common that they were drafted *at* Susa or document transport of commodities *to* Susa; all relate, in one way or another, to the court in widest sense.

Leading Achaemenid royal women had their own ‘table,’ court and chancellery. Like the King of Kings they left a trail a paperwork wherever they set up their tents. Two texts drafted at Susa fall in this class:

Text	seal(s)	type	content	place	date
PF 0737	<u>PFS 0051</u>	receipt	2360 l wine for Irdabama’s court	Susa	Ø/22
NN 2523	<u>PFS 0038</u>	letter-order	300 l wine to be issued to PN from Irtašduna’s estate	Susa	Ø/24

The letter order by Irtašduna fits into a dossier of written instructions concerning the queen’s estates, with the difference that this document pertains to Randu (Uranduš, Mirandu), part of the administrative territory of PFA, yet was issued elsewhere, at Susa. Irtašduna’s privy secretary, a person pairing an eccentric ductus and orthography to a conscientious mind, took care to

language, i.e., an area potentially as big as Iran, Afghanistan and perhaps Central Asia (cf. below).

BM 108963, unprovenanced, is another tongue-shaped tablet, impressed with what Garrison (this volume) calls an impressive seal (see Collon *apud* Merrillees 2005, 81 and pl. 34). The text is dated to year 35, perhaps of Darius I, and in any case outside the chronological range of PFA. Also, it omits all determinatives and displays other peculiarities of orthography, making it likely that it stems from another administrative environment.

The one tablet found at Qašr-e Abū Našr (Šīrāz) was most likely planted there (from Takht-e Ġamšīd) to ‘enhance’ the attraction of the site (Henkelman / Jones / Stolper 2006; cf. Henkelman 2008a, 78f. with n.179). Other victims of theft, this time more clearly connected to Ernst Herzfeld, were once in the Erlenmeyer collection and have since been dispersed. They can safely be attributed to PFA and must have been stolen from Takht-e Ġamšīd at the time of the excavations (for edition and comments see Jones / Stolper 2006). The same is in all probability true for the tablet in a private collection published by Grillot (1986) and the two tablets at Fribourg published by Vallat (1994; cf. Basello 2012). For a synopsis of dispersed PFA tablets see Henkelman 2008a, 77. For the tablets from Čōgā Miš and Qandahār see §§ 2.1.1 above and 3.1.3 below.

avoid potentially confusing situations by specifying the place where orders and receipts were issued.¹⁰⁹

By contrast, the other document, PF 0737, pertains to 2360 l wine that was actually issued *at* Susa and consumed at Irdabama's court.¹¹⁰ The rich dossier on this queen includes references to a whole range of places that hosted her table, but Susa is exceptional because it lay outside the territory under purview of the Pārsa administration. In other words, Irdabama's secretary probably made a mistake after he drafted the receipt for the wine used at Susa: instead of dropping it at the appropriate local office, he held on to it and finally submitted it at Takht-e Ġamšīd instead. Irtašduna's scribe, on the other hand, correctly dispatched his mistress's order to its addressee at Randu, where it was executed, presumably endorsed with an additional clay tag, and then collected by an accountant who took it to Takht-e Ġamšīd for processing. The result is that both documents ended up in PFA, but *via* different routes.

NN 2523 and PF 0737 make visible a documentary spillage common to situations of analogous institutions, with similar outlay and orientation, co-existing in a wider (in this case imperial) network. Sasanian archives representing a certain territorial competence may hold a small number of bullae pertaining to other districts of the empire (see Gyselen, this volume). Not only people and documents move between institutions, however, commodities may do so as well:¹¹¹

109 Apart from NN 2523, this occurs in NN 0761 (letter order about Matannan, issued at Pārsa), PF 0733 (receipt for flour consumed at the crown land of Napumalika, issued at Uttitibena), and PF 0734 (*idem*, cereal products, issued at Hunar), PF 2035 (*idem*, beer, issued at Menri).

110 The wine supplier in PF 0737, Marriya, does not occur elsewhere in PFA and may have been stationed at Susa.

111 Entries in the table are loosely organized by seal number. Underlined seal numbers refer to impressions on the tablet's left edge (usually the supplier or an overarching authority); an asterisk (*) indicates an inscribed seal. The origin of the transported commodities is rarely indicated; place names are sometimes supplemented between parentheses based on prosopographic and glyptic analysis. An important text that may be added to the discussion is PF 1442, a flour allocation of 1050 l for herdsmen driving royal sheep/goats from Pārsa to Susa. If, as Hallock tentatively proposed, daily rations of 1.5 l are implied, the number of herdsmen would have been 700. This, in turn, led Hinz (1971, 291 [read '1442' for '1441']) to speculate that perhaps as many as 100,000 animals were being taken to Susa. While this is not excluded, it is equally possible that the rations were for more than one day (the phrase *galma dušda Hišema-mar*, "they received as rations *from* Hišema" may indicate so) and the number of drivers much lower.

Text	seal(s)	commodity		transporter	at Susa	origin	date
NN 0322	<u>PFS 0095</u> ; PFS 2261	flour	45,005 1	Karkiš <i>tami-daparra</i> [?] took	(for the King)	Kurra	Ø/23
NN 0325	<u>PFS 0095</u> ; PFS 2261	figs	60 1	Karkiš <i>tami-daparra</i> took	(for the King)	(Kurra)	Ø/23
NN 1240	<u>PFS 0134</u>	barley	2400 1	/		(Hidali [?])	Ø/24
PF 0057	<i>unsealed</i>	(animals [?] as) <i>baziš</i>	4	/	Appišuka received	Maturban	Ø/22
PF 0088	<u>PFS 0389</u> *; PFS 0390*	flour	460 1	Ašbalika [?] delivered	Mamakurra & Šati-kitin receiv. (for?) barley (at) the <i>kanti</i>	(?)	Ø/22
PF 0090	<u>PFS 0389</u> *; PFS 0390*	flour	1000 1	Halbaka delivered	Murriš ¹¹² is responsible	(?)	Ø/24
Fort. 0901-102	<u>PFS x</u> ; PFS x	flour	1060 1	Napiriša-kitin took	Kušra [?] & Parru are respons. ¹¹³	(?)	Ø/23
Fort. 0867-102	<u>PFS x</u> ; PFS x	flour	120 1	Martiti took	Kušra [?] & Parru are responsible	(?)	Ø/23
PF 0089	<u>PFS 0018</u>	flour	30 1	Martiti delivered	Parru is responsible	(Umpura-nuš [?])	Ø/23
NN 1988	<u>PFS 0018</u>	flour	1000 1	Zinini delivered	Appima & Parru received	[...]yapu [?]	Ø/23 [?]
PF 0136	<u>PFS 0446</u> ; PFS 1646	food products ¹¹⁴	110 1	Šullakira took	Appima & Parru received	(?)	Ø/23
PF 0318	<u>PFS 0564</u> ¹¹⁵	cereal products	650 1	/	Appima received	(Tandari)	Ø/23
NN 1718	<u>PFS 2646</u> ; PFS 2647	flour	1800 ⁺ 1	/	Appima & Parru received	(Tandari [?])	Ø/Ø
NN 0051	<u>PFS 1054</u> ; PFS 0395	flour	190 1	Parru delivered	Kal[...]mi [?] is responsible	(?)	Ø/24
NN 1762	<u>PFS 0210</u> ; PFS 0395	flour	3000 1	Banar delivered	Umiša & Tep-kitin are resp.	(Tandari)	Ø/24
PF 0092	<u>PFS 0210</u> ; PFS 0395	flour	205 1	Akruru delivered	Umiša & Tep-kitin are resp.	(Tandari)	Ø/24
PF 0091	<u>PFS 0210</u>	flour	1615 1	Karsuka delivered	Umiša & Tep-kitin are resp.	(Tandari)	Ø/24

112 The name is spelled ^{HAL}*mumur-ri-iš*, with phonetic complement (indicating *ĤAR* ≠ *har*; Hallock reads ^{HAL}*mu-har-ri-iš*).

113 The text reads (II.1–7) *ZÍD.DA PN₁ kuzza Šušan PN₂ ak PN₃ šaramap ullašda*, “flour, PN₁ took to Susa, PN₂ and PN₃ being responsible, he/they delivered.” The combination of the office implied by *šarama-* and the verb *ulla-*, “to deliver” is highly unusu-

¹¹⁴¹¹⁵The changing roles assumed by some of the individuals mentioned in these texts is puzzling; it is not always clear where they were stationed. A number of those receiving commodities or responsible for the distribution (*šaramap*) at Susa are also attested in connection with towns on the western edge of the PFA territory. They may have been liaison officers charged with transfer rather than with distribution at Susa.¹¹⁶ From a Pārsa perspective, only accountability up to the limits of its authority mattered, so we should not expect to see an entire Susian hierarchy conveniently pictured in these documents. What they nevertheless make clear is that transports were organized on a regular basis and arguably according to a fairly standardized procedure. The fact that such categories as recipient, supplier and transport & distribution officer are mentioned, each using his own seal or acting under the seal of a higher authority, necessarily implies an equally developed system on the re-

al; it may be that the subject is still PN₁ (he transported ... he delivered). The same construction is found in Fort. 0867-102, written in the same hand and on a tablet of the same format and dimensions; it may therefore be an idiosyncrasy of a particular scribe. The name of PN₂ is identical but damaged in both texts; my collated reading (Kušra) is tentative at best.

- 114 For the use of the term *abbebe* see Henkelman 2010a, 734. In PF 0136, it includes four relatively rare and special products: *hamaraš* (Tavernier 2007a, 456 [4.4.19.5]; Henkelman 2011f., 13), *kutikina* (Henkelman *o.c.* 743; Rollinger / Henkelman 2009, 334, 337f.), *aššana* and *šiprim* (compare, perhaps, CAD Š2 382 s.v. *šibru*).
- 115 This seal is also found on the reverse of NN 0354, in which Šimakka takes roasted barley to an unknown location where it is received by one Appiyama. It is not impossible that he is the same as Appima, but more likely he is identical with the Appiyama stationed at Dandakran (PF 0700).
- 116 Take the case of Appima, who received wheat (ŠE.GIG) at Liduma and Tandari (PF 0319, NN 0918 [for female workers], Fort. 0000-113), allocated the same commodity to Pirtiš for his (royal) poultry (NN 0969; cf. below), allocated barley for horses at Tandari (NN 2044), received flour at the same place to be stored for the royal table (NN 1579), and whose accounts are mentioned in a label (NN 0265). Is his role as recipient at Susa, mostly alongside another official, that of liaison official confirming proper delivery? Was this role recognisable enough for the name of Susa to be omitted in PF 0125 (wheat transported by Šullaggira; Appima responsible)? There are several individuals with the name Paru in PFA, but the one with whom Appima cooperates at several occasions seems to be exclusively connected to Susa (seven texts, all listed above). Is he an official based at Susa? The team of Umiš(š)a and Tep-kitin may be comparable: whereas Umiš(š)a is connected to Hidali, Liduma, and Antarrantiš (PF 1023, PF 1405, PF 1945:15–17 [*umara*], PF 1971:03–04, PF 2015, NN 1007:05–06, NN 1359), Tep-kitin is found only in connection with Susa (see table). A third liaison official may be Bakumarda, connected with Hunar (PF 0010) and Susa (NN 1240; perhaps also PF 0325).

ceiving side. This, but also the *kanti*, “storehouse,” mentioned once (PF 0088), are important reminders of the existence of a PFA-like institution at Susa.

The wider context of the transports undoubtedly is similar or the same as that of the shipments of staple commodities (barley, flour, date-beer, perhaps dates) from Babylonia: these were, like the new waterways connecting Babylonia and Elam, part of a vast interregional scheme designed to cope with periodical peaks in the demand at Susa, when the court was in residence there. In fact, it may be that the Babylonian documentation, with its emphasis on organisation of transportation (as an obligation imposed on Babylonian élites), is a mere surface phenomenon. What seems to lie underneath it is a system of interlocking administrative regions, two of which – Babylonia and Pārsa – generated a surplus in terms of volume *and* in processing power, and thus made the existence of the third – Susa/Elam – possible.¹¹⁷ The rationality of this system is visible, on the Iranian side, in the circumstance that the districts in the western sphere of the Pārsa administration, hence nearest to Susa, were privileged for the task (see table above). The fact that most transports concern flour (rather than unground barley) reveals a calculated logistic arrangement, intended, in the first place, to relieve Susa of part of the enormous burden of grinding for the thousands sitting at the King’s table.¹¹⁸ This aspect is made explicit in NN 0322 (cf. NN 0325), where flour is transported “to the King” by someone whose designation may plausibly be interpreted as “flour-maker.”¹¹⁹

117 Contrast the view of Perrot, who saw Darius’s re-foundation of Susa in the first place as a halfway residence necessary to bridge the distance between Pārsa and Babylonia (Perrot 2010, 467). See Jursa (in Jursa / Schmidl, this volume) for the suggestion that the *upiyātu* obligation to deliver staple commodities, including flour, to the court at Susa, in the first place entailed the (costly) duty of hauling. As he surmises, the origin of the commodities may have been different: the royal domain or taxes on temple estates. The parallel with the flour transports from Pārsa may therefore be stronger than one would *prima facie* have guessed. One could go even further, as the concept of *upiyātu* also exists in PFA, where the same word (Old Iranian **upayāta-*; Tavernier 2007a, 444f. [4.4.10.18]) is transcribed as *ukpiyataš*. That *ukpiyataš* belonged to the sphere of provisioning for the royal table is not in doubt; moreover, there is some evidence for the involvement of Persian élites in its transport/delivery, if only as a token of loyalty (see Henkelman 2010a, 710f., 729–31). But one should hesitate to press the parallel too much, as the commodities transported from Pārsa to Susa are not labelled *ukpiyataš*.

118 The obvious parallel is the Babylonian flour tax discussed by Jursa (in Jursa / Schmidl, this volume): intended for the royal court, it was primarily a labour tax, as the grain for making flour could be provided from the royal stores.

119 In NN 0322 and NN 0325 Karukku supplies commodities (flour and figs) to one Karkiš, who takes them to Susa. The same set of seals occurs on both tablets. In NN

The third and final group of Susa-related texts is defined by the use of seal PFS 0074. Though only two of the texts actually mention the name of the city, the others may be assigned to the same dossier:

Text	seal(s)	com- modity	supplier	recipient	purpose	location	date
PF 1753	<u>PFS 0074</u>	600 l flour	Kurziyan	Pirtiš	feeding birds	Susa	Ø/22
Fort. 2135-006	<u>PFS 0074</u>	100 l ŠE.GAL	Saktiti	Pirtiš	feeding birds	Liduma	Ø/22
PFS 1754	<u>PFS 0074</u>	440 l var. cereals	Bakadadda	Pirtiš	feeding birds	/	Ø/23
PFS 1755	<u>PFS 0074</u>	400 l var. cereals	Bakadadda	Pirtiš	feeding birds	/	Ø/23
PFS 1756	<u>PFS 0074</u>	80 l var. cereals	Bakadadda	Pirtiš	feeding birds	/	Ø/23
NN 0829	<u>PFS 0074</u>	300 l var. cereals	Bakadadda	Pirtiš	feeding birds	/	Ø/23
NN 0033	<u>PFS 0074;</u> <u>PFS 0968</u>	30 l var. cereals	Bakadadda	Pirtiš	feeding birds	/	Ø/23
NN 0335	<u>PFS 0074;</u> <u>PFS 0968</u>	80 l var. cereals	Bakadadda	Pirtiš	feeding birds	/	Ø/23
NN 0337	<u>PFS 0074;</u> <u>PFS 0968</u>	120 l var. cereals	Bakadadda	Pirtiš	feeding birds	/	Ø/23

0322, Karkiš is designated *ʾmi-da-pár-raʾ*, in the second *tam₅-mi-da-pár-raʾ*. Given the parallel, the emendation *ʾtam₅-ʾmi-da-pár-raʾ* for the first seems admissible. Hinz / Koch 1987 s.v. *tam₅-mi-da.bar-ra* interpret the appellative as “Kuchenwart, Hofkonditor,” taking it as variant of *šamidakurra* and *šamidahuttira*, earlier explained by Hinz as “Kuchenbäcker” (Hinz 1975a, 221) and retained as such by Hinz / Koch 1987 (s.vv. *ki* (2), *šá-mi-da.hu-ut-ti-ra*, *šá-mi-da.kur-ra*, “Zuckerbäcker, Konditor, Kuchenbäcker”). Whereas the relation between these terms or their derivation from Akk. *samīdu* (which entered Indo-Iranian languages) is entirely plausible, the fanciful interpretations are not. Tavernier 2007a, 472 [5.2.2.6-7] explains **samīdakara-* as “maker of flour” and **θamīdabara-* (assuming emendation in NN 0322) as “he who is responsible for the flour” (**vīdabara-*, “he who brings knowledge, advisor,” *ibid.* 435 [4.4.7.123] is a ghost-form, also based on NN 0322). Though I remain sceptical of the contention that we are dealing with pastry chefs (cf. Henkelman 1997), I do believe the three appellatives denote people involved in milling in widest sense. They were officials of some rank, found travelling between Susa and Pārsa and belonging to the class of *šalup*, “free men” (PF 1311, PF 1374, PF 1461, Fort. 6579); various other contexts in which they appear make it clear that their responsibilities were also logistic in nature.

Text	seal(s)	com- modity	supplier	recipient	purpose	location	date
NN 0969	PFS 0074; PFS 3168; PFS 3169	250 l wheat	Appima	Pirtiš	feeding birds on pasture	/	Ø/24
PF 1752	PFS 0074	560 l flour	Damidadda	Pirtiš	feeding birds on pasture	Susa	(2 m.) /25

Flour is rarely issued for fodder; in the case of poultry it was presumably made into some kind of mash for animals subjected to fast fattening or gavage.¹²⁰ Also uncommon is the range of cereals ('var. cereals' in the table above) issued to animals, including flour, wheat (ŠE.GIG), roasted barley (ŠE.SA.A), sesame (ŠE.GIŠ.Ì) and, perhaps, rice (ŠE.GAL). Tasty birds are what the restless administration had in mind: a special fodder regime to meet with the gastronomic demands of the royal table, virtually the only setting of poultry and fowl consumption.¹²¹

Indirect evidence links Pirtiš to Tandari, an explicit reference places him in neighbouring Liduma; both are in the westernmost part of the PFA territory, somewhere in the Zagros piedmonts east of the Khūzestān plain.¹²² That Pirtiš would occasionally fulfil his duties at Susa is explained by the royal connection and by the particular diet given to the animals. He may have been a specialist farmer, or rather an official responsible for breeding and feeding the royal poultry.¹²³ His duties or expertise occasionally required his travel to Susa, taking with him, it seems, flour from his home district, perhaps also the odd gaggle scheduled to meet its dire fate. Again, the underlying scenario is

120 All texts listed here use the general term MUŠEN, "birds" (but at least those 'on pasture' are probably ducks or geese). For fattening of poultry in PFA see Henkelman 2010a, 736f., 741f. For comparable evidence from Babylonia see Janković 2004, 7 n.25, 19, 41 n.135.

121 See Hinz / Koch 1987 s.v. ŠE.GAL.lg ("Reis"); Henkelman 2010a, 737 n.266 (special grains for poultry) and 750–3 (various grain species occurring in PFA); Garrison / Henkelman [forthc. I] § 4.2 (roasted barley).

122 For Liduma see Fort. 2135-006 in the table above. The supplier Kurziyan (with Pirtiš in PF 1753) can securely be linked to Tandari: see PF 0093, PF 0094, NN 0190, NN 0608, NN 1176, NN 1395, NN 1426, NN 1812, NN 1982, NN 2031, NN 2080, NN 2381, NN 2398 (all receipts at Tandari; all with seal PFS 0241), and PF 0310 (receipt from Tandari). Saktiti/Šaktiti has connections with Liduma (Fort. 2135-006), Tandari (PF 0394, PF 0395) and a range of other places. The name of Bakadadda is very frequent in PFA and it is difficult to unravel the dossiers pertaining to its various bearers.

123 This is suggested by his mobility, his outstanding seal (PFS 0074), and the fact that he regularly seals in the single seal protocol.

probably that of feeding the court when in Susa, but the material simultaneously implies the existence of poultry farms and specialist infrastructure in the Susa region, hence analogous to those documented by PFA.

The lengthy treatment of the case of Susa is warranted for the parameters it yields for identifying other regional institutional economies in western and southwestern Iran. The Achaemenid court clearly is the great connector in this equation. Members of the royal house travelled between, and drew commodities from, various regional economies, thus providing a first link. The mobile court had its own bureaucracy that would link up with local administrations and presumably imposed a certain uniformity of procedure and documentation – a second connection. The court furthermore provided a critical impulse for the transfer of documents and commodities from one region to another, which in turn may have occasioned the activity of liaison officials, especially in border regions – the third link. Other factors may be added, such as the exchange of administrative personnel and other indications of parallel layout. Also important are resident expatriate communities, such as that of the Egyptians at Susa, who were connected to the local administrative structures, but also fostered empire-wide networks (cf. § 2.3.2). In short, that Susa and Takht-e Ġamšīd each were important administrative centres in their own right will not surprise anyone, nor that the two administrative systems were in close contact, but the emerging modalities of this interplay will be meaningful as a heuristic tool in other contexts.

2.3.2. *Ecbatana*

PFa 28 is one of the cherries Hallock picked for his ‘Selected Fortification texts’ because of the information it provides on administrative procedure (Hallock 1978, 113). The text, cited in Stolper’s contribution to this volume, deals with a glitch in the stream of documentation – accountants were not delivering reports – followed by another incident – a runner who had gone missing. The addressee is told to arrest that person and send him to Media for questioning; he is furthermore instructed to henceforth mention the name of the runner on any document transmitted to the principal administrator, a directive authorised by Parnakka’s incontestable *Machtwort* (PN *šerašda*, “PN ordered it, command of PN”).

As Stolper recognizes, the anticipated review or questioning presupposes “wider and higher orders of organization” existent in Media, of a senior level but otherwise analogous to officials investigating district accounts on behalf of the central Pārsa authority. The higher order of organization hinted at *may* be the court itself, perhaps resident in Ecbatana at the time of the incident.

Because of this possibility, the text does not necessarily offer direct evidence for permanent local administrative structures at Ecbatana, but it does illustrate, minimally, the impact of the court and its administration had when in residence in Media. But was Ecbatana also home to permanent administrative structures and was it, as Tuplin once asked (1994, 253), a “pre-eminent capital rather than one of the peripatetically visited royal residences”?

The wider and higher orders were probably also why Babylonian businessmen came to Media, as witnessed in three legal documents drawn up (but not found) at Ecbatana during the reigns of Cyrus, Darius I and Darius II. Two of these record debts contracted in Iran but to be settled in Babylonia (in silver and dates); the third is a contract for the acquisition of dates in Sippar. A fourth text (*Cyr* 227) is drafted at an unknown place, Ayiltammu, and concerns a debt in silver to be paid at Ecbatana. On first sight, the contents of this dossier have little bearing on institutional affairs at Ecbatana: the business transactions seem to be, as Stolper argued, incidental to the trips by leading members of Babylonian firms, such as that of Itti-Marduk-balātu of the Egibi house. According to this explanation, their prime travel motive would have been to tend to their interests at the court, when in residence at Ecbatana.¹²⁴

The afore-mentioned re-analysis of the Susa file by Waerzeggers – arguing that debts in silver contracted by Babylonian businessmen were *not* incidental to their trips, but tax-related and possibly connected to infrastructural projects, corvée labour, etc.¹²⁵ – is relevant here. In comparison, however, the Ecbatana dossier is not only much smaller, but lacks payments for transporting staples or organising corvée gangs; also, the loans incurred are less important and they are interest-bearing. This suggests, on the one hand, that the business transactions in Ecbatana were indeed incidental to the journeys of the Babylonian élites, and, on the other, that the purpose of their travel may not have been the court *per se*. Stolper himself added doubt on the second matter by pointing out that the three documents drafted at Ecbatana are dated between September and October, hence potentially *after* the summertime

124 See Stolper 1990a, with references to text editions and earlier bibliography. Stolper (*ibid.* p.171) tentatively proposes that the Babylonians would be “seeing to political needs, refreshing their contacts, seeking access to aristocrats who had been attending court, or assuring the patronage or tolerance of the imperial government and its bureaucrats.” The Ecbatana file has more recently been discussed by Tolini (2011, 191–3, 197f., 387f., 499f.), who also inclines to connect it with the presence of the court at that location.

125 See Waerzeggers 2010, esp. 800–9; two cases which explicitly connect the credit transactions to tax obligations are cited *ibid.* 808 nn.118f. See also the literature cited in n.94 above.

residency in Media reported *unisono* by the classical sources.¹²⁶ In line with the cases of Taoce and Țumadēšu, to which we will turn presently, one may therefore raise the possibility that the aim of the Babylonian travels was to tend to their firms' interests or – more plausibly – to conduct affairs as agents of the crown, yet that their destination was not the court, but one of the key administrative centres of the empire: Ecbatana.

In this context, we may return to one of the marriage contracts pertaining to the community of Egypto-Babylonians of Susa, Sb 9385 (Joannès 1990). It involves two members of the staff of Šamu and refers to the prospective bride as still resident in Ecbatana (cf. § 2.3.1 above). Since it is less likely that Šamu's subalterns engaged in private travels to Media, and since Šamu had the title of chamberlain (*ustarbaru*), we are probably seeing a glimpses of a professional network of a court official. Achaemenid 'chamberlains' occur in various contexts and capacities, but their relatively high rank and connection with the crown are a constant factor. Šamu's apparent long-term stay at Susa shows that his affairs there did not necessarily relate to the presence of the court, but more likely to local administrative structures. Taken together, the marriage contract seems to give an indirect hint of a high official with a professional staff and network involving the administrative centres of Susa *and* Ecbatana.¹²⁷

That Ecbatana had its own standing administrative hierarchy is self-evident from its status as regular residence and centre of the Median satrapy. Travels to and from 'Mataš' are not as frequent as those involving Susa, but still a very regular phenomenon in the Fortification archive. They reveal the

126 Stolper 1990a, 171. For the available evidence on the seasonal migration of the Achaemenid kings see Tuplin 1998; Tuplin (*ibid.* p.70) cautiously qualifies as "possible" a routine (obviously not always followed) according to which the court moved away from Ecbatana (to Babylon) in September. It would be unwise to put too much emphasis on this, however, as the ancient sources clearly overstress climatic preferences, thereby obscuring political-ideological motives for the court's mobility (cf. Briant 1988 and Jacobs [forthc. 2]), not to mention the logistic challenge that a stationary court of the size suggested in the sources would have posed.

127 Note, in this context, that the Ecbatana text published by Stolper (1990a), YBC 11607, has several names with a possible Egyptian background, which raises the question whether its social context is comparable to that of the Susa dossier. For *ustarbaru* and *ša rēš šarri* see the references in n.102 above. A few other cases may be mentioned, though they may pertain to officials travelling with the court. The *ša rēš šarri* Šarru-duri conducted financial affairs with the Egibis in Babylon and Susa in the reign of Darius I; see Tolini 2011 I, 268, 350, 354–6 on TCL 13, 193 (placing him in Babylon) and *Dar.* 435 (apparently placing him in Susa). A range of *ustarbarus* is mentioned as witnesses to records of judicial proceedings at Susa during the reign of Darius II: Tolini 2011 I, 464–73. See also, on Țumadēšu, below § 2.3.3.

authority of Mitarna (Vidṛna/Hydarnes) as central administrator in Media, empowered to issue travel authorisations. As in the case of Susa (and Takht-e Ġamšīd), this implies the existence of an Aramaic chancellery and archive as well as an infrastructure to maintain the Median section of the road network.¹²⁸ Beyond such fairly general characteristics, it is reasonable to posit the same kind of symbiosis assumed for the Takht-e Ġamšīd and Susa cases: a regional institutional economy that would support, at least partially, the itinerant court when in residence. Such a constellation would be in line with what classical sources report on the rich produce in staples, the reported *institutional* breeding of Nisaeans, but also the apparent existence of at least one administrative subdivision or ‘province,’ Ragā/Rakkan/Ῥάγαι, perhaps comparable to those of the Pārsa economy.¹²⁹

128 Because Mišdašba/Hystaspes is also active in Media and in a few cases issues travel authorisations, it is not entirely certain whether Mitarna was satrap. See Hallock 1985, 591; Koch 1993a, 12–14; Henkelman [forthc. 3] note *ad* Fort. 1316–101:11'. In the same text (lines 12'f.), *taššup kanzabarrašbe*, “troops, treasury workers,” are travelling from Media to Pārsa with a travel authorisation from Mišdašba (year 23; cf. below). Does this mean that Mišdašba/Hystaspes was ultimately responsible for the same or another treasury, or does it refer to the dissolution of Hytaspes’ household? Aramaic archive: compare, for what it is worth, the edict of Cyrus concerning the Jerusalem temple supposedly archived at Ecbatana and retrieved in the time of Darius (*Ezra* 6:1–5 [Ahmetha]; Ios. *Ant.Iud.* XI.4.6/99).

129 Polybius (X.27.2) mentions τὰ βασιλικά συστήματα τῶν ἵπποτροφιῶν, which probably must be understood as “the royal *organisation* of horse-breeding” (i.e., not merely the royal stud or royal stables, as some translations suggest); cf. Diod. XVII.110.6, Arr. *Anab.* VII.13.1, Strabo XI.13.7f. Such a system is also referred to by Plutarch (*Eum.* 8.3) in an anecdote about Eumenes of Cardia in 320 BCE. Seeking to rebuild his cavalry, the latter took horses from the royal stud, on pasture near Mt. Ida in the Troad, and sent a written account of this to the overseers. On this episode and its Achaemenid context see Briant 1982b, 209; *idem* 2002, 452; Kuhrt 2007, 817). Citadel and βασιλεία: Plb. X.27.6–13; Diod. XVII.110.6f., XIX.44.4f.; Strabo XI.13.1. Plantations: Plut. *Art.* 25.1f.; Curt. VII.2.22 (and compare the fruit trees of the Bīsotūn region reported by Diod. XVII.110.5). For these various points see discussion in Briant 2002, 402, 737–41, 1023f.

The Bīsotūn inscription speaks of Ragā (Elam. Rakkan; Bab. Ragā) as region or district (*dahyāuš*; DB_p II.71f.; cf. III.2f.) in Media, where Fravartīš opposed Darius’s troops. This may be compared with Ptolemy’s Ῥαγιανή (*Geogr.* VI.2.6) and Diodorus’s mention of Ῥάγαι as an ἐπαρχία of Media (XIX.44.4; cf. Strabo XI.9.1). Briant relates the term ἐπαρχία to the use of *m^cdīnāh*, “province,” in Aramaic and Hebrew documentation (see Dandamaev in Dandamaev / Lukonin 1989: 103; Tuplin 1987, 120–7; *idem* 2013 *ad* A6.4.2; Briant *o.c.* 412, 472, 487, 717). ‘Ragā’ (Rhages, Rayy) apparently doubled as the name of the region’s centre already in Achaemenid times: Alexander stayed there in pursuit of Darius III (Arr. *Anab.* III.20.2–3, Ῥάγαι).

Gold, silver and other valuables were already hoarded at Ecbatana in Median times; a central treasury is reported by the Alexander biographers.¹³⁰ We may relate this to three references in the Fortification archive to the transportation of ‘treasure’ (*kantaš* < **ganda*–; cf. § 2.2.1 with n.73), which, presumably took place only between regions that had a *central* treasury, i.e., satrapies and their administrative subdivisions. Once such a transport is coming to Pārsa from Mitarna/Hydarnes in Media (Fort. 1912-103:36’), a second occurs in fragmentary context (Fort. 1253-101:2’f.), a third comes from Mišdašba/Hystaspes (Fort. 1316-101:12’f. [implied]). The fourth case explicitly mentions Ecbatana:

Fort. 1901A-101: 51’ (collated)

[xx PN *hi-še* xx ^{HAL}]’*ak*’-*ka*₄-*ia-še* ^{AS}*kán*-’*taš*’ ^{AS}*ak*-*ma*-*da*-*na*-*ma*-*mar* ^{AS}*ba*-*ir*-*šá*-*iš* *la*-*kaš* *gal* *du-iš* 1 ’*na*’-*an* ^{ANITI}^{MEŠ} ^{AN}*ka*₄-*ir*-*ba*-*ši*-*iš* *ir*-*ba* ^{AS}*be*-*ul* ’10’(+)[9-*na* (...)]

“[xx] (l. of flour a man) named [PN] (and) his [xx] companions, (who) accompanied ‘treasure’ from Ecbatana to Pārsa, received (as) rations (for) 1 day, pre-intercalary sixth month, year 1[9].”

Otherwise, Māda and Ecbatana occur in a number of contexts that together form a small pendant to the Susa dossier. Movement of commodities, perhaps for feeding the court, is indicated by the 69 head livestock and 1600 (!) head cattle driven from Media to Pārsa (NN 2563; NN 2349:19f.). Fortress guards (*halmarraš-nuškip*) travel to and from Ecbatana (NN 1316-101:07’–09’, 10’f.). A registrar (^{HAL}*ka*₄’-*ra*-*ma*-*ráš*’) is heading for Mišdašba/Hystaspes (NN 1059:32–5); various parties of spear-bearers, hence perhaps auditors of some kind, travel from Media to Pārsa (NN 2195:04–05, 10f., 12f.; cf. § 1.4). The same route is taken by a *hasura* (NN 2195:14–5) and Datukka, “*etira* to the King” (NN 2349:07–09). Of these last two, the *etira* is the most conspicuous, not only because the appellative denotes an administrative official, but also because he was escorting 600 women. Even larger groups of women, 1570 and 1359, are sent from Media to Pārsa (NN 2349:01–03, 04–06), as are 369 Lycian women (NN 2349:10–2) and an unknown number of Bactrian women (NN 1316-101:05’). Besides these, ten Indian men (NN 2349:13–5) and, perhaps, ten Skudrians (NN 2349:21–22) are on the same track. The Lycians and Skudrians, from northwestern Anatolia or beyond, evidently were not coming

The place also occurs in *Tobit* (1:14, etc.) and *Judith* (1:5, 15 [Παγαυ]). See Rollinger 2007 for further references (for the homonymic place in Pārsa see Henkelman 2007).

130 Median period: *Nabonidus Chronicle* II.1.4 (Grayson 1975, 106); Achaemenid treasury: Diod. XVII.80.3 (τοὺς βασιλικούς θησαυροὺς ἐν Ἐκβατάνοις), .110.7, Strabo XV.3.9, Just. XII.1.3, Plb. X.27.12f.

directly from their homeland; one wonders if they had previously been deployed, as *kurtaš*, in Media (cf. § 3.1.2). The general context of the movements of commodities and large groups of people besides exchanges of military personnel, auditors and administrative officials is not hard to guess: as in the case of Susa, they are suggestive of an intricate organisation on the Median side, if not a full-blown Fortification-like institution centred on Ecbatana. This is also the impression given by the last three texts (cf. *App.* 1.4):

NN 2502

⁰¹⁻⁰² [1] 7 l *madamiš*, ⁰²⁻⁰³ 9 l *mitruša*, ⁰³⁻⁰⁴ a total of 26 l food products ⁰⁴⁻⁰⁷ that Bakadadda took from Kuknakka; ⁰⁷⁻⁰⁸ he was coming to Ecbatana. ⁰⁹⁻¹⁰ It was consumed at Irtašduna's court, ¹⁰⁻¹¹ 25th year (497–6 BCE).

PF 0732

⁰¹⁻⁰² 170 l wine, ⁰²⁻⁰³ allocation from Yuda, ⁰³⁻⁰⁴ Bakadadda transported; ⁰⁴⁻⁰⁶ he came to Ecbatana. ⁰⁶⁻⁰⁸ It was poured out at Irtašduna's court and borrowed[?]. ⁰⁹⁻¹⁰ 25th year (497–6 BCE).

NN 0454

⁰¹⁻⁰² 10 l fruit-and-barley products, ⁰²⁻⁰³ from Ušaya (at) Pārsa, ⁰⁴⁻⁰⁵ the Ecbatana-people received; ⁰⁵⁻⁰⁸ (it) was consumed at Irtašduna's court (and) borrowed[?]. ⁰⁹⁻¹⁰ 25th year (497–6 BCE), ¹⁰ (this) sealed document (was delivered?).

The texts, all impressed with Irtašduna's seal (PFS 0038), have the same date and arguably relate to the same episode, a stay of the queen's court at the Median residence. What furthermore connects them is that they deal with special products: *madamiš*, *mitruša*, some kind of fruit-based confectionary, and wine from Irtašduna's own estate at Uranduš.¹³¹ The transports must be considered irregular: common staple supplies for the queen's 'table' presumably were drawn from local supplies, *viz* at Ecbatana. That the texts were drafted in Media is implied in all three of them: PF 0732 and NN 2502 are written from an Ecbatana-based perspective (PN *kuzza* GN *šinukri*, "PN transported, he was coming to GN"); NN 0454 notes that commodities were handed over to the "Ecbatana-people" (*Akmaddanabe*), which in PFA jargon denotes the institutional colleagues of that location.

When in Media, Irtašduna apparently had her Elamite scribe(s) with her, as she had when she was in Susa (NN 2523; cf. § 2.3.1). His/their activities were hardly limited to scribbling the occasional note to be dropped on the desks of the Pārsa bureaucrats. This is shown by the Susa case (§ 2.3.1): the

131 The origin of the wine is not stated explicitly in PF 0732, but may be inferred from the implication of Yuda; see commentary in *App.* 1.4.

royal provisioner (using seal PFS 0007*) left an Elamite receipt at this site (MDP 11 308) and an administrator working for Irdabama wrote a similar document for wine extracted from the local institution (PF 0737, with seal PFS 0051). It is hardly over-audacious to postulate that Irtašduna's staff did the same in Ecbatana: linking up to the local institution, drawing commodities from the regional economy, issuing Elamite receipts sealed with the queen's seal, which were then processed by the local administration, producing the 'Ecbatana Fortification archive.' What is visible of this is a negative impression in PFA, caused by a deviation from this normal run of things: smaller shipments of special products were sometimes drawn from outside, with the donor institution retaining accountability. Irtašduna's conscientious scribe (cf. § 2.3.1) not only noted the modalities on the receipts, but also made sure that he did *not* submit them in Media, hence their survival in the Fortification archive.

2.3.3. *Taoce and other βασιλεια*

Fort. 1289-101, published in Stolper's contribution to this volume, is an investigation report on grain yields from Dar.4 onwards. This date, corresponding to 518/17 BCE, demonstrates that a form of the Pārsa economy was functioning early in Darius's reign and arguably before Takht-e Ġamšīd itself existed as fully-functional centre.¹³² Or, to reverse these observations, the presence of an institutional economy with developed logistic structures may actually have *enabled* 'Takht-e Ġamšīd' in the first place – both in terms of labour management and provision of rations to workmen.

Whereas some of the sites in the Dašttestān district (Borāzġān) collectively known as Tamukkan/Taoce were already being built at the time of Cyrus (cf. below), their construction was still on-going during the second half of Darius's reign. This appears, for example, from the large Takht-e Ġamšīd-style stone relief (King of Kings with parasol-bearer; fig. 8) and from the Akkadian and Elamite inscriptions, all found at Bardak-e Sīāh.¹³³ The most pertinent evidence for activities under Darius comes, however, in the form of thousands of foreign craftsmen and common workers (*kurtas*), all sent to Tamukkan according to PFA. As in the analogous case of the Takht-e Ġamšīd

132 A few other tablets pertain to early years, though not as far back as Fort. 1289-101. NN 0001, for instance, relates to Dar. 8–9.

133 For the inscriptions see now Basello [forthc.] § 5 n.146. Apart from the relief (on a doorpost) of the King with parasol-bearer, smaller sculpture fragments (some in a granite that must have been imported from elsewhere) were found at both Bardak-e Sīāh and, burried below the central hall, at Čarkhāb (Karimian 2011).



Fig. 8. Bardak-e Sīāh (Borazgān): fragmentary relief showing the King of Kings under a parasol (photographs W. Henkelman).

terrace, some kind of local administrative infrastructure is strongly implicit in this dossier. To realise this, one has only to calculate the monthly cereal requirement at Tamukkan for years 22 and 23, which approaches 100,000 l; this

estimation is a minimum, based on the following, necessarily very incomplete dataset:¹³⁴

Text(s)	number of workers	ethnonym and/or profession	coming from	date	
NN 0111	8	ḪAR- <i>mazzip</i> , <i>kurtaš</i>	stone masons	Pārsa	VIII/20
PF 1557	547	<i>kurtaš muzirriyap</i>	Egyptian workers	Susa	Ø/21
PFa 30:11–3	980	<i>kurtaš katbadukaš</i>	Cappadocian workers	Rakkan	IX/21
PFa 30:14-6	980	<i>kurtaš tarmiriyap</i>	Lycian workers	Rakkan	VI/21
PF 1368	304	<i>kurtaš tamkanap</i>	Taoce-workers (Lycians?)	/	VI/22
PFa 18, PF 1363, PF 2055	150	<i>kurtaš/kurzap iškudrap</i>	Skudrian workers	Media	III/23
NN 1177	29	men <i>muzzir-ra</i> [<i>yap</i>] <i>karsuḥp</i>	Egyptian men, painters	Tamukkan	III/23
NN 0480	690	men <i>muzirriyap</i> ḪAR- <i>mazzip</i>	Egyptian men, stone masons	King	IV/23
Fort. 0083-102	159 [?]	<i>kurtaš turrumeḥriyap</i> [?]	Lycian [?] workers	Susa	IV/23
NN 0862	72	<i>kurtaš šugtiyap</i>	Sogdian workers	Pārsa	VIII/23
Fort. 9408	141	<i>kurtaš tarmiriyap</i>	Lycian workers	Matezziš	IX/23
NN 1858	74	men <i>bakšiyaš</i>	Bactrian men	Pārsa	Ø/24

Most of the work gangs listed here are going *to* Tamukkan; a returning group is listed only once (NN 1177). This suggests that, at the time of PFA, workers were amassed at Tamukkan for either prolonged or permanent stay. The one returning group moreover had a travel authorisation from Parnakka, i.e., presumably a document for the travel *to and from* Tamukkan. Though one example is little to go by, it may indicate that overall control over the road to the south was retained at Pārsa.

The road here referred to originated in the Caspian area and descended from there, *via* Ecbatana, the Esfahān or Ābādeh area, to central Fārs and from there to Borāzghān and, presumably, the Persian Gulf coast (Būšeher). It is very visible in PFA, if only by the many travellers that used it. The existence of way stations, smaller and larger towns, fortresses, and other administrative nuclei in the regions the road transected is not in doubt. What remains elu-

134 The following table reproduces that given in Henkelman [forthc. 2] § 2.2; see there for notes on some of the texts listed.

sive is the status of the local networks along its axis: the so-called ‘northern cluster’ (towards *Gaba-) and its southern pendant (towards Borāzġān). These are much harder to define than the three administrative subdivisions along the Susa-Pārsa road (Persepolis, Kāmīrūz and Fahliyān regions). Perhaps part of the problem is the fact that the Borāzġān region was still in the process of being developed as a sub-satrapal administrative province in the time of Darius.¹³⁵

Whereas the precise administrative status of the Borāzġān area, presumably within a frame of overall control centred at Pārsa, remains hard to grasp, the long-term results of the southward extension of the Pārsa economy were evident to Nearchus, when he arrived in the area in early 324 BCE (Arr. *Ind.* 39.3, translation adapted from E. Iliff Robson [Loeb]):

Setting out (again) from there, they reached the city (πόλιν) of Hieratis (in) a populous district (χῶρον οἰκοῦμενον). The voyage was of seven hundred and fifty stades; and they anchored in a canal (ἐν διώρυγι) running from the river to the sea, the name of which was Heratemis. At sunrise they sailed along the coast to a seasonal stream called Padagrus; the entire district forms a peninsula [Būšehr; WH]. There were many gardens, and all sorts of fruit trees were growing there; the name of the district was Mesambria. From Mesambria they sailed and after a voyage of about two hundred stades anchored at Taoce on the river Granis. Inland from here was a Persian royal residence (βασιλεία), about two hundred stades from the mouth of the river.

There are sources of sweet water on the Būšehr peninsula, but only an extensive irrigation network would make possible the city, the (relative) density in population, and the attractive landscape witnessed by Nearchus. Undoubtedly, the Heratemis canal was part of such a planned effort.¹³⁶

135 Documentation pertaining to the northern and southern cluster comes, for unknown reasons, largely from journals, not memoranda and letter-orders. This situation obscures our view considerably, as we lack the sealing patterns and regional seals that made identification of the Persepolis, Kāmīrūz and Fahliyān regions possible. For a tentative discussion see Henkelman 2008a, 483–6, 504.

136 For Hieratis and the Heratemis Canal see Potts 2014, 134f., with references. Irrigation: compare the canals and wells observed by Maurice and Georges Pézard in their survey of the southern peninsula and more extensively studied by Sir Aurel Stein (Pézard 1914, 37f. and pl.9; Stein 1937, 237–40). Note that the Heratemis Canal can hardly be the structure Whitcomb (1987) tentatively described as the Angali Canal, between the Dālekī just north of Borāzġān and the coast at Šīf, unless one is willing to engage in adventurous emendation of Arrian’s text (as proposed by Whitcomb 1987, 331). Note, moreover, that the recent survey of the Būšehr hinterland has cast considerable doubt on the existence of the Angali Canal (Carter *et al.* 2006, 67, 97).

Historically, the Būšeḥr peninsula and the coastal strip south of it always formed a symbiosis with more inland regions. Physical remains of Achaemenid settlement have not been exposed during the (very short) archaeological campaigns on the peninsula or in the coastal zone; for this Nearchus remains our only source. By contrast, the Būšeḥr hinterland is much better known for the Achaemenid period thanks to a series of (limited) excavations and a recent regional survey. The latter tentatively identified 32 “Achaemenid-Parthian” sites, including one an “extensive town” (Deh Qa’ed), and perhaps another (Tawwāḡ; both continue older Elamite settlements). It deserves notice that the Achaemenid(-Parthian) and Sasanian periods stand out in the settlement history of the region: the density of settlements, undoubtedly reflecting the administrative and logistic thrust of the Iranian empires, is not matched in either earlier or later periods. As for the excavated Achaemenid sites, these include the monumental complexes at Čarkhāb on the edge of the town of Borāzḡān (with a nearby limestone quarry), and at Sang-e Sīāh and Bardak-e Sīāh in the surrounding Dašttestān district.¹³⁷

Bardak-e Sīāh is located in the vicinity of Dorūdḡāh, at the conjunction of two rivers (as the modern name suggests), between lush date groves (fig. 9); it boasts a relatively agreeable micro-climate on account of a shallow depression in the terrain. It would be wrong, however, to take such parameters as indicators that the two columned halls of Bardak-e Sīāh were developed as a mere royal *residence* or as a ‘pavilion’ site. Such is particularly clear in the parallel case of Sang-e Sīāh, where the excavated columned structure is certainly part of a more extensive complex, largely unexcavated but clearly in evidence on the surface. Also, the rather impressive central columned hall can hardly be described as a private, residential space (fig. 10). That interpretation would anyhow be at odds with the clustering of three such sites in the same district, but also with the apparent overall density of Achaemenid occupation in the area.

The stone-built complexes in Dašttestān/Borāzḡān wilfully cite the architecture and sculpture of Pāsārgād and Takht-e Čamšīd and, as such, were foremost an expression of royal power and state control. They were, in Karimian’s words “deliberately stunning” (2011, 43) and meant to be the material man-

137 For the Būšeḥr/Borāzḡān symbiosis see Whitcomb 1987, esp. 331–4; Floor 2004; and Carter *et al.* 2006, esp. 98. Survey: Carter *et al.* 2006, esp. 71–4, 93–6, and fig. 5. Excavated sites: Sarfāraz 1971; *idem* 1973; Yaghmaee 2010 (abstract only); Karimian / Sarfāraz / Ebrahimi 2010; Karimian 2011. See also the surveys in Boucharlat 2005, 236; Henkelman 2012a, 939f.; *idem* 2012c. The *tol-e khandaq* at Mohammadābād near Borāzḡān is probably Sasanian, not Achaemenid (Ghasemi 2012 and pers.comm.).



Fig. 9. Bardak-e Sīāh (Borazgān): date grove (photograph W. Henkelman)



Fig. 10. Sang-e Sīāh (Borazgān): remains of a large columned hall (photograph W. Henkelman)

ifestation of a policy that sought to strengthen the Achaemenid hold on the Persian Gulf region. This is clearly not the complete picture, however. The gardens and canal in the description deriving from Nearchus, the mounting evidence for a strong overall Achaemenid presence, and the (initial) involvement of Pārsa-centred administrative structures suggest a planned effort to develop a potentially very fertile region and hence to enlarge the material and demographic reservoir of the heartland.¹³⁸

It would seem that the age-old link between Būšehr/Mesambria and Borāzġān/Taoce escaped neither Nearchus nor Arrian. The former's identification of Taoce as βασιλεια seems to imply that it was recognisable as a regional administrative centre of some kind. The use of the term itself is significant here: though it is polyvalent in Greek, Arrian generally uses it (always in the plural) in more restrict sense, to denote nodes of royal power. Often, but not always, these served as the satrap's headquarters, but their main role was that of an administrative centre (*Anab.* III.25.1, III.25.5, III.25.8, III.60.6, IV.5.3, VI.24.1, etc.). Some, such as Gedrosian Pura, can be identified in PFA, where they occur as destination or origin of travel parties or as places otherwise connected to a satrap. Such external places, even if subordinated to larger administrative units, are visible exactly because they had economic and logistic competence, hence, by implication, the administrative staffs, scribes, archives, etc., necessary to make them functional nodes in the imperial grid. That this pattern fits the case of Taoce is furthermore borne out by the existence of a choronym, Taocene, associated with the town (and cape) named Taoce (Ptol. *Geogr.* VI.4.2f., VIII.21.5). It suggests the familiar model of a

138 The fertile plains of southern Būšehr province and the Greater Lārestān region (larger than the current district) have not been systematically surveyed. The exception the Galehdār valley (east of Bandar Sīrāf), surveyed by Askari Chaverdi, where four Achaemenid/post-Achaemenid sites were tentatively identified (Askari Chaverdi / Petrie / Taylor 2008, 29 [Tol-e Pīr]; Askari Chaverdi 2013, 358 and 375f. [sites 104, 113, 131, 135]). The description given by Arrian of the coast between Kīš and Būšehr (explicitly described as part of Persis; *Ind.* 38f.) suggests that such finds represent a very incomplete view of the ancient landscape (indications of grain and fruit production, numerous villages, presence of many boats, etc.). Compare the discussion in Briant 2002, 758–60, 1028 and, for the islands in the Persian Gulf, Potts [forthc.] (and n.7 above). The often-cited description of the climatic zones of Persis (Arr. *Ind.* 40.2–4; see also Strabo XV.3.1) is perhaps relevant as well, as it could well reflect a view from the Persian Gulf (i.e., Nearchus' view), starting from the thin, scorchingly hot strip between the sea and the coastal foothills (the arid coastal zone), the rich plains between those foothills and the first mountain slopes (the wooded lowland, with many paradises), and finally the forbidding wall of the Iranian plateau that rises steeply from the plain (the wintry and snowy zone). Cf. n.22 above.

(sub-)satrapy with a (nearly-)homonymic centre (cf. Bactria/Bactra, Pārsa/Pārsa, Kṛmāna/Kṛmāna, etc.).

All of the above may serve as context for the occurrences of Taḥ(u)mak-ka (also Taḥuka, Taḥiumak) in four Late Babylonian records from the reign of Cyrus. Identity of this place with coastal Tamukkan/Taoce is assured by the circumstance that it could be reached by boat (YOS 3, 10) and lay at the 'Lower Sea' or the Persian Gulf (BM 32619 = Wunsch 2003, 112–4). Two texts deal with the organisation of labour gangs: 324 l flour was needed for workers going to Taoce and bringing cattle as part of the obligation resting on Sippar's Ebabbar (Cyr 131); 90,000 l barley, clothes and shoes, as well as 300 beams were sent overseas by Uruk's Eanna (YOS 3, 10). This evidence is nothing but an anecdotal glimpse, yet revealing as to the logistic operation that already started in the first decades of empire.

The quantities of grain sent from Mesopotamia, the thousands of workers noted in PFA (2500 or more in Dar.21), and the excavated complexes all strongly suggest local administrative structures. The silver sent with the workers from Eanna, for example, must either have flowed into the local institutional economy (as reimbursement for rations issued during the Babylonians' stay) or have been used to acquire food commodities on a local market under Persian control. The 90,000 l barley sent to Taoce were a heavy burden according to the author of YOS 3, 10 (Innin-aḥḥē-iddin), but it would, at least during Darius's reign, barely have sufficed to feed the construction workers even for a single month (cf. above). If anything, it represented an addition to local production. In short, the canal and fruit plantations mentioned by Nearchus are probably meaningful in administrative context: they evoke an institutional landscape that emerged in the reigns of Cyrus and Darius, that supported infrastructural projects in material and logistic sense, and probably expanded over time. Like the core of the PFA territory, to which it was connected, it must have had granaries, depots, suppliers, and officials responsible for labour logistics. And since it was linked to the heartland administration and situated between Susa and Takht-e Ġamšīd, it inevitably boasted scribes writing Elamite records.

The two other Babylonian texts mentioning Taoce seem to be of a different nature: one records a silver loan contracted by Itti-Marduk-balātu at the site (Cyr 29), the other is the testament of another member of the Egibi house, Iddin-Marduk, who had fallen gravely ill at the Persian Gulf shore (BM 32619 = Wunsch 2003, 112–4). Little can be said about the second text, since its protagonist is not well known, but the first can be placed in a dossier on a six-month journey undertaken by Itti-Marduk-balātu in Iran. Apart from Taoce,

it involved sojourns at Urazumetanu and Asurukkanu, before Ecbatana was reached in September 537 BCE.¹³⁹

The motives for Itti-Marduk-balāṭu's first Iranian journey (and that of Iddin-Marduk) are unknown. Whereas Zawadski originally argued for a business trip, Tolini assumed that Itti-Marduk-balāṭu and the other élite Babylonians appearing in the records were following the court.¹⁴⁰ The inspiration for this comes from the new understanding of the Susa dossier. As evoked at the beginning of this section (§ 2.3), this interpretation, fruitful as it is in the case of Susa, also has its limitations. The texts relating to Ecbatana throw some doubt on it (as they may post-date the court's departure) as do the Borāzghān structures in the sense that they were not necessarily residential, but very likely part of a permanent administrative centre. In other words, Itti-Marduk-balāṭu's presence at Taoce and other sites may be alternatively explained by a need to link up with the administrative infrastructure there. Such was, presumably, Joannès' thinking when he linked the Egibis' role as agents of the crown in Babylonia to the presence of the leader of their firm in Iran, *viz* to tend to political or administrative affairs. Several possible contexts come to mind, such as the supply of manpower at building sites, the organisation of interregional transports, or the preparation for the table of the king. What matters most is that Taoce was a βασιλεια: not exclusively a 'royal residence' nor Weissbach's evocative "Königsschloß" (Weissbach 1910), but a place where royal power was made manifest in architecture and art, and most importantly in administrative structures and hierarchies. High-ranking Babylonians in Iran would presumably have connected to these – whatever their precise mission – in a way not entirely dissimilar from the mobile court administrators who linked up with their resident colleagues in Pārsa, Susa, etc.¹⁴¹

139 For the entire dossier, with text editions and ample commentary, see Tolini 2008 and *idem* 2011 I, 74–7, 191–200. It was also Tolini who recognized that BM 32619 offers the key to the identification of Taḥ(u)makka with Taoce/Tamukkan. For the first Iranian journey of Itti-Marduk-balāṭu see Zawadski 1994; Joannès 2005, 191–3; Tolini *oo.cc.* For Tamukkan in PFA see Henkelman 2008a, 116f.; *idem* 2008b, esp. 304–10; *idem* [forthc. 2] § 2.2.

140 So Tolini 2008 and *idem* 2011 I, 190–201 (see esp. *ibid.* p.196, "Ce grand voyage était un moyen pour Cyrus de faire découvrir à une vaste délégation étrangère les centres iraniens de son pouvoir et le coeur géographique de sa dynastie"). Previously, Zawadski (1994) had argued that Itti-Marduk-balāṭu and his fellow Babylonians were in Iran to explore the potential of the new market opening up to them.

141 The description of the Tamukkan/Taḥ(u)makka/Taoce region given in this section may be contrasted with Bernard's digression about Antioch-in-Persis, perhaps on the Būšehr peninsula, in his remarks on the Marv Dašt milestone (cf. § 1.4).

Taoce was not alone: there were other subsidiary nodes in the network, perhaps to be described as the centres of sub-satrapal administrative provinces. Strabo's famous description of southwestern Iran captures their systematic role very well, albeit implicitly, by listing βασιλεια in various parts of the geographical space:¹⁴²

They adorned the βασιλεια at Susa more than the others, but held in no less honour those at Persepolis and Pasargadae. The treasure, storehouses, and funeral monuments of the Persians were there, in places more strongly fortified and at the same time ancestral. And there were also other βασιλεια – the one in Gabae (ἐν Γάβαις) somewhere in the more inland parts of Persis, and the one on the coast, near Taoce, as it is called.

For all its brevity, this paragraph outlines a regional design along two principal axes. The first is the ancestral lowland-highland (Khūzestān-Fārs) duality, made tangible by the royal road between Susa and Takht-e Ġamšīd, and controlled by interlocking administrative systems (cf. § 2.3.1 above). The other axis is that from the northern plains of Fārs (Gabae) down to the coastal zone at Taoce; here again, a royal road physically inscribes the planned layout into the landscape.

Gabae occurs in PFA as Kabaš (both forms are based on *Gaba-), a distribution centre of some importance. As in the case of the Taoce region ('southern cluster'), the 'northern cluster' is mainly known through journals (registers) rather than memoranda. It is therefore hard to point out the region's leadership and its seat of power. Kabaš would be a good candidate for this, given the presence of a paradise and facilities to host the table of the king (PFA); its role as centre of the 'northern cluster' would agree with its status as βασιλεια as described by Strabo. Add to this that the region known as Gab(i)ene was an ἐπαρχία of Parthian-period Elymais (Strabo XV.1.18), hence evoking the familiar pattern of an administrative district with a name derived from its centre. Interestingly, Diodorus, in his narration of the events of 317 BCE, describes Gabene as having abundant grain and other supplies for Eumenes' armies, suggesting successful development of the region.¹⁴³

According to him, Antiochus I founded this city to further maritime trade and "pour désenclaver la Perside intérieure" (Bernard 1995, 86; emphasis added).

142 Strabo XV.3.3, cf. 3.6–10, 21. Compare also Dion. Perieg. *Orbis Descriptio* v.1069, where the following sequence is given: πρῶτα Σάβαι, μετὰ τοὺς δὲ Πασαργάδαι, ἄγχι δὲ Τασκοί; Weissbach suggested emendation to πρῶτα Γάβαι, μετὰ τοὺς δὲ Πασαργάδαι, ἄγχι δὲ Ταυκοί (Weissbach 1932, 2248).

143 For Gabae/Kabaš see Henkelman 2008b, esp. 310–2. The relevant passages are Diod. XIX.26.2, .34.7. Hinz 1970b, 1036 (compare also his map, col. 1033f.) argued that Īzad Khvāst must have been the northern border of ancient Pārsa, putting *Gaba- in

Kabaš/Gabae does not occur in the Babylonian documentation, but another northern centre does. Razumetanu (*Cyr* 15; also Urazumetanu, *Cyr* 37), the second known stop on Itti-Marduk-balāṭu's first journey, may perhaps be recognized as a rendering of *Razavanta-. This form is reconstructed from the 'Razaundu' in an *Astronomical Diary* entry (no. -369 rev.8'f.) mentioning an army led or sent to the *land* (KUR) of Razaundu by Artaxerxes II (March/April 369 BCE). In Greek, the same toponym is reflected as Ῥαζοῦνδα, a *place* in Media according to Ptolemy (*Geogr.* VI.2.12, among πόλεις and κῶμαι). The contradiction that some have found in these descriptions is specious: *Razavanta- must have been the centre of a sub-division of Media and must have doubled, as usual, as that region's name.¹⁴⁴ In other words, Itti-Marduk-balāṭu and his fellow Babylonians may have halted at Razumetanu/*Razavanta- exactly because it was a βασιλεία, a node in the imperial grid like Taoce and Gabae. The identity and role of Asurukkanu, the third stop (*Cyr* 58), remains unknown as before, but the last halting place, Ecbatana (*Cyr* 60), evidently also fits the pattern of administrative centres (cf. § 2.3.2). It would seem, then, that Itti-Marduk-balāṭu was visiting a series of administrative nodes, places that may also have served as royal residences, but that derived their importance – and presumably their relevance for the Babylonian delegation – from their control of a regional network and their place in an interregional grid.

this area rather than in that of Esfahān. Though the toponym was later used for Ġay, the twin town of Esfahān, Hinz's suggestion is undoubtedly right: the inclusion of Kabaš within the sphere of the Persepolis economy and the towns with which it is connected make it likelier that it was situated in the area of Ābādeh or Īzad Khvāst. This also agrees with Strabo's claim (XV.1.18) that Gabiene, could be reached from Susis, implying the route *via* Īzeh and Lordegān to the Ābādeh/Īzad Khvāst plain. See also Ptol. *Geogr.* VI.2.13, where Gabene is located in Media, presumably as a result of its character as a border zone.

- 144 For the reconstructed Iranian form see Zadok 1997 and Tavernier 2007a, 395 [4.3.193]. On the Razaundu campaign see Sachs / Hunger 1988, 122–5 (edition); Stolper 1994, 239 (identification with Ῥαζοῦνδα); Van der Spek 1998, 252f. (tentative connection with the Cadusian campaign; doubtful on the identification with Ῥαζοῦνδα); Briant 2002, 614f., 740, 985f.; Kuhrt 2007, 400; Binder 2008, 316–21 (response to Van der Spek 1998); Pirngruber 2012, 143f. (edition and commentary). For Urazumetanu (and Asurukkanu) see Tolini 2011, 191–3, with references. *Cyr* 15, *Cyr* 37 (both Urazumetanu) and *Cyr* 58 (Asurukkanu) record loans contracted by Itti-Marduk-balāṭu. The loans (20, 60 and 80 shekels) are interest-free; following Waerzeggers' line of reasoning in the case of the parallel Susa texts (Waerzeggers 2010, 32), this pleads against their entrepreneurial nature and rather suggests need of silver for official transactions with the local authorities.

Other cases may be added, including that suggested by the structures excavated at Ġiṅḡīn (Qal'eh-ye Kalī) in the Mamasanī (Fahliyān) area. The central, monumental building, with three stone staircases, a paved portico, large stone column bases, and merlons of the Takht-e Ġamšīd type hardly points to a simple way station. The alternative proposed by the excavators – “an Achaemenid royal stopping place” used during the periodic movements of the court – seems too limited as well, however. Adjacent, less prestigious but extensive buildings, and the presence of storage jars and implements for grinding corn and producing beer, show that the complex minimally also had storage and productive functions.¹⁴⁵ And whereas the monumental structure may have been used in conjunction with royal visits, it is more attractive to see it as first and foremost a permanent locus of visible royal authority, this in close analogy with the columned halls of Borāzḡān. If Mamasanī was indeed home to the Ouxioi “of the plain,” headed by their own satrap (Curt. V.3.4), Ġiṅḡīn may well have been a βασιλεια in the technical sense. If so, it would undoubtedly have served as a forum for official contacts between crown and the more autonomous part of the tribal population of the region.¹⁴⁶

The case of Ḥumadēšu may be invoked as well. Presumably situated in the Marv Dašt, near the future site of Takht-e Ġamšīd, and identical with the Matezziš of the Fortification tablets, it was frequented by Itti-Marduk-balātu on four missions following his initial journey (to Taoce).¹⁴⁷ The witnesses and other persons figuring in the records of sale (slaves, black and dun donkeys) and debt make it clear that other high-ranking Babylonians frequented

145 For the site and the results of the Iranian-Australian excavations see Potts / Askari Chaverdi *et al.* 2007; *eidem* 2009; Potts 2008b, 276–80 (the citation is from p.278).

146 Cf. Henkelman 2011f, 8–11 on the Ouxioi, with references.

147 Babylonian Ḥumadēšu as well as Elamite Matezza (PFA, PTA) reflect *(H)uvādēča, itself a contraction of older Uvādaiča (DB_p III.52); compare also ^uú-ba-da-sa-ia' (DB_p 78). Elamite Matez(z)iš (DB_e III.19; PFA, PTA) reflects the variant *(H)uvādēčīš. Identity between Ḥumadēšu and Matezza/Matezziš near Takht-e Ġamšīd has been generally assumed since Zadok first proposed it (Zadok 1976, 69f.) and Stolper elaborated his suggestion (Stolper 1984, 306–8). It was more recently called into question by Tolini (2011 I, 208–17), who argued that the travel times – inferred from dated deeds of Itti-Marduk-balātu in Babylonia and in Ḥumadēšu – are too short to allow location in Fārs. This argument may not be strong enough to reject the otherwise very attractive identification of Ḥumadēšu with Matezziš in the Marv Dašt. Note, for one, that use of the canal connecting to Susa (or even the sea route to Taoce) in combination with travel on horseback would make it more than feasible to reach the Persepolis plain from Babylon in less than sixteen days (despite Tolini 2011 I, 214–6). Still, Tolini is certainly right in pointing out some problematic elements in the dossier. Whereas these merit re-evaluation, the matter of the location of Ḥumadēšu as such has no direct bearing on the present discussion.

Ḫumadēšu in the reigns of Cambyses and Bardiya (II). They include a *ša rēš šarri*, a royal official (compare the chamberlain Šamu at Susa and Ecbatana) and a “scribe to the treasury” (in Babylon). Resident officials include a *rab tamkārē*, “chief of merchants,” a “supervisor of Ḫumadēšu,” and an “Elamite” scribe, all with Iranian names. Of these, the *uppadētu*, “supervisor” is the most promising since the title occurs in (post-)Achaemenid Bactria (*’pdyt’*); there it denotes a district official operating within an institutional hierarchy and overseeing the intake and handling of staples. Furthermore, there is a well-documented case of workers sent from Uruk to Ḫumadēšu, and an indication of commodities shipped from Uruk with the same destination. On account of the patterns discussed in the case of Susa and other centres, such transports of people and goods imply local administrative systems.¹⁴⁸

148 See Tolini 2011 I, 80–4 and 207–33 for an elaborate discussion of the elements here mentioned. For Babylonian presence at Ḫumadēšu see also Zadok 1976, 67–78; Stolper 1984, 306–8; Joannès 2005, esp. 190–93; Henkelman 2008a, 337–40. For Šamu and other *ustarbarus* and *ša rēš šarris* at Susa see Tolini 2011 I, 268, 464–73 and §§ 2.3.1–2 above. Tolini takes Habaširu, *tuṣšarru ša bīt kāširāni*, “scribe of the treasury” (and elsewhere referred to as *ša rēš šarri*), to be an official connected to the central treasury at Babylon. If so, his temporary presence in Ḫumadēšu would have had a similar background as that of Itti-Marduk-balātu (see Tolini 2011 I, 226f. and cf. below). Note, however, the possibility that this Habaširu had a more local profile (*ibid.* n.562); the suggested interpretation of his title is debatable (Stolper [forthc. 2]).

The *rab tamkārē* Artarušu (*Rtaraučā; Tavernier 2007a, 300 [4.2.1497]) occurs twice, *Camb* 384 and *Hebraica* 8 134; in the first of these, he donates two slaves to Itti-Marduk-balātu. Both texts, but especially *Camb* 384, are irregular in their disposition and contents (cf. Stolper 1984, 306 n.23). Whereas I am not convinced that *Camb* 384 is a Babylonian excerpt or adaptation of an Elamite original (as Tolini 2011 I, 219–23 ingeniously proposes), the presence of *four* scribes (including Habaširu, “scribe of the treasury” and Niriabignu, “the Elamite”) and the role of the *rab tamkārē* indeed seem very unusual. The text minimally implies the involvement of a local bureaucracy in the transaction. The other text, *Hebraica* 8 134 mentions, among the witnesses, Umar’umira’ (**(H)uvāravīra-*, Tavernier 2007a, 214 [4.2.854]), *uppadētu* of Ḫumadēšu. The designation reflects **upadaiti-*, “supervisor, inspector, governor(?)” (*ibid.* 432 [4.4.7.109]). Tuplin, this volume (*Appendix* 4), gives an elaborate analysis of ADAB C4, dated to year 7 of Alexander (and witness to the continuity of administrative structures in Bactria). In it, *’pdyt’* (**upadaiti-*) officials are stationed at various places, collecting(?) barley and millet, sometimes (as) *’pyr’* (perhaps reflecting, with Tuplin, **upayāta-*, table tax) and convey it to others. Note also, again among the witnesses listed in *Hebraica* 8 134, the occurrence of Ateamuštu (**Hatyavišta-*, Tavernier 2007a, 198 [4.2.729]), performer of *ginū*-sacrifices; does this designation, given the Persian context, transcribe *lan-lirira* (cf. Henkelman 2008a, 208f., 255–61, 298f., 301–3)?

The considerable amounts of silver lent to Itti-Marduk-balātu at Ḫumadēšu had to be repaid at Babylon and were free of interest for an initial period (1–3 months), hence not unlike the credits taken by Babylonian élites at Susa. Tolini rightly points to the Egibis' role as agents of the crown and explains the credits in the context of the obligations deriving from these activities (Tolini 2011 I, 223–6). Presumably Itti-Marduk-balātu was in Ḫumadēšu to settle such obligations, though there may well have been additional reasons. At the same time, as Tolini underscores (*ibid.* 229), the court was absent from Persia during at least his first three visits. What we have is, in other words, concrete proof that not the itinerant court *per se*, but an administrative centre was the destination of leading Babylonians. The state-related mission they were charged with, be it collection of taxes or otherwise, apparently involved regular contacts with permanent institutional structures in Iran. In the case of Ḫumadēšu, if it was indeed located in the Marv Dašt, this would have meant the predecessor of the administration reflected in the Fortification and Treasury archives.¹⁴⁹

As we have seen, the onetime existence of a 'Susa Fortification archive' can be postulated beyond reasonable doubt (§ 2.3.1), whereas the use of Aramaic and Elamite is likely for Ecbatana (§ 2.3.2). Administrative structures are strongly implicit in the case of Tamukkan/Taoce and the paperwork that these produced again must have been in Elamite (given the location and strong connection with PFA). The same is also true for Kabaš/Gabae, which was part of the wider PFA system (§ 2.3.3). The case of Hidali, with its own district treasury, may also be evoked here (§ 2.2.1). The satrapy of Media seems to have had its own subdivisions centred on Ragā/Rakkan/Pάγαι (ἐπαρχία) and perhaps *Razavanta-/Razumetanu/Razaundu/Pάζοῦνδα (§ 2.3.3). One could go further and present similar cases for, e.g., Paišiyāuvādā/Naširma(nnu), Kṛmāna/Kurmana, and Puruš (Ποῦρα; § 1.2), but the principle may be clear enough as it stands.

The material presented here and in the previous two sections encourages me to posit a model for the administration of the western and southwestern

149 Additional indications to this effect are the two intrusive Babylonian documents, one in the Fortification (Fort. 11786) and one in the Treasury archive (PT 85). The first, published by Stolper (1984), was drafted at Parsu (Pārsa) and dated to Darius (I); it records a slave sale and may therefore be related to the Egibi texts dealing with slave sales at Ḫumadēšu (so Stolper *o.c.* p.308; cf. Zadok 1976, 70 with n.100). PT 85 (Cameron 1948, 4, 200–3), dated to Dar.20, deals with the assaying of silver paid as taxes (*mandattu*); it mentions a *rab tamkārē* (cf. above). See also Stolper 1984, 304; Henkelman / Stolper 2009, 282–4; Tolini 2011 I, 384f., 390 n.392.

parts of Achaemenid Iran. Proceeding from Neo-Elamite precedent, the early Achaemenids implemented and expanded bureaucratic protocols and administrative traditions in their two most important centres, Susa and Pārsa. Elamite, the language Persians had adopted for writing, was predominantly used for the local sphere of these institutions, whereas Aramaic was largely (but not exclusively) reserved for higher levels, including travel authorisations, exchanges with other satrapies, and correspondence with the court.

The next steps may still be qualified as an 'organic' continuation and adaptation of existing models: the introduction of intricate administrative structures in conjunction with the use of Elamite (and Aramaic) in adjacent regions, such as Taoce and Gabae. Whereas there may have been some pre-existing structures (two Elamite urban settlements in the Būšehr hinterland continued into the Achaemenid period), the scale of the operations at Taoce presented a novel situation. The expansion of the heartland administration into such areas minimally shows a strong determination to use infrastructural and logistic tools for regional development.

The case of Ecbatana and Media, where pre-Achaemenid use of Elamite seems unlikely, adds yet another layer, as it opens the possibility of a conceptualisation of administrative structures as a *system* that could be replicated.

The claim of a systematic layout should not be misunderstood as a claim of exact correspondence in scope and scale. What matters is a *design* that made regional administrative structures compatible and comparable, allowed for the exchange of personnel and commodities, accommodated the mobile court and its bureaucracy, and probably related to interregional defence hierarchies. To some, or even a large, extent this was also true for Babylonia, Egypt and other western satrapies, but there local systems could profitably be integrated. The administrative map of the Iranian plateau and the satrapies beyond is still far from complete, but it arguably shows the outlay in its clearest form. To me, it suggests that the aforementioned design was intentional and resulted from self-conscious administrative attitudes.

The test of the hypothesis lies in the analysis of a region far enough from the empire's centre to exclude, more categorically even than in the case of Media, the possibility of organic expansion. The example chosen is that of Qandahār and Arachosia, arguably one of the most eloquent cases of the application of the 'imperial paradigm.'

3. The earth far and wide

3.1. *Arachosia (bis)*

The best way to witness the imperial paradigm at work is to focus on satrapies beyond the Iranian plateau, regions that arguably had not been exposed to extensive institutional administration before the Achaemenids. If the Persians were aware of the systematic nature of the heartland administrative structures and their potential as tools in the development of empire, they would surely have applied them in these regions.

Of the two best documented cases, that of Bāxtriš/Bactria has received relatively abundant attention in the wake of the publication of the Aramaic documents on leather and wood by Naveh and Shaked (2012). The new corpus splendidly confirms Briant's earlier intuition and warnings against *e silentio* arguments on the apparent documentary void in Achaemenid Bactria.¹⁵⁰ Such a void was already unlikely given PFA texts on travellers coming from Bactria and carrying travel authorisations issued by Irdabanuš (*Ṛtabānuš). As Briant rightly pointed out (1984, 59–61), and as was argued above in the case of Susa and Ecbatana (§ 2.3.1–2), this fact by itself implies a local organisation with responsible officials, scribes, an archive – in short, an administrative node in the imperial network.

Most of the documents on leather from Achaemenid Bactria belong to a higher administrative sphere and may stem from what may be called a director's archive. They document protocols and hierarchies and operate with a jargon well comparable to those witnessed in PFA, but are situated on a level that is only implied, not actually preserved at Takht-e Ġamšīd. Though there are differences from the heartland administration at the time of Darius I, the Bactrian corpus from the last decades of the Achaemenid period unmistakably bears the imperial signature. Not only a strong connection between the Aramaic of Achaemenid Bactria and other parts of the empire (suggesting central scribal schools), but also the application of a *system* of administrative structures and procedures – even if more study is needed – is clearly in evidence. Since, however, this priceless material is discussed in the contributions of Folmer, Tavernier and Tuplin, and since I myself have elsewhere discussed the connections with the Fortification archive and the empire-wide implications of the wooden tallies, I will now turn to the second case, that of Achaemenid Arachosia.¹⁵¹

150 Briant 1984, 57–9; *idem* 2002, 752–54, 763.

151 Bactrians in PFA and comparison of structures: Henkelman [forthc. 2]; tallies, possibly in the context of long-distance trade: Henkelman in Henkelman / Folmer

3.1.1. *Qandahār and Gandhāra*

The site of Old Qandahār lies directly west of the modern city of Kandahar (the Paṣtō spelling of the toponym). At the centre of the extensive archaeological area, the citadel presents a giant man-made platform, measuring 200×200 m and in part still rising to an imposing 30 m. Founded in the Arachosian Iron Age and expanded (or founded?) in the Achaemenid period, and continuously adapted afterwards, it was strong enough to survive until the siege laid by Nāder Šāh in 1738 CE. Around it lay elaborate defensive outworks, all made from a characteristic, highly compact and gravelly *pakhsa*. During stages D-E-F of Epoch I, thought to coincide with the Achaemenid period, this area saw, in Helms's words, the construction of "massive inner and outer ramparts, and a casemated enceinte, with an upper counterfort gallery, and probably regularly spaced towers." Apart from the elaborate casemated fortifications, successive campaigns between 1974 and 1978 found the remains of an Achaemenid fortified (extramural?) building and a raised platform. The excavators agree on the arresting impression the Persian site must have made: as Fleming puts it, "the great walls would have been as much for show as for defence, a physical demonstration of the power of the empire that would have compared very favourably with whatever had been there before."¹⁵²

Two tablet fragments inscribed in Elamite cuneiform script (SF 1399, SF 1400) were excavated in the aforementioned outworks, in a small ash-filled pit in association with pottery datable to the pre-Achaemenid and Achaemenid

[forthc.]. The starting-point for the discussion of the Aramaic of the Bactrian documents in comparison to other Achaemenid corpora is Shaked 2004, 22–9. For further references, see the pertinent papers in this volume.

152 On the Achaemenid remains at Old Qandahār see Helms 1982, 11–13; *idem* 1997, 12f., 23–31, 88–93 (citation from p.90); Whitehouse 1996, 20–4 (casemate system); Wightman / Ball 1996, 113–6, 122–4 (*idem*); Ball 1996a, 69, 74f., 77f. (platform, perhaps part of the wall system); McNicoll / Wightman / Ball 1996, 141f., 148f.; McNicoll 1996, 233–5 (fortified building); Fleming 1996 (pottery; citation from p.365f.); Ball 1996b, 391–4 (survey). Note that Helms' dating of the end of the Achaemenid occupation at around 400 BCE is based on an out-dated reading of the Alexander biographies; see the comment by Kuhrt 2007, 814f. and, in general, Briant 2002, 754–7. Stages of D-E-F in Helms' 'Epoch I' coincide with what McNicoll and Ball call 'Period II.' Before the excavations, Fischer (1957/58) studied the visible fortifications and other ruins of Qandahār (mostly from later periods) and from these defined the town as 1) situated in the plain, but protected by a mountain, 2) having ample water resources, 3) having fortifications defining a rectangular territory and from there continuing up the mountain slope, 4) having towers and bulwarks in its walls, 5) having an axial plan. Though he enumerates a series of Hellenistic and later parallels to account for this layout, an obvious comparandum, Takht-e Ġamšīd, does not figure in his discussion.

periods. Since the find context is clearly secondary, little can be said of the exact origin of the objects; on the other hand, they are unlikely to be intrusive at the site.¹⁵³ The larger fragment was recognized as inscribed in Achaemenid Elamite by Sollberger.¹⁵⁴ Together with the smaller one, it represents the easternmost spread of Elamite writing and that of cuneiform script in general.¹⁵⁵ The significance of the find will be discussed below (§ 3.1.3).

Mediaeval geographers still knew the fertile area around Old Qandahār as Rokhkhagh (also ar-Rokhkhagh, ar-Rokhkhadh; cf. Modern Persian Rokhagh), echoing the name of the satrapy of Harauvatiš/*Haraxūtī- (Arachosia). Istakhrī referred to it as a province (*madīnat*) centred on Bangāwāy, the name of a place near Qandahār, in the five-rivers area. One of these five streams, the Arġandāb (or Āb-e Arġand), irrigates the Qandahār oasis.

Although as yet unproven and sometimes disputed, the identification of Old Qandahār as the administrative centre of the Achaemenid satrapy is attractive: it agrees with descriptions, by Stephen of Byzantium and Isodore of Charax, of the ancient town as situated at or near the Arachōtos river; it is en-

153 Tablets (found in locus 6, square C5, 503.10): Helms 1982, 13, *idem* 1997, 25, 28, figs. 43f., 101; associated pottery: Helms 1982, 13, *idem* 1977, 60–2, 65f. 164, 171 (Mundigak VI–VII, Pasargadae I–II) and compare Fleming 1996.

154 Sollberger's identification of the script as Achaemenid Elamite is cited by the excavator: Helms 1982, 13, *idem* 1997, 91, 101 (with Sollberger's attempt at a transliteration). The great significance of the find was directly realized by Briant (1984, 59, citing an unpublished report by Helms). A full edition is now available in Fisher / Stolper 2015 (with further references on p.2); compare also the earlier presentation of Stolper's edition in Kuhrt 2007, 814f. (with important notes on the chronological context).

155 Falk (2010: 207) claims that "The eastern-most discovery of a truly cuneiform inscription is somewhere in eastern Afghanistan or northern Pakistan, dating from the twelfth century," but the Šutruk-Nahhunte I inscription he refers to was actually unprovenanced at the time it was first published (Michaud 2000). The brick was reportedly acquired at the bazar of Pēšāwar, but nothing in the text points to an eastern origin (the god mentioned, Kamul, is known from Mesopotamian and Elamite contexts). Another (broken) brick with the same inscription is in a private collection in Copenhagen (Dercksen 2001). Both the Pēšāwar and the Copenhagen brick can now definitely be considered as antiquities looted from Bard-e Kargar in eastern Khūzestān, from which illegal excavations have been reported in recent years (Moghaddam / Miri 2007: 40). Numerous fragments of the same and other inscriptions were found at the site in 2002 by Michael Kozuh (published in Kozuh 2014: 137–39, type 5).

Other cuneiform documents purportedly found in Afghanistan are all unprovenanced and/or dubious (see the survey given by Stolper in Fisher / Stolper 2015, 20 n.4); it is far from impossible that they reached the local bazars *via* the same routes as the Šutruk-Nahhunte brick.

dorsed by the extensive evidence of Achaemenid occupation at Old Qandahār; it agrees with the evident importance of the imposing citadel and the size of the Achaemenid city; it explains the post-Achaemenid prominence of the site, indicated by notably the Greek and Aramaic inscriptions of Aśoka.¹⁵⁶

The site's antiquity and importance do not necessarily imply that Persian 'Qandahār' and Arabic 'al-Qunduhār' continue its ancient name. The earliest unambiguous attestation is not before the ninth century CE (al-Balāḍurī); even afterwards this the name did not become generalized until the twelfth century (it is absent from, e.g., Istakhrī's description of the area). The fact that early Islamic geographers use 'al-Qunduhār' also to transcribe the name of 'Gandhāra' could point to a historical connection. Later Chinese tradition, speaking of Buddhist refugees from Gandhāra settling in Qandahār, provides a clue for a possible migration of the name, but remains as yet uncorroborated by other sources. Briefly, there is no *a priori* reason to assume the antiquity of the name 'Qandahār' and, if anything, the context of its first appearance may point to an introduction in late antiquity.¹⁵⁷

156 See discussion in Fischer 1967, 191–205 and Bernard 1974, 171–6. Ball 1996b, 394 arrives at the same conclusion, but regards nearby Mundigak as a possible alternative. A location in Herat, as sometimes proposed, is unlikely (see discussion in Jacobs 1994, 233). For the name Arachosia and its survival in modern toponymy see Schmitt 1986 and Inaba 2015; compare also the references in n.157 below. The second Greek Aśoka inscription, reportedly found in secondary context on the site of Old Qandahār, was inscribed on a rectangular limestone block that derives from an architectural context. See Schlumberger 1964, esp. 129f., 134 and compare Bernard / Pinault / Rougemont 2004, 264 with n.91.

157 For the toponym Qandahār and the problematic etymologies and purported precursors that have been advanced thus far, see Fisher 1967, 191–3, 208–11, 221; De Planhol 2010, 468. The similarity of the names of Qandahār and Gandhāra was already noted in the early fourteenth-century *Compendium of Chronicles* attributed to Rašīd al-Dīn Tabīb and an abridgement thereof; here, explicit reference is made to *another* country called 'Gandhār' or 'Gandahhār' (presumably Qandahār; see Rehman 2009, 143). The question is whether the perceived similarity was based on a historical connection or on analogy, popular etymology or simply transcription ('al-Qunduhār' for both places results from the absence of a 'g' in Arabic script). Eilers 1977, 279 (repeated *idem* 1982, 22) indeed assumes that Qandahār "ist eigentlich der Name der achämenidischen Provinz *Gandāra* = ai. *Gandhāra*," but he offers no discussion to explain the presumed phonological and historical development. Bosworth (1978) states that "there are stories, retailed by Chinese Buddhist pilgrims, of the Buddha's begging bowl being preserved in Qandahār (at a later date, it was shown in a Muslim shrine outside the city), brought thither by Gandhāran Buddhist refugees," but also fails to offer references. Some searching led to the usual suspect, Henry Rawlinson, who was first to adduce Chinese sources for the migration of the toponym/ethnonym along with the begging bowl (Rawlinson 1849,

In the Fortification archive, Elamite transcriptions of Harauvatiš (Harumatiš, Haramatiš, etc.) and *Haraxūti (Harkuti) occur as the destination or origin of travellers. As such, they may denote the region and/or its centre. The same is true for the expression “treasurer of Arachosia” (*gnzbr’ zy bhrhwt*) attested in the Aramaic inscriptions on the green chert items from the Persepolis treasury that presumably originated from Arachosia (cf. § 2.2.2). If (a version of) the region’s name doubled as the name of the administrative centre or βασιλεία (cf. § 2.3.3), that would follow a regular Achaemenid practice. That this was indeed the case is confirmed by Strabo, Pliny and Stephen of Byzantium; it is also implied in Ptolemy’s reference to the city/town of Ἀράχωτος.¹⁵⁸

Despite the above, Hallock proposed that the ‘Kandara(š)’ of the Fortification archive transcribes ‘Qandahār’ or a precursor of that name. The reason for this seems to be that in one case (PF 1358) travellers from ‘Kandara’ carry an authorisation from Bakabaduš, otherwise known as the chief administrator or satrap in Arachosia. Bernard and Bivar objected to this view, pointing out the absence of pre-Islamic attestations of the name of Qandahār and to the fact that, in the royal inscriptions, Elamite Kandara(š) invariably parallels Old Persian *Gaⁿdāra* and Akkadian *Gandari* (i.e., Gandhāra).¹⁵⁹ The

127 with n.1). Rawlinson, who calls it a water-pot, refers to the object as still existing and shown at certain occasions in Kandahar. “It is believed also, by the vulgar, that the *kashkul*, or ‘water-pot,’ as it is called, will contain any quantity of liquor without overflowing” (*ibid.* n.4).

158 The city or citadel of Arachosia is referred to in Ptol. *Geogr.* VI.20.5, Strabo XI.8.9 (εἰς Ἀραχωτοὺς τὴν πόλιν, paralleling Περσέπολις, “Pārsa-the-City” – cf. n.229 below), Steph.Byz. *Ethnica* s.v. Ἀραχωτοὶ (πόλις Ἰνδικῆς, ἀπὸ Ἀραχώτου ποταμοῦ), Plin. *NH* VI.21/61 (*Arachosiorum oppidum*) and VI.25/92 (*Arachosia cum flumine et oppido eiusdem nominis...*). For Alexandropolis, the Alexandrian re-foundation of the city, see Isid.Char. *Mans.* 19 (Ἀλεξανδρόπολις μητρόπολις Ἀραχωσίας ... παρὰρρεῖ αὐτὴν ποταμός Ἀραχωτός). Pliny gives ‘Cutis’ as alternative name for Arachōtos (... *quod quidem Cutim dixere*), which Bernard explained as an error for ‘Cupis,’ in turn taken as a short form of Kāpišakāniš (Kāpiša-kāni-), the fortress in Arachosia mentioned in the Bīšotūn inscription. If correct, this would mean that the centre of Achaemenid Arachosia could be referred to both by its own name and by (a version of) the region’s name; as in principle, this is not unparalleled (cf. § 3.1.2 on Puzantiš in *Parikāna). See Bernard 1974, 177–82 and *App.* 2 below on the existence of an Arachosian and a Gandhāran Kāpiši/a. For the identification of Old Qandahār as Ἀραχωτός see also Helms 1982, 1–8, 18.

159 For the identification see Hallock 1969, 383, 405, 433, but compare *ibid.* p.708, where Kandara is equated with both Qandahār and Gandhāra. Koch 1993a, 24, 29 normalises ^{AS}*kān-da-ra* as ‘Gandāra,’ yet interprets it as an ancient form of Qandahār (following the same argumentation as Hallock). Stolper (in Fisher / Stolper 2015, 20f.)

first argument is not unimportant, but *e silentio*,¹⁶⁰ the second hard to ignore and reinforced by the occurrence of a *gndr*, “Gandhāri,” in an Aramaic text from the Fortification archive (PFAT 056, published by Azzoni, this volume).

Re-analysis of the relevant PFA contexts bolsters the position taken by Bivar and Bernard. Kandara(š) is not only found in association with Bakabaduš, but also with Irdatakma and Irdu(k)bama. The last can confidently be identified as satrap of Hinduš. His (thus far) one time association with Kandara(š) is quite explicit: travellers “are coming from Irdukbama (at) Kandaraš” and are holding an authorisation by the same person.¹⁶¹ The precise phrasing suggests that the scribe wanted to underline the uncommon association of Irdu(k)bama with Kandaraš rather than with Hinduš. Various explanations may be proposed, varying from estates held by the satrap of Hinduš in Gandhāra to interregional schemes under the overarching authority of the Arachosian satrap. In this, the definition of ‘Hinduš’ as used in the tablets and set against the absence of references to Sattagydia, is an important but as yet unclear factor (cf. *Appendix 2*). As for Irdatakma: he occurs a number of times in years 18–22, but only once with a stated region, Kandaraš (NN 0431); the traveller in this text is additionally said to be a *kandara*, arguably a “Gandhāri.”

The available evidence leads to the conclusion that Bakabaduš was satrap of Arachosia, but occasionally renewed the authorisations for travellers coming from further east. The strategic position of Arachosia and particularly of Old Qandahār – near an important bifurcation of roads leading into Gandhāra and Hinduš respectively – already adequately explains this role.¹⁶² It finds further support in the analogous case of Bakabana at Susa, who sometimes pro-

also assumes that Kandara(š) refers to Qandahār, as do Rollinger and Henkelman (2009, 336). Bernard rightly stresses that there is no reason to think that the PFA usage of ‘Kandara’ would be completely different from that of the royal inscriptions (Bernard 1974, 181 n.30). For further counter-arguments see Bivar 1988, 205. Hinz / Koch 1987 s.vv. *h.gán-da-ra*, *hh.gán-da-ra*, *h.gán-da-ráš* opt for Gandhāra, as does Vallat 1993, 125f.

160 Šīrāz was long believed to have been a late Sasanian or early Islamic foundation, until the name turned up in PFA (see Henkelman 2014).

161 Fort. 1721-101:7f., [...] ^{AS}*kán-da-ráš* ^{HAL}*ir-du-uk-ba-ma-ik-ka₄-mar* ^{AS}*ba-ir-šá-iš* *ši-nu-ib-ba* (...) *be-ul* 17-*na* (...) *hal-mi* ^{HAL}*ir-du-uk-ba-ma-na ku-iz*[-za], “[...] who came from Irdukbama (at) Gandhāra to Pārsa (...) year 17 (...), they carried a sealed document (authorisation) from Irdukbama.” For Irdu(k)bama at Hinduš see Bivar 1985, 206f., Koch 1993a, 37f. Vogelsang 1992, 167 erroneously places Parnakka in Hinduš.

162 In line with Arachosia’s importance, Alexander left there a garrison consisting of 4000 infantry and 600 cavalry (Curt. VII.3.5); see the comments by Bernard (in Bernard / Pinault / Rougemont 2004, 265).

vided new authorisations for travellers coming from western and southwestern satrapies.¹⁶³ But one should also consider the important position of Arachosia in the hierarchy of Achaemenid satrapies, as argued by Jacobs (who considers it one of the empire's *Großsatrapien*). Classical sources indeed imply that the satrap of Arachosia had overarching authority over a whole range of territories, including Drangiana, Sattagydia and perhaps Hinduš. This yields a third explanation of his preponderance in the eastern travel dossier.¹⁶⁴

Although a number of details remain unclear, the following constellation may be proposed for the officials placed in the satrapies of Arachosia, Hinduš and Kandara(š)/Gandhāra:¹⁶⁵

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- 163 So already Bivar 1988, 205 (followed by Magee *et al.* 2005, 713). For Bakabana see, e.g., PF 1477 (Arabs), PF 1547 (Egyptians) and compare Lewis 1980, 195. See also the case of Karkīš (§ 1.2), who sometimes renewed the authorisations for travellers passing through Krmāna. For the important routes to and from Qandahār see Vogelsang 1985, 57 and *idem* 1992, 47–51.
- 164 For the status of Arachosia see Jacobs 1994, esp. 228–51. The connection of the king's satrap in Arachosia with Zranka/Drangiana and Ȯataguš/Sattagydia is clear in the sources. Arrian introduces Barsaentes as “satrap of the Arachosians and Drangians” (*Anab.* III.21.1). The Akkadian version of the Bīsotūn inscription describes part of Vahyazdāta's eastern campaign against Vivāna, satrap in Arachosia (DB_b 79f., 83f.), as taking place in Sattagû (DB_b 81; cf. *ibid.* 84), whereas other versions consistently speak of Arachosia (DB_e III.22–5, .28, .31, .34f.; DB_p III.55f., .72, .76; DB_a 53, 63). The connection with Hinduš is not as straightforward; it has been derived from 1) Barsaentes' command over the “Indian hillman” at Gaugamela (*Arr. Anab.* III.8.4); 2) his flight towards the “Indians” or “India” (*Arr. Anab.* III.25.8; *Curt.* VI.6.36); 3) the payment of tribute to the Arachosian satrap by some Indian tribes (*Curt.* IX.7.14). For discussion of these various arguments see Jacobs 1994, 228–51 (esp. 229–32), 265–9 (retaken in *idem* 2006a § 6); see also Fleming 1982 (Vahyazdāta), Vogelsang 1985, 77–82, *idem* 1992, 128f., and Briant 2002, 754–7. Putting Puruš/Gedrosia under the Arachosian umbrella is more problematic: see n.10 above.
- 165 The mention of both satrap (or highest administrator) *and* the name of the region is redundant and therefore rare in travel texts. The numbers given between parentheses refer to such atypical, yet analytically important cases. “Attested in office” refers to dated texts in which the said individual is either issuing travel authorisations or is the travel destination; these texts do not necessarily all state the name of the relevant satrapy. The earliest attestation of Irdatakma is in a fragmentary journal pertaining to year 18 (Fort. 1902A-101:14'–16'), the latest in a journal pertaining to year 22 (Fort. 1919B-102:35f.). For Bakabaduš the earliest and latest attestations are in Fort. 1901A:36', 38' (Dar.19) and PF 1351 (V/28), for Irdubama Fort. 1721-101:7'f. (Dar.17; cf. n.161 above) and PF 1301, NN 2147 (both XII/23). For the three names see Tavernier 2007a, 131 [4.2.234], 301f. [4.2.1507], 302 [4.2.1513]).

administrator/satrap		main seat	additional authority	association (travel)	attested in office	
Bakabaduš	(*Bagabāduš)	Harumatiš (2x)	Barrikana (4x) ¹⁶⁶	Kandara(š) (1x)	Ø/19-	V/28
Irdu(k)bama	(*Rtāupama-)	Hinduš (4x)	Kandara(š) (1x)	/	[...]/17-	XII/23
Irdatakma	(*Rtātaxma-)	Kandara(š) (1x)	/	/	Ø/18-	Ø/22

Irdu(k)bama occurs in yet another context: in Fort. 0140-101 a traveller from Kapišiya is heading for Susa with an authorisation from this administrator. Kapiši(ya) may be the Elamograph of Kāpiši (Bagrām), north of Kabul and possibly the Achaemenid administrative centre in Gandhāra (see *Appendix 2*). This association provides one more indirect argument to disconnect Kandara(š) from ‘Qandahār’ and interpret it as ‘Gandhāra.’

3.1.2. Arachosia in the Fortification archive

There are currently about sixty Fortification texts that refer directly or indirectly to travel to or from Arachosia. They include six occurrences of Barrikana (*Parikāna, “Wall”), a subdivision of Arachosia, reflected in Herodotus’ Παρικάνιοι and probably in the name of the ‘fortress’ *prkn* in the Aramaic inscriptions on the green chert items from the Persepolis Treasury. The name of Bakabaduš is found collocated with both Harumatiš/Arachosia and Barrikana/*Parikāna. A clear case is that of Manakka and his anonymous companion, who travelled “to Bakabasu” (i.e., Bakabaduš) according to one text, and “(to) Barrikana” in another. The centre of Achaemenid Barrikana/*Parikāna seems to have been Puzantiš, which might transcribe an older form of Bust, the name of an ancient town near modern Laškargāh.¹⁶⁷

166 Barrikana (*Parikāna) is mentioned once with Bakabaduš (PF 1495), in the other cases with the place Buzantiš, presumably in Barrikana (cf. n.167 below).

167 Barrikana is mentioned in PF 1392, PF 1393, PF 1495, PF 1573 (Barribana [*sic*]), NN 0643, NN 0859. Παρικάνιοι: Hdt. III.94 (but also III.92, where it may be an error for Παρητακηνοί, as How / Wells 1912 I, 284 suggest). See Vogelsang 1985, 82–87 and *idem* 1990, 101 (but note that the author erroneously assigns Ziššawīš, the lieutenant of Parnakka, to a position in the eastern satrapies [repeated in *idem* 1992, 165]); Tavernier 2007a, 389f. [4.3.151.]; Henkelman [forthc. 2] § 3.1 with n.79. Manakka travels to Bakabasu according to NN 1592 (I_{cl}/23) and to Barrikana in NN 0643 (II_{cl}/23). Tuplin convincingly established the identity of Bakabasu and Bakabaduš (Tuplin 1998, 92 n.66); the qualification ‘Median’ for the variant form (as Tavernier 2007a, 131 [4.2.240]) loses much of its pertinence through this identification.

The fact that Bakabaduš regularly issued travel authorisations for those leaving from, or passing through, the satrapy entrusted to him, indicates the existence of a local chancellery issuing sealed Aramaic documents (cf. §§ 2.3.1–2). Communication with the empire’s centre is furthermore shown by express messengers (*pirradaziš*) travelling from Bakabaduš to the King (NN 1325, IX_{cl}/22).¹⁶⁸ More extensive exchange is suggested by PF 1530, on Harbaukbama the *tidda-huttira*, “report maker, inspector, assessor” assigned by Bakabaduš and travelling to the King with four companions. In other PFA contexts, such officials are often involved in giving special or bonus rations to groups of *kurtaš*, presumably on the basis of the rosters and reports they kept. Whereas the text under discussion allows for other forms of reporting/inspecting, it certainly alludes to reports on satrapal affairs – be it the local institutional economy, its workers, or entirely different matters – made locally and transferred in person to the court, hence evoking the famous King’s Eyes and Ears.¹⁶⁹

In NN 0645, *kurtaš barikanabe* (“Paricanian workers”) are travelling to Puzantiš with a (round-trip) travel authorisation from ‘Irduka,’ presumably the same as Irdu(k)bama (Irduka occurs with Indians in NN 1859). Puzantiš (*Bujantiš according to Tavernier 2007a, 376 [4.3.35]) recurs three times in connection with Bakabaduš (Fort. 1912-103, Fort 1283-101: 09’–11’, Fort. 1283-101:14’–15’) and therefore hardly refers to Persian Byzantium (as Henkelman / Stolper 2009, 305f.), but more probably to a place in Barrikana/*Parikāna. It may have been the alternative name, besides *Parikāna, of the centre of this sub-satrapy. Ancient Bust (Bost, Bist) is situated at the confluence of the Helmand and Arġandāb in western Arachosia and appears to have been occupied in the Achaemenid period. It has long been connected with Būṛ (Isid.Char. *Mans.* 19, implying location in western Arachosia), Βρυίς (Ptol. *Geogr.* VI.20.5, in Drangiana) and Beste (Plin. *NH* VI.25/92, *amnis Erymandus praefluens para(-)Besten Arachosiorum*). As a strategic town and important stop on the road to Qandahār, it was destroyed in the same year as the latter (1738) by Nāder Šāh. See Fischer 1989 and Rapin 2004, 163 for further details on Bust.

168 For *pirradaziš* see cf. n.52 above; compare n.170 below on Manezza. Another case is that of Dauša(ka), said to have been made *barrišdama*, “(professional) guide” (cf. n.222 below) by Irduka (Irdukbama): ^{HAL}*du-ša-ka₄ bar-ri-iš-da-ma’ hu’-ut-tuk-ka₄* ^{HAL}*ir-du-uk-ba-ik-mar* (NN 1859, with *-ikmar* in ablatival use). In this text he is escorting one hundred Indians and seems to be heading to Susa (he carries a – presumably renewed – authorisation from Parnakka; Ø/23). Two years earlier, by the end of Dar.21, probably the same Dauša(ka) travelled with nine *šalup*, “free men,” from Arachosia to Susa/the King (NN 0773 [XII/21], NN 1733, PF 1563); in this case, no designation is stated.

169 A comparable case is presented by PF 1552: travel rations for Bakatanduš the *tidda-huttira* travelling from Hinduš to Susa with a group of Indians (they are not fortress makers, despite Bivar 1985, 207). See also the *tidda-huttira* of Irtašduna,

In the same general sphere of inspection and control, a certain Manezza occurs. In NN 2062 this person receives meat rations for himself and the *kurtaš* he is escorting from Arachosia to Susa. The text specifies that he had also “interrogated, investigated *kurtaš*.” Stolper (this volume) argues that this expression is sometimes used as equivalent for “making a registry” (*karamaraš hutta-*). In case of Manezza this would probably mean that he was sent to Arachosia either to review the local institutional workforce or to draw up lists of workers to be recruited for the centre.¹⁷⁰ The transfer of workers from the satrapy to the centre is noteworthy, as it minimally implies a local recruitment scheme. For this last aspect, *kurtaš* travelling to and from Arachosia, a whole range of texts is available:¹⁷¹

prospective recipient of 300 litres of wine in one of the queen’s letters (NN 2523). For *tidda-huttip* and its Old Iranian equivalent **didyaka-/didika-* (transcribed *tit-iyakaš*, *titikaš* in Elamite and *didakku* in Akkadian) see Hinz 1973, 98–101; Koch 1983, 30f.; Tuplin 1987b, 120; Briant 2002, 343f.; Tavernier 2007a, 419f. [4.4.7.33]; Henkelman 2008a, 102 n.229; *idem* 2010a, 702 n.135; *idem* [forthc. 3] § 4; Wu 2014, 259f. n.87.

- 170 NN 2062 has *kurtaš mil hapišda*, lit. “he pressed the blood/juice (of) dependent workers,” using the normal expression for “to question, investigate.” As Stolper shows, the use of *mil hapi-* in PF 1242 and PF 1243 parallels use of the expression *karamaraš hutta-*, “to make a registry” in very similar (but not identical) context in PF 1245 and NN 1370. For the expression and its implications see Stolper, this volume; see also § 1.4 above with n.44. Manezza recurs in NN 0257 and NN 1807, each time with mention of an authorisation by Parnakka, the *kurtaš* he accompanied and (in NN 0257) the investigation he conducted. Though these two additional documents are less transparent, they may refer to the same mission. The authorisation from Parnakka may imply a round-trip mission or a renewed travel document issued for the stretch of the journey between Pārsa and Susa. See table below, with notes. In NN 0570, the same or another Manezza occurs (with one companion) as *pirradaziš*, “express messenger” or “traveller in the express service” (cf. n.52 above).
- 171 In the table below, ‘-’ indicates the administrator who renewed a travel authorisation. Perhaps NN 0572 is to be added to the list. The text is a complicated and fragmentary letter on the distribution of 45 head of cattle; it involves, among others, *kurtaš bapiyap* (for *bapilap*, hence “Babylonian workers”?) who were sent to Bakabaduš, i.e., to Arachosia (number and year not preserved).
- 172 The toponym is mentioned without indication of direction; it may alternatively have been the travel destination. The *kurtaš* are qualified as *ušnurimašbe* (for the reading see Hallock 1978, 111), the meaning of which is unknown. Although the reading of the name Irtašduna is uncertain, the beginning (^{SAL}*ir...*) is clear and not many women appear in such a prominent position; the only feasible alternative is Irdabama. Compare the *puhu*, “pages, aides,” of Irtašduna and Irdabama: Henkelman 2003a, 133f.
- 173 The number of *kurtaš* is not preserved, but the recorded total of seven head of sheep/goats for 21 days, in analogy with NN 2061 (and NN 1807), implies ten individuals

Text	seal	leader	company	ration	origin	authori- sation	desti- nation	date
Fort. 7863	<u>PFS 0107</u> ; PFS x	Bakaba- du	1 man (3 l?), 550 <i>kurtaš</i>	beer	(Aracho- sia?)	Bakabadu	/	Ø/21
NN 0881	<u>PFS 1047</u> ; PFS 2518s	Bašanuš ⁷	1 man, 2 <i>puhu</i> , 23 <i>kurtaš</i>	flour	Aracho- sia	/	Susa	Ø/Ø
PF 2049	<u>PFS 1611</u>	/	7 <i>kurtaš</i> of Irtašduna ⁷	flour	Aracho- sia? ¹⁷²	/	/	Ø/20
NN 0803	<u>PFS 1047</u> ; PFS 2517	Matika	720+80+30 ⁷ <i>kurtaš</i>	flour	(Aracho- sia)	Bakabaduš	Susa	Ø/Ø
NN 0802	<u>PFS 1047</u> ; PFS 2517	Matika	3 men, 3 <i>libap</i>	flour	(Aracho- sia)	Bakabaduš	Susa	Ø/Ø
NN 0257	PFS 2403; <u>PFS 2404</u>	Manezza	1 man, 10 <i>kurtaš</i> <i>amatašbe</i> ¹⁷³	livestock	Aracho- sia	Parnakka (→)	Susa	(21d.) /Ø
NN 2062	PFS 2403; <u>PFS 2404</u>	Manezza	1 man, 10 <i>kurtaš</i>	livestock	Aracho- sia	Parnakka (→)	Susa	(12d.) /Ø
NN 1807	PFS 2403; <u>PFS 2404</u>	Manezza	1 man, 10 <i>kurtaš</i>	livestock	(Aracho- sia) ¹⁷⁴	Parnakka (→)	Susa	(9d.) /Ø
NN 2048	<u>PFS 0021</u> ; PFS 3073	Mautran- ka	2 men (with <i>kurtaš</i>) ¹⁷⁵	flour	(Aracho- sia)	/	(Pārsa)	(75d) /21
NN 2339:3-5	no seal preserved	[...]	[...], 20 men, 28 women ¹⁷⁶	[flour]	(Aracho- sia)	Bakabaduš	Susa	[...] /(17)
NN 2261:33f.	<u>PFS</u> <u>0027*</u>	Bakam- bama	1 man, Greek <i>ukku</i> ¹⁷⁷	livestock	(Aracho- sia)	Bakabaduš	Pārsa	Ø/(22)
NN 2261:30-2	<u>PFS</u> <u>0027*</u>	Bagina	1 man, fem. Skudrian <i>ukku</i>	livestock	(Aracho- sia)	Bakabaduš	Pārsa	Ø/(22)
NN 2107	<u>PFS 0055</u> ; PFS 2892	Bagina	2 men ¹⁷⁸	flour	(Aracho- sia)	Bakabaduš	King	I _{el.} /28

(one animal for three days). The *kurtaš* are qualified as *amatašbe*, an Iranian loan (as indicated by the -š) with an Elamite plural suffix. One might think of *āmāta*-, “noble, free,” as equivalent of Elamite *šalup*, but this would be unparalleled (and hard to explain) as qualification of *kurtaš*.

174 No origin is indicated, but the parallel with NN 0257 and NN 2061 suggest that this was the same group coming from Arachosia, headed by Manezza, and carrying a (circular) travel authorisation by Parnakka. The person allocating the livestock in NN 1807, Nabadun, is the same as in NN 2061, however. Does this indicate a prolonged stay, or rather a stop at the same place, but with a different group of *kurtaš* in a different year?

175 The text concerns only the leaders of the group (cf. NN 0802 and NN 0803), perhaps after their journey with “*kurzap* (contracted Elamite plural of *kurtaš*) of Bakbaduš” to Parnakka (i.e., to Pārsa). An authorisation is not mentioned.

The first impression given by the texts listed here is that of a vast recruitment of *kurtaš* from the east: the direction of travel invariably seems to be from Arachosia to the centre (Susa, Pārsa) and the numbers of workers may be considerable (550 individuals in Fort. 7863, over 800 in NN 0803). Yet, the cases of hundreds of Greek and Skudrian persons (*ukku*) on route from Arachosia should inspire caution, as they were probably not born there. They corroborate what was suggested in case of Inspector Manezza: that groups of workers were deployed in institutional context in Arachosia. The Fortification archive gives a lopsided view of this in that it highlights manpower *drawn* for the satrapy, but has little bearing on groups that remained stationary in Arachosia.

The Arachosia file contains a few anecdotal cases that add a little flesh to the abstract movements of *kurtaš*. One is that of Dandumanda, who travelled from Susa to Arachosia and who is qualified as a ḪAR-*mazra*, probably a “stone mason.” Travelling in opposite direction, the *šeškip*, lit. “cutters,” coming from Bakabaduš may have been wood sculptors or, more likely, lumberjacks bringing exotic wood.¹⁷⁹

176 The term *kurtaš* is not preserved (or not mentioned), but would be logical given the mixed nature of the group.

177 The expression *ukku*, lit. “head(s),” for “persons, people” is relatively rare; it occurs mostly in journals and often in contexts pertaining to the northern cluster (NN 0776; NN 2041:02–04, 05–07, 11–13; NN 2261:30–2, 33f.; NN 2349:01–03, 04–06, 07–09, 10–12; Fort 1316-101:03’f., 05’f.; Fort. 1335-101:09’f., 11’f.; Fort. 1358-101:14–6; Fort. 1919B-102:33–8; Fort. 2045-101:27f., 29, 30–2; Fort. 2354-101:10f., 12f.). The word probably refers to a subordinated position, perhaps comparable to, but not identical with, *kurtaš* (the term *kurtaš* repeatedly occurs in other entries of the same journal). Nevertheless, the Greek *ukku* of NN 2261 receive meat: 1 sheep/goat for the entire group; their number is not indicated. In ll.4–8 of the same journal, 259 “shipmen” receive 2 animals and 4⅓ parts, hence about 1 animal for 100 people. The Greeks may have received equal or smaller portions; their number therefore amounted to at least one hundred. On the journal entry see Rollinger / Henkelman 2009, 334–7.

178 No *kurtaš* (or *ukku*) are mentioned in this text; it is included because rations for guides of larger groups sometimes were documented separately (see NN 0802 and NN 0803). Bagina is probably the same as the one escorting female Skudrian *ukku* in NN 2261:30–2 (at least 100; cf. n.177 above). See also Henkelman / Stolper 2009, 313f.

179 In NN 2503 (XI/22), Dandumanya (^{HAL}*da-an²-du²-man-^cda^c*) travels with a single servant from Susa to Arachosia. Though the qualification ^{AS}ḪAR-*maz₀-ra* occurs isolated, after the statement of ration scales, it logically pertains to Dandumanya. For terms for quarrymen, stone dressers, masons and sculptors see now Giovinnazzo 2012 and Kawase 2016.

The *šeškip* occur in PF 1569, where they are said to come “from Bakabaduš,” hence coming from Arachosia, or from an adjacent satrapy (the usual reference to a travel

As we have seen before (§ 2.3.1), a glimpse of an Arachosian (or at least local) perspective is found in the Aramaic inscriptions on the green chert items in the Persepolis Treasury. Presumably written by Iranophone scribes, they record a local hierarchy that was headed by a “treasurer of Arachosia” and included a range of local officials at three different seats of an institutional network. Their terse, formulaic nature, pertinent to the production of each single item, recalls the single-transaction memoranda in the Fortification archive. Their statement and organisation of jurisdictions and the protocols implied seem broadly comparable to those found at Persepolis. Also, the producing workshops are analogous to the local *kapnuški* in PFA and imply a systematic layout on the model of Pārsa. The prime difference is that the Fortification archive deals with the intake and distribution of staple commodities, whereas the Arachosian texts document the production of precious stone artefacts as tribute (*škr*; perhaps *bz/bzy*, if transcribing *bāji*). It is this last aspect of tribute production and transport that leads to a more direct link between the two sources.

Though there are quite a number of individuals with the name Baka-dad(d)a, the following texts may pertain to the same official travelling between the centre and the eastern satrapies. In two cases it is explicitly stated that he is transporting *baziš*, “tribute, tax” (*bāji*):¹⁸⁰

authorisation is omitted). It is the only occurrence of the agent noun in non-compound form and quite probably an abbreviation of *GIŠ-šeškip*. These occurs in various contexts: *kurtas* *GIŠ-šeškip*, “workers, wood-cutters” are repeatedly attested (PT 32, PT 44, PT 74, PT 75), once dangerously receiving 1000 l wine (NN 2532); ten Babylonian *GIŠ-šeškip* are cutting trees on Mt. Mantiyamantaš (NN 1999); Aggit the *GIŠ-šeškip* is said to have ^{GIŠ}*GIŠ*^{MEŠ} *ia-ka-na maz₀-zi-iš-da*, “cut *yakā* trees” at Atuk (PF 1246 [collated; cf. suggestion by Hinz / Koch s.v. *ya-qa*; not *šá-ka₄*, as Hallock]); Haradduma (?) the Egyptian *GIŠ-šeškip* (PT 01) and 55 Syrian and Egyptian *GIŠ-šeškip* (PT 09) occur; *GIŠ-šeškip battikurraš huttip* (and variants), “woodcarvers, makers of sculpture,” are arguably more specialized (PT 17, PT 20, PT 24, PT 1957-1, PF 1963-5; see also PT 26) and also occur as *malu-šaškip zila-huttip* (PT 27) and *GIŠ-šeškip ak zila huttip* (PT 25), both with the same meaning. The *GEŠTIN*¹ ^{MEŠ} *še-iš-ki-ip*, “grape pickers,” on their way to the Lebanon, may actually be ^{GIŠ}¹*GIŠ*^{MEŠ} *še-iš-ki-ip*, “wood cutters” (NN 1631), hence potentially comparable to the woodcutters coming from Arachosia. See also Hinz / Koch 1987 s.v. *šá-h-ši-ik-ra* for a possible Neo-Elamite predecessor form; on Middle Elamite *šekkip* see Henkelman 2008a, 256 n.563.

- 180 Apart from the ‘-’ (renewal of travel authorisation), ‘z’ is used to indicate round-trip journeys with return authorisations (usually issued by the King). Compare also the case of Narizamana the *kanzaba*, travelling from Gandhāra (with an authorisation from Bakabaduš) to Susa/the King (see *Appendix 2*).

Text	seal	leader	company	ration	purpose	origin	authorisation	destination	date
NN 2580	PFS 0021; PFS 3077s	Bakadad<da>	5+6 ¹ men, [x] horses	flour	<i>baziš</i> <i>kutišda</i>	(Arachosia)	Bakabasu	King	XII/21
NN 2149	PFS 0021; PFS 3077s	Bakadad<da>	10 men	(beer?)	<i>baziš</i> <i>kutišda</i>	(Arachosia)	Bakabasu	King	XII/21
PF 1536	PFS 0107; PFS 1430	Bakadadda	10 men	beer	/	(Arachosia)	Bakabadu<s>	King	Ø/21
PF 1299	PFS 0037; PFS 1245	Bakadada	1 man	flour	/	(Arachosia)	Bakabaduš	Susa	IX/Ø
PF 1392	PFS 0018; PFS 1314s	Bakadadda	32 <i>šalup</i> , 31 <i>puhu</i>	flour	/	Barrikana	Ziššawiš (→)	Susa	X/Ø
PF 1298	PFS 0104; PFS 1244	Bakadadda	3+1 men	flour	/	(Gandhāra)	Irdatakma	Parnakka	I _{cl} /Ø
NN 1713	PFS 0010; PFS 3028	Bakadadda	10 men	flour	/	Areia	King (z)	Susa	VII _{su} / 22 ¹

Texts on the transport of *baziš* are unique for Arachosia and Barrikana/*Parikāna; they seem to parallel other texts treating the transport of ‘treasure’ (§ 2.2.1). Ten (or more) men and a number of horses would perhaps be excessive for bringing a small number of green chert vessels and implements; the *baziš* obligation resting on Arachosia at any rate entailed more than such prestige ‘gifts.’ Still, we are probably looking at different sides of the same system, involving a network of local treasuries/workshops, a central treasurer responsible for the production and accounting of various kind of tribute, and its annual transport to the king. Incidentally, the date of two of the texts (XII/21) is probably not a coincidence, but may signify offering of tribute at a ceremony at the time of the new year, this in analogy to the Babylonian élites travelling to Susa at the end of the Persian year (§ 2.3.1).

As indicated, the identity of the *baziš*-carrying Bakadadda with the homonymous individuals listed above is possible, but not certain. Identity is especially attractive for the Bakadadda connected to Arachosia (PF 1299) and Barrikana (PF 1392), the latter in a company of 32 *šalup*, free men (*vel sim.*) and 31 *puhu*, “subordinates, servants.” Such larger groups are important indications that exchanges with Arachosia entailed more than messages, reporting, and the recruitment of *kurtaš*. In fact, this high(er) level of interactions is particularly well documented in case of Arachosia. Some eleven texts document what may be called ‘élite travel companies,’ recognisable by a small number of men or *šalup* and a relatively important number of *puhu*.¹⁸¹

181 For a discussion of such larger groups of *puhu* (or *libap*) see Henkelman 2003a, 129–37; compare Giovinazzo 1995 and Henkelman [forthc. 2] § 2.4 *in fine*.

Text	seal	leader	company	ration	origin	authori- sation	destina- tion	date
NN 0859	PFS 0024; PFS 2885	Maudad(d)a	1 man (5 l), 18 <i>puhu</i>	flour	/	King	Barrikana	XII/Ø
PF 1573	[...]; PFS 1315s	Maudad(d)a	1 man, 13 men	livestock	Susa	King	Barribana (sic)	Ø/Ø
PF 1393	PFS 0024; PFS 1315s	Ammasu- zuš ⁷	1 man (5 l), 21 <i>puhu</i>	flour	/	King	Barrikana	XII/Ø
NN 1800	PFS 0026; PFS 3035*	Miramanna	8 men (1.5 l), 55 <i>puhu</i>	flour	(Aracho- sia)	Bakabaduš	/	XII/23
NN 1188	PFS 0018; PFS 1040	Miramanna	8 <i>šalup</i> (1.5 l), 55 <i>puhu</i>	flour	(Aracho- sia)	Bakabaduš	/	XII/23
PF 1953:34f.	PFS 1586	Kamrakka	[...] men, [xx <i>puhu</i> ?] ¹⁸²	wine	Aracho- sia	[...]	Susa	(Dar.18)
PF 1510	PFS 0056; PFS 1406	Ratešda	1 man, 42 <i>puhu</i>	flour	/	King	Aracho- sia	III/22
PF 1522	PFS 0010; PFS 1418	Ušaya	1 man (2 l), 28 <i>puhu</i>	flour	(Aracho- sia)	Bakabaduš	Susa	XII _{el} /22
PF 1439	no seal	Kunda	1 <i>šalur</i> (10 l), 26 <i>puhu</i>	flour	Aracho- sia	Ziššawiš (→)	Susa	Ø/22
PF 1474	PFS 0010; PFS 1371	Irdamišša	2 men (1.5 l), 30 <i>puhu</i>	flour	Aracho- sia	King (→)	King	IV _{el} /23
PF 1469	PFS 0037; PFS 1368s	Huptikama	1 man, 20 <i>puhu</i> of Maupirna	flour	(Aracho- sia)	Bakabaduš	/	IX/Ø

The flour rations received by Maudadda and Ammasuzuš (5 l) or by Kunda (10 l) are well above the standard (1.5 l) for *šalup* and clearly more than what a single adult can consume in a day. The amounts presumably imply a private entourage – apart from the *puhu* listed in the texts – of wives, children, or personal servants. That the institutional economy allowed for, and enabled, this more elaborate style of travel means a recognition of status. This, of course, makes one very curious as to nature of the missions referred to. In some cases forms of taxation may be involved: the “*puhu* of Maupirna” (PF 1469) were perhaps part of an annual obligation to provide a fixed number of workers¹⁸³

182 The amount stated, 970 l wine, implies a large group.

183 Compare the *kurtas* of Mauparna, on their way from Pārsa to Susa (PF 1396). A Whwprn/*Vahufarnā, hence a variant of the name Mauparna/*Vaufarnā, occurs in the Aramaic texts on green chert items in the Persepolis Treasury, once as *sgn*’ of a

and something similar may be true for the group headed by Ratešda, identified as the “foreman of the aides/slaves” (PF 1510).¹⁸⁴ In other cases, no more can be said than that the texts refer to movements of Iranian and possibly local élites to and from Arachosia and Barrikana/*Parikāna.

An addendum to the *baziš* file sheds a little additional light on the matter of the high-level travellers. The following two texts once again refer to tribute transported from Arachosia, but connect it to personal names:

NN 1898

⁰¹ 30 l flour, ⁰¹⁻⁰³ (a man) named Miššabadda, ⁰³⁻⁰⁶ (who) transported the *baziš* of Humana (^{HAL} *hu-ma-na*) from Arachosia to Susa, ⁰⁷ received as rations. ⁰⁸⁻⁰⁹ 20 men each received 1.5 l. ¹⁰⁻¹¹ He (M.) carried a sealed document (authorisation) from Bakabaduš.

PF 1495

⁰¹ 32 l flour, ⁰²⁻⁰³ (a man) named Miššabadda received, ⁰³⁻⁰⁴ together with 31 men. ⁰⁴⁻⁰⁶ They transported the *baziš* of Udana (^{HAL} *ú-da-na*); ⁰⁶⁻⁰⁷ they transported it from Barrikana to Susa. ⁰⁸⁻⁰⁹ He (M.) carried a sealed document (authorisation) from Bakabaduš. ⁰⁹⁻¹¹ Twelfth month, 22nd year (Feb.-March 499 BCE). ¹²⁻¹³ Each (man) received 1 l.

The expression “*baziš* of PN” suggests a more personal form of tribute, hence individuals of some rank with an interest in Arachosia and Barrikana/*Parikāna.¹⁸⁵ A tentative explanation may be found in the bestowal of royal land grants to nobles and high-ranking administrators, who enjoyed the revenue of such estates, but were not exempt of obligations in the form of (military) service or material tribute.

In the cases of royal grants (*nidinti šarri*) in Achaemenid Babylonia (Murašû and Kasr archives) and the estates held by the satrap Axvamazdā in Bactria (ADAB A6), the attached obligations are not stated explicitly. Estates (*byt*) of Persian nobles in Egypt were producing *mndt*, but in this context it might mean “revenue, rent” rather than “tax.” The *dōrea* of Mnesimachos in the Sardis hinterland, if they continue an Achaemenid grant, provide a rather important case, as they were actually subject to paying *phoros* to the local tax district (see Aperghis 2004, 137–48, 278f., 320–3). In the Fortification archive, finally, a range of high-end administrators can be connected to es-

‘fortress’ site (no.119). Identity is not impossible, but I see nothing that could corroborate it. On the name see Tavernier 2007a, 334 [4.2.1775] and 343 [4.2.1837].

184 In Elamite, he is a ^{HAL} *hu-pi-ka₄ li-ba-be-be* (the last *-be* presumably an error for *-na* or *-ra*), “foreman of the *libap*” (for the root *hupa-* compare DB^c I.44, III.80). These *libap* are referred to as *puhu* in the same text and probably fall in the same category as the *puhu* in the other texts here listed.

185 Also, if it referred to regular satrapal *baziš*, one would expect the name of Bakabaduš.

tates known as *irmatam* and *appišdamanna*. They held these undoubtedly *ex officio* and drew from them a revenue befitting their rank. At the same time, the estates' visibility in the archive alone signifies that they were co-opted by the general institutional network. This inference is bolstered by the deposit of fruit and grain, ration payments for *kurtaš* and *taššup* (here military troops), the activity of a high-ranking registrar (*karamaraš*, PF 1256), and the camels, cattle and livestock inventorised at *irmatams*; such collocations indicate that the estates were indeed subjected to a range of obligations. One of these may have been to provide *ukpiyataš* (**upiyāta*-), "table tax," for the King, if only as symbolic tribute. Thus, we find workmen (*mardam*, *mardamardam*) of the administrator Nariyapikna acquiring, transporting and delivering wine for this purpose; although no *irmatam* is attested in the particular case of Nariyapikna, it may well have been the basis for the obligation. The same may be true for Karkiš, presumably the satrap of Kṛmāna, whose *mardam* is found in the same context.

The (fortified) *irmatam* of Vivāna, satrap of Harauvatiš/Arachosia at the time of Darius's accession should be seen against the above background, *viz* as an estate possibly included in an institutional network and possibly subjected to service or tax obligations. That this estate, "le fief personnel de Vivana" (Bernard) was targeted by Vahyazdāta's forces, emphasizes the satrap's *ex officio* tenure of it. As part of the local institutional system it was an appropriate symbol of satrapal and state power, in both economic and political sense. In a comparable context, Tissaphernes let the Greek mercenaries plunder the Babylonian estates of Parysatis, on account of her support for Cyrus's cause.¹⁸⁶

186 The estate of Vivāna occurs in DB III.30–2 (coll. Henkelman), [a]'-ak me'[-ni^{DIS}ru-uh ak-ka₄]^{DIS}taš-ø šu-ip-na ir-šā-ir-ra^{DIS}mi-iš-da-ad-da ir hu-ut-taš-ti hu-pir-ri^{DIS}te-ul-nu-ip ha-'ri'[-ki-ip i-da-ka₄ pu-ut-tuk-ka₄] 'sa'-ak^{AS}hal-mar-ri-iš^{AS}ir-šā-da hi-še^{AS}har-ra-u-ma-ti-iš^{AS}'ir-ma-dīm^{DIS}mi-ma-na-na, "Then, the man whom Vahyazdāta had made leader of the troops, fled with a few mounted men and went (to) a fortress named Ršādā, (in) Harauvatiš, an estate of Vivāna." The other versions (DB_p III.70–2, DB_b 82f., DB_a 59f.) mention Ršādā, but only as a fortress. On the passage see also Bernard 1974, 178f. n.23 (citation) and Briant 2002, 444. On *irmatam* in PFA see Hinz 1973, 60–3; Stolper 1995, 52f.; Uchitel 1997; Briant 2002, 444f.; Tuplin 2013, 61–4; Henkelman [forthc. 1]; Garrison / Henkelman [forthc. 2] § 5.2. For the cases of Nariyapikna and Karkiš see Henkelman 2010a, 710f. (also Tuplin 2013, 64).

For Achaemenid estates in Babylonia, Egypt, Asia Minor, and elsewhere, see notably the discussions in Briant 1985; *idem* 2002, 460–3 (describing, p.463, *irmatam* as "estates whose status was at the convergence of private and public interests"), Tuplin 1987b, 133–7, and Stolper 1985, 52–69, 99–103. The Aršāma correspondence contains a series of references to estates held by Aršāma and other nobles; particularly important are TADAE A6.13–4, where the term *mndt* is used (see, most

It would be adventurous to interpret ‘Humana’ in NN 1898 as an imprecise rendering of Vivāna. ‘Udana’ in PF 1495, by contrast, certainly reflects (H)utāna-, again a name well known from Bīsotūn, this time as one of the six co-conspirators of Darius. Herodotus, who calls him Ὀτάνης, describes the honours bestowed on him by the new king (III.84.1). The passage seems to have been a main inspiration for what Briant aptly calls the “saga of Otanes” in later classical tradition, much of which may be legendary.¹⁸⁷ In any case, it contains no references to Arachosia or any of the eastern satrapies. Also, as the name of Otanes was popular and was born by both noble Persians and humble administrators (see, e.g., PT 36), it would be hazardous to insist on a possible identification. On the other hand, the recent identification of an Unapa son of Uddana (Onaphas, son of Otanes) in a military role in PFA, firmly indicates the continued importance of the family in the years after Darius’s ascent.¹⁸⁸ An Arachosian estate held by one of its members would not be surprising from this perspective.

Regardless of the historical identity of Humana and Udana, the expression “*baziš* of PN” very probably refers to high-ranking individuals, plausibly in the context of landed estates. The case of Vivāna’s *irmatam* clearly shows that such entities existed in Harauvatiš/Arachosia, even before Darius came to power. And since *irmatams* in PFA seem thoroughly embedded in the overall administrative network, their existence in Arachosia gives us one more probable element of the local institutional landscape.¹⁸⁹

recently, Tuplin 2013, 109–14, whose inclination to take *mndt* as rent rather than tax I have followed here). For the Babylonian evidence, see furthermore Stolper 1992c, 125–7; Abraham 2004, 118–42; Jursa in Jursa *et al.* 2010, 197f. (with references). For the Babylonian and Syrian estates of Parysatis and the political implication of the plundering of the latter (Xen. *Anab.* II.4.27) see Stolper 2006, esp. 464f. One may also compare the attack on the palace and paradise of Bēlšunu/Belesys, the king’s satrap in Across-the-River, by the army of Cyrus the Younger (Xen. *Anab.* I.4.10); the political implications of these episodes as well as the crown grants (*nidinti šar-ri*) held by Bēlšunu in Babylonia are discussed by Stolper 1987, *idem* 1990b, esp. 199–204, and *idem* 1995, esp. 224f., 231.

187 See Briant 2002, 132–5, 902, with references.

188 This Unapa occurs in Fort. 0472-101:17f., discussed by Henkelman [forthc. 2] § 2.2 n.25.

189 A related case may be found in Fort. 1902A-101:10’f., a journal entry on travel rations for one Maukama (reading uncertain) with a group of 347 or more people apparently qualified as ^{HAL}*ir-ma-dim-be* ^{AS}*kur-ma-na-an*[(x) ...], “estate-workers (in) Kurmana/Krṃāna” (Dar.18). If understood correctly, the entry implies a large-scale effort to develop ‘estates’ (whatever the term may precisely imply) and the centrally-organized transfer of appropriate workforces. By contrast, the “Bakabaduš

The Arachosian dossier is one of the richest in the Fortification archive. In conjunction with the Aramaic texts on the green chert objects, it reveals an intricate institutional landscape. At the highest level, probably that of the satrap, we find Bakabaduš, whose authority stretched into Drangiana, Sattagydia and perhaps other areas; there was an integrated regional hierarchy, reminiscent of southwestern Iran (Elam-Pārsa-Kṛmāna). The centre's grip on Arachosian matters is indicated by the occurrence of an express messenger, an assessor and perhaps an official making a registry of potential workforces. But royal power is also felt and made visible in the satrapy's centre: the mighty citadel of Qandahār was made to impose and presumably represented the centre of Achaemenid military and administrative might. As in the case of Takht-e Ğamšīd, the territory it oversaw was vast, hence the necessity of subdivisions, one of which stands out more clearly in our sources: Barrikana/*Parikāna, itself perhaps centring on Puzantiš (Bust?). The fortified site *prkn* (*Parikāna) of the Aramaic texts may be the same town. It was one of several local centres in a network of district 'treasuries' analogous to that witnessed in Pārsa; like these, it was manned by a local hierarchy and specialized workmen. The production of objects made from precious stone probably was part of the transports of *baziš* from Arachosia "to the King," as the Fortification texts evocatively put it. It is in this context that central control becomes patently visible again: not only in the transfer of *baziš* as such, but especially in the meticulous bureaucratic procedure accompanying it, in the formulaic Aramaic texts and the standardized protocols they document.

The manpower present in the local workshops is likely to have been only a fraction of a much larger labour reservoir. Our view on this is lopsided in that it highlights a major recruitment of people for the centre, not the work of stationary groups. It nevertheless offers glimpses of larger teams (including Greeks, Skudrians) who were at one point active in the satrapy. Such workers would have been necessary if only for the many fortification works referenced in textual sources and evidenced by excavations. More specialized expertise was sometimes imported from other parts of the empire: Dandumanda the stone mason from Susa (or further afield) offers a case in point.

The Qandahār oasis and other well-watered zones of Arachosia must have posed a major attraction for the tree-and-water loving Persians. The *ir-matam* held in tenure by Vivāna at the time of Darius's accession should be seen against this background, as should, arguably, the high-ranking Persians paying their proper *baziš* from Arachosia. More generally, the Fortification

marduš (at) the estate (of) [PN]" (NN 0522:18') is not as relevant as he may seem: he clearly is not the same as the administrator or satrap in Arachosia.

archives shows a va-et-vient of élite individuals with their own entourage, once more suggestive of the degree to which Achaemenid Arachosia was interwoven in the tapestry of empire.

3.1.3. *A Fortification archive in Arachosia*

The two tablet fragments inscribed in Achaemenid Elamite found in the outworks of the Qandahār fortress (§ 3.1.1) fit Arachosia's profile in the Fortification archive rather well. A systematic comparison is now possible thanks to the recent commented edition of both texts (Fisher / Stolper 2015).

The smaller fragment (field number SF 1400; fig. 11) has not yet been located in what remains of the reserves of the National Museum of Afghanistan and may actually be lost. It can be studied from a photograph made by Helms (no images of the edges or the reverse are available). Measuring about 2.1×3.2 cm (and relatively thin), the tiny artefact can nevertheless be identified as a section of the right part of a rectangular clay tablet. Five stylus-made rulings are preserved, one of which contains recognisable text. Given the lack of archival or other context, Stolper cautiously declined to commit to a single reading. I myself would not hesitate, however, to read the last three signs as 'ŠE'. BAR^{MEŠ}, "barley," and tentatively render the entire sequence as 3' 'QA ŠE'. BAR^{MEŠ}, "3 litres of barley."¹⁹⁰ Two observations may be made in this context: first, the signs constituting the logogram 'ŠE'.BAR^{MEŠ} are written very closely together, almost as a ligature; secondly, the horizontal wedges have relatively long diagonal tails. Both these features are well known from PFA, as are the stylus rulings and the rectangular format. In fact, if it had no known



Fig. 11. SF 1400 from Old Qandahār (photograph S. Helms)

¹⁹⁰ Stolper (in Fisher / Stolper 2015, 16) reads the fives signs as '3/zí/ú ka₄/ud mar/ra/ ŠE.BAR^{MEŠ}'. The traces preceding the digit '3,' which made Stolper consider the possibility of ŠI or Ú (IB would also seem possible), may alternatively belong to a preceding sign. A reading *zi-ut* ("fodder"?) would be possible, but make little sense in this position (i.e., preceding ŠE.BAR^{MEŠ}). As for 'ŠE'.BAR^{MEŠ}: BAR is clear on Helm's photograph and all parts of all elements of MEŠ can be recognized (rendering the reading MAR or RA less likely). Lines 3' and 4' each seem to preserve the end of a cuneiform sign; there are unclear traces in the last preserved line (5').



Fig. 12. SF 1399 from Old Qandahār (photograph courtesy Mohammad Fahim Rahimi, Director National Museum of Afghanistan).

provenience, one would be inclined to assign SF 1400 to the Fortification archive.

The same observation applies to SF 1399 (NMA 12.0–1.24; fig. 12). This second, larger fragment ($5.6 \times 2.6 \times 2.8$ cm) had been misplaced, but was recently relocated by Atiq Hamdard, former curator in the National Museum of Afghanistan. It again stems from a rectangular tablet and has stylus-made rulings. The most conspicuous feature is that one section of rulings and text on both obverse and reverse runs perpendicular to the other text parts. As Stolper shows, this unusual phenomenon has a limited number of parallels in PFA, where it may be a solution in case of scant space, a means to set part of the contents apart, or a way to organize tabulations at the end of the text. Such “two-way texts” (Stolper) occur only among higher document categories known as ‘journals’ (registers) and accounts.¹⁹¹ More generally, the relatively flat, rectangular tablet format compares best to these two categories in PFA. All other text categories are written on different formats; only (real) letters share the rectangular format, but they are usually thicker. Moreover, what remains of the contents of the Qandahār tablets does not point to letters.

SF 1400 preserves 16 lines, six of which contain legible signs. Though fragmentary and discontinuous, the text includes a series of additional clues for its identification as a journal or account of a type known from Takht-e

¹⁹¹ See Stolper in Fisher / Stolper 2015, 3–14, with ample images of PFA tablets with a comparable layout.

Ġamšīd. One is the broad left margin and the positional notation of digits (marking the power of the decimal base) on Side B (ll.02", 05"). This notation is omnipresent in accounts and especially journals in PFA, but uncommon among memoranda and letter-orders (which may have a small margin and aligned numbers, but rarely positional notation). Also on side B, but written perpendicularly, is the phrase *šutur daka* (ll.01""", 02"""), which may be translated as “balance on deposit.” In PFA, it is a common phrase occurring towards the end of balanced accounts concerning a specific place, commodity and time frame (usually split units of one year).¹⁹² Finally, the [...] x *hi ŠÀ-ma* on the edge (l.01""") of SF 1399 means “including” and is again regularly found at the end of journals and accounts, notably in the phrase *am-ma ir kut-tin-na hi ŠÀ-ma*, “total at hand, including...” This phrase is usually followed by a specification of various stocks, after which a line with *šutur daka* will occur. This sequence is possible in the case of SF 1399.

One more detail merits special attention. In the section perpendicular to the main text on side A of SF 1399 (l.01"""), Stolper reads ‘x *kur²-taš*’. Once more, the sign forms are as one would expect them in Fortification context. The reading is certainly possible, if not likely, but the lack of immediate context and the general fragmentary state of the tablet should nevertheless inspire caution. At the same time, the occurrence of the term as such can no longer surprise us: the notion that the social and administrative category of *kurtaš*, “dependent worker,” was introduced to Achaemenid Arachosia agrees with the evidence cited in the previous section. It shows that *kurtaš* were not only recruited in this satrapy, but probably also deployed locally.

Journals and accounts in PFA belong to a higher layer of documentation: they were drafted in Persepolis on the basis of memoranda periodically gathered from local administrative nodes (way stations, granaries, fortresses, etc.) and presumably from audit notes drafted in the field. Only in the case of the so-called northern and southern cluster (§ 2.3.3) is there a possibility of journal and account production in regional administrative centres. That, however, only reinforces the principal point: that the competence to audit, control and account was reserved for the central nucleus of an administrative network, satrapal or provincial. Stolper recognises the relevance of this exclusivity for the Qandahār fragments in pointing out that their plausible identification as journals or accounts implies the existence of ‘lower’ document categories, protocols and hierarchies similar to those found in Takht-e Ġamšīd, “and not

192 The only other context in which *šutur daka* occurs in PFA is a type of balances written on tongue-shaped tablets. SF 1399 clearly is not part of such a tablet. See the more detailed discussion of *šutur daka* by Stolper in Fisher / Stolper 2015, 16–8.

only procedures, but also a regional population organized, supported, and controlled in ways similar to what prevailed in the region around Persepolis” (Stolper in Fisher / Stolper 2015, 19).

The fragments excavated at Qandahār are insignificant as individual documents; they would not be prioritized for publication if they were part of the Persepolis Fortification archive. But since they are part of what may be coined the Qandahār Fortification archive (Stolper), their implications are indeed far-reaching. First, they make it plausible that the citadel of Old Qandahār was a regional administrative centre from which an institutional economy was managed. This agrees, among other things, with the large Achaemenid jar fragments found at Site C in the outworks of the Qandahār citadel, which evidence the kind of standardized production “that would have accompanied the centralization of economic resources in the town” (Fleming 1996, 366).

As a nucleus entitled to its own accounting and reviewing procedures, Qandahār was minimally a sub-satrapal, but more likely a satrapal centre, comparable in rank with Pārsa/Takht-e Ġamšīd. The fragments furthermore show the institutionally organized production, handling and monitoring of staples (barley); they may refer to dependent workers, *kurtas*, who were an essential pillar of the institutional economy of the heartland. Their script, text layout, and tablet format imply a coordinated training program, comparable to that evidenced by the similarities in the Aramaic of Achaemenid Bactria, Egypt and elsewhere. It is even imaginable that the scribes working in Qandahār had been active in the heartland before (cf. the exchange of administrative personnel between Susa and Pārsa: § 2.3.1). The use of technical jargon and, apparently, of accounting techniques ubiquitous in PFA show that procedures they operated in the heartland had been used as a template.

The ‘Qandahār Fortification archive’ is unlikely to have had exactly the same size and scope as its Persepolitan sister archive; the operations, responsibilities and jurisdictions it documented are unlikely to have mechanically reproduced those found in Pārsa. For one, the demands of the court had a considerable impact on the Persepolis economy, but probably less so on the Arachosian one. Whereas the Qandahār administration controlled a number of important and strategic routes, traffic on these roads can hardly have been as intense as it was between Pārsa and Susa. Population density, area of arable land, presence of foreign groups, and construction activity may have been other factors that made Arachosia different from the heartland.¹⁹³

On the other hand, the Qandahār fragments, Arachosia-related texts in the Fortification archive, the Aramaic texts from the Persepolis treasury, Bīsotūn,

193 Compare the similar *caveat* expressed by Stolper (in Fisher / Stolper 2015, 22).

and other relevant sources suggest, when taken together, that Achaemenid Arachosia had an institutional landscape and an administrative layout that a traveller from the heartland would not fail to recognize. It had a network of local administrative nodes ('fortresses' with workshops, workmen, officials), perhaps coinciding with satrapal subdivisions, as in the case of Pārsa. It was present in the field, at nuclei of a lower level: in any case in the form of granaries with their own administrative staff; probably in way stations (given the importance of the routes running through the satrapy) and other storage facilities; perhaps in plantations and other productive units. Such localities would have produced the primary documentation that would be gathered, brought to the main administrative centre, and processed into documents of the types represented by the Qandahār fragments. At least one 'estate' existed, but more are likely on the basis of the *baziš* paid by two apparently high-ranking individuals. The deployment of groups of *kurtaš*, dependent workers, treasury-workers and specialist craftsmen is implied or stated in the sources. Their work, as well as other activities in the institutional sphere, were monitored by several officials who probably exercised mutual control (and therefore were mentioned together in the Aramaic texts), as they were expected to do in Pārsa. Most of such officials, but also the scribes and accountants may have been Iranophones: their use of Iranian words in the Aramaic texts (and their names) suggest so. As, in Takht-e Ğamšīd, however, they manned a machinery that simultaneously operated Aramaic and Elamite.

If common sense warns us that the Achaemenid Arachosian institutional economy and related administrative-bureaucratic apparatus cannot have had the same scale and scope as structures found in the heartland, the available evidence at the same time points to important similarities in layout, procedure and core elements. This circumstance underlines the relevance of the concept of an imperial paradigm. For the Persians, their inherited and developing heartland administration had become more than a traditional way of recording things and controlling officials (Finley's policing function): they applied it as a model and a strategy to contexts that must have differed in several respects, such as Bactria and Arachosia. This required the combination of two attitudes: on the one hand a determination to follow a systematic approach and organise the enormous logistic effort necessary to create new institutional landscapes and, on the other, a readiness to adapt and fruitfully include local elements.

Some may hold that a certain awareness of institutional structures was simply logical or indispensable for the successful construction of empire. The intellectual step implied does not seem self-evident to me, however, even

if earlier cultures had already taken it. It is not uncommon among students of Achaemenid history to read the royal inscriptions as a guide to how the Persian élite understood its position in the world, as a reflection of the self-indoctrination needed to carry the mission of empire. Whereas this approach is unquestionably legitimate and fruitful, it is also necessarily incomplete. The systematic nature of administrative, institutional structures across the Iranian plateau and beyond (and elsewhere in the empire) warrants a view that takes this operational, logistic force as part of Persian self-awareness. At least in certain levels of Persian society, it was recognized and promulgated as an instrument as potent as the spear of the Persian man.

3.2. *Epilogue: Pāṇini's scribe*

A century ago, in his commentary to the then newly-discovered “first Aramaic inscription from India” (i.e., from Taxilā), Cowley noted the similarity of the letter forms to those of the Elephantine documents; considering the text to be “written in the official hand of the Persian Empire” he tentatively assigned it to the middle of the fourth century BCE (Cowley 1915, 345–7). Though the inscription could subsequently be assigned to the reign of Aśoka – a discovery made by Herzfeld (1928) – the suggested Persian connection was generally retained. Olmstead, for one, whose *History of the Persian Empire* shows his keen interest in matters of Achaemenid administration, compared the Aramaic of the same inscription to that of the “royal chancellery” and took it, with Indian punch-marked silver currency (cf. below), as sign of the Persian impact.¹⁹⁴

With the discovery of Aśoka's bilingual rock inscription near Old Qandahār (in 1958), the discussion received an important new impulse. Benveniste, comparing the Aramaic documentation from Achaemenid Egypt, famously inferred that the text “nous montre que nous sommes en réalité dans une province iranienne, où s'étaient maintenues les traditions des chancelleries achéménides” (1958, 43f.).

As a third step one might add the publication of Bowman's edition of the Aramaic inscriptions on the green chert artefacts from the Takht-e Ġamšīd treasury (1970), or rather of the critical reviews thereof (cf. § 2.2.3), which induced Greenfield to link the pattern of Achaemenid administrative centres in Harauvatiš/Arachosia with the *spread* of Aramaic in the northwestern part of Aśoka's empire (1985, 705).

194 Olmstead 1948, 381f. For further bibliography on the find context and the inscription (the interpretation of which is highly contested) see Falk 2006, 252f.

If the Aramaic and Iranian loanwords of Aśoka's edicts betray a background in the imperial chancelleries, the impact was not limited to the introduction of Aramaic as an administrative language. The development of Kharoṣṭhī, both in the shapes of its signs and in its retrograde writing direction, is considered to have been informed by Aramaic writing. Most decisively, however, the Achaemenid presence generated the impetus for the re-introduction of script as such to the Indian sub-continent.

The best illustration of this phenomenal impact of empire is – apart from the *absence* of any pre-Aśokan evidence for indigenous writing – the Prakrit and Sanskrit word *lipi*, based on Old Persian *dipi* (the original form *dipi* also exists in Prakrit). In the fifth or fourth century BCE, the grammarian Pāṇini, though himself still relying on oral composition, was already acquainted with the phenomenon of the *lipikara/libikara*, “scribe” (a *-kara* appellative and, again, a loan). As he probably lived and worked in the Persian satrapy of Gandhāra, and refers elsewhere to Parśu and Pārśava, Pāṇini arguably used the term in reference to the Achaemenid chancelleries and their personnel.¹⁹⁵

195 For the etymology of *lipi*- and its cognates see Mayrhofer 2001: 443f. The date of the invention of Kharoṣṭhī – during or just after the Achaemenid period – is debated. On its genesis, name, and relation to Aramaic writing see, among others, Fussman 1988/89: 513f.; Salomon 1998, 46, 50–54, 63f. (also *idem* 1995); Witzel 2011, 501f. Introduction of script on the Indian subcontinent, significance of the term *lipi*, and Achaemenid impact: Goyal 1979, 17f., 25f.; Fussman 1988/89: 513f.; von Hinüber 1989, 19–21, 55–8; Falk 1993, 257–9; *idem* 2010: 208f.; Allchin 1995, 176–9, 209–16; Salomon 1998, 10–14; Scharfe 2009, 28f.; Witzel 2011 (esp. 510f.; Witzel's notions, pp. 508–10, on XPh as referring to India are quite speculative). Claims of pre-Aśokan attestations of Brāhmī remain controversial. The identification, by Bobrinskoy (1936) and others, of a line of enigmatic script on a Babylonian cuneiform tablet (BM 47361, dated 432 BCE; Hackl 2013 I, 110–2), as a kind of Brāhmī, is considered pure speculation by Falk (1993, 117–9). The same scholar addresses the dating of the Brāhmī ostraca from Anurādhapura and Tissamaharama (Sri Lanka) and concludes that the oldest are Mauryan, but not earlier (Falk 2014), whereas, e.g., Allchin (*ll.cc.*) discusses the implications of the Anurādhapura finds on the basis of the disputed 450–350 BCE date.

As for Pāṇini's *lipikara*, Salomon (1998, 46; cf. *idem* 1995, 275), against the suggestions of Falk and von Hinüber, believes that the term “most likely” points to the use of Kharoṣṭhī, but does not offer arguments for this. Pāṇini evokes the *lipikara/libikara* in *sūtra* III.2.21 of his *Aṣṭādhyāyī* (as an example illustrating the *p/b* variation). Parśu and Pārśava are mentioned in V.3.117 (see the comments by Agrawala 1953, 445f., 466–68), a passage Fleming must have overlooked when he stated that Pāṇini did not refer to Persians (or give indications for Achaemenid presence). For Pāṇini's conscious existence, as an oral composer, in a world of writing and the possible influence of the idea of script on his perception of speech see the interesting reflections of Deshpande 2011, esp. 89–97. Witzel 2011, 493f. n.20 estimates the date

A small but vital precision is in place here: the first meaning of Old Persian *dipi* is not “writing,” as sometimes assumed in indological debates, but “inscription, inscribed text.” It is a loanword from Elamite *tuppi* (/tipi/; going back to Sumerian DUB), which again refers to the medium rather than an abstract concept: “tablet (text),” “inscription” (inscribed stone), and, in *tuppi* KUŠ *ukku*, “(Aramaic) document on leather.” At Bīsotūn, Old Persian *dipi* and Elamite *tuppi* are used to refer to the physical inscription (the protection of which is implored) and this is also how Aśoka uses *lipi/dipi*: to refer to the stone-carved *inscription*.¹⁹⁶ The term is found coupled with the perfect participle *nipista*, “written, inscribed,” again a loan, this time from Old Persian *nipišta-*; the combination *dipi ... nipišta* also occurs in Achaemenid inscriptions. It underlines that, in India too, *dipi/lipi* is the physical product of writing.¹⁹⁷

The parallel with the Old Persian version of the Achaemenid inscriptions is instructive, but should not be taken as a sign of linear influence between the two text corpora. Instead, we are probably dealing with formulaic language, used among scribes and administrators for formal correspondence and reports. Thus, the old idea that the *incipit* of some of Aśoka’s inscriptions, “Thus speaks...,” echoes the well-known standard paragraph opening in Achaemenid inscriptions is certainly worth considering, but should be placed in a wider context. The phrase “To PN₂ speak, PN₁ speaks saying...,” the standard opening letter-orders in the Fortification and Treasury archives, shows that the emphasis on speech in written communication is not limited to royal inscriptions.¹⁹⁸

of Pāṇini to c. 350 BCE (as did Cardona 1976, 260–8: early to mid-fourth century BCE), whereas Scharfe maintains that his language is so close to Vedic “that he can hardly be much later than 500 B.C.” (Scharfe 2009, 28).

lipikara is regularly used in Aśoka’s inscriptions (alongside rarer *dipikara* [Shāhbāzgarhī versions] and *rāja-lipikara*); it is sometimes used by the scribe to ‘sign’ the inscription (Salomon 1998, 136 n.67). For further Old Iranian loans (including *pustaka*, “book, manuscript” and *karṣa* for a unit of weight) in Prakrit and Sanskrit or in Aśokan Aramaic see Ito 1981 and Witzel 2011, 495f.

196 Bīsotūn: DB_c III.67, .70, .84, .85, .88, IV.2, .8 (^{As}*tup-pi*), DB_p IV.42, .47, .48, .70, .73, .77 (*dipi-*). Compare DB_b 98, .100 (^{na}*na.rú.a*, “stele, inscription”). See also Schmitt 1991, 242. For attestations of Elamite *tuppi*, *tuppira*, etc. see Hinz / Koch 1987 q.v. and Tavernier 2007b.

197 See Mayrhofer 2001: 444, comparing (*dhrama-*)*dipi nipista* (Aśoka, *Major Rock Edict* V, Shāhbāzgarhī version; Schneider 1978, 42) and XV_p 24f. *dipim nipiṣṭanaīy*; also Falk 2010, 209.

198 For the connection with the Achaemenid inscriptions see Sénard 1886, 296–98, who, however, already surmised that the formula may have been carried by the Persian satrapal chancelleries set up by Darius, “l’organisation des Satrapies qu’il

Likewise, the use of Elamite *tuppi* evidently is not limited to the royal inscriptions and occurs regularly in the Fortification archive as a (auto-)designation of Elamite clay tablets.¹⁹⁹ This raises the question whether *dipi* came to the Indus lands in the first place as a word for administrative records, i.e., *tablet* and/or *leather document*. With the Elamite fragments from Achaemenid Arachosia and the Aramaic documents from Achaemenid Bactria in mind, this would point to a more direct impact from the chancelleries.

A few observations could support this idea. Falk explained the use of Sanskrit *likh-* for “to write” by connecting its literal (etymological) meaning, “to scratch, scrape, furrow,” to the use of Greek writing in wax boards (Falk 2010: 209f.). It would seem, however, that impressing cuneiform signs or scratching Aramaic (as with some Aramaic tablets in PFA) into clay tablets would offer at least as good an explanation. Secondly, the word for “scribe,” *divira* (more common than *lipikara*), is a loan ultimately based on the Achaemenid Elamite nomen agentis *tuppira/tipira* (pronounced /tipir(a)/), the normal word for (Elamite or Aramaic) “scribe” or “secretary” in PFA. Opinions vary on the date of the loan, which could alternatively depend on Middle Persian *dipīr*. Against this, Livshits convincingly opined that, since Old Persian borrowed the “two fundamental chancellery terms” *dipi* and **dipīra* at the same time, since the Persians spread their administrative systems to the eastern satrapies, and since the introduction of *lipi* to India

créa vers le même temps, était précisément de nature à répandre les habitudes et les formules administratives consacrées dans son empire” [emphasis added; WH]. In some PFA letter orders, the speech act comes at several levels. See notably Fort. 6764, re-published in Henkelman 2010a, 668f., “Say to Harrena the cattle-chief, Parnakka speaks as follows: ‘king Darius ordered me, saying: *100 sheep/goats from my House, (to) the royal woman Irtašduna (Artystone), to her issue it!* And now Parnakka says: As Darius the king has ordered me, so am I ordering you; now you issue 100 sheep/goat to Irtašduna the royal woman, as ordered by the king!’ ” (followed by date formula and colophon). In this, the addressor takes the role of speaker in the royal inscriptions: PN *nanri turuš*, lit. “PN, saying, speaks” (cf. PN *nanri* in the inscriptions).

Scialpi 1984 mentions the parallels between the Achaemenid and Aśokan inscriptions in the context of his discussion on a possible link between what he calls the “ethical systems” of the respective cultures. His comparison, which takes the Achaemenid inscriptions at face value, predictably produces only meaningless generalities.

- 199 See, e.g., *tuppi hima*, “on this tablet, according to this tablet” (PF 1943:39), and *tuppi hi appukana*, “this tablet is the first” (PF 1942:39). The (pseudo-)logogram ^{AS}DUB^(MES), also occurs, but rarely (PF 2007, NN 2350). In PF 1986:31f., information on a certain transaction is *tuppi KUŠ ukkuna ukku duka*, “received (on the basis) of a leather document.”

received

dates to the Achaemenid period, it would be very likely that *divira* arrived in the same time and in the same administrative context.²⁰⁰

In the absence of fixed chronological markers, the above indications have to remain inconclusive. It may be noted, however, that all terms bear witness to the material side of writing: *tablet/inscription* for ‘script,’ *scratching/furrowing* for ‘to write,’ *write-r* and *tablet/inscription-maker* for ‘scribe.’ This is exactly the word field one would expect to arise among ancient observers less familiar with the phenomenon of writing: not as an abstraction (*script*), but as a physical process involving such things as clay, prepared animal skins, seals, styli, and ink, as well as people busying themselves with the laborious and time-consuming task of drafting documents. The ideal setting for this remains, to come back to Olmstead and Benveniste, the Achaemenid chancellery, more precisely the main treasuries and administrative centres of the satrapies and their subdivisions, if not many other more local nuclei in the network (distribution and storage centres, fortresses, etc.) where writing could be witnessed. If the continuity of Achaemenid administration in the early Hellenistic period in Bactria and Idumea is anything to go by, such centres may have been in function even by the time Chandragupta and his successors established control over Arachosia and the other western provinces of their empire.²⁰¹

The footprint of the Achaemenids in the Indus lands is still hard to discern, but it is not invisible, also not in the material sense. Though first millennium BCE ceramic traditions have long been difficult to unravel and to assign to an absolute chronology, recent excavations at Akra and Ter Kala Dheri in the Bannū Basin south of Pēšawar have identified an assemblage dating to 600–300 BCE and containing such forms as bowls with S-carinated rims, bowls with offset vertical rims and tulip bowls, hence forms also known at Khārsadda (Πευκελαῶτις/Puṣkalavatī, near Pēšawar), Qandahār, Mundigak,

200 See Livshits 1977, 168f. n.17, where also *divirapati*-, “senior scribe,” from Old Iranian **dipīrapati*- is noted. The term *divira*- is not attested before the first centuries CE, hence the idea that it is based on Middle Iranian *dibīr*, *dabīr* (Falke 2010: 213). Mayrhofer initially assumed the same in his *Etymologisches Wörterbuch des Altindoirischen* (2001: 266), but in the *Nachträge* (*ibid.* 560) added that it might alternatively be based on Old Iranian **dipīra*-. If I understand his argument correctly, he suggested that the form later developed into *divira*, but was, in parallel, adapted into *dipi-/libi-/lipi-kara* (cf. above).

201 Fussman (1982, 635) construes the use of Aramaic and Greek in the northwestern inscriptions of Aśoka (or made on behalf Aśoka) as a recognition of local bureaucracies, inherited from the Achaemenids and Seleucids, that continued to operate in those languages. This idea of local administrative systems left untouched by the Mauryan rulers may be too static, however: the arguments raised in the current section seem to plead for a more dynamic exchange.

Tappeh Yahyā, Tal-e Zohāk, Takht-e Ğamšīd, Pasargād, and sites in south-eastern Arabia and the Persian Gulf in the Iron III (Achaemenid) period.²⁰² While the excavators cogently point to pre-Achaemenid urban development and extensive trade and exchange networks and reject a simplistic diffusionist or ‘benefits of empire’ approach, the connections between the Bannū Basin and the wider Achaemenid world of course do have their proper significance, especially if Akra was the centre of Achaemenid Sattagydia. In the case of the tulip bowls, one need indeed not necessarily think of Persian or Persianising élites banqueting in imperial style, but the influence (and adaptation) of Persian commensal tradition would be hard to deny.²⁰³

Callieri’s review of Achaemenid impact on the Indus lands (2004) contains three cultural artefacts that he considers as significant evidence: the spread of the Aramaic language (cf. above), the diffusion of punch-marked silver currency in the eastern satrapies, and the existence of a local group of (chalcedony) ‘graeco-persian’ seals. The last subject has been researched by Callieri himself (1996), who showed that various combinations of humped bull, *svastika* and taurine symbol in the seal images point to Indian inspiration and the activity of local workshops (notably at Taxilā). At the same time, the style is connected to the wider Achaemenid world; its introduction in India probably coincided with the earliest punch-marked silver, hence in the mid-fourth century BCE or earlier. It remains to be established if their appearance relates directly or indirectly to administrative demands introduced by the Achaemenids, but such should certainly be considered. Taxilā’s Bhīṛ Mound, from which some of the seals stem, has as yet yielded little structural evidence of Achaemenid occupation. A hoard in stratum III, tentatively dated to the later Achaemenid period, did, however, contain Achaemenid-type earrings (Fabrègues 2006).

202 So Magee *et al.* 2005, esp. 718–32; see also Dittmanns’s critical re-analysis (1984, esp. 183–91) of the Achaemenid-period horizons at Khārsadda, Taxilā, and elsewhere, and the remarks by Fleming 1993, 69 (Taxilā), *idem* 1996 (Qandahār) and Callieri 2004, 11f.

203 To say instead that “such vessels are not evidence for the presence of Persians *per se* but rather potentially indicate shifts in social and political structure brought around by changing geopolitical circumstance” (Magee *et al.* 2005, 736) seems unnecessarily noncommittal, especially as the same authors argue that Akra was the centre of Achaemenid Sattagydia (*ibid.* 732–4, following the earlier suggestion by Fleming 1982, 105f., but ignoring the objections by Jacobs 1994, 269f.). Compare also Dusinberre’s study (1999) on Achaemenid bowls at Sardis, which, as she argues, indicate not only local reception and adaptation of an Achaemenid form, but also the assimilation of Iranian commensal customs by a local élite (and emulation thereof by non-élite groups).

The matter of the earliest Indian silver currency has attracted considerable attention, but possibly relevant Achaemenid evidence is rarely evoked in a more than superficial manner. The earliest coins are punch-marked; those of the oldest series, known as bent bar coinage, are approximately on the Achaemenid shekel standard. They were certainly in use around the mid-fourth century, but may have been, as Cribb suggests, introduced a bit earlier, sometime in the fifth century. This kind of currency may, as has long been assumed, be referred to by Curtius, when he mentions the *signatum argentum*, “stamped/coined silver” offered by Taxiles to Alexander.²⁰⁴ The relevance of this passage is not limited to the mere existence of silver money in India, but extends to its use in a tribute-related context. Together with the weight standard, this suggests an impact of Achaemenid tribute demands on local financial systems, and perhaps a relation with Achaemenid administrative practice. Two elements from the wider Achaemenid context are potentially relevant here; both are discussed in a forthcoming study on Achaemenid silver by Tamerus. The first is the occurrence of *ginnu* silver in Neo-Babylonian context and its widespread use in Babylonia under the first Achaemenid rulers. The term may indicate a unit of weight silver recognisable by its shape or by a mark indicating or guarantying its purity; a relation with Achaemenid administration and tax demands has recently been demonstrated by Jursa. The other element is the evidence on exchanges with (semi-)external parties and involving the term *šaumarraš* in the Fortification archive. This term refers to both a concrete object that can be impressed (*hara-*, also used with seals) or punched/struck (*kaza-*, also used for the work of blacksmiths, goldsmiths, etc.), and to the value of one fifth of a silver shekel. The shekel in turn, was known as *pansuk(k)aš*, transcribing **pančuka*, “five units,” hence a “fiver.” Tamerus, who discusses the relevant texts in much detail, arrives at the conclusion that *šaumarraš*, like *ginnu*, probably denotes a non-minted silver currency marked for purity (and weight). He furthermore observes that this discussion provides a tentative framework for studying the Indian punched-marked currency.²⁰⁵

204 So Curt. VIII.12.15 (*signati argenti LXXX talenta*); Plutarch (*Alex.* 59.5) includes this coined money (χίλια τάλαντα νομίσματος) among the counter-gifts offered by Alexander.

205 See Tamerus [forthc.], esp. §6 and the earlier comments by Hinz 1973, 102–4, Aperghis 1997, 284–8, and Henkelman 2005, 150. As Stolper (this volume) notes, the fact that *šaumarraš* is not (as yet) attested in connection with a term for silver and does not occur in the Treasury archive, poses an obvious problem (and the reason why the thesis, as first proposed by Hinz, has not won general acceptance). Another problem is that there is no satisfactory analysis of *šaumarraš*. Given the final *-š* it is likely to be an Iranian word, but the connection with Aramaic *šhr* “(a

Apart from the above arguments, there is the troubled matter of Achaemenid elements in pre-Mauryan and Mauryan stone architecture and sculpture. The earlier opinion, notably represented by Wheeler, was that the introduction of stone pillars, the use of an advanced polishing technique, lotus capitals, and stone lions are due to “the swarming artistry of Persia,” if not directly to Achaemenid impact in the east. It has now given way to more nuanced opinions on indirect impact and local adaptation within existing canons.²⁰⁶ The columned hall at Pāṭaliputra (Patna) stands somewhat apart from this discussion, though. The building, which must have been a lofty miracle in its age, was destroyed by conflagration, perhaps during the attack by

kind of) bowl (in the epigraphs on some green chert items in the Persepolis treasury), both supposedly representing **sa(h)uvara-/saxvara-* (so Hinz *l.c.*, cited in Tavernier 2007a, 522 [5.4.4.10] as *dubium*) appears to be pure guesswork. A connection with **saura-*, “salt” may seem attractive at first sight, but is not endorsed by the Elamite spelling. Whatever its exact meaning, however, the weight equivalence of one *šaumarraš* to one fifth of a silver shekel is not in doubt, nor is the interpretation of **pañčuka*, the Iranian (heartland) term for the shekel, as “fiver” (see Tavernier 2007a, 450 [4.4.15.4]). A second term *sirimassi* is also relevant here. Used for 300 *šaumarraš* and repeatedly said to be “of sixty” (*sirimassi* 60-*na*), it is likely that this term refers to a mina. Tamerus himself cogently points out the uncertainties in the *šaumarraš* dossier, but I believe his conclusion is likely to be correct. For *kaspu ša ginni* and its relation to the Achaemenid administration see Jursa in Jursa *et al.* 2010, 480–90 (with references to previous literature).

For the dating of the earliest silver currency in India and its connection to the Achaemenids see Cribb 2003, 15–8 (suggesting direct introduction of Achaemenid monetary practice along with the administration); *idem* 2007, 335f.; Bernard in Bernard / Pinault / Rougemont 2004, 304–6. Incidentally, and for what it is worth, later tradition credited the Nanda kings (contemporary with the Achaemenids) with the standardisation of weights and measures. Such is noted in the *Kāśīkāvṛttī*, a seventh-century CE commentary to Pāṇini’s *Aṣṭādhyāyī*; see Agrawala 1953, 251f.; Allchin 1995, 216–8. Compare Sanskrit *karṣa-*, already known to Pāṇini in the compound *kārṣāpaṇika-* and probably deriving from western Old Iranian *karša-* (Mayrhofer 1992, 342 s.v. *kārṣāpaṇa-*).

- 206 See Wheeler 1974 (the citation is from p.249), repeating several earlier publications; cf. Auboyer 1974; Scialpi 1984, 60f. (with older literature); Rowland 1967, 38–47. Boardman (1998) offers a more cautious approach, notably on the purported sculptural influences, but is perhaps too dismissive with regard to the Mauryan palace at Pāṭaliputra (cf. below). On the whole, Greek elements are undeniable in capitals and other stone elements with purported Achaemenid influence. Jacobs very rightly takes their eclectic character as representing a series of wilful political and cultural citations (Jacobs [forthc. 1]). See also Nylander 1988 (stressing the absence of toothed chisel marks in Mauryan stonework), Allchin 1995, 238–73, and Falk 2006, 139–53 (the idea of a sketch of an Achaemenid pillar as medium of transmission is unconvincing).

Menander I around 150 BCE. This, and the ensuing pillaging of stone parts makes it hard to assess the Mauryan stratum. The surviving archaeological record of the palace complex is in fact woefully incomplete, the walls of the columned hall simply unknown, and the building's connection to its immediate context (if any) unclear. Yet, the hall's layout (eight rows of ten columns each), monumentality (intercolumniations of 4.5 m), height (column shafts of c. 10 m), vast wooden roofing (cf. the 30 cm thick ashy layer), and the 1.07 m high platform on which it was raised, make it hard to ignore the Achaemenid parallels (fig. 13). The Pāṭaliputra palace would have given any visitor the overwhelming experience of a forest of tall, stone trees organized in commanding axiality – a description that would befit Achaemenid columned halls. In this light, certain negative assessments of Achaemenid impact on Mauryan architecture seem excessive.²⁰⁷

Despite the above, the discussion should not be, or not exclusively be, about the ultimate source of inspiration for the Pāṭaliputra complex. After all, the direct link to the throne halls of Takht-e Ġamšīd and Susa, as often assumed, is a bit reductive if only in view of the growing corpus of Achaemenid stone architecture elsewhere in the heartland and in the satrapies. What seems more relevant is the issue of physical agency in combination with the ques-

207 The clearest presentation of earlier and more recent excavations at Kumhrar, the site of ancient Pāṭaliputra, is the exemplary report by Altekar / Mishra 1959, esp. 14–8, 22–40. There, extensive comments are given on the highly original foundation techniques involving wooden substructures on dense clay layers, on the construction of the plinth in which the lower parts of the column shafts were buried, and on the possible presence of a monumental entrance staircase leading directly from the canal on the hall's south side to a square, four-columned porch. See also the useful surveys in Kumar 1987, 168–74 and Falk 2006, 190–4. Nylander 1988, while being cautious and disinclined to assume a direct influence, believes that the general idea of the columned hall “may well be inspired from an Achaemenid building” (p.1032). Allchin 1995, 237f. considers the design of the columned hall “distinctly Achaemenid” (cf. *ibid.* p.260, “major Achaemenid, Persian influence”), while pointing to the improvised and probably local construction technique. Gupta (1980, 237–47), by contrast, qualifies any attempt to relate the structure with Persian architectural tradition as obsessive; at the same time, his reconstruction (p. 246f., fig.8) of the columned hall, overlooking a lush landscaped environment and bordering a canal or river arm directly recalls, ironically, the Šāhūr Palace at Susa, with its central columned hall oriented and protruding towards the river and, as a whole, qualified as a *paridaida* (A'Sd), a park-like, river-irrigated estate (on the complex see Boucharlat 2010, 384–409, with references). It also strikingly evokes Aelian's description of Indian royal residences, more splendid than those of Susa and Ecbatana, sporting artificial lakes and paradises planted with carefully selected indigenous and imported trees, and inhabited by peacocks, pheasants, and parrots (Ael. *NA* XIII.18).

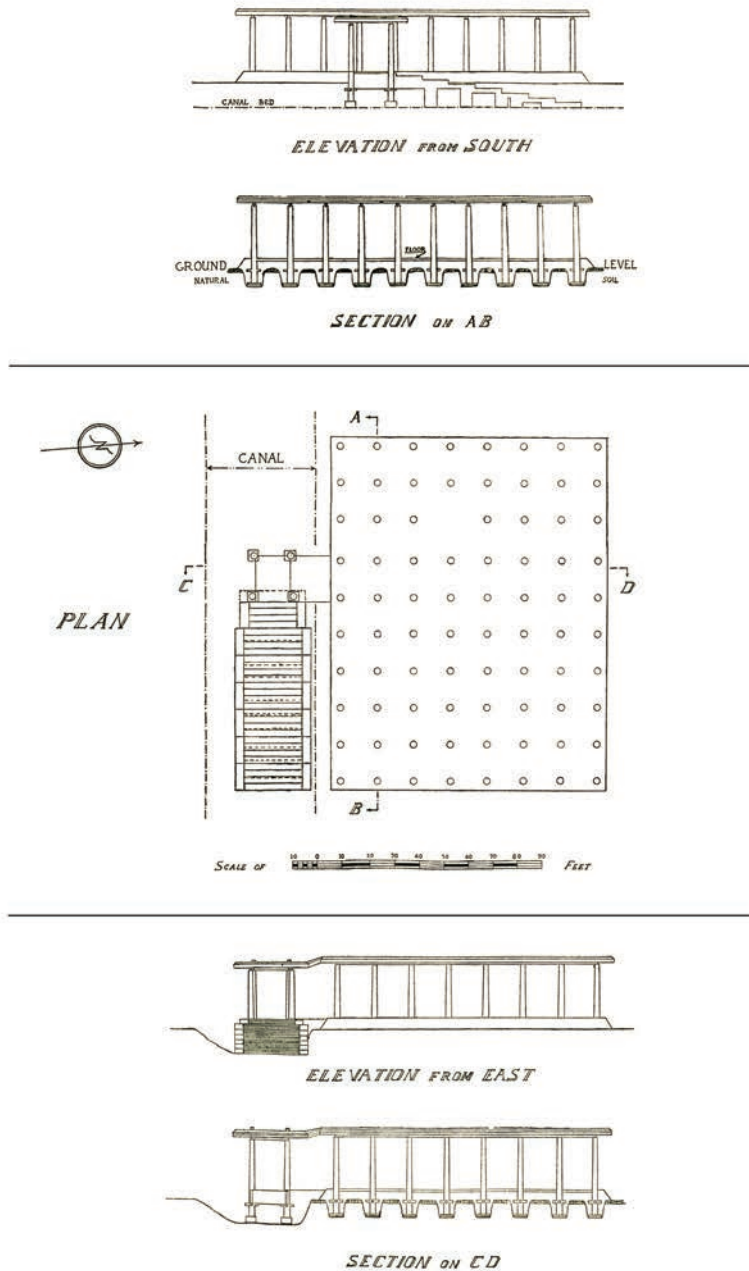


Fig. 13. The palace at Pāṭaliputra: plan and reconstruction according to Altekar and Mishra (image adapted from Altekar / Mishra 1959, fig. 3)

tion of Mauryan political and ideological motivation. Put concretely: did Achaemenid imperial administrative power in the eastern satrapies take the architectural shape of columned halls and did such structures exist at, e.g., Qandahār and Taxilā, as they did in the Caucasus, where direct citation of architectural forms from Pasargād and Takht-e Ğamšīd is very much in evidence? Are the so-called ‘pavilion’ structures from the heartland and the satrapies, as articulate loci of imperial power, not more pertinent to matter at hand? Were the Mauryan rulers interested to adopt and adapt the design of such or similar structures exactly because they were aware of the authority and ideology with which such structures were imbued, not to mention their potential for “congregational acts of ceremony, assembly, banqueting and garrisoning”?²⁰⁸

The Mauryan empire unquestionably was a phenomenon resulting from several centuries of local, Indian developments. It would be unhistorical, however, not to consider the relevant Achaemenid evidence as it presents itself with increasing clarity. Earlier, we saw the case of the Mauryan road system with its way stations, cisterns and distance markers, as well as the corps of rural magistrates (ἄγρονόμοι; perhaps the same as the *rājūkā*, lit. “rope holders”) who were charged with various aspects of government control, notably custody of the roads, land survey and assessment of arable land (§ 1.4). For all these aspects there are parallels from Achaemenid context, such as the corps of lance-bearers (including road inspectors, registrars, etc.) and the use of ropes for measurement.

Megasthenes, who with Aśoka himself is the prime source for Mauryan administration, was probably based at the court of Sibyrtius, the satrap of Arachosia (Arr. *Anab.* V.6.2), hence possibly at Old Qandahār. His celebrated visit to the court of Chandragupta Maurya at Pāṭaliputra should be seen against this background. The three surviving paraphrases of his account of Mauryan

208 For Achaemenid architectural remains in the Caucasus, notably the elaborate palace and paradise complex at Karačamirli (Republic of Azerbaijan), see Knauss 2006; *idem* 2007; *idem et al.* 2013; see also the survey in Jacobs 2006b. The quotation is from Khatchadourian 2013, 132, whose paper addresses the implications of the use or re-use (depending on the unresolved question of dating) of hypostyle halls at Altintepe and Erebuni. See also, in similar vein, Gopnik 2010. Nylander 1988, 32f. already stressed both the possibility of a satrapal residence as source of inspiration and the importance of understanding the Pāṭaliputra columned hall as a “programmatic ‘quotation’ of a great and prestigious formula of kingship.” Curt. VIII.9.26 refers to an Indian palace with gilded columns, “over which runs a vine carved in gold, and silver figures of birds,” which, as Briant noted, recalls the golden climbing vine reported among the treasures stored at Susa and once installed over the Achaemenid throne (Briant 2002, 235–7, with references).

society describe seven classes or groups, including dependant farmers, ration-receiving herdsmen and hunters, government-paid craftsmen, and overseers reporting to the crown. They contain notes on complicated inspection and taxation systems, and mention the elaborate use of seals. Though mostly understood to describe a precursor of the caste system, Megasthenes' report may alternatively be recognized as the image of an institutional household economy resembling earlier Achaemenid systems.²⁰⁹ Arguably, Megasthenes' keen eye for the administrative organisation at Pāṭaliputra may have been informed by what he knew from Arachosia.

The Mauryan case thus presents a number of important discussion points: the uses and contexts of script, the form and function of palatial architecture at Pāṭaliputra, the scope and layout of the road system, administrative practice, hierarchies and protocols. Each of these awaits further exploration, not so much with the aim to reveal the benefits of imperialism, but rather to trace the local reaction to an impulse produced by the Achaemenid empire and the adaptation of modes and instruments it introduced. Whereas most of this 'impact of empire' is indirect and more adequately described in terms of acculturation, the underlying inspiration is nevertheless highly meaningful from an Achaemenid perspective.

Not very long ago, it was still possible to qualify "finds of Aramaic from the peripheral regions [as] negligible and unimpressive" (Graf 2000, 85). We now have editions of the Aramaic documents from Bactria or the Elamite fragments from Arachosia to demonstrate that the penetration of Achaemenid administration in the provinces actually was quite impressive. The point is not, however, to reduce the matter of Achaemenid impact to a false dichotomy. The question is not whether "a foreign imperial power impos[ed] its language on foreigners" (*ibid.* 86), but rather the imperial attitudes that motivated the construction of institutional landscapes in the satrapies and the local responses to such impulses. To observe that Achaemenid echoes in the Mauryan world are not marginal or haphazard is only the first step. It invites renewed reflection on the significance of the presence of administrative, institutional structures and their material and immaterial manifestations in Bāxtriš, Harauvatiš, Gandhāra, Hinduš, and elsewhere; on the interaction with local societies and élites in the form of labour and tax demands; on the inevitable transformation of those same societies; on the appropriation and adaptation of key elements and models from the Achaemenid system into local contexts.

209 A similar view is expressed in Sherwin-White / Kuhrt 1993, 99. The relevant passages are Arr. *Ind.* 11–2, Diod. II.40f., and Strabo XV.1.39–41, 46–52.

As said (§ 3.1.3), in applying an administrative model in the eastern and northeastern satrapies, the Achaemenid authorities undoubtedly manoeuvred between deployment of templates and locally-determined flexibility. The resulting structures may have varied from place to place – a factor that essentially still remains to be studied. At the same time, the remains of these structures and their echoes in later periods may be traced to a systematic attitude that may be called ‘an (or: the) imperial paradigm.’ The relevance of this model lies not only in the framework it offers for studying (sub-)satrapal institutional landscapes, but also in the perspective it opens on Achaemenid self-understanding. Katukka, the grain supplier at the way station of Pirdatkaš, somewhere in the valleys of western Pārsa, who saw the approach of a group of almost three hundred men, with their camels and mules, on their way from Gandhāra to Susa (NN 0431) and who handed out flour rations on the basis of a travel authorisation issued more than two thousand kilometres away, would not have missed this point: indeed, the stylus of the Persian man had gone forth far.

Appendix 1: text editions

All texts below, except one, were read by the late Richard Hallock: NN 0431, NN 0454, NN 0885, NN 1564, and NN 2502 are available in his manuscript edition, PF 0732 and PF 1502 were published in Hallock 1969. The manuscript edition of NN 0431 has previously been cited by Giovinazzo (1994a, 29 and 1994b, 34 [uncollated]) as ‘Fort. 1732.’ Fort. 0140-101, a tablet not read by Hallock, was available to me in Stolper’s draft transliteration. I have (re-)collated all texts and provided them with (new) translations and notes; the transliteration style follows the conventions adopted by the Persepolis Fortification Archive Project.

1. *Camels from Gandhāra*

NN 0431 (unsealed); fig. 14

Obverse

- (01) 48 ZÍD.DA^{MEŠ} *kur-mán* ^{HAL}*ka*₄’-
- (02) *tuk-ka*₄-*na* ^{HAL}*za-kur-ra* *hi-še*
- (03) ^{HAL}*kán-da-ra* *gal-ma* *du-šá*
- (04) *hi-su-’ud’-da* 3 QA *du-šá*
- (05) 10 ^{HAL}LÚ^{MEŠ} *un-ra* 2 QA *’du’-šá*
- (06) 1 ME 60 ^{HAL}LÚ^{MEŠ} *un-ra*
- (07) 1 QA *’tan’ du-šá* 1 ME 20
- (08) ^{HAL}*pu-hu’ un-ra*
- (09) *’1 QA du-šá’* 12 AN_z

Lower edge

- (10) *’ŠE.A.AB.BA^{MEŠ} un-ra’*

Reverse

- (11) 3 *’QA ma-ki-iš’*
- (12) *’31’ pa-ru^{MEŠ} un’-ra*
- (13) *’2’ QA ma-ki-iš’ hal-’mi’*
- (14) ^{HAL}*ir-da-’tak-ma’-na’ ku-iz-za*
- (15) ^{AŠ}*kán-da-ra-mar* ^{AŠ}*šu-šá-an*
- (16) *pa-ri-iš’ ^{AŠ}’be-ul’ 20-me-’na’*
- (17) ^{AN}’ITI^{MEŠ} *ha-’na’-*
- (18) *ma-kaš-na*

⁰¹ 480 l flour, ⁰¹⁻⁰² allocation from Katukka, ⁰²⁻⁰³ a Ghandāri named Zakurra received as rations: ⁰⁴ he himself received 3 l, ⁰⁵ 10 men each received 2 l, ⁰⁶⁻⁰⁷ 160 men each received 1.5 l, ⁰⁷⁻⁰⁹ 120 servants each received 1 l, ⁰⁹⁻¹¹ 12 camels each consumed 3 l, ¹²⁻¹³ 31⁷ mules each consumed 2 l. ¹³⁻¹⁴ He (Z.) carried (showed) a sealed document (travel authorisation) from Irdatakma. ¹⁵⁻¹⁶ They went from Gandhāra to Susa. ¹⁶⁻¹⁸ 20th year, tenth month (Jan.–Feb. 501 BCE).

Notes

- (01) 48 (bar): if the numbers in lines 12f. are read correctly, the total should be 48.1 (as Hallock, ms., observes).
- (01f.) Katukka: *Dadaka- (Tavernier 2007a, 184 [4.2.616]) and his colleague Bakumira headed the granary at Pirdatkaš in the eastern Fahliyān region (see Garrison / Henkelman [forthc.] §4.3). They saw travellers passing to or from places as far apart as Bactria, Hinduš and Taoce.
- (02) Zakurra: *Čaxra- (Tavernier 2007a, 154 [4.2.396]), may be identical with Zakarna the Ghandāri of PF 1139 (also accompanied by 290 men).
- (03) Kandara: see §3.1.1 above and *App.* 2 below. Note that the scribe omitted a personal or gentilic marker (expect ^{HAL}kán-da-ra-ra or ^{HAL}kán-da-ri-ia).
- (08) *puhu*: in travel contexts, this word, literally “boy, child,” refers to subordinate members of a company, hence “servants.” See discussion in Giovinazzo 1995 (“valletto”); Henkelman 2003, 105, 129-37; *idem* 2011a.
- (12) *pa-ru*^{MEŠ}: the determinative in this case indicates that the word is a loan, here from Akk. *parû* (Hallock 1969, 45; Henkelman 2011c, 137). In conspicuous contrast to Late Babylonian contexts, mules were more frequent than donkeys in PFA, presumably on account of the impact of the court and the royal domain. Their numbers must surely count as a sign of organised breeding, a significant observation given that mules (and hinnies) are sterile and that new generations have to be bred, as it were, ‘from scratch’ by a laborious technique colourfully described by Columella (*Rust.* VI.37.5-11). The maintenance of a high number of animals for transport and other tasks (cf. the 20,000 mules in Plut. *Alex.* 37.2 or the 600 in Curt. III.3.24) therefore implies considerable planning and investment. For this reason, the repeated connection with the crown comes as no surprise (also not because of the age-old royal association of mules, still seen in the 64 mules with gilded crowns pulling Alexander’s hearse [Diod. XVIII.27.5]). Royal muleteers are mentioned in NN 1289 and NN 1665 (see Henkelman 2011e, 105, 136-8), people feeding horses and mules of the king and the princes are mentioned in PF 1793, and a team of almost two hundred mule drivers receiving special rations (oil, *hamaram*, flour) in NN 0154, NN 0659, and NN 1155. In NN 1950, mules carry the royal *da-za-ra-na-um*, presumably **tačara-na-*. This extended base must denote a developed sense or special aspect of *tačara*, “palace,” hence, given the context, perhaps “tent.” The sturdy mules of Persia were still highly praised (and priced) in the 19th century (Potts 2006, 106f.). Hinz and Koch tentatively take the



Fig. 14. NN 0413, upper edge, left edge, obverse, lower edge, and reverse; image Persepolis Fortification Archive Project (Oriental Institute, Chicago).

paha of NN 1247 to be a hinny (Hinz / Koch 1987 s.v. *pa-ha*), but as the word constitutes a *hapax*, that interpretation cannot be corroborated.

- (14) Irdatakma: *Rtātaxma- (Tavernier 2007a, 301f. [4.2.1507]). See §3.1.1 above and *Appendix 2* below. The identification of Irdatakma as administrator at Gandhāra was previously suggested by Giovinazzo 1994b, 34 n.16.
- (16-8) Giovinazzo erroneously gives the date formula as “décembre-janvier 502.”

2. *Inspecting the royal road*

NN 0885; fig. 15

Seals: PFS 0018 left edge; PFS 2889 reverse

Obverse

- (01) 2 BAR 1 QA ZÍD.DA^{MEŠ} *kur-mán*
 (02) ^{HAL}*mi-ra-ia-u-da-na*
 (03) ^{HAL}*ba-ka₄-da-ud-da hi-še*
 (04) ^{GIŠ^r}*si⁻-ka₄ ⁻ku-ti-ra⁻*
 (05) *du-ša* 6 ^{HAL}LÚ^{MEŠ} *un-ra⁻*
 (06) 1 QA *tan du-ša*
 (07) 12 ^{HAL}*pu⁻ hu⁻ un-ra*

Lower edge

- (08) 1 QA *du-ša*
 (09) *hal-mi* ^{HAL}EŠŠANA-*na ku-ti-*

Reverse

- (10) *iš-da bar⁻ du[?] mu-ša-*
 (11) *iš* ^{AS}*be⁻ ul 20⁽⁺⁾2-na*
 (12) ^{ANITI}^{MEŠ} *ha-ši-ia-ti-*
 (13) *iš-na*

⁰¹ 21 l flour, ⁰¹⁻⁰² allocation from Mirayauda, ⁰³⁻⁰⁵ a lance-bearer named Bakadadda received. ⁰⁵⁻⁰⁶ 6 men each received 1.5 l, ⁰⁷⁻⁰⁸ 12 servants each received 1 l. ⁰⁹⁻¹⁰ He (B.) carried a sealed document (authorisation) from the King. ¹⁰⁻¹¹ They surveyed the road?
¹¹⁻¹³ 22nd year, ninth month (Nov.-Dec. 500 BCE).

Notes

- (02) Mirayauda: *Vīrayauda- (Tavernier 2007a, 350f. [4.2.1907]), an important flour supplier at Umpuranuś (central Fahliyān region). Seal PFS 0018 was used by him during Dar.21-23 (and, once, in Dar.28). See Garrison / Henkelman [forthc.] §4.4 for discussion with complete references.

- (03) Bakadadda: *Bagadāta- (Tavernier 2007a, 132f. [4.2.246]), name of a range of individuals in PFA. Certainly to be identified with the recipient in NN 0885 is the Bakadadda of PF 1297 (where the scribe omitted his title and the 12 *puhu* are implied in the total). Otherwise, our Bakadadda may be the same as Bakadadda the auditor of NN 0217 and NN 0540, whose name and seal (but not title) also occur on PF 0831 and NN 1222 (and his seal on the uninscribed tablet PFUT 0857-101). He is probably *not* the same as Bakadada, the groom of PF 1599 (despite Henkelman 2003, 164f.). Unfortunately, the recipient seal used on NN 0885, PFS 2889, is not attested elsewhere. Cf. Tuplin 1998, 93 n.72; *idem* 2010a, 135-7; Henkelman 2002, 25-8; see also §1.4 n.42 above.
- (04) ^{GiŠ}si^r-ka₄: Hallock (ms.) hesitantly read ^{GiŠ}si^r-ut, apparently thinking of ^{GiŠ}si-ut, “rubble” in the Elamite version of the Susa Charter (DSf₆ 22, 23, DSz₆ 22). The context, in combination with other texts in the lance-bearer dossier, renders the reading ^{GiŠ}si^r-ka₄ ʾku-ti-raʾ more attractive, as argued in Henkelman 2002, 25-8.
- (10) *bar-ʾdu*ʾ: as Hinz / Koch 1987 q.v. note, the context (cf. PFa 19, PFa 30, etc.) suggests a meaning equivalent to *datiš* (**datiš*) and KASKAL, hence their “Straße?” The word is hardly a loan from Akk. *bardû*, “crosspiece” (of a door, window; CAD B p.110 q.v.) and can more plausibly be connected to Elam. *pari-/para-*, “to go.” See Blažek 1999, 62 for promising Afro-Asiatic parallels; compare also Henkelman 2002, 26 n.50 (where the term is left untranslated).

3. The treasury at Hidali

NN 1564; fig. 16

Seals: PFS 0021 left edge; PFS 1240 reverse

Obverse

- (01) 26 BAR ZÍD.DA^{MEŠ}
- (02) *kur-mán*^{HAL} *kar-ma-na*
- (03) ^{HAL}*mi-ut<ra>-ba-ud-da*
- (04) *hi-še*^{AS} *ka₄-in-za-ba-ʾraʾ*
- (05) *du-iš-da* ʾgal 1 ME 7ʾ
- (06) ^{HAL}LÚ^{MEŠ} ^{HAL}*šá-lu-ip*
- (07) *un-ra* 1 QA^{MEŠ} *du-ʾiš-ʾ*
- (08) *da* 1 ME 50(+)^{3ʾ} ^{HAL}*li-*
- (09) *ba-ip*¹ *un-ra* ʾ1ʾ QA^{MEŠ}ʾ

Lower edge

- (10) *du-iš-da hal-mi*

Reverse



Fig. 15. NN 0885, obverse, left edge, right edge, lower edge, and reverse; image Persepolis Fortification Archive Project (Oriental Institute, Chicago).

- (11) ^{HAL}*pa-ir-na-ka₄-na*
 (12) *ku-ti-iš-da* ^{HAL}EŠŠANA-
 (13) *ik-ka₄ pa-ráš^{is}-da*
 (14) ^{AŠ}*šu-šá-an* ^{ANITI}MES
 (15) ^{AN}*mi-ka₄-na* ^{AŠ}*be-*
 (two blank lines with impression of PFS 1240)
 (16) *ul 21-um-me-na*

Upper edge

- (17) *ka₄-in-za-um ap-pa* ^{AŠ}*hi-da-li da-ki*

⁰¹ 260 l flour, ⁰² allocation from Karma, ⁰³⁻⁰⁵ (a man) named Mitra>badda, treasurer, received (as) rations. ⁰⁵⁻⁰⁸ 107 free men each received 1 l, ⁰⁸⁻¹⁰ 153 servants each received 1 l. ¹⁰⁻¹² He (M.) carried a sealed document (authorisation) from Parnakka; ¹²⁻¹⁴ they went to the King (at) Susa. ¹⁴⁻¹⁶ Twelfth month, 21st year (Feb.-March 500 BCE). ¹⁷ The treasury that is located (at) Hidali.

Notes

- (02) Karma: *Karva- (Tavernier 2007a, 229 [4.2.958]), a grain supplier at Kurdušum in the western Fahliyān region; seal PFS 0021 (left edge) is used by him and members of his staff. See Garrison / Henkelman [forthc.] §4.5.
- (03) ^{HAL}*mi-ut<ra>-ba-ud-da*: *Miθrapāta- (Tavernier 2007a, 251 [4.2.1116]); the omission of RA may be a rare case of Elamite influence (*viz* of the stress accent on the first syllable). Several Mitrabad(d)as occur in PFA; the one mentioned in NN 1564 recurs in PF 1295, where he heads a party of 262 men travelling to Susa in XII/Ø and uses the same seal, PFS 1240. It may well be that this text pertains to the same journey and the same group. By contrast, Koch's suggestion (1993b, 26f., 70) that our Mitrabadda is the same as the *Mtrpt* of the Aramaic texts on the Arachosian mortars and pestles from the Takht-e Ġamšīd Treasury has little to commend it: unlikely in view of the attested dates of *Mtrpt* (478-66 BCE) and his role as *sgn*, "prefect, governor" (not treasurer), it suffers most from the general popularity of the name (cf. Schmitt 1978b, 418-55) and the absence of a connection between NN 1564 and Arachosia.
- (08f.) *libap*: when used in the contrasting pair *šalur* : *libar*, the latter means "servant, assistant" (not: "slave"). Especially in travel contexts, it serves as an equivalent of *puhu*. See note *ad* NN 0431:08 for references.
- (13) *pa-ráš^{is}*: the sign IŠ serves as a phonetic complement, disambiguating TUK (i.e., indicating that the phonetic value is *ráš*, not *tuk*).
- (14) Šušan: as the seal (above, *ad* 1.2) makes clear, the place where the flour was allocated was Kurdušum or its vicinity. Susa must therefore be the destination, even though the word order is slightly unusual (expect ^{AŠ}*šu-šá-an* ^{HAL}EŠŠANA-*ik-ka₄ pa-ráš^{is}-da*).



Fig. 16. NN 1564, upper edge, left edge, obverse, lower edge and right edges, and reverse; image Persepolis Fortification Archive Project (Oriental Institute, Chicago).

- (17) The last line of the text is written on the tablet's upper edge and serves as a catch line.
- (17) *kanzam*: compare *kanzam-nudanuš*, “treasury-storeroom” (**ganzam-nidārīš*; Tavernier 2007a, 438 [4.4.8.8]) for part of the Takht-e Ġamšīd Treasury (PT 56 [coll. Cameron] and PT 1963-11).
- (17) *daki*: Hinz / Koch 1987 s.vv. *da-ki* and *qa-in-za-am* thought of this form as equivalent to *daka*, frequent in memoranda recording the deposit of commodities on the account of a supplier: “es ist deponiert, abgeliefert worden” (i.e., in the treasury). Koch, in her later comments on Mitrabadda – whom she took as a treasurer coming from Arachosia (cf. *ad* l.3) – modified this interpretation to “Der Schatz, den er mitgebracht hatte, war (...) in Hidali deponiert worden.” Since the rations are issued by Karma at Kurdušum, it would be superfluous, however, to relate what had happened on the road. The basic meaning of *da-* (from older *dahha-*) is “to put,” from which a range of more particular uses derives. Besides “to deposit,” these include: “to erect” (MDP 41 9:5), “to apply, attach to” (MDP 41 2:7, EKI 75:7, XPh_e 31f. [*kiten ukku appi da*], etc.), “to inflict” (MDP 41 2:8, 31:6, DB_e II.25), “to grant, to bestow” (EKI 76:10, DB_e I.42, etc.), “to belong to, to be with” (DB_e I.34, II.12f. [impersonal]). Given these possibilities, *kanzam appa* GN *daki* may either be taken transitively, as “the treasury that is located/placed (at) GN,” or, intransitively, as “the treasury that belongs to GN.”

4. *Ecbatana, Ecbatanans*

The following three texts are written in the same crude and large hand; the first two have roughly the same dimensions, the third is smaller but suffers from the same bulkiness. PF 0732 and NN 0454 (and perhaps NN 2502, where the left edge is broken) have the unusual Ω -shape occurring among tablets from Irtašduna (a variation of the regular tongue-shaped format for memoranda, but similar to the larger Treasury tablets). All three records are obviously the work of one and the same scribe.

NN 2502; fig. 17

Seal: left edge destroyed (probably PFS 0038); PFS 0038 upper edge and reverse

Obverse

- (01) [1] BAR 7 QA^{MEŠ} *ma-da-*
 (02) *mi-iš* 9 QA^{MEŠ} *ut-ru-*
 (03) *šá* PAP 2 BAR 6 QA^{MEŠ}
 (04) *ʿabʿ-be-KI+MIN¹* *ʿapʿ-pa* ^{AS}*ku-*
 (05) *ʿukʿ-na-ak-ka₄-mar* ^{HAL}*ba-*
 (06) [*ka₄*]-*daʿ-ad-da ku-iz-*

Lower edge

(07) [za^{AS}]ak̄-ma-da-

(08) nā ši-nu-ik-rī

Reverse

(09) ^{SAL}ir-taš-du¹-na ti-ib-(10) ba ma-ak̄-ka₄^{AS} bē-ul

(11) 25-um-me-ma-na

⁰¹⁻⁰² [1]7 l *madamiš*, ⁰²⁻⁰³ 9 l *mitruša*, ⁰³⁻⁰⁴ a total of 26 l food products ⁰⁴⁻⁰⁷ that Bakadadda took from Kuknakka; ⁰⁷⁻⁰⁸ he was coming to Ecbatana. ⁰⁹⁻¹⁰ It was consumed at Irtašduna's court, ¹⁰⁻¹¹ 25th year (497-6 BCE).

Notes

- (01f.) *madamiš*: *hapax* denoting a kind of prepared food (*abbebe*, l.4); the word is probably Iranian. Hinz / Koch 1987 q.v. think of an “als Leckerbissen geschätzte[s] Nahrungsmittel,” which may well be correct. See also Henkelman 2010a, 746.
- (02f.) *utruša*: a variant spelling of *mitruša*, another prepared food product, which occurs rarely and only in certain contexts (special rations, rations for Aspathines, royal table tax). The suggestion “Röstmehl” (Hinz / Koch s.v. *mi-ut-ru-šá*) is unlikely for this and other reasons; see discussion in Henkelman 2010a, 747f. (to the attestations mentioned there, add Fort. 1392-103:02 and Fort. 2291-101:04).
- (03) BAR: written over erasure.
- (04) ^{ab̄-be}-KI+MIN¹: this (regular) spelling probably represents *abbebe* rather than *abbe-abbe*; it is used as a general term for “food, food product, prepared food.” See Hinz / Koch 1987 s.v. *ab-be*.KI.MIN and Henkelman 2010a, 734.
- (04f.) Kuknakka(n): the name occurs in a range of forms (^{AS}*ku-ik-na-ka₄*, *-na-ak-ka₄*, *-na-ik-ka₄*; ^{AS}*ku-uk-na-ka₄-an*; ^{AS}*ku-ka₄-na-ak-ka₄-an*; ^{AS}*ku-kán-na-ik-ka₄-an*, *-na-ka₄-an*, *-na-ka₄*). The place is, as Hinz first suggested (Hinz 1970a, 423; cf. Hallock 1969, 714 and Lewis 1977, 22), presumably identical with ^{AS}*ku-uk-kán-na-ka₄-an* (DB_c II.5; cf. Kuganakā in DB_p II.9 and Kugunakka in DB_b 41), said to be “in Pārsa” and used as residence by Martiya, who rebelled in Elam. Like Matannan, which must have been relatively near (NN 0260), Kuknakkan was, or included, an estate of Irtašduna/Artystone. Matannan was developed as a palatial site under Cambyses, may subsequently have been used by Bardiya, and was later granted to their (half-)sister, Irtašduna (Henkelman / Kleber 2007). Kuknakkan, appears to have had a remarkably similar fate: used by a prominent Persian, presumably confiscated after his execution, and then given to the same Persian queen. As for the location of Kuknakkan: the mixed Elamo-Persian setting of the Martiya rebellion (cf. Henkelman 2003c, 183f. with n.7; *idem* 2008a, 57, 359f.) could suggest the western part of Pārsa (Fahliyān region), but PFA contexts indicate a more central position, perhaps in the region of Tirazziš/Šīrāz (NN 0260). Justi's identification of Kuknakkan/Kuganakā with Ganagān in the Bīšāpuhr



Fig. 17. NN 2502, upper and left edges, obverse, right edge, lower edge, an reverse; image Persepolis Fortification Archive Project (Oriental Institute, Chicago).

region (Justi 1896-1904, 428) cannot be accepted without further linguistic and historical elaboration. There is no reason to assume that Kuknakkan was situated directly on the road between Susa and Pārsa, or that it was a way station (*pace* Briant 2010b, 28). What can be said is that it hosted the *ulhi*, “estate, domain” (lit. “house”) of Irtašduna, as appears from her own letter orders (PF 1836, PF 1837, NN 1137), produced mulberries, figs, dates and various kinds of grain (NN 2368, NN 2559, NN 0260) and had flocks of sheep and goats (NN 1418, NN 0373, NN 2140), perhaps all in connection with the queen. Also, it hosted the table of the King (PF 0718, NN 2089) and had teams of *kurtas* that can be connected to the

sphere of Irtašduna (NN 1707). See also Hinz 1971, 298f.; Koch 1990, 150, 291; Brosius 1996, 125-7; Henkelman 2010a, 698f. with n.112.

- (05f.) Bakadadda: *Bagadāta- (Tavernier 2007a, 132f. [4.2.246]). There are many individuals in PFA with this name, but except for the one in PF 0732 (below), none can safely be identified with the Bakadadda working for Irtašduna. One possibility, based on the case of Ušaya (NN 0454; see below), is that Bakadadda was an estate manager or other official stationed at Kuknakkan.
- (07f.) Hallock's pencil notes to his published edition of PF 0732 record his collation of the toponym: ^{AS}*ag-ma-da-na* for printed ^{AS}*pu-ma'-da-na*. This form of the name reflects Iranian Hagmatāna (DB_p II.76, 77f.); it also occurs in the Elamite version of the Bīsotūn inscription (DB_e II.56, 57). Greek Ἀγβάτανα and Elamite ^{AS}*ak-ba-ud-da-na* reflect a variant form. Akbaddana occurs in two entries in a recently published journal (Fort. 1316-101:08'f., 10'f.) dealing with movements of troops to and from Ecbatana (see Henkelman [forthc. 3] for the text, with discussion and notes). The city name, written Agmadana or Akbaddana, is rare in comparison to Mataš, "Media." Thus far, it occurs only here, in PF 0732 and NN 0454 (below), in the aforementioned entries in Fort. 1316-101, and in Fort. 00X2-101:13f. (travel rations; context broken).
- (09) *ib*: written on the on right edge.

PF 0732; fig. 18

Seal: PFS 0038 left edge, reverse, upper edge, right edge

Obverse

- (01) 17 ^{GIS}GEŠTIN^{MES}
- (02) *mar-ri-iš kur-mán*
- (03) ^{HAL}*hi-ú-da-na* ^{HAL}*ba-*
- (04) *ka₄-da-ad-da ku-iz-za* ^{AS}*ak-*
- (05) *ma-da-na ši-nu-ik-*
- (06) *ri* ^{SAL}*ir-taš-du-na*
- (07) *ti-ib-ba ki-ut-*

Lower edge

- (08) *ka₄ te-ri-ka₄*

Reverse

- (09) ^{AS}*be-ul* 25-
- (10) *um-me-ma- «MA» ʾnaʾ*

⁰¹⁻⁰² 170 l wine, ⁰²⁻⁰³ allocation from Yuda, ⁰³⁻⁰⁴ Bakadadda transported; ⁰⁴⁻⁰⁶ he came to Ecbatana. ⁰⁶⁻⁰⁸ It was poured out at Irtašduna' court and borrowed(?). ⁰⁹⁻¹⁰ 25th year (497-6 BCE).

Notes

- (03) *še*: an alternative, but less likely possibility is *hi*.
- (03) ^{HAL}*hi-ú-da*: comparison with the shapes of ŠE and HI in NN 1137 (letter-order from Irtašduna with the same seal and written in the same hand) makes it clear that the name should be read ^{HAL}*hi-ú-da*, not ^{HAL}*še-ú-da* (despite Hallock 1969, 221). Yuda recurs in PF 2031, in connection with Uranduš, where one of Irtašduna's estates was located.
- (04) *ak*: written on the right edge.
- (04f.) ^{AS}*ak-ma-da-na*: the correct reading, instead ^{AS}*pu-ra'-da-na*, as printed in Hallock 1969, 221 (cf. *ibid.* 746 and Tavernier 2007a, 393 [4.3.170]), is given in the pencil marginalia by Richard Hallock and has been confirmed by collation (cf. Henkelman 2010a, 714 n.174). Cf. *ad* NN 2502:7f. above.
- (05) *ma*: written over erasure.
- (07) *ki*: written over erasure.
- (08) *terika*: this form (and verb) is unique to documents pertaining to Irtašduna, but it has potential cognates in older Elamite. The interpretation given here is based on the earlier discussion of the material in Henkelman 2010a, 699f. with n.120 (cf. Tuplin 2013, 64).
- (10) «MA» *na*: Hallock read these signs as 'x x', suggesting TUM? NA? in his notes; 'hal-mi' (as in NN 0454) is excluded.

NN 0454; fig. 19

Seal: PFS 0038 left edge, reverse, upper edge

Obverse

- (01) 1 BAR *mi-ik-da*¹
- (02) ŠE.BAR^{MES}-*na* ^{HAL}*ú-šá-*
- (03) *ia* ^{AS}*ba-ir-šá-mar*
- (04) ^{AS}*ak-mad-^rda⁻na-be*
- (05) *du¹-iš-da* ^{SAL}*ir⁻*

Lower edge

- (06) *taš-du-na*
- (07) *ti-ib-ba ma-*

Reverse



Fig. 18. PF 0732, upper edge, left edge, obverse, right edge, lower edge, and reverse; image Persepolis Fortification Archive Project (Oriental Institute, Chicago).

- (08) *ak-[˘]ka₄ te[˘]-ri-[˘]ka₄*
 (09) *^{As}be-ul 25-[˘]um-*
 (10) *me-na hal-mi*

⁰¹⁻⁰² 10 l fruit-and-barley products, ⁰²⁻⁰³ from Ušaya (at) Pārsa, ⁰⁴⁻⁰⁵ the Ecbatana-people received; ⁰⁵⁻⁰⁸ (it) was consumed at Irtašduna's court (and) borrowed?. ⁰⁹⁻¹⁰ 25th year (497-6 BCE), ¹⁰ (this) sealed document (was delivered?).

Notes

- (01) *da*¹: the sign looks like SU and was read *su* by Hallock (followed in Henkelman 2010a, 746); there is a faint trace of the small wedge in the middle of the sign, however (compare the shape of *da* in PF 0732:05). *mikda* presumably transcribes **migda*-, “fruit” (Tavernier 2007a, 459 [4.4.20.9]), which is usually written (^{Glš}) *mi-ik-tam*_s, (^{Glš}) *mi-ik-dīm*, (^{Glš}) *mi-ik-da-um* or (^{Glš}) *mi-ik-taš*, viz with generalized -*m* or -*š* ending to mark it as loan from Old Iranian. Irtašduna's scribes are conspicuous for their irregular orthography (using, e.g., *i-du* and *ud-du* for regular *id-du*), so the new form *mikda* is not too much of a surprise. Fruit is regularly mentioned with other commodities in PFA, though not with exactly the same formula: *tarmu* (PF 0413), flour (PF 0416, NN 1413), and especially wine (PF 0415, NN 0158, NN 0695, NN 1004, NN 1169) are used/processed with fruit (PN ... *miktam ha huttašda*). Once, barley is processed into *mikdim marriyam*, “fruit-based food” (*marriyam* transcribes here *(h)*uvarya*-; Tavernier 2007a, 456 [4.4.19.4]). Since the suffix -*na* may construe almost any attributive relation, *mikda* ŠE.BAR-*na* does not have to mean “fruit of barley” or “fruit for barley,” but may denote something like “fruit processed with barley” or “fruit-and-barley products.” What exactly these entailed is unclear: given the delicacy and variation of Persian cuisine, “fruit pastry” is only one, and certainly not the most imaginative, of a range of possibilities.
- (02f) Ušaya: *(H)uṣayā (Tavernier 2007a, 204 [4.2.781]) is a common name in PFA, but the individual mentioned here is probably the same as the one who receives *tarmu* (emmer?) on behalf of Irtašduna at her estate at Matannan (NN 1685 and, without mention of Irtašduna, NN 2450). He is also addressed in a letter-order by Irtašduna's son Iršama (Arsames; NN 0958) with the request to issue grain from ‘Madanaš’ (Matannan). For an edition and discussion of this last text see Garrison / Henkelman [forthc. 2].
- (04) *mad-[˘]da[˘]*: read *tin-ba* or *kur-ba* by Hallock.
- (05) *du*¹: text E; Hallock reads *e*²; cf. Henkelman 2010a, 700 n.119.
- (08) *terika*: see comment *ad* PF 0732:08.
- (09) 25: both digits are clear; 24 (as Hallock) is excluded by collation.
- (10) *me*: over erasure.



Fig. 19. NN 0454, upper edge, left edge, obverse, right edge, lower edge, and reverse; image Persepolis Fortification Archive Project (Oriental Institute, Chicago).

5. *Ka(ka)wišša & Kapiši(ya)*

PF 1520; fig. 20

Seals: PFS 0010 left edge; PFS 1415 reverse

Obverse

- (01) 4 QA^{MES} 20-*kur'* ZÍD.DA^{MES}
 (02) ^{BE}ú-ik-ka₄ *hi-še*
 (03) 1 ^{HAL}LÚ^{MES} 1 QA 1 *tan-*
 (04) QA *du-iš-da* 3
 (05) ^{BE}pu-hu *un-ra*
 (06) 1 QA *du-^r iš-^r-da*
 (07) *mi-ia-tuk-kaš*

Lower edge

- (08) ^{BE}EŠŠANA-^rna *ku^r-iz-za*
 (09) ^{AŠ}ka₄«-ka₄»-ú-iš-šá

Reverse

- (10) *pa-iš-da be-ul*
 (11) 23-*um-me-na*
 (12) ^{AN}zi-ik-li-na

⁰¹ 4.5 l flour, ⁰²⁻⁰³ (a man) named Wukka (received): ⁰³⁻⁰⁴ 1 man received 1.5 l, ⁰⁴⁻⁰⁶ 3 servants each received 1 l. ⁰⁷⁻⁰⁸ He (W.) carried a travel authorisation from the King. ⁰⁹⁻¹⁰ They went to Ka«ka»wišša ¹⁰⁻¹² 23rd year, first (Elamite) month (March 499 BCE).

Notes

- (02) Wukka: **(H)ūka-*, “the Pig” according to Hinz 1975a, 123 and Tavernier 2007a, 206 [4.2.794]. There are several individuals with this cruel name. One is a supplier receiving grain as revenue and allocating it as rations; his name is consistently spelled ^{HAL}ú-uk-ka₄ (PF 0531, PF 0564, PF 0651, NN 0243, NN 0775, NN 0869, NN 0986, NN 1162, Fort. 3670, Fort. 3671; perhaps NN 2364:10). A ^{HAL}hu-uk-ka₄ occurs three times in an inventory of quantities of grain withdrawn from a central storage at Kabaš (NN 2364:5, 9, 11; cf. §2.3.3) and is probably unrelated. The name of our Wukka is spelled ^{BE}ú-ik-ka₄ (the determinative ^{BE} for regular ^{HAL} is used throughout the text). Though the recipient’s seal (PFS 1415) occurs only here, this Wukka can with some confidence be identified with the ^{HAL^r}ú-ik^r-ka₄ of NN 1571, an individual coming from India to Susa in the company of two travel guides and twenty servants (same year, Dar.23). One may venture a further identification, with the ^{HAL}ú-ik[?]-ka₄[?] travelling from Susa to Matezziš (near Takht-e Ġamšīd) in Dar.22 (Fort. 2336-101). Though tempting, there seems to be no way



Fig. 20. PF 1520, upper edge, left edge, obverse, right edge, lower edge, and reverse; image Persepolis Fortification Archive Project (Oriental Institute, Chicago).

to connect the travelling Wukka to ^{HAL}ú[˘]-ik-[˘]ka₄?[˘] (or ^{HAL}ú[˘]-ik-[˘]ka₄-ma[˘]?) the *miramara*, “man-counter” of NN 1690 (cf. §1.4 with n.42) or the homographic individual receiving beer with 30 men (NN 1229) and grain for a (his?) well-paid horse groom (NN 2184:03f). Note also the ^{HAL}ú[˘]-ik-ka₄-ma travelling from Pārsa to Susa in Dar.28 (NN 2324).

- (02) PN *hiše*: Hallock 1968, 426 supplements <du-šá>.
- (05) *puhu*: cf. *ad* NN 0431 1.8, above.
- (07) *miyatukkaš*: **viyātika*-, “*viaticum*, travel authorisation” (Schmitt 1974, 104; Tavernier 2007a, 410f. [4.4.3.19]). In travel contexts, the word is a functional equivalent of Elamite *halmi*, “seal, sealed document,” hence “(travel) authorisation.”
- (09) ^{AŠ}ka₄«-ka₄»-ú-iš-šá: my emendation for Hallock’s ^{AŠ}ka₄-ka₄-ú-iš-šá; cf. *App.* 2 below. A reading ^{AŠ}ka₄-ut- is not excluded, but less likely.
- (12) The use of an Elamite month name indicates that the transaction took place in the Fahliyān region, in the western part of the territory overseen by the Pārsa administration. This is confirmed by the supplier seal, PFS 0010, used by Haturdada and his staff at the town of Kurdušum (western Fahliyān). See Garrison / Henkelman [forthc. 1] §4.2.

Fort. 0140-101; fig. 21

Seal: PFS 0625s left edge (courtesy E. Daly); another seal reverse (unidentified)

Obverse

- (01) 2 *mar-ri-iš* [˘]GIŠ[˘][GEŠTIN^{MEŠ} *kur-mán*]
- (02) ^{HAL}ma-u-zí-iš-šá-[˘]na[˘] [^{HAL}x-x-x(-x)]
- (03) *hi-še* ^{AŠ}ka₄-pi-ši-[˘]ia-mar[˘] [^{AŠ}šu-šá]-
- (04) *an iz-zí-iš-da* ^{AŠ}[mi-ia]-
- (05) *tuk-ka₄-um* ^{HAL}ir-tam₅-[˘]uk[˘][-ba-ma]-
- (06) *na ku-iz-za* 20 ^{HAL}LÚ[˘][^{MEŠ}]
- (07) *un-ra* 20-ir-ma-ki

Lower edge

- (08) ^{AN}na-zir₀-na [˘]du[˘]-
- (09) šá 2 ^{AN}na-an [˘]ha[˘][-tu]-
- (10) *ma* ^{AŠ}be-ul 23-um-[˘]me-na[˘]
- (11) ^{AN}ITI^{MEŠ} ^{AN}ha-ši-ia-[˘]ti[˘]-
- (12) *ia-iš-na*

⁰¹ 201 [wine, ⁰¹⁻⁰² allocation] from Mauzišša, ⁰²⁻⁰³ (for a man) named [PN₂] ⁰³⁻⁰⁴ (who) went from Kapišiya to [Sus]a; ⁰⁴⁻⁰⁶ he (PN₂) carried a travel authorisation from Irtamu[kba-

ma] (Irdubama). ⁰⁶⁻⁰⁹ 20 men each daily received 0.5 l, ⁰⁹⁻¹⁰ during 2 days. ¹⁰⁻¹² 23rd year, ninth month (Dec. 499 – Jan. 498 BCE).

Notes

- (02) Mauzišša: Vaučiça- (Tavernier 2007a, 341f. [4.2.1828]), name of two probably distinct individuals in PFA. One is a grain supplier (whose name is also spelled ^{HAL}*ma-u-zí-ut-tar-ra*), the other a wine supplier. The latter was active at a way station on the road between Susa and Pārsa, the name of which Koch and Arfaee recognized as Hatarrikaš, in the central Kāmfīrūz region (Koch 1990, 47, 292; Arfa'i 1999, 40 [for 'S3-1977' read NN 1797, for 'S3-1835' read NN 1535]; *idem* 2008a, 27; Henkelman 2008a, 487, 557). As a wine supplier, Mauzišša is attested in ten texts (NN 0305; NN 1535; NN 1784; NN 1797; PF 0754; PF 1551; PF 1552; Fort. 0140-101; Fort. 1207-101; Fort. 2350-102); two more may be added on the basis of the combined occurrence of wine allocations and seal PFS 0625s (PF 0372; PFa 23). Also, given his involvement in wine rations for horses (NN 1535; NN 1797), Mauzišša may be the same as the Mauziš receiving wine for camels (NN 2265:16). Finally, PFS 0625s, impressed on Fort. 0140-101 and associated with Mauzišša, or rather with his way station, also occurs on one Aramaic (PFAT 0796 [fragmentary text]) and two uninscribed tablets (PFUT 0693-104; PFUT 0847-102). See Henkelman 2008a, 158 and Garrison 2008, 163 (with collated seal drawing).
- (03) Šušān: as Mauzišša was active at a way station between Šušān/Susa and Baršan/Pārsa (cf. above), either of these toponyms may be reconstructed. On the assumption that Kapišiya renders Kāpiši, i.e., Bagrām in Afghanistan, the traveller was coming from the East, hence my restoration [^{AS}*šu-šá*]-*an* (rather than [^{AS}*ba-ir-šá*]-*an*).
- (04f.) *miyatukkam*: see *ad* PF 1520:7 above.
- (05) *tam₅-uk*: a small fragment had previously been glued to the tablet at a wrong position and partly overlapping another sign; after removal, this appeared to be PÍR (*tam₅*). Only one wedge of UG remains. ^{HAL}*ir-tam₅-uk-ba-ma* (cf. PF 1301) is a variant spelling for regular ^{HAL}*ir-du-ba-ma* (*Rtāupama-).
- (08f.) *du-šá*: probably not *du[-iš]-šá* (this form does not occur with Mauzišša).



Fig. 21. Fort. 0140-101, upper edge, left edge, obverse, lower edge, reverse, and right edge; image Persepolis Fortification Archive Project (Oriental Institute, Chicago).

Appendix 2: Achaemenid Gandhāra

As argued in § 3.1.1, Elamite references to Kandara(š) probably always refer to Gandhāra, not to Qandahār in Arachosia; this seems to be true for both the royal inscriptions and the Fortification archive. Several officials give authorisations for travel from this satrapy: Bakabaduš, Irdu(k)bama and Irdatakma. The first of these was satrap or highest administrator in Arachosia; his connection to Kandara(š) may be explained from the strategic location of his satrapy and his overarching authority, which explain his occasional renewal of the authorisations for travellers coming from Gandhāra and travelling to the west. The second person, Irdu(k)bama, may safely be located in Hinduš, yet in one case travellers are explicitly said to be “coming from Irdu(k)bama (at) Kandaraš” (cf. n.160 above) and, in another, he issues an authorisation for travellers coming from Kapišiya, presumably Kāpiši in Arachosia (cf. below). Irdatakma, finally, occurs only once with a stated region, Kandara(š); he may be tentatively identified as that region’s satrap or highest administrator.

The explicit connection between Irdu(k)bama and Kandara(š) occurs in year 17 (Fort. 1721-101:7’f), that with Kapišiya in year 23 (Fort. 0140-101). Irdatakma is once associated with Kandara(š) in year 20 (NN 0431), but was already issuing travel authorisations (with no place name stated or preserved) in year 18 (Fort. 1902A-101:14’–16’). The evidence excludes that Irdu(k)bama first served in Kandara(š) and was then re-assigned to Hinduš. One might suggest that the satrapy of Gandhāra was subordinated to the authority of the satrap of Hinduš, in turn perhaps answering to the authority of Arachosia (cf. § 3.1.1). This however, runs counter to the generally assumed position of ʾAtaguš/Sattagydia *between* Hinduš (lower Indus valley) and Gandhāra. Also, classical sources suggest the authority of the satrap of Bactria (rather than Arachosia) over ‘Indians’ bordering on Bactria proper, hence perhaps inhabitants of Gandhāra (cf. below).

Several elements may be evoked as contributions to a possible solution to the above problem. First, the *presence* of ʾAtaguš and the *absence* of Hinduš in the Bīsotūn inscription contrasts markedly with the *presence* of Hinduš and the *absence* of ʾAtaguš in the edited sample of PFA.²¹⁰ The absence of Hinduš in Bīsotūn is usually explained by assuming that this satrapy was added to

210 The personal name Sadakuš (^{HAL}*sa-da-ku-iš*, ^{HAL}*šá-da-ku-iš*, ^{HAL}*sa-ud-da-ku-iš*) reflects the geographical name ʾAtaguš (Tavernier 2007a, 63 [2.2.56]), but that does not mean that it is used as ethnonym, as Hinz / Koch 1987 q.vv. seem to imply. Perhaps *sa-ad-da-kam-zí-iš*, a qualification of cattle in Fort. 1748-101:55 (parallel to *battišmarriš*, “Patischorian” in the preceding line) also belongs here. The use in proper names and perhaps as a qualification of cattle makes the absence of ʾAtaguš from travel contexts all the more conspicuous. Whereas Hinduš does not appear in

the empire at a later date (perhaps in conjunction with Scylax' expedition). The evidence from the archive opens another possibility: that Ȫataguš was a more precisely-defined toponym, and Hinduš initially a more general term, which could include Ȫataguš. Only later would it become the name of a more narrowly-defined region. This would also explain why in a number of cases the same traveller or travel company is variously said to travel to Hinduš or Kandara(š)/Gandhāra (cf. below): Hinduš, if more broadly defined, would be adjacent to Gandhāra.

There are, however, other possibilities, which are not mutually exclusive with the above-mentioned. First, the overarching political grid and military-strategic structures among satrapies belonging to the same cluster should be observed. One may recall Karkiš, satrap of Kurmana/Kṛmāna, yet frequently moving with his troops in the territory under purview of PFA and apparently connected to Paišiyāuvādā/Naširma in southeastern Fārs (§ 1.2). His regular presence does not imply territorial control, nor a position superior to that of the satrap of Pārsa, but it does certainly indicate some kind of military assignment and associated authority. The framework for this must have been an interregional strategic scheme for the military control of the heartland. It may have coincided with a hierarchy of satrapies (subordination of Kurmana/Kṛmāna to Pārsa). Similar arrangements or structures may explain Irdu(k)-bama's extraterritorial activity at Kandara(š), depending on one's take on the Ȫataguš/Hinduš problem. An alternative and perhaps simpler solution would be that Irdu(k)bama had an estate in Gandhāra, near Kapišiya (Kāpiši), on the model of Aršāma's estates in Babylonia.

The travellers coming from Kandaraš (Fort. 1721-101:7'f.) and Kapišiya (Fort. 0140-101) with an authorisation from Irdu(k)bama (rather than Irdatakma) do not pose an insurmountable problem, especially if one adopts the broader definition of 'Hinduš.' The satrap controlling this area also controlled traffic on the Indus; for those preferring the route by river and sea (until the Kermān coast), this arguably meant that they had to secure an authorisation from Taxilā or a centre further south. Alternatively, travellers may also have travelled *via* Hinduš (in narrow sense) to take the southern route through Balōčistān, again avoiding the 'Arachosian corridor.' In both scenarios, Irdu(k)bama would have renewed travel authorisations for travellers originating from Gandhāra.²¹¹

Bīsotūn and Ȫataguš is absent from the edited part of PFA, Gandhāra is omitted on the Darius statue base and the Canal Stelae (Roaf 1974, esp. 145–7).

211 The possibility of travel by water from Hinduš was first suggested by Vogelsang 1990, 102; see also Salles 1996, 255–7 and Magee *et al.* 2005, 713.

To conclude, I am hesitant to take the evidence presented here as indication that Achaemenid Gandhāra, as a satrapy, was subordinated to the authority of the satrap in Hinduš (in turn answering to the satrap in Arachosia). On the other hand, the evidence usually cited to suggest subordination of Gandhāra to Achaemenid Bactria is not unequivocal either. It basically concerns references to ‘Indians’ among the troops commanded by Bessus, satrap of Bactria, at Gaugamela; Arrian specifies that these lived on the border of Bactria, which has been understood as a reference to Gandhāra.²¹² Alternatively, one might think of populations *in*, rather than across, the Hindūkuš.

The problem of the position of Gandhāra in the imperial framework is real in the political and administrative sense: the Achaemenid system of satrapies and the definition of regional competences could not have functioned without clear demarcations. At the same time, it is largely illusory given Gandhāra’s geographical position: cultural influences from both India and Central Asia should indeed be considered axiomatic, and commercial, administrative, and military-strategic ties likely. The matter of the formal demarcation of competences in the eastern satrapies is currently unsolvable, but the region’s coherence is clear enough, both from existing evidence and from the cited Fortification contexts.

In what follows, the focus will not be on Achaemenid Gandhāra as such, but on its centre. It may be useful, however, to list all Fortification texts relevant to the Kandara(š) dossier, including one referring to Barubaresana (Paropamisus) and two referring to Kakawišša/Kapišiya:

Text	seal	traveller	company	origin	authorisa- tion	destina- tion	date
NN 0944	<u>PFS</u> <u>0048</u> ; PFS 2938	Mitukka ²¹³	15 servants	Susa	King	Barubare- zana	XII/23
NN 0431	no seal	Zakurra <i>Kandara</i>	170 men, 120 servants	Kandara	Irdatakma	Susa	X/20

212 See Arr. *Anab.* III.8.3 (Ἰνδῶν τε ὅσοι Βακτριῶτες ὄμοροι). In the time after the regicide, Indians are again found among his troops: Curt. VII.4.6. For the suggested subordination of Gandhāra to Bactria see Vogelsang 1990; Jacobs 1994, 211f., 217–21; *idem* 2006a § 7.3 (with references). On the relation between Bactrians and Indians in PFA see Henkelman [forthc. 2] § 3.2. The matter of the Indian/Bactrian gold dust, in relation with the status of Dardestān/the Dadicae in the Achaemenid empire, is potentially relevant here as well: see Vogelsang 1989 and *idem* 1992, 194f.

213 Mitukka recurs in NN 1824, where he travels between Susa and Persepolis (Ø/23).

Text	seal	traveller	company	origin	authorisa- tion	destina- tion	date
PF 1139	<u>PFS</u> <u>0095</u> ; PFS 1090	Zakarna <i>Kandara</i>	290 men	/	/	/	IX/23
PF 1358	no seal	Nariyamana <i>kanzaba</i>	7 men, 2 servants	Kandara	Bakabaduš (→)	Susa	Ø/Ø
PF 1359	<u>PFS</u> <u>0033</u> ; PFS 1289s	Nariyamana	7 men, 1 servant	/	Bakabaduš (→)	King	XII/Ø
PF 1550	<u>PFS</u> <u>0940</u> ; PFS 0213	Zišanduš <i>barišdama</i>	1 woman	Susa	King	Kandaraš	II/22
PF 1440	<u>PFS</u> <u>1332s</u> ; PFS 0213	Zišanduš	1 man, 1 woman, 5 servants	Susa	King	Kandaraš	Ø/22
NN 1458	<u>PFS 0110</u> ; PFS 0213	[...] <i>bariš- dama</i>	<i>Hinduyap</i> : 1 man, ²¹⁴ 1 woman, 5 servants	Susa	King	Hinduš	I/23
NN 2380	<u>PFS</u> <u>0026</u> ; PFS 0213	Gidudu ⁹	man, woman, 5 servants	/	King	/	III/23
NN 0534:16	[PFS x]; NN 2097	[...]	(1 man?; horses) ²¹⁵	[...]	/	Kandaraš	Ø/(24)
NN 0534:17–18	[PFS x]; NN 2097	[...]	[x] men, 530 servants	[King]	/	Kandaraš	Ø/(24)
NN 1573	<u>PFS 0110</u> ; [PFS x]	Marriya- dadda	(60 men)	/	King ^{9 216}	Kandar	Ø/22
NN 2383	<u>PFS 0018</u> ; PFS 3080s	Marriya- dadda	59 men	Susa	King	Kandaraš	III/Ø
Fort. 1721- 101:7f.	no seal	[...]	[x] man, 11 servants	Kandaraš	Irtu(k)bama (→)	Pārsa	III/17
PF 1298	<u>PFS 0104</u> ; PFS 1244	Bakadadda	1 man, 3 servants	/	Irdatakma	Parnakka	I _{el.} /Ø
Fort. 1919b- 102:33-6	PFS x	Mannuya	100 women	/	Irdatakma	Pārsa	/
Fort. 1901A- 101:47'	[no seal preserved]	[...]	140 men [+ ...], <i>kurtaš marataš</i> ²¹⁷	Irdatakma	/	Pārsa	VIII /19

Text	seal	traveller	company	origin	authorisa- tion	destina- tion	date
Fort. 1902a- 101:14f.	[no seal preserved]	Takummin- na ⁷	2 men [...]	[...]	[...]	Irdatakma	[...] /18 ⁷
PF 1520	PFS 0010; PFS 1415	Wukka	1 man, 3 servants	King	/	‘Kaka- wišša’	I _{cl} /23
Fort. 0140-101	PFS 0625s; PFS x	Mauzišša	20 men	Kapišiya	Irdu(k) bama (→)	Susa	IX/23

Among these texts, PF 1358 (with PF 1359) stands out as one of the most important in that it mentions a *kanzaba*, i.e., a **ganzapā*, “treasury-keeper, -guard,” coming from Kandara. The many cases of ‘carrying treasure’ in PFA, in combination with the occurrence of the same word (Lat. *gangaba*) in the context of the transport of the royal treasure, place this text in the dossier of tribute payments and indicate the existence of a central treasury in Gandhāra.

- 214 The text has 1 ^{HAL}LŪ^{MES} ^{HAL}śá-‘lu-ra’ (“one free man”); the digit 1 and ‘ra’ are written over an erasure (original text: 2 ^{HAL}LŪ^{MES} ^{HAL}śá-lu-ip).
- 215 The entry reads [xx PN ... ^{AS}]‘kán-da-ráš pa-ráš ‘hi ŠĀ-ma 14 áš-śá-pár-na-iš du-iš 2 ka₄-la. The meaning of áš-śá-pár-na-iš is suggested by Fort. 0398-101 and Fort. 1734-102, where it qualifies horses. The word, doubtlessly an Iranian loan, is thus a compound with **asa-*, “horse.” Tavernier, having only NN 0534 at his disposal, thought that *aššaparnaš* qualified horses and hesitantly proposed **asafarnah-*, “glorious horse,” as a “honorary name for the best of horses” (2007a, 504 [5.3.4.9]), hence assuming the second element to be **farnah-*, “glory” (recalling *pirrašam* < *fraša-*, “excellent, magnificent, wonderful” for fowl in Fort. 0013-101; on such cases see Stolper 2015a). Alternatively it could be **prna-* “full,” but that hardly makes more sense in the above context. Be that as it may, NN 0534:16 probably refers to grain issued in part for horses: “xx 1, PN received; he went to Gandhāra; included (in the allocation) are 140 l of *aššaparnaš* (barley) (as) two rations.”
- 216 The text has ^{AS}ul ^{HAL}EŠŠANA-‘ma’⁷, presumably an imprecise spelling for ^{AS}hal-mi ^{HAL}EŠŠANA-na-ma, “in agreement with a sealed authorisation from the King” (note that *halmi* was pronounced /alm(i)/). Alternatively, one might want to read ^{AS}ul<hi> ^{HAL}EŠŠANA<na>-‘ma’, “in the house of the King,” but the parallel of NN 2383 (*hal-mi* of the King) makes this less attractive.
- 217 The *kurtas*, “(dependent) workers,” are qualified as ^{AS}‘mar-ra-taš¹’ (the last sign is written over an erasure). The term is probably Iranian, but as yet unexplained. It occurs a number of times and in different contexts in the same journal and elsewhere and is therefore unlikely to be an ethnonym or toponym.
- 218 For ^{GIS}kán-za-ba see Gershevitch 1969, 172f. and Tavernier 2007a, 423 [4.4.7.50]; for *gangabas* (acc.pl.) in Curt. III.13.7 (*humeris onera portantes*) see the important discussion by Mancini (1987, 45–55) and compare the comments by Tamerus [forthc.]

Another notable series of texts are those sealed with PFS 0213, a seal used by one or several professional travel guides. If the recurrent company of one man, one woman and five servants (PF 1440, NN 1458, NN 2380) refers to a single mission, it is interesting to see that their destination is once stated to be Kandaraš (PF 1440) and once Hinduš (NN 1458). As stated above, it would be easier to explain this if ‘Hinduš’ was used in broader sense.

Finally, PF 1520 and Fort. 0140-101 are included because of their mention of an unusual toponym: Kakawišša and Kapišiya. These names seem variants of each other and may refer to the centre of Achaemenid Gandhāra, known in Sanskrit as Kāpiśi.

PF 1520, re-published in *Appendix 1.5*, is a receipt for travel rations issued to one Wukka, who was travelling, with royal authorisation, to Kakawišša.²¹⁹ Though the place has thus far not been identified, it must have been an administrative centre: only such places occur as the stated origin or destination of travellers on official, long-distance missions and using the royal network of roads.²²⁰

The text is dated to the first month of Dar.23. Wukka occurs once again in travel context, in NN 1571, where he is coming from Hinduš, carrying a travel authorisation from Irdu(k)bama, the satrap or highest administrator in

§ 5.1. For the transport of ‘treasure’ see § 2.2.1 above. More commercial forms of long-distance exchange are perhaps implied by the occurrence of the word *kandarasanu*, signifying a textile product, in Neo-Babylonian context (CAD K 148 q.v.). Compare also the camel-hair carpets ‘from the Indian lands’ brought by Bactrian traders to Persia discussed by Henkelman in Henkelman / Folmer [forthc.] § 4 and Henkelman [forthc. 2] § 3.2.

219 There is no convincing etymology for the name. Hinz proposed *Kākaušša-, “Bruder [Onkel] Kamel,” or, only slightly less entertaining, *Kagauša-, “Welch ein Juwel!” (1975a, 145). Tavernier 2007a, 386 [4.3.117] adopts the second explanation; as a toponym “What a jewel!” is hardly persuasive, though. It is the only name for which Tavernier accepted a reconstruction with *ka-, “what a...!” It is hard to resist quoting a few other such names from the series reconstructed by Hinz: *Kabaura, “Was für ein Brauner!” (*op.cit.* 144), *Katūta-, “Was für eine Maulbeere!” (*ibid.* 150) and, last but not least, *Kakūna (*ibid.* 145). The last form is assumed to be a composite of *ka-, “welch ein!,” and the predecessor of NP *kūn*, which Hinz wisely left untranslated. For doubts and alternative solutions see Tavernier 2007a, 527 [5.5.1.29], 481 [5.3.2.76, .77].

220 This rule was not only logical (place of issue of travel documents), but also enabled a smooth operation of the network by the administrative personal at the way stations. Whereas such people may have known a general chart, written or memorized, of the empire – like the network of travel routes on the earliest extant maps, prefiguring the London tube map – they could not reasonably be expected to remember a full gazetteer of the myriad of towns and villages of the realm.

that region.²²¹ This journey took place in the same year; it ended in Susa either just before the mission to ‘Kakawišša’ or nine months after it.²²² In either case, a connection between Hinduš or, more broadly, the eastern regions of the empire and ‘Kakawišša’ is plausible.

‘Kakawišša’ may be a blurred reference to the Achaemenid administrative centre, perhaps the satrapal seat, of the Paropamisadae subdivision of Gandhāra. This idea is prompted by the existence of a Kāpiśi in the district of Kāpiśa. The town is already mentioned by Pāṇini (*Aṣṭādhyāyī* IV.2.99), hence presumably in the Achaemenid period. Ptolemy (*Geogr.* VI.18.4) makes Καπίσα one of the towns of Paropamisus.

Historical evidence, including the description of the town’s topography by the Chinese pilgrim Xuanzang (7th cent. CE), leave little doubt that Kāpiśi must be modern Bagrām, c. 80 km north of Kabul, an impression confirmed by the French excavations at the important site. Kāpiśi (now named Kāpisa) remained the regional centre until the 8th century, when it was destroyed and ceded its position to Kabul.²²³

Kāpiśi is not the only attested form of the name: a coin type with the name of the Indo-Greek ruler Eucratides I (c. 170–45 BCE), but actually struck post-

221 In NN 1571, the travel company is said to have included two *barrišdamap*, “professional guides” (**paristāva*-, “(travel) assistant” – cf. Tavernier 2007a, 428 [4.4.7.81]; cf. *ibid.* p.404 [4.4.1.6]). Wukka himself may have been such a guide. The text can be situated, *via* its supplier seal (PFS 0084), at Hidali. PF 1520 was probably drafted at Kurdušum (cf. *Appendix* 1.5 *ad* 1.12 on PFS 0010).

222 The year date is clear (Dar.23), but only the beginning of the month name is preserved: *ha-’x’[-...]*. The sign following HA can be restored as DU or NA, not as ŠI, which allows reconstruction of *hadukannaš* (first month) or *hanamakaš* (tenth), but not *hašiyatiš* (ninth). As a result, two scenarios are possible: 1) Wukka travelled from Hinduš to Susa (NN 1571 if dated to I/23), where he received a travel authorisation from the king and started his journey to ‘Kakawišša’ still in the same month (PF 1520); 2) Wukka left for ‘Kakawišša’ with a royal authorisation, presumably from Susa, at the beginning of Dar.23 (PF 1520), from ‘Kakawišša’ he went to Hinduš and from there he travelled again to Susa, reaching the western edge of Pārsa in the tenth month of Dar.23 (NN 1571).

223 Kāpiśi in Sanskrit sources: Witzel 2003, 44. Identification with Bagrām: Foucher 1939, 437–39; *idem* 1942–47, 29–31, 139–41, 364f. Compare Bernard 1982 for the location of Alexandria-of-the-Caucasus, which, contrary to Foucher, he puts at (the citadel of) Bagrām; for the classical sources see also Bosworth 1988, 369f. Foucher (1941, 549–51) proposed to emend ‘Kalasi’ in extant versions of the *Milinda Pañha* to ‘Kavisi,’ giving Kavisi in the district of Alasanda (Alexandria-of-the-Caucasus) as the place of birth of the Indo-Greek ruler Menander. Bernard (*op.cit.*) rejects this reading as arbitrary, but it is perhaps not irreconcilable with his own views (the old name ‘Kavisi’ as that of the centre of a polis founded/renamed by Alexander). For the excavations Bagrām see the survey, with references, by Carter 1989.

humously (perhaps first cent. BCE), bears, on the reverse, a Gandhāri Prakrit legend in Kharoṣṭhī script reading *Kaviṣiye nagaradevata*, “city-goddess of Kāviṣi.”²²⁴ A closely related form, in the combination “satrap of Kāviṣa,” occurs in a second-century CE Kharoṣṭhī inscription on a bronze casket from the great Mānikīālā stūpa (BM 1848,0602.2.a–b).²²⁵ Since, in addition, the development of non-initial *p* to *v* or *b* is well-established for Bactrian (Gholami 2014: 32f.) and since Iranian (Bactrian or Bactrian-like) dialects are attested for the ancient Kabul area (Witzel 1980, 114 n.80), *Kaviṣi* may tentatively be identified as a Bactrian variant of the name. If emended, ‘Kakawiṣṣa’ could be a reflection of this form: the toponym should then be read ^{AS}*ka*₄ «-*ka*₄»-*ú-iš-šá* (Kawiṣṣa), viz taking the second QA as diplography.

Though the French excavations in the southern sector of Kāpiśi/Bagrām have not yielded any pre-Hellenistic levels, Pāṇini’s and other early references to the town suggest older occupation, perhaps at another part of the site (compare the remarks of Bernard 1982, 241f.). This would fit well with Pliny’s “Cap(h)is(s)a in Capisene” (VI.25.92), situated in the mountain areas beyond the Indus lands, said to have been destroyed by Cyrus, and reminiscent of ‘Kāpiśi in the district of Kāpiśa.’

The trouble starts directly after this: Pliny adds that a city (and a region) of the same name existed in Arachosia (this time connected with the name of Semiramis).²²⁶ If this may sound improbable, there is actually some support for it from the Bīsotūn inscription. The fortress Kāpiśakāniš – where Vivāna, satrap of Arachosia, fought a battle against Vahyazdāta’s forces – is located in Arachosia.²²⁷ As the name of the stronghold probably means “Kāpiśa-town”

224 The reverse of the coin type shows an enthroned female city goddess (not Zeus, as was initially assumed), a mountain (or temple) and an elephant’s head. On the interpretation and date see Narain 1957, 62–4, 122–4, pl. IV.8; Dobbins 1970, 313–16; Bopearachchi 1991, 78f., 84f., 216, pl. 22 no.22. The elephant head has sometimes been explained as a reference to an oddly-shaped mountain near Bagrām, mentioned by Xuanzang (cf. above); see Rapson 1922, 554–62; Foucher 1929. For a different solution see Shenkar 2014, 64, n.176. See also Foucher 1942–47, 364f. on names and etymologies given by Xuanzang, which evoke the linguistic frontier character of ancient Kāpiśa.

225 For the inscription see Konow 1929, 150f. (no. 77) with pl. 27.2.

226 Tarn (1951, 96 n.6) must have been in an unusually cheerful mood when he wrote that “Pliny’s sixth book is only a collection of notes very briefly transcribed; but VI, 92, the Paropamisadae, is good stuff, *if properly construed*” [emphasis added; WH].

227 The fortress is situated in Arachosia according to the Elamite (DB_e III.24f.) and Akkadian (DB_b 80) versions of the Bīsotūn inscription; the Old Persian (DB_p III.61) omits this addition. Schmitt 2014: 200 tentatively connects Kāpiśakāni with Kāpiśi-/Kάπισσα, but deems previous attempts at an etymology uncertain. Several scholars have accepted the identification of Bagrām/Kāpiśa with Darius’s Kāpiśakāniš and

(*vel sim.*), it may be intended to distinguish it from a homonymic district.²²⁸ Whereas Bīsoṭūn uses Gandhāra and Paropamisus interchangeably, there is no such overlap with Arachosia.²²⁹ In short, if the authority of Bīsoṭūn is to be upheld, Kāpiśakāniś in Arachosia must be unrelated to Kāpiśi/Kaviśi-/Κάπισα/Cap(h)is(s)a in Gandhāra/Paropamisus. *Ergo*: Pliny's claim that there were two (nearly) homonymous towns and regions is probably correct.²³⁰

As pointed out before, the occurrence of 'Kakawiśša' in a travel text necessarily indicates that it was an administrative centre and presumably the seat of a satrap or comparable official. Although such centres also existed at sub-satrapal level, their number is not unlimited. Add to this that the evidence on Wukka indicates the likelihood of an eastern location.

If some may judge the emendation of Elamite Kakawiśša to Kawiśša audacious, the alternative of adding yet another administrative centre, with a similarly-sounding name and in the same global area, to the series Kāpiśi/Kaviśi-/Κάπισα/Cap(h)is(s)a (Paropamisus) and Kāpiśa(kāniś)/Cap(h)is(s)a (Arachosia) is scarcely more attractive. Moreover, the case for Achaemenid use of the name of Kāpiśi is strengthened by the second relevant Fortification text, Fort. 0140-101, also presented in *Appendix 1.5*.

Fort. 0140-101 documents wine rations for a group of 20 men coming from Kapiśiya (^A*ka₄-pi-ši-ia-mar*) and presumably heading for Susa. The travel authorisation is from Irdu(k)bama, whose name can be confidently re-

Pliny's Cap(h)is(s)a. See Fleming 1982 (arguing against Bernard's identification of Kāpiśakāniś as Qandahār); Vogelsang 1985, 88f.; Bivar 1988, 198–201.

228 Compare the parallel case (if interpreted correctly) of Kāpiśi/Cap(h)is(s)a in Kāpiśa/Capisene (Paropamisus). The pattern is well known in Greek sources on Achaemenid (sub-)satrapies. Cf. explicit references such as Κάριανα μητρόπολις or Περσέπολις, "Pārsa-the-City," intended to distinguish between region and centre (cf. Henkelman [forthc. 1]). For the suffix *kani*- see Bernard 1974, 177f. with n.20.

229 The Elamite version, DB_e I.13, has [^{Diš}*pār-ru-ba-ra*]-*e'-sa-na* (coll. Henkelman), the Babylonian, DB_b 6, ^{kur}*pa*-{*x*}-*ar-ú-pa-ra-e-sa-an-na* (J. Hackl); contrast *gaⁿdāra* in DB_b I.16. Jacobs (1994, 217–20, 261f., and map VI; *idem* 2006a § 7.3) tentatively identifies Paropamisus as a subordinated part (*Kleinsatrapie*) of Gandhāra, based on appointments made by Alexander; he also describes Gandhāra as answering to the authority of the satrap of Bactria. This reconstruction involves two satrapal seats, one at Πευκελαῶτις/Puṣkalavatī (Khārsadda, near Pēšawar; Karttunen 2000) for the core territory of Gandhāra, the other Kāpiśi (Bagrām), for Paropamisus.

230 Compare already Herzfeld 1929, 84f. n.1, with the same conclusion. Bernard 1974, 179–82 with n.29 equally assumes two homonymic towns, but argues that the Cap(h)is(s)a taken by Cyrus must, contrary to Pliny's statement, have been the one in Arachosia. He furthermore identifies Kāpiśakāniś with the Arachosian Capisa. Vogelsang 1992, 195–7 seems to combine all toponyms, including Caspatyrus and the 'Caspian' in Xerxes' army, under a single heading.

stored (^{HAL}*ir-tam₅-ʿuk*[-*ba-ma*]). This yields an important clue: location of Kapišiya in one of the other eastern satrapies, more precisely (greater) Hinduš or Gandhāra. The connection furthermore recalls the case of Wukka, who travelled from Hinduš with an authorisation from Irdu(k)bama and later/earlier went from Susa to ‘Kakawišša.’

Given the contexts of the two occurrences, I tentatively interpret Kapišiya as a regular *-ya* extension of the name of Kāpiši (Bagrām) and I adopt the emendation ^{AŠ}*ka₄«-ka₄»-ú-iš-šá* with reference to Kaviši, the attested (Bactrian) variant of the same name. Accordingly, I assume that Wukka travelled to Paropamisus/Gandhāra, just after or some months before a journey ‘from Hinduš’ to Susa, which may actually have started in the same place. The traveller of Fort. 0140-101, whose name history has chosen not to preserve, followed the same route: he descended from Paropamisus/Gandhāra to Hinduš, where he obtained a (renewed) travel authorisation, and then proceeded overland or by boat to Susa: distant, yet astoundingly close.

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