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Traces of language contact in Niya Prakrit: Bactrian and other foreign elements

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CHAPTER 4 Iranian loanwords: Analysis

In this fourth chapter, I will study the data collected in the preceding chapter from various angles. Four questions will be addressed (see §4.1): (i) which Iranian languages other than Bactrian were in contact with Niya Prakrit, and how do loanwords from these languages relate to the Bactrian borrowings (§4.2); (ii) how consistently were Bactrian sounds substituted in the corpus of loanwords, and what can this tell us about some debated issues in Bactrian phonology (§4.3); (iii) how were Bactrian borrowings integrated into the morphology of Niya Prakrit (§4.4); and (iv) which semantic categories can we identify among these loanwords (§4.5)? The conclusions will be presented in §4.6.

4.1 Introduction: the four questions addressed in this chapter

Based on the corpus assembled in Chapter 3, I shall now attempt to study in more detail four questions about the Iranian loanwords in Niya Prakrit that have remained largely unanswered in earlier scholarship or should be tackled anew in light of the now increased evidence. This section briefly introduces these four questions and their relevance to the overarching themes of this book.⁶²¹

Question 1 (§4.2): when, where, how, and from which language(s) have the Iranian loanwords in Niya Prakrit been adopted? To a certain extent, the previous chapter already addressed this question by distinguishing between Bactrian loanwords (§3.2); loans from Bactrian or another language (§3.3); non-Bactrian loanwords (§3.5); and borrowings from an unidentified source (§3.6). Yet, a fuller treatment is needed on which donor languages other than Bactrian there are and which loanwords can be attributed to them. Another topic worthy of further discussion is how loanwords from these languages relate in time and space to the Bactrian influence on Niya Prakrit; in other words, is it possible to develop a stratification of the loanwords, even if only provisionally?

Question 2 (§4.3): how well are the Bactrian and possibly Bactrian borrowings integrated into the phonological system of Niya Prakrit?

⁶²¹ It goes without saying that one could study these loanwords from still more angles than I do here. One could, for instance, additionally look at the gender assignment of the Bactrian loanwords in Niya Prakrit, which would, however, be a difficult task because our knowledge of grammatical gender in early Bactrian and Niya Prakrit is quite limited.

Phonological integration is a primary criterion for differentiating adapted loanwords from so-called code-switches (cf. §3.1.1). The consistency with which sound substitutions are or are not applied furthermore helps to distinguish between more and less likely etymologies (cf. §3.1.7). Finally, these substitutions could contribute to our understanding of Bactrian phonology in points where the orthography of the Graeco-Bactrian and Manichaean scripts is ambiguous (cf. §2.2).

Question 3 (§4.4): are the Bactrian and potentially Bactrian loanwords integrated morphologically, and, if yes, how? Examining this topic provides an extra opportunity to test if we are dealing with loanwords *stricto sensu* rather than code-switches, although one must be cautious not to conclude too much from the presence of morphological integration, as code-switches can also be morphologically integrated (Gardner-Chloros 2009: 31f.).⁶²²

Question 4 (§4.5): which semantic domains are covered by the identified loanwords, in particular those that have or could have been borrowed from Bactrian? This type of semantic analysis can help to reconstruct the historical context in which Bactrian influenced Niya Prakrit (cf. Chapter 7). In addition, it may also allow us to rethink some thorny historical issues, e.g. the presumed Kuṣāṇa domination of the Tarim Basin.⁶²³

4.2 Iranian languages possibly in contact with Niya Prakrit

In this section, I investigate which Iranian languages were or could have been in contact with Niya Prakrit or its ancestor; and, if so, when, where, and how. First, I attempt to arrive at a more precise dating of the contact between Bactrian and Niya Prakrit based on historical considerations and linguistic features of the assembled loanwords (§4.2.1). Related to this, I also briefly

⁶²² Generally, morphological adaptation seems more widespread than phonological integration, which occurs frequently in some languages but less in others (Myers-Scotton 2006: 219; 224). There are more aspects to the integration of loanwords than only phonology and morphology, e.g. graphemic or prosodic adaptation (cf. e.g. Clyne 2003: 142–146 and on corpus languages, Dickey 2018; 2023: 7–16). Yet, the data available for Niya Prakrit are too limited to study these other types of adaptation in any depth. It is at least the case that Bactrian and other Iranian loanwords are by default graphemically integrated, meaning that they are always written in the same type of Kharoṣṭhī script as inherited words.

⁶²³ On this debated issue in the history of the Tarim Basin, cf. recently Høisæter (2017; 2020: 124–131) and Vorderstrasse (2020), with references to older literature. See also Chapter 8.

explore where this contact most likely took place. The next subsections examine which languages other than Bactrian certainly or possibly lent words to Niya Prakrit or its ancestor (§§4.2.2–4.2.7). Finally, I propose a preliminary stratification of the Bactrian and other Iranian loanwords based on linguistic and historical evidence (§4.2.8).

4.2.1 Dating and locating the contact with Bactrian

The first question to address is when the Bactrian loanwords most likely entered Niya Prakrit. An obvious *terminus ante quem* is provided by the approximate date of the Niya documents in the 3rd to 4th century AD (Høisæter 2020: 91–103), which implies that the loanwords cannot have been borrowed later than Kuṣāṇa times (1st–3rd century AD). Dating the contact between Bactrian and Niya Prakrit to the Kuṣāṇa period is also most plausible for historical reasons (cf. §1.4.3; §§7.2–7.3), but it is still worth exploring how the linguistic evidence relates to these historical conclusions.

A first linguistic observation is that no loanword is so archaic phonologically that it would need to have been borrowed before the first written attestation of Bactrian in the 1st century AD.

One may contrast Tocharian B, which did borrow words from Pre-Bactrian. The most notable instance of such a loanword is TB *mālo* ‘alcoholic drink’ ← Pre-Bactrian **malu-* < **madu-* ‘wine’, with lambdacism but before the *u*-umlaut resulting in attested Bactr. *μολο* /mulə/.⁶²⁴ Another example is TB *sapule* ‘pot, jar’; this word must be compared with Bactr. *σαβολο* ‘idem’ < **sapauda-*, which is combined with *μολο* ‘wine’ in doc. B 5f. and may originally have been a wine jar of standardised proportions. The archaic feature of TB *sapule* is its final *-e*. Bernard and Chen (2022: 17 fn. 41) derive this vowel from Bactrian final **-ə*, but I would rather opt for an old nom.sg. ending in *-i* /i/ < **-ah* as in Sogdian and Khotanese.⁶²⁵ The same explanation could be applied to the suffix *-ike*, which can come from **-īgi*, nom.sg. of **-īga-* (Bactr. *-iγo*) < **-iya-ka-* rather than from **-īgə* (as in Bernard 2023: 57f.).⁶²⁶

⁶²⁴ Cf. Benvenuto & Bichlmeier (2022a: 98 with fn. 36; 2022b: 23 with fn. 28) and Del Tomba (2023a: 130; 144f.).

⁶²⁵ See now Michetti (fthc. §5) for some attestations of a Bactr. nom.sg. in *-i* /i/ < **-ah*.

⁶²⁶ I would date this stratum of Pre-Bactrian loans in Tocharian B to Hellenistic times (323 BC–31 BC). A first reason has to do with the chronology of Bactrian sound changes. **malu-* < **madu-* shows that lambdacism preceded *u*-umlaut,

The majority of Bactrian loanwords in Niya Prakrit are *a*-stems rather than *i*-stems (see §§4.4.1–4.4.2); so, unlike these Pre-Bactrian loans in Tocharian B, they were probably not borrowed from a nom.sg. in *-i* /*i*/ < **-ah*. The loans into Niya Prakrit could have been adopted from the attested dir.sg. in *-o*, which stood for either /*ə*/ or *-∅* (cf. §2.2.2).

At the same time, there are a few Bactrian and potentially Bactrian words in Niya Prakrit ending in vowels other than *-a*.⁶²⁷ Two of them, i.e. *nokṣari* ‘month of the new year’ and *laṣi* ‘gift’, are certainly borrowed from Bactrian, but their Bactrian source forms are only attested as *νωγοσαρλο** and *λαβνο*, i.e. without any trace of a final vowel *-ī*. To account for the *-i* in the Niya form, I cautiously proposed to reconstruct more archaic forms **νωγοσαρλι* /*nōgsarli*/ < **nawa-ka-sardī*- and **λαβνι* /*lāšni*/ < **dāšini*-. Although it is hard to prove that these words continue an old *ī*-stem (§3.2.1 s.v.), this seems preferable over having to assume that they are the only two words preserving a trace of an archaic nom.sg. ending in *-i* /*i*/ < **-ah*.⁶²⁸ Another word, i.e. *muṣḍhaṣi* ‘reward woman’, may either have been borrowed from a Bactrian compound ending in **-ḥi* /*ṣi*/ < **-stri*- or from a fem.sg. **μοζδοῖ** < **miždušī*-, but the etymology of this word is arguable (§3.2.3 s.v.; cf. also §3.7.2 s.v. *muḳaṣi*). The adverb *ajhatu* ‘free’ in CKD 152 could be a borrowing from an Iranian language in which the **-am* of an adverbial neuter **āzātam* yielded **-u*. Whether this language was Bactrian is, however, difficult to say (§3.3.1 s.v. *ajhate*). *raji* ‘cloak, woollen cloth’ finally can be plausibly explained as a loan from Bactr. **ραγζι* /*rayzi*/ (attested *ραγαζο*) < **ragzi*-, but in this case nothing excludes Sogd. *ryzy* /*rayzi*/ ‘cloth made of wool or hair’ from being the source of *raji* (§3.3.2 s.v.).

That these few loanwords were borrowed from a Bactrian donor form preserving final vowels inherited from Old Iranian is hardly provable.

which in its turn should have preceded syncope, as shown by *ροζγο* /*ruzgə*/ ‘vineyard’ < **razu-ka*-. Since (i) these sound changes had all been completed before the first century AD, and (ii) lambdacism can be tentatively dated to the Late Achaemenid and early Hellenistic period (see fn. 253), the phonology of the Pre-Bactrian loanwords in Tocharian B points to a Hellenistic date for their adoption. This conclusion is also historically likely, as both *mālo* and *sapule* seem to relate to viticulture (cf. above), and archaeobotanists have dated the introduction of grape cultivation to Xinjiang to about 300 BC (Jiang et al. 2009).

⁶²⁷ In what follows, I leave aside loanwords ending in *-e*, which are dealt with in §4.4.3, and *aḍini* ‘(broomcorn) millet’, whose *-i* could be secondary (§3.2.3 s.v.).

⁶²⁸ I also see no reason (linguistic or other) why *nokṣari* and *laṣi* would have been borrowed earlier than the other loanwords.

However, if they did, it is not excluded that also these loans were adopted in Kuṣāṇa times, as the early Kuṣāṇa inscriptions, such as the Rabatak inscription (first half of the 2nd century AD), occasionally preserve traces of final vowels, e.g. a 1sg. ending in -μι (later -μο) < *-mi or an infinitive ending in -δι (later -δο) < *-tayai (Sims-Williams & Cribb 1995–96; Michetti fthc.: §4).

As concerns the question of where these loanwords were borrowed, it is worth noting that 12 of the 56 Bactrian loanwords (= 21,4%) and 5 out of 24 loanwords from Bactrian or another language (= 20,8%) have cognates in South Asian Gāndhārī and/or other Indo-Aryan languages. See the list below.⁶²⁹ For these words, it thus seems most likely that they were adopted before Niya Prakrit was introduced in the Tarim Basin (cf. LKD: viii).

Secure Bactrian loanwords (§3.2.1)

- (2.) *kṣuna* ‘date, reign, regnal year’ ← χρονο /xšunə/ ← Gr. χρόνος ‘time (period)’. Likewise attested in SA Gandh.
- (3.) *gušura* ‘prince’ ← γοσοβοργο /γυśvũrgə/ < *wisah puθra-ka- (or *γοσβορο /γυśvũrə/ < *wisah puθra-). Likewise attested in SA Gandh., including a variant form *gušuraka**. Cf. also Skt. *guśūra-*; *gośūra-*; *gauśūra-*; *gaśūra-*; *giśūra-* ‘idem’.
- (7.) *prigha* ‘(monochrome) damask’ ← πριγγο* /prĩŋgə/ (attested πριγγο-οαβγο) < *pir-aina-ka-. Cf. Skt. *prĩga-* ‘idem’.
- (11.) *valaga* ‘animal keeper’ ← οαλαγο /wālāgə/ < *wād-āka- ‘leader’. Possibly attested as a PN in SA Gandh.
- (13.) *šada* ‘pleased, happy’ ← βαδο /šādə/ < *čyāta-. Likewise attested in SA Gandh.
- (14.) *Suliga* ‘Sogdian’ ← σογλιγο* /suyliŋgə/ (attested βονοσογολιγο ‘Sogdian estate’) < *sugdiya-ka-. Cf. Skt. *śūlika-* (variant *sūlika-*) ‘idem’.
- (15.) *stora* ‘large animal, horse, camel’ ← στωρο /stōrə/ < *staura-. Cf. BSkt. *sthora-* ‘pack animal’.

Plausible loanwords from Bactrian (§3.2.2)

- (23.) *picara* ‘(mark of) honour’ ← πιδοβαρο /pidšarə/ (attested πιδο-φαρο) < *pati-fšarV-. Likewise attested in SA Gandh.
- (28.) *saste* ‘day, elapsed’ ← σαχτο /saxtə/ < *saxta-. Likewise attested in SA Gandh.

⁶²⁹ The same is true of three Iranian loanwords from an unidentified source (§3.6): (i) *kremeru* ‘crimson, scarlet’ (cf. BSkt. *kemerũka-* ‘idem’); (ii) *nācira* ‘hunting’ (cf. Epigraphical Skt. *naścīrapati-* ‘person responsible for hunting’); and (iii) *bhaṭaraga* ‘lord, owner’ (also SA Gandh. and cf. Skt. *bhaṭṭāraka-* ‘idem’).

Arguable loanwords from Bactrian (§3.2.3)

- (31.) *aḡini* ‘(broomcorn) millet’ ← *αρζινο /arʒinə/ < Pre-Bactrian **arzani*-. Cf. Pashai *aḡin*, Dameli *äḡin*, and other Dardic forms of the same meaning.
- (35.) *oḡ-* ‘to let go’ ← *ωυιρζ- /ōhirz/ < **awa-hrz*-. Cf. SA Gandh. gerv. *praoḡidāve* ‘idem’.

Tentative loanwords from Bactrian (§3.2.4)

- (51.) *taravara* ‘sword’ ← *ταρλοβαρο /tarləvārə/ < **tarda-bāra*- ‘splitter’. Cf. e.g. Skt. *taravāri*-; *taravālikā*-; *talavāraṇa*- ‘one-edged sword’ and Hindi *tarwār*; *talwār* ‘idem’.

Secure loanwords from Bactrian or another language (§3.3.1)

- (57.) *ajhate* ‘free, noble’ ← αζαδο /āzādə/ < **āzāta*-. Cf. SA Gandh. *ajhade* in the unpublished loan contract in Bajaur fragment 15 (CKM 278).

Plausible loanwords from Bactrian or another language (§3.3.2)

- (60.) *aṭa* ‘flour’ ← αρδο /ārdə/ < **ārta*-. Cf. Skt. *aṭṭa*- ‘food’, Hindi *āṭā* ‘flour, meal’, etc.
- (64.) *draṅga* ‘office’ ← δραγγο* /draŋgə/ (attested δραγγα in DilT₅ and δδραγγοληρο ‘office-holder’) < **dranga*-. Cf. Skt. *draṅgā*- ‘stronghold, watch-station’.
- (65.) *namata* ‘felt’ ← *ναμαδο /namadə/ < **namata*-. Cf. Pāli *namataka*- ‘a felt covering for a knife’; *nantaka*- ‘dirty or ragged cloth; rag’; BHS *namata*- ‘felt to make a monk’s garment’; *nāmatika*- ‘wearing garments of felt’; Skt. *namata*- / *navata*- ‘felt, woollen stuff’.

Arguable loanwords from Bactrian or another language (§3.3.3)

- (73.) *kojava* ‘rug, blanket’ ← κωσοβο, perhaps /kōśəvə/, but the inner-Iranian etymology is unknown. Cf. Pāli *kojava(ka)*- ‘woollen rug or cover’; BSkt. *kocava*- ‘woollen blanket’; Skt. *kaucapaka*-.

With the possible exception of the toponyms *Khotamaṇna*, *Acomena*, and *Remena* (§3.2.2 s.v.; §3.2.3 s.v. *aco*; §3.2.4 s.v.), there is, by contrast, no Bactrian loanword in Niya Prakrit for which there is reason to believe that it was borrowed in the Tarim Basin. While it would be rash to exclude the possibility that Bactrian words were still adopted in the Tarim Basin, the least costly conclusion would therefore seem that most of the Bactrian words were borrowed in Gandhāra and the border area with Bactria.

4.2.2 Old Persian

Four loanwords discussed in Chapter 3 should probably be attributed to Old Persian.⁶³⁰

Secure loanwords from Old Persian (§3.5.1)

- (91.) *gaṃṇā* ‘treasury’ < **gaṃj(h)a* ← OP **ganza-* ‘treasury’ (cf. ZMP *ganj*; MMP *ganz*) ← “Median” **ganza-* < OIr. **gazna-*. Cf. Skt. *gañja-* ‘idem’.
- (94.) *divira* ‘scribe’ ← OP **dipīra-* (cf. MP *dibīr*) ← Elam. *tup-pi-ra*. Cf. Skt. *divira-* ‘idem’.
- (95.) *dhane*, a unit of measure ← OP **dāna-kā-* (cf. MP *dānag*). Cf. Skt. *d(h)ānakā-*, name of a coin.
- (97.) *mudra* ‘seal’ ← OP **mudrā-* (**muḍrā-*; cf. MP *muhr*). Cf. Skt. *mudrā-* ‘idem’.

These words all belong to the administrative sphere. Therefore, they were probably borrowed into a pre-form of Gāndhārī at the time of the Achaemenid conquest of the region and the accompanying introduction of an Aramaic writing tradition (cf. also §§1.5.1; 2.1.1).

Another common characteristic of these loanwords is the existence of cognates in Sanskrit. Because of this, one can assume that after these words were first adopted in the NW, they spread to other parts of South Asia (cf. Burrow 1973³: 389).

4.2.3 Other Old Iranian languages

As the border between Iranian and Indo-Aryan languages has been situated close to Gandhāra since at least the end of the second millennium BC, Niya Prakrit could also preserve lexical traces of early contact with other Old Iranian languages.⁶³¹ Conclusive proof is missing, however.

⁶³⁰ Some more Iranian loanwords could theoretically have been borrowed from Old Persian but are more likely loans from Bactrian; cf. §3.3.1 s.v. *harga* and §3.3.2 s.v. *draṃga*. In the list below and similar lists elsewhere in this chapter, numerals in round brackets refer to the number of the relevant lemma in Chapter 3.

⁶³¹ Cf. the famous example of Skt. $\sqrt{śav}$ ‘to go’, borrowed from an Iranian form related to Av. $\acute{s}(ii)auu-$ ‘idem’; attributed by Yāska to the Kamboja language (EWAia I: 307; 553; II: 623); and characterised by Wackernagel (1934: 199 = 1953: 360) as “eine vom NW.-Mittelindischen infizierte iranische Form”. Hoffmann (1986 = 1992: 824–828; cf. also EWAia I: 335) has convincingly argued in favour of an Old Nuristani source **kāt’s’a-* ‘the shining thing’ for Ved. *kācá-* ‘gem’ (KS+), which would again prove early linguistic contacts in the Indo-Iranian borderlands.

Perhaps the most promising example of an Old Iranian loanword not coming from Old Persian is the religious title *ratu* if truly to be compared with Av. *ratu-* ‘authority, judge, master’ (an arguable etymology). As pointed out in §3.5.3 s.v., the preservation of the final *-u* in Niya *ratu* would seem to point to a borrowing from an archaic Iranian language, and given the religious connotations of the word, one may be tempted to think of Avestan as the donor language. However, it is far from clear when, why, and how a religious term would have been borrowed from Avestan into the ancestor of Niya Prakrit. If the etymology is correct, it would seem more likely that, as a technical Zoroastrian term, *ratu-* was loaned by Avestan to a currently unidentified Middle Iranian language and from there passed on to Niya Prakrit.

For two other words (see 3.5.1 s.v. *darṣ-*; §3.5.2 s.v. *khakhordi*), I have indicated that an Old Iranian borrowing is a theoretical option, but arguably less plausible than a loan from Parthian (see below).⁶³²

4.2.4 Parthian

As already indicated in §1.5.1, one expects the Indo-Parthian rule in Gandhāra (1st–3rd century AD) to have resulted in at least a few loanwords from Parthian into the local language(s), including the predecessor of Niya Prakrit. Because of Parthian’s rather conservative phonology, such loanwords are nonetheless challenging to detect since one often cannot distinguish potential Parthian loanwords from borrowings from other Middle (or even Old) Iranian languages.

My loanword corpus includes two words that can be plausibly explained as loans from Parthian but not from another known Middle Iranian language. One word, i.e. *darṣ-* ‘to load (a beast of burden)’, has to do with transport and could be a loanword from Parth. *darz-* ‘to tie on, load (carrier or pack animal)’ (§3.5.1 s.v.). The other word, i.e. *khakhordi* ‘witch’, belongs to the religious vocabulary and has possibly been borrowed from a feminine equivalent **kaxwardī* of Parth. **kaxward* ‘wizard’ → Arm. *kaxard* ‘idem’ (§3.5.2 s.v.).⁶³³

⁶³² If *masu* ‘wine’ were indeed a loan from **maḍu-* < OIr. **madu-* (but see §3.7.1 s.v.), it would probably have to be a borrowing from an Old Iranian language.

⁶³³ One of the more promising candidates for a Parthian borrowing into South Asian Gāndhārī is the PN/title *kṣabura* ← **xšā(h)buhr* < **xšāyaθiya-puθra-* ‘son of the king’. In my article on this word (Schoubben 2022a), I forgot to note that MP *šā(h)buhr* is probably also a Parthian loanword because in inherited words **-θr-* yields MP *-s-* instead of *-hr-* (cf. MP *pus* ‘son’ < **puθra-*). Another point I

4.2.5 Khotanese

The re-examination undertaken in Chapter 3 confirms a point repeatedly made in previous scholarship: despite the geographical proximity of the two languages involved and the historically documented contact between the Shanshan kingdom and Khotan (Høisæter 2020: 357–363; 2023: 419), we find only a restricted number of Khotanese loans in Niya Prakrit.⁶³⁴

The reasons for excluding Khotanese as the source language of a particular loanword are manifold. Because of its distinctive sound changes, one can often exclude Khotanese as the donor on phonological grounds, the most decisive criterion (cf. e.g. §3.2.1 s.vv. *ṣada*; *śpara* / *śpura*; §3.3.2 s.v. *gavaśa*). In other cases, a word that could theoretically originate in Khotanese is also found in South Asian sources, whether in Gāndhārī or Sanskrit; under such circumstances, Khotanese is a less probable source for geographical reasons (cf. e.g. §3.3.2 s.v. *aṭa*). In still other instances, there is no trace of the relevant word in Khotanese, which is unlikely to be due to chance given the reasonably large corpus of Khotanese texts (cf. e.g. §3.3.1 s.v. *harga*; §3.3.2 s.v. *ayana*). Finally, there are two words for which a suitable source is attested in Khotanese, but where the absence of an agreed-upon internal etymology renders it difficult to exclude the possibility of independent borrowings from a third source, whether Iranian or not (cf. §3.6 s.v. *anada*; §3.7.2 s.v. *miṣi*).

For three of the words discussed in Chapter 3, it appears likely that they come from Khotanese. One of them, i.e. *hinajha* ‘army commander’, is a special case because it only occurs in CKD 661 as part of the titulature of the Khotanese king. Had we had more documents in Khotan Prakrit, they may well have contained some more Khotanese loanwords. In the Niya Prakrit documents, the two secure examples are both textile products.

Secure loanwords from Khotanese (§3.5.1)

- (92.) *thavaṃnaga* ‘cloth’ ← Niya **thavaṃna* ← Khot. **thāvna-* (later *thauna-*) < OIr. **täfna-*

would like to add is that Arm. *ašxarh* ‘land’ ← Early Parth. **xšahr* (later *šahr*) < **xšaθra-* confirms that the Parthian change of **-θr-* to *-hr-* preceded the simplification of initial **xš-* to **š-*, thus showing the same relative chronology as in *kṣabura* ← **xšā(h)buhr*.

⁶³⁴ On the low frequency of Khotanese loanwords in Niya Prakrit, see in particular Bailey (1949a: 121–128) and Weber (1997: 31) *contra* Konow (1936: 232). See further §5.4.

- (96.) *prahoni* ‘garment’ ← Khot. *prahoṇa-* (nom.sg. *prahoṇā*)

With *thavaṃnaga*, the aspirated *th-* speaks in favour of a borrowing from (a prehistoric form of) Khotanese. *prahoni* is to be attributed to Khotanese because of the existence of a corresponding verb *prahaṇy-* ‘to put on (clothing)’ and the absence of cognates in other Middle Iranian languages.

4.2.6 Sogdian

As part of their role as traders on the Silk Road, there was a Sogdian community in Niya and other places on the southern rim of the Tarim Basin.⁶³⁵ These people moreover left some written records of their activities in the form of a few letters contemporaneous with the Niya documents,⁶³⁶ and the Sogdian used in these letters contains a few Prakrit loanwords (listed in de la Vaissière 2005: 76). Borrowings in the opposite direction would thus not be unexpected.

There are indeed Iranian loanwords in Niya Prakrit that could have been borrowed from Sogdian (see especially §3.3, e.g. s.vv. *parivanae*; *pravamṇaga*; *raji*; *pajhavamṇta*; *vara*). However, there is not one of them that, for phonological or other reasons, needs to have come from Sogdian: in all cases, Bactrian, sometimes also another Middle Iranian language, is an equally plausible donor language.⁶³⁷ This observation does not exclude the possibility of Sogdian loanwords in Niya Prakrit. Yet, Ockham’s razor nevertheless suggests that most of these loanwords are borrowed from Bactrian rather than from Sogdian.

If this argument is correct, one can subscribe to Burrow’s conclusion (LKD: 111 s.v. *milima*) that “the evidence seems to be against Sogdian influence in these [i.e. the Niya] documents”.

4.2.7 “Indo-Scythian”

Conforming to the methodology outlined in §3.1.6, I have avoided postulating loanwords from unattested Middle Iranian languages in Niya Prakrit, even though their existence is not to be excluded *a priori*. Yet, a few words need to

⁶³⁵ For Sogdian trading activities in the region, see recently Zh. Zhang (2019) and Høisæter (2020: 370–374; 405–413).

⁶³⁶ See Sims-Williams & Bi (2018) and Sims-Williams (2020; 2023: 25ff.).

⁶³⁷ Chams Bernard kindly informed me that he came to the same conclusion when studying Middle Iranian loanwords in Tocharian. Many of them can be Sogdian, but none needs to be Sogdian rather than, for instance, Bactrian.

be said about potential loanwords from “Indo-Scythian” (“Indic Śaka”), a not directly attested Middle Iranian language allegedly closely related to Khotanese and supposed to have left some traces in the vocabulary of Gāndhārī and other Indo-Aryan languages (see §1.5.1).

One of the prime candidates for a loanword from this “Indo-Scythian” language has long been *saste* ‘day, elapsed’, a word attested in Gāndhārī inscriptions and the Niya documents. *saste* has been considered a loan from a cognate of Khot. *sasta-* ‘appeared’ that had undergone a semantic shift from ‘shined’ to ‘day’. As *saste* typically occurs in Kuṣāṇa sources, I have argued in §3.2.2 s.v. that it is more likely borrowed from Bactr. σαχτο /saxtə/ ‘day’. Accordingly, one can remove *saste* from the dossier of potential loanwords from “Indo-Scythian”.

Interestingly, these so-called “Indo-Scythian” loanwords generally cluster in Kuṣāṇa inscriptions. This is, for instance, the case with the famous term *hora* ‘donation’,⁶³⁸ which has often been assumed to come from “Indo-Scythian” **hora-* ‘gift’ < **fra-bāra-* with the same phonological development as in Khot. *hur-* (also *hor-*) ‘to give’ < **fra-bar-* (SGS: 155).⁶³⁹ In the light of our now much-increased knowledge of Bactrian, it therefore seems a fruitful topic for further research to investigate whether (some of) these “Indo-Scythian” loanwords could alternatively have been borrowed from Bactrian.⁶⁴⁰

For now, it suffices to conclude that at least Niya Prakrit provides no conclusive indication of contact with this “Indo-Scythian” language.

⁶³⁸ Attested in CKI 328. See also *horaka* ‘donor’ in CKI 48 and dir.sg. *horamurto* ‘donation master’ in CKI 149 (2x).

⁶³⁹ See e.g. Lüders (1913: 420ff. = 1940a: 249ff.; 1961: 95ff.) and KI (cxviif.; 37f.; 148).

⁶⁴⁰ Burrow’s (1975) argument about the “Indo-Scythian” origin of the Skt. word *hoḍha-* ‘stolen property’ may also need to be reconsidered. He argued that *hoḍha-* was borrowed from “Indo-Scythian” **hoṣṭa-*, a cognate of Khot. *hoṣṭa-* ‘stolen’, verbal adj. of *haus-* / *hoś-* ‘to steal’ < **fra-wāzaya-* (SGS: 155f.). Burrow’s etymology needs the assumption that this word was borrowed into a midland Prakrit as **hoṭha-* where it could undergo further lenition to **hoḍha-* (cf. also EWAia III: 546). Yet, the same word may now be attested in Gāndhārī as *hoḍe* / *hōṛe*/ in BC 11 recto 40 (Schlosser 2022: 136f.; 218; 292), where an original cluster *-ṣṭ- should have been preserved as such, written with ॠ *ṭha*.

4.2.8 A preliminary stratification of the loanwords

As far as feasible with the often ambiguous data, the preceding subsections tried to find out which Old and Middle Iranian languages lent words to Niya Prakrit or its predecessor. On top of the many Bactrian loanwords, it was possible to identify a limited number of borrowings from Old Persian and Khotanese. For other possible donor languages, the situation is less clear. Parthian and Sogdian may have contributed a few loanwords, but it is not possible to state this confidently with the evidence at hand. Decisive data for contact with unattested Middle Iranian languages is lacking altogether. Importantly, most of the loanwords may have been adopted before the arrival of Niya Prakrit in the Tarim Basin.

This subsection briefly relates these conclusions to what we know about the history of Gandhāra and the role the ancestor of Niya Prakrit played therein (cf. §1.5). The aim is to develop an admittedly still preliminary stratification of the Iranian loanwords in Niya Prakrit.

The oldest identifiable layer is the Old Persian loanwords, which, given their semantics, are clearly the result of the Achaemenid conquest of (parts of) the Indus Valley and the establishment of an Aramaic writing tradition there (6th–4th century BC) (cf. §4.2.2). Such loanwords may have been preserved, together with legal formulae and other features of this Aramaic writing tradition (cf. §1.5.1), in an administrative jargon of Gāndhārī used by local bureaucracies and monasteries, of which Niya Prakrit was to be the eventual descendant.

Later invasions of Gandhāra by people of Iranian descent from the 1st century BC onwards resulted in the adoption of additional borrowings. Such is possibly the case with the Indo-Parthians (cf. §4.2.4), but certainly so with the Kuṣāṇas (1st–3rd century AD), to whose reign the Bactrian loanwords in Niya Prakrit can safely be attributed (cf. §4.2.1; §§7.2–7.3).

For geographical reasons, contacts with Khotanese and Sogdian are more likely to have happened after the establishment of Niya Prakrit in the Tarim Basin, i.e. in the 3rd century AD at the latest. The evidence for Khotanese loanwords is scarce, however, and with the exception of Khotan Pkt. *hinajha* ‘army commander’, the two secure loanwords from Khotanese discovered so far, i.e. *thavaṃnaga* ‘cloth’ and *prahoni* ‘garment’, have no relation to administration or politics (cf. §4.2.5). Instead, they are cultural borrowings of textile products whose style and/or design may have been particularly associated with Khotan. I could not find loanwords securely ascribable to Sogdian.

4.3 Phonological correspondences and Bactrian phonology

This section examines the phonological integration of the Iranian loanwords in Niya Prakrit that are probably (§3.2) or possibly (§3.3) loaned from Bactrian.⁶⁴¹ The aims are (i) to evaluate which correspondences and hence which etymologies are more secure than others; (ii) to explain in more detail the rationale behind certain substitutions; and (iii) to see which conclusions about Bactrian phonology (or phonetics) can be drawn from them.

I start with a discussion of vowel correspondences (§§4.3.1–4.3.7). Next, I will treat the Bactrian graphemes whose phonological interpretation is most debated, viz. the triad -β-, -γ-, and -δ- (§§4.3.8–4.3.13) and the sibilants/affricates -σ-, -ϖ-, and -ζ- (§§4.3.14–4.3.21). I will then continue with the rendering of Bactr. -o- /w/ and -v- /h/ (§§4.3.22–4.3.23); the substitution of some clusters involving -ρ- /r/ (§§4.3.24–4.3.26); and a few remaining special topics (§§4.3.27–4.3.29).

Each subsection contains a list of the secure and plausible etymologies relevant to the topic discussed.⁶⁴² Arguable and tentative etymologies are listed when they require separate discussion, e.g. when they exhibit a sound correspondence not found among the secure and plausible evidence. The sound correspondence in question is indicated in boldface.

4.3.1 -α- /ǎ/

No distinction is made between short /a/ and long /ā/ in the Graeco-Bactrian script; both are written with <α> (§2.2.2).

In my loanword corpus, Bactrian short /a/ and long /ā/ are both rendered in Niya Prakrit as -a- /ǎ/: a secure example of -α- /a/ → -a- is *nokṣari* ← *νωγοσαρλι /nōgsarlī/; a secure instance of -α- /ā/ → -a- is *vaga* ← βαγο /vāgə/. More examples can be found in the list below.⁶⁴³

⁶⁴¹ I will not discuss obvious substitutions of the type Bactr. -μ- /m/ → Niya -m-.

⁶⁴² In §4.3.1 (on -α- /ǎ/), the list does not include the plausible Bactrian etymologies (§3.2.2) and the words possibly borrowed from Bactrian (§3.3) because the secure examples are sufficient for drawing conclusions.

⁶⁴³ See additionally §3.2.2 s.vv. *aṃtagi*; *are*; *āspista*; *nihaṃñi*; *picara*; *maḳa*; *yatma*; *vaṣe*; *saste*, §3.2.3 s.vv. *aṃbukaya*; *aco*; *aḍini*; *atga*; *avalika*; *aṣgara*; *caṃkura*; *nihala*; *picav*; *vaṣḍhiga*; *yaṃga*, §3.2.4 s.vv. *apcira*; *taravara*; *laṭhana*; *ṣvaṭhaṃgha* / *ṣoṭhaṃga*, §3.3.1 s.vv. *ajhate*; *śpaṣa*; *harga*, §3.3.2 s.vv. *aṭa*; *aṃana*; *gavaṣa*; *tavastaga*; *draṃga*; *namata*; *paraṣa*; *parivanae*; *pravaṃnaga*; *maravara*; *raji*, §3.3.3 s.vv. *aḡiṣḍha*; *aḡeta*; *pajhavaṃta*; *rasaṃna*; *vara*; *ṣaṃna*; *hastama*, and §3.3.4 s.v. *ujhmayuga*. In the case of the arguable etymology *caṃkura* ←

Secure loanwords from Bactrian (§3.2.1)

- (1.) *aviṃdama* ‘fine, recompense’ ← αβινδαμο /əvindāmə/ derived from *αβιν- < *upa-ayanā-
- (6.) *nokṣari* ‘month of the new year’ ← *νωγοσαρλι /nōgsarī/ (attested βιδδιγονωγοσαρλο ‘second new year’) < *nawa-ka-sardī-
- (8.) *laṣi* ‘gift’ ← *λαῖνι /lāšni/ (attested λαῖνο) < *dāšini-
- (9.) *lastana* ‘dispute, lawsuit’ ← λαστανο /lāstānə/ < *dāta-stāna-
- (10.) *vaga* ‘rent (paid for the use of land)’ ← βαγο /vāgə/ ‘share, part, portion’ < *bāga-
- (11.) *valaga* ‘animal keeper’ ← οαλαγο /wālāgə/ < *wād-āka- ‘leader’
- (13.) *šada* ‘pleased, happy’ ← ῃαδο /šādə/ < *čyāta-
- (15.) *storabala* ‘animal flock’ ← στωροβαλο /stōrəbalə/ (or /stōrəvalə/) < *staura-pada-; *storavara* ‘horse driver’ ← *στωροβαρο /stōrəvārə/ < *staura-bāra-; *storvana* ‘groom’ ← *στωροβανο /stōrvānə/ < *staura-pāna- (discussed s.v. *stora* ‘large animal, horse, camel’).

In one instance, the scribe used a length mark to indicate the long vowel /ā/ unambiguously, i.e. *tāvastaga* (otherwise spelled with *-ava-*) ← *ταβασταγο /tāvastəgə/ or a cognate thereof.

Plausible loanwords from Bactrian or another language (§3.2.2)

- (63.) *tavastaga* (20x *-ava-*; 1x *-āva-*) ‘carpet’ ← *ταβασταγο /tāvastəgə/ < *tāpasta-ka-

Besides, one can witness a change of -oa- /wā/ to Niya -o- in the case of *Khotamna* and *tomga*.

Plausible loanwords from Bactrian (§3.2.2)

- (20.) *Khotamna* ‘Khotan’ ← *χοαδανο /xwadanə/ (or *χοατανο /xwatanə/) ← Khot. *hvatana*-

Arguable loanwords from Bactrian (§3.2.3)

- (38.) *tomga*, a title ← *τ(ο)οαγγο /t(u)wāŋgə/ < *tuwāna-ka- ‘strong’

This substitution, which has a parallel in the non-Bactrian loanword *khakhordi* ‘witch’ ← *kaxwardī (a plausible etymology; §3.5.2 s.v.), can be accounted for on the assumption that the observed loss of -w- was accompanied by a colouring of the vowel -ā- to -o- (cf. infra). One may further compare the parallel change of -va- to -o- in *ṣvathamgha* to *ṣoṭhamg(h)a* and

*ζιαγγαρο /z(i)yāŋgarə/, -αρ- /ar/ would be rendered as Niya -ur-, for which see the discussion §3.2.3 s.v. On the possibility that Bactr. -ηυα- /ēha/ was substituted with Niya -e-, cf. §3.2.3 s.v. *aco* (on *Acomena*); §3.2.4 s.v. *Remena*; §4.3.23.

the royal name *Aṃkvaga* / *Aṃgvaka* (also *Aṃguvaka*) to *Aṃgo(ṃ)ka* (LKD: §7).

Two arguable etymologies, i.e. *aco* and *badho*, point to a similar sound substitution of Bactrian word-final *-αοο* /*āwə*/ with Niya *-o* (also *-ova*).

Arguable loanwords from Bactrian (§3.2.3)

- (30.) *aco* ‘frontier, border post’ ← *αδοῖαοο /*adšāwə*/ < **ati-čyāwa-*
- (43.) *badho* (4x *-o*; 4x *-ava*; 2x *-ova*) ‘pledge, mortgage’ ← *βαμδαοο /*bāmdāwə*/ ← *βαμδο ‘loaned’ (βαμδιγο ‘loan’) < **apāmita-* + suffix *-αο*

badho also has a variant spelling that ends in *-ava*, which may be a more archaic form which stayed closer to the assumed Bactrian preform. The forms in *-o*, on the other hand, can be explained when again assuming a colouring of *-ā-* to *-o-* next to the labial *-w*.⁶⁴⁴

4.3.2 -α- /ə/

As we saw in §2.2.2, Graeco-Bactrian <α> does not always stand for /ǎ/; the same grapheme may be used to write /ə/.

When standing for /ə/, *-α-* is again rendered as Niya *-a-*, as made clear by the list below.⁶⁴⁵

Secure Bactrian loanwords (§3.2.1)

- (1.) *aviṃdama* ‘fine, recompense’ ← αβινδαμο /*əvindāmə*/ derived from *αβιν- < **upa-ayanā-*

Arguable Bactrian loanwords (§3.2.3)

- (33.) *avalika* ‘swaddle’ when ← *αβαλιβκο /*əvališkə*/ < **upa-dṛṣṭa-ka-* rather than ← *αβολιβκο /*avəliškə*/ < **abi-dṛṣṭa-ka-*
- (40.) *paḱe* ‘allotment, share’ ← *παβκο /*pəškə*/ < **piṣṭa-ka-*

Arguable loanwords from Bactrian or another language (§3.3.3)

- (74.) *namanaga* / *namamniya* (5x *-aga*; 8x *-iya*; 6x *-i*) ‘exchange’ ← *ναμανο /*nəmānə*/ < **ni-mānV-*, *ναμαναγο /*nəmānəgə*/ < **ni-māna-ka-*, or *ναμανιγο /*nəmāniḡə*/ < **ni-māni-ka-*

⁶⁴⁴ Cf. also the similar type of substitution seen in TA *pārko* ← Bactr. φρογαοο /*frəyāwə*/ ‘profit’ < **fra-gāwa-* (BD II: 275; Pinault 2008: 229; DTTA: 278).

⁶⁴⁵ The list does not include the word-final sequence /*əgə*/ < **-aka-*, which can be alternatively spelled as *-αγο* or *-ογο*. Also here, /*ə*/ is normally rendered as *-a-* (cf. e.g. §3.3.2 s.v. *tavastaga*), but there are two tentative etymologies where **-ογο* /*əgə*/ may be rendered as *-uga*, i.e. *lastuga* (§3.2.4) and *ujhmayuga* (§3.3.4).

This substitution is easy to understand, as Niya *-a-* represents itself a type of schwa (cf. §2.1.1).

If the tentative etymology of *ṣvaṭhaṃgha* / *ṣoṭhaṃgha* is correct, a (likely) unaccented initial schwa would have been dropped during the borrowing process, perhaps due to the length of the word.

Tentative Bactrian loanwords (§3.2.4)

- (56.) *ṣvaṭhaṃgha* / *ṣoṭhaṃgha* ‘finance officer’ ← *αζβαρσταγγο /əzvarstāṅgə/ < *uz-bara-stān-āna-ka- ‘the person in charge of the place disbursements are stored’ with haplology of *-ān-*

4.3.3 -ε- /e/

The short vowel *-ε-* /e/ is, outside nominal morphology, a rare phoneme in Bactrian, and there are no clear-cut examples of *-ε-* /e/ among the Bactrian loanwords in Niya Prakrit. The only relevant word is the unit of measurement *milima*, whose first *-i-* may render the *-ε-* /e/ in Bactr. *μελιμνο ← Gr. μέδιμνος.

Plausible Bactrian loanwords (§3.2.2)

- (25.) *milima*, a unit of measure when ← *μελιμνο /melimnə/ rather than ← *μιλιμνο /milimnə/ ← Gr. μέδιμνος

However, *milima* is no compelling piece of evidence that Bactr. *-ε-* /e/ could be substituted with Niya *-i-* since one could alternatively posit the Bactrian source form as *μιλιμνο (see §3.2.2 s.v.). In §4.4.3, I will moreover argue that the Bactrian dir.pl. (or obl.sg.) in *-ε-* /e/ was simply rendered as *-e* in Niya Prakrit.

4.3.4 -η- /ē/

One secure (*jheniga*) and one plausible (*jenavida*) etymology point to the unremarkable conclusion that the Bactrian long vowel *-η-* /ē/ is substituted with *-e-* in Niya Prakrit.⁶⁴⁶

Secure Bactrian loanwords (§3.2.1)

- (4.) *jheniga* ‘in charge of, under the care of’ ← *ζηνιγο /zēnīgə/ (attested ζινιγο) < *zainiya-kā-

⁶⁴⁶ For arguable and tentative examples of the same correspondence, see §3.2.3 s.v. *aco* (toponym *Acomena*); *leṣ-*, §3.2.4 s.v. *kilme* (also compound *vegakilme*); *reda*; *Remena*, and §3.3.3 s.v. *ageta*.

Plausible Bactrian loanwords (§3.2.2)

- (21.) *jenavida* ‘chief of the armour’ ← ζηνοβιδο /zēnəvidə/ < *zaina-pati-

4.3.5 -i- /ĩ/

The Graeco-Bactrian grapheme <ι> writes both short /i/ and long /ī/;⁶⁴⁷ both phonemic values are substituted with -i- in Niya Prakrit, as demonstrated by -*vida* ← -βιδο /vidə/ < *-pati-, *jheniga* ← *ζηνιγο /zēnīgə/ < *zainiya-kā-, and other examples listed infra.⁶⁴⁸

Secure loanwords from Bactrian (§3.2.1)

- (1.) *aviṃdama* ‘fine, recompense’ ← αβινδαμο /əvīndāmə/ derived from *αβιν- < *upa-ayanā-
- (4.) *jheniga* ‘in charge of, under the care of’ ← *ζηνιγο /zēnīgə/ (attested ζινιγο) < *zainiya-kā-
- (5.) *daśavida* ‘chief of ten households’ ← λασοβιδο* /lasəvidə/ (attested λασοβιδιγο) < *dasa-pati- with adaptation of the first part of the compound
- (6.) *nokṣari* ‘month of the new year’ ← *νωγοσαρλι /nōgsarī/ (attested βιδδιγονωγοσαρλο ‘second new year’) < *nawa-ka-sardī-
- (7.) *prigha* ‘(monochrome) damask’ ← πριγγο* /prīṅgə/ (attested πριγγο-οαβγο) < *pir-aina-ka-
- (8.) *laṣī* (also 3x *laṣa*) ‘gift’ ← *λαβνι /lāṣnī/ (attested λαβνο) < *dāṣinī- (this reconstruction with final *-ī is admittedly debatable; cf. §3.2.1 s.v.)
- (12.) *sadavida* ‘chief of a hundred households’ ← *σαδοβιδο /sadəvidə/ < *sata-pati- with adaptation of the first part of the compound
- (14.) *Suliga* ‘Sogdian’ ← σογλιγο* /suylīgə/ (attested βονοσογολιγο ‘Sogdian estate’) < *sugdiya-ka-

Plausible loanwords from Bactrian (§3.2.2)

- (19.) *aśpista* ‘lucerne’ ← *ασπιστο /aspištə/ < *aspa-sti-
- (21.) *jenavida* ‘chief of the armour’ ← ζηνοβιδο /zēnəvidə/ < *zaina-pati-
- (22.) *nīhamñ-* ‘to deposit, to put down’ ← *νιυανζ- /nīhanz/ < *ni-ṭhanja-
- (23.) *picara* ‘(mark of) honour’ ← *πιδοραρο /pidšarə/ (attested πιδο-φαρο) < *pati-fšarV-

⁶⁴⁷ Especially but not exclusively in Kuṣāṇa sources, the digraph <ει> can also be used to write /ī/ (or sometimes /i/); see §2.2.2.

⁶⁴⁸ That *-iya-ka- yields /īgə/ is confirmed by Kuṣāṇa Bactr. λαδειγο ‘righteous’ < *dāt-*iya-ka-*, whose <ει> unambiguously points to a long vowel. For arguable and tentative etymologies in which -i- /ĩ/ is rendered as -i-, cf. §3.2.3 s.vv. *aḍini*; *avalīka*; *tim-*; *nihala*; *picav-*; *piro*; *muṣḍhaṣi*; *vaṣḍhiga*; *sujinakirta*, §3.2.4 s.vv. *apcira*; *kilme*, and §3.3.3 s.v. *agiṣḍha*. The arguable etymology *oḍ-* ‘to let go’ ← *ωυιρζιδο /ōhirzīdə/ (§3.2.3 s.v.) is a special case, on which cf. §4.3.23.

- (25.) *milima*, a unit of measure ← *μελιμνο /melimnə/ or *μλιμνο /milimnə/ ← Gr. μέδιμνος

Plausible loanwords from Bactrian or another language (§3.3.2)

- (70.) *raji* ‘cloak, woollen cloth’ ← *ραγι /rayzi/ (attested ραγαζο) < *ragzi-

One etymology, i.e. *lastuga* ← *λιστογο, does not conform to this rule, which is one of the reasons to label it “tentative”.

Tentative loanwords from Bactrian (§3.2.4)

- (55.) *lastuga*, textile product ← *λιστογο /listəgə/ < *dasta-ka- ‘of the hand’
- Yet, as I discuss in §3.2.4 s.v., it seems not impossible that the -ι- /i/ in *λιστογο was phonetically realised as a central vowel (e.g. [ɨ]) and therefore substituted with Niya -a-, itself a central vowel too (§2.1.1).

4.3.6 -ω- /ō/

There are two secure examples of the phonologically straightforward correspondence Bactr. -ω- /ō/ → Niya -o-.⁶⁴⁹

Secure loanwords from Bactrian (§3.2.1)

- (6.) *nok̄sari* ‘month of the new year’ ← *νωγοσαρλι /nōgsarlī/ (attested βιδδιγονωγοσαρλο ‘second new year’) < *nawa-ka-sardī-
- (15.) *stora* ‘large animal, horse, camel’ ← στωρο /stōrə/ < *staura-

The arguable etymology *sujinakirta* may be an exception to this correspondence.

Arguable loanwords from Bactrian (§3.2.3)

- (48.) *sujinakirta* ‘needlework, embroidery’ ← *σωσινοκιρδο /sōtsinəkirdə/ < *saučanya-kr̄ta- or *σοσινοκιρδο /sūtsinəkirdə/ < *sūčanya-kr̄ta-

See, however, the discussion in §3.2.3 s.v., where it is pointed out that the Bactrian preform of *sujinakirta* could perhaps be posited as *σοσινοκιρδο /sūtsinəkirdə/ < *sūčanya-kr̄ta- and not as *σωσινοκιρδο /sōtsinəkirdə/ < *saučanya-kr̄ta-.

4.3.7 -o- /ǔ/

In the Graeco-Bactrian script, <o> can, amongst other things, stand for both short /u/ and long /ū/.⁶⁵⁰

⁶⁴⁹ For arguable etymologies in which Bactr. -ω- /ō/ → Niya -o-, see §3.2.3 s.vv. *oq̄-*; *piro* and §3.3.3 s.v. *kojava*.

⁶⁵⁰ For spellings with the digraph <ou>, see §2.2.2.

The three secure etymologies listed below show that Bactrian short /u/ could be rendered as Niya *-u-*.⁶⁵¹

Secure Bactrian loanwords (§3.2.1)

- (2.) *kṣuna* ‘date, reign, regnal year’ ← χῑονο /xšunə/ ← Gr. χρόνος ‘time (period)’
- (3.) *guśura* (also SA Gandh. *guśuraka**) ‘prince’ ← γοσοβοργο /γυśvūrgə/ < **wisah puθra-ka-* (or *γοσβορο /γυśvūrə/ < **wisah puθra-*)
- (14.) *Suliga* ‘Sogdian’ ← σογλιγο* /suyliḡə/ (attested βονοσογολιγο ‘Sogdian estate’) < **sugdiya-ka-*

There is no secure evidence for the rendition of Bactrian long /ū/ in Niya Prakrit, as the <o> in between -β- and -ργ- in γοσοβοργο → *guśura* (*guśuraka**) can be either long or short (cf. supra). Yet, one arguable etymology, that of *aṃbukaya*, would suggest that long /ū/ was rendered in the same way in Niya Prakrit as its short counterpart.

Arguable Bactrian loanwords (§3.2.3)

- (29.) *aṃbukaya*, a title ← αμβουκαιο /ambūkā(y)ə/ (?) with unknown etymology

A somewhat peculiar case is *śpara* / *śpura* ← *σπορρο /spurrə/, the only example in the loanword corpus where Bactr. -o- /u/ derives from OIr. *-r- in a labial environment.⁶⁵²

Secure Bactrian loanwords (§3.2.1)

- (16.) *śpara* / *śpura* ‘full, completely’ ← *σπορρο /spurrə/ (attested (α)σπορο) < **us-ṛṇa-*

Because the -o- /u/ results here from *-r-, it is conceivable that its phonetic realisation was as a central vowel (e.g. IPA [ʊ]). This hypothesis could, as argued in §3.2.1 s.v., perhaps explain why Niya *śpara* / *śpura* can be written with either *-u-* or *-a-*, the latter also a central vowel (§2.1.1).

4.3.8 -β- /v/

In §2.2.3.3, we saw that the default phonological value of the Graeco-Bactrian grapheme <β> is /v/ but that one may assume <β> to stand for /b/ in the position after a nasal and when initial <β> continues OIr. *VpV-. These

⁶⁵¹ For arguable and tentative etymologies showing the same correspondence, see §3.2.3 s.v. *muṣḍhaṣi* and §3.3.4 s.v. *ujhmayuga*.

⁶⁵² A second instance could be the PN *Vhurmajheva*, whose element *Vhurma-* may represent Bactr. φορμα- < **fra-mā(na)-*, which may have passed through an intermediary stage with *fṛ- (see §3.4.2 s.v.).

deductions were based on language-internal data and are subject to two caveats: (i) evidence that also (originally) postvocalic OIr. **p* yielded Bactr. /*v*/ is restricted to the late Manichaean fragment; and (ii) the idea that <β> from **VpV*- spells /*b*/ depends on the chronology of procope in Bactrian. In this and the subsequent section, I argue that the picture provided by the loanword corpus is consistent with these earlier conclusions.⁶⁵³

Bactr. -β- in (originally) postvocalic position is normally rendered as Niya -*v*-, also when -β- continues OIr. **p*. The secure examples of this correspondence are *aviṃdama*, *daśavida*, *śadavida*, and *storvana*.⁶⁵⁴

Secure loanwords from Bactrian (§3.2.1)

- (1.) *aviṃdama* ‘fine, recompense’ ← αβινδαμο /əvɪndāmə/ derived from *αβιν- < **upa-ayanā*-
- (5.) *daśavida* ‘chief of ten households’ ← λασοβιδο* /lasəvidə/ (attested λασοβιδιγο) < **dasa-pati*- with adaptation of the first part of the compound
- (12.) *śadavida* ‘chief of a hundred households’ ← *σαδοβιδο /sadəvidə/ < **sata-pati*- with adaptation of the first part of the compound
- (15.) *storavara* ‘horse driver’ ← *στωροβαρο /stōrəvārə/ < **staura-bāra*-; *storvana* ‘groom’ ← *στωροβανο /stōrvānə/ < **staura-pāna*- (discussed s.v. *stora* ‘large animal, horse, camel’)

Plausible loanwords from Bactrian (§3.2.2)

- (21.) *jenavida* ‘chief of the armour’ ← ζηνοβιδο /zēnəvidə/ < **zaina-pati*-

Secure loanwords from Bactrian or another language (§3.3.1)

- (58.) *spāṣavaṃna* ‘guard, watchman’ ← *σπασοβανο /spāsəvānə/ < **spāsa-pāna*- (discussed s.v. *spāsa* ‘watching, guarding’)

Plausible loanwords from Bactrian or another language (§3.3.2)

- (63.) *tavastaga* ‘carpet’ ← *ταβασταγο /tāvastəgə/ < **tāpasta-ka*-
- (67.) *parivanae* ‘burden, provisions’ ← *παροβανδαγο /parəvandəgə/ < **pari-banda-ka*- ‘bound around (the beast of burden)’
- (69.) *maravara* ‘finance officer’ ← *υμαροβαρο /hmārəvārə/ < **hmāra-bāra*-

⁶⁵³ I will not treat the position after a nasal, on which see §3.2.3 s.v. *ambukaya*; §3.3.3 s.v. *hastama*; §4.3.29.

⁶⁵⁴ For arguable etymologies in which -β- < **p* → Niya -*v*-, cf. §3.2.3 s.v. *avaliika*; *piro*. The tentative etymology *apcira* (also 1x *apacira*; 1x *avacira*) ← *αβο σι(υ)ρο /āvə tsi(h)rə/ < **āp*- ‘water’ + **ciθra*- ‘seed’ would be a special case because of its spelling variation between -*p*- and -*v*-; see §3.2.4 s.v. For arguable and tentative examples of -β- < **b* → Niya -*v*-, see §3.2.4 s.v. *taravara* and §3.3.3 s.v. *pajhavamta*.

These etymologies could be seen as a confirmation that the change of OIr. **p* to Bactr. /*v*/ had already been completed in Kuṣāṇa Bactrian, but a word of caution is in place. Because the OIA intervocalic labial obstruents -*p*- and -*b*- also lenited to Niya -*v*- (§2.1.2), one cannot entirely exclude that Bactr. -β- from OIr. *-*p*- still stood for /*b*/, and that the lenition to /*v*/ happened after the adoption of the word into Niya Prakrit, in the same way that Bactr. -γ- /*g*/ can be substituted with Niya -*g*- /*γ*/ (see §4.3.11).

If, as suggested by the -*b*- in *storabala*, the -β- in Bactr. στωροβαλο ‘animal (flock)’ < **staura-pada*- stands for /*b*/, this is not necessarily a counter-argument against the idea that *-*b*- < OIr. *-*p*- had already lenited to /*v*/ in Kuṣāṇa Bactrian, as a compound boundary sometimes blocks lenition in Bactrian.⁶⁵⁵

One secure etymology, i.e. *guśura* (*guśuraka**), may moreover provide additional evidence that Bactr. <β> from OIr. *-*p*- already stood for /*v*/ in Kuṣāṇa times.

Secure loanwords from Bactrian (§3.2.1)

- (3.) *guśura* (also SA Gandh. *guśuraka**) ‘prince’ ← γοσοβορο /*γυśvũrgə*/ < **wisah puθra-ka*- (or **γοσβορο* /*γυśvũrə*/ < **wisah puθra*-)

It seems namely more likely that the -ś- in *guśura* is a simplification of Bactr. /śv/ than that it renders Bactr. **/śb/ (cf. §3.2.1 s.v.).

When resulting from OIr. **b*, Bactr. -β- is also rendered as -*v*- in initial position, as shown by the secure etymology *vaga* ← βαγο < **bāga*-.⁶⁵⁶

Secure loanwords from Bactrian (§3.2.1)

- (10.) *vaga* ‘rent (paid for the use of land)’ ← βαγο /*vāgə*/ ‘share, part, portion’ < **bāga*-

A final comment is due on the substitution of Bactr. -βγ- /*vg*/ with Niya -*pg*- required to interpret Niya *ṽapga* as a loan from Bactr. οαβγο* /*wāvgə*/ < **wāba-ka*- (and the PN *Apge* as representing Bactr. *αβγο /*āvgə*/ < **āpa-ka*-; §3.4.2 s.v.).

⁶⁵⁵ Cf. e.g. *νακανδο* ‘dug’ < **ni-kanta*-, where OIr. *-*k*- is continued as -*κ*- /*k*/.

⁶⁵⁶ For arguable and tentative examples of this correspondence, cf. §3.2.3 s.v. *vaśdhiga*; §3.2.4 s.v. *kilme* (on *vegakilme*); §3.3.3 s.v. *vara*. See also §3.2.4 s.v. *ṣvaṭhaṃgha* / *ṣoṭhaṃga* for a tentative example of -ζβ- /*zv*/ being borrowed as ṣ*v*-.

Arguable loanwords from Bactrian (§3.2.3)

- (47.) *ɣap̥ga* ‘weaver’ ← *οαβγο** /wāv̥gə/ (attested *πριγγοοαβγο*) < *wāba-ka-

Since this is not a straightforward substitution, I classified the etymology of *ɣap̥ga* as “arguable”. Although peculiar, the required fortition does not seem impossible, however, since (i) there is no cluster ****/vg/** in Niya Prakrit and (ii) the *-p-* in *ɣap̥ga* may stand for a voiced /b/ in the same way that the *-k-* in *nok̥sari* ← *νωγοσαρλι /nōgsarī/ seems to represent a voiced /g/ (cf. §4.3.11).⁶⁵⁷

4.3.9 -β- /b/

In one case, i.e. *badho* ← *βαμδαοο, initial β- corresponds to Niya *b-*.

Arguable loanwords from Bactrian (§3.2.3)

- (43.) *badho* ‘pledge, mortgage’ ← *βαμδαοο /bāmdāwə/ ← *βαμδο ‘loaned’ (cf. βαμδιγο ‘loan’) < *apāmita- + suffix -αο

This correspondence is understandable when one assumes that voicing of intervocalic voiceless stops and the procope of the initial *a- in *apāmita- preceded the lenition of **-b-* < OIr. **-p-* to Bactr. /v/ treated above, for in that case the β- in βαμδαοο would stand for /b/ (see §3.2.3 s.v.).⁶⁵⁸

On the intervocalic *-b-* in *storabala* ‘animal flock’ ← *στωροβαλο* /stōrəbalə/ (or /stōrəvalə/) < *staura-pada-, see the preceding subsection.

4.3.10 -γ- /ɣ/

As pointed out in §2.2.3.2, Bactr. <ɣ> probably represented two phonological values, i.e. /g/ when found after a nasal or deriving from OIr. **k* and /ɣ/ in all

⁶⁵⁷ The idea that the *-p-* in the cluster *-pg-* stands for a voiced consonant is strengthened by the observation that there is no attestation of a cluster *****-bg-***, whereas *-pg-* is frequently attested in loanwords and foreign names. One of the names containing a cluster *-pg-* is *Yap̥gu*, whose *-p-* probably also writes a voiced /b/ since *Yap̥gu* likely represents Bactr. *ιαβγο* (BD II: 215). If the *-βγ-* in *ιαβγο* stands for /vg/—as perhaps suggested by its being rendered in Gāndhārī as *yavuga-* (also *yavua-*; *yaüa-*) on coins of Kujula Kadphises—*Yap̥gu* ← *ιαβγο* may even provide a parallel for the fortition required to derive *ɣap̥ga* out of *οαβγο** /wāv̥gə/.

⁶⁵⁸ To my knowledge, there is no counter-evidence against this relative chronology. In fact, the absence of further lenition in the case of Bactr. /g/ < OIr. **-k-* and (probably) /d/ < OIr. **-t-* could perhaps support the hypothesis that the lenition of **-b-* < OIr. **-p-* to Bactr. /v/ was a somewhat later development.

other cases. This section briefly discusses how Niya Prakrit substituted /γ/ in initial position and intervocalically.⁶⁵⁹ The substitution of /g/ and the cluster /ŋg/ will be treated in the next sections (§§4.3.11–4.3.12).

The loanword corpus contains three examples of Bactr. /γ/ in initial position.

Secure loanwords from Bactrian (§3.2.1)

- (3.) *guśura* (also SA Gandh. *guśuraka**) ‘prince’ ← γοσοβοργο /γυśvũrgə/ < **wisah puθra-ka-* (or *γοσβορο /γυśvũrə/ < **wisah puθra-*)

Tentative loanwords from Bactrian (§3.2.4)

- (50.) *kilme* ‘family estate’ ← *γιρλομηο /γιrilmēhə/ < **gr̥da-maiθa-* ‘dwelling of a household’

Plausible loanwords from Bactrian or another language (§3.3.2)

- (62.) *gavaśa* ‘deer, stag’ ← *γααζνο /γawaznə/ < **gawazna-*

The apparent fortition of Bactr. γ- /γ/ to Niya *g-* /g/ in *guśura* and possibly *gavaśa* is, as argued in §3.2.1 and §3.3.2 s.vv., probably due to the absence of initial /γ/ in Niya Prakrit. The *k-* in *kilme* could, depending on the correctness of this tentative etymology, be the result of initial devoicing, for which see §4.3.28.

There is one instance of Bactr. /γ/ in intervocalic position, i.e. *vaga*.

Secure loanwords from Bactrian (§3.2.1)

- (10.) *vaga* (2x *-g-*; 3x *-k-*) ‘rent (paid for the use of land)’ ← βαγο /vāγə/ < **bāga-*

As expected, Bactr. /γ/ corresponds here to Niya *-g-* /γ/, but there is also a variant spelling with *-k-* that is attested three times. This variant is probably interpretable as a hypercorrect spelling inspired by the OIA suffix *-ka-*, given that the latter regularly yielded Niya *-ga* /γα/ (see §3.2.1 s.v. and cf. infra).

4.3.11 -γ- /g/

Regarding the substitution of Bactr. /g/, one must keep in mind that OIA *-k-* and *-g-* fell together as *-g-* /γ/ in Niya Prakrit, e.g. *anega* /anēya/ ‘many’ < *aneka-* and *aroga* /arōya/ ‘health’ < *aroga-* (see §2.1.2; LKD: §16).

⁶⁵⁹ For clusters involving /γ/, see §3.2.1 s.v. *Suliga*; §3.2.3 s.v. *vaṣḍhiga*; §3.3.2 s.v. *raji*; §4.3.27.

This lenition explains why intervocalic $-g-$ / g / typically corresponds to Niya $-g-$ / $γ$ /, as can be seen from the list below.⁶⁶⁰

Secure loanwords from Bactrian (§3.2.1)

- (4.) *jheniga* (28x $-iga$; 2x $-iya$) ‘in charge of, under the care of’ ← * $\zeta\eta\nu\iota\gamma\omicron$ / $z\eta\nu\iota\gamma\omicron$ / (attested $\zeta\iota\nu\iota\gamma\omicron$) < * $zainiya-k\check{a}$ -
- (11.) *valaga* (18x $-g-$; 5x $-k-$) ‘animal keeper’ ← $\omicron\alpha\lambda\alpha\gamma\omicron$ / $w\check{a}l\check{a}\gamma\omicron$ / < * $w\check{a}d-\check{a}ka$ - ‘leader’
- (14.) *Suliga* ‘Sogdian’ ← $\sigma\omicron\gamma\lambda\iota\gamma\omicron$ * / $suy\lambda\iota\gamma\omicron$ / (attested $\beta\omicron\nu\omicron\sigma\omicron\gamma\omicron\lambda\iota\gamma\omicron$ ‘Sogdian estate’) < * $sugdiya-ka$ -

Plausible loanwords from Bactrian (§3.2.2)

- (17.) *aṃtagi* ‘belonging to the district’ ← *aṃtaga** ‘district’ ← $\alpha\nu\delta\alpha\gamma\omicron$ / $and\check{a}\gamma\omicron$ / (or / $and\check{a}\nu\gamma\omicron$ /) with debated etymology
- (18.) *are* ‘a half’ when < * $arae$ < **araga* ← * $\alpha\rho\lambda\alpha\gamma\omicron$ / $arl\check{a}\gamma\omicron$ / < * $arda-ka$ - and not ← * $\alpha\rho\lambda\omicron$ / $arl\check{a}$ /

Plausible loanwords from Bactrian or another language (§3.3.2)

- (63.) *tavastaga* (19x $-aga$; 2x $-ae$) ‘carpet’ ← * $\tau\alpha\beta\alpha\sigma\tau\alpha\gamma\omicron$ / $t\check{a}v\check{a}st\check{a}\gamma\omicron$ / < * $t\check{a}p\check{a}sta-ka$ -
- (67.) *parivanae* ‘burden, provisions’ < **parivanaga* ← * $\pi\alpha\rho\beta\alpha\nu\delta\alpha\gamma\omicron$ / $par\check{e}v\check{a}n\check{d}\check{a}\gamma\omicron$ / < * $pari-banda-ka$ - ‘bound around (the beast of burden)’
- (68.) *pravamnaga* (45x $-aga$; 1x $-aka$; 1x $-ae$; 1x $-a$) ‘(authoritative) document’ ← $\pi\alpha\rho\omicron\alpha\nu\alpha\gamma\omicron$ / $parw\check{a}n\check{a}\gamma\omicron$ / < * $parw\check{a}n\check{a}k\check{a}$ -

When (felt to be) part of a suffix, it even occurs that the $-g-$ / $γ$ / in such loanwords undergoes further lenition, e.g. $-iga$ > $-iya$ (see under *jheniga*) or $-aga$ > $-ae$ (see under *tavastaga*; *parivanae*; *pravamnaga*). Occasional variants forms in $-ka$ (see e.g. under *valaga*) can be accounted for as hypercorrect spellings (see §4.3.10).

In the case of *nokṣari* ← * $\nu\omega\gamma\omicron\sigma\alpha\rho\lambda\iota$ / $n\check{o}g\check{s}ar\check{l}\check{i}$ /, one observes a substitution of Bactr. / gs / with Niya $-k\check{s}$ -.

⁶⁶⁰ For arguable and tentative examples of the same correspondence, cf. §3.2.3 s.v. *vaṣḍhiga* (5x $-iga$; 1x $-ika$), §3.2.4 s.vv. *kilme* (on *vegakilme*); *lastuga* (6x $-uga$; 1x $-uka$), §3.3.3 s.vv. *agiṣḍha* (4x $-g-$; 4x $-k-$); *ageta*; *namanaga* / *namamnaya*, and §3.3.4 s.v. *ujhmayuga*. There are no examples of Bactr. / g / in initial position. Intervocalic $-g-$ / g / can be rendered as $-g-$ / $γ$ / in South Asian Gāndhārī too. Note e.g. the names *Vagamarega* / *Vagamariḡa* (CKI 159 (3x); 509) ← $\beta\alpha\gamma\omicron\mu\alpha\rho\eta\gamma\omicron$ / $va\gamma\check{e}mar\check{e}\gamma\omicron$ / < * $baga-maryaka$ - ‘servant of god’ and *Miramarega* (CKI 325) ← $\mu\iota(\nu)\rho\omicron\mu\alpha\rho\eta\gamma\omicron$ / $mi(h)r\check{e}mar\check{e}\gamma\omicron$ / < * $mi\theta\check{r}a-maryaka$ - ‘servant of Mithra’.

Secure loanwords from Bactrian (§3.2.1)

- (6.) *nokṣari* ‘month of the new year’ ← *νωγοσαρλι /nōgsarli/ (attested βιδδιγονωγοσαρλο ‘second new year’) < **nawa-ka-sardi-*

This correspondence is most easily explained when assuming that (i) Niya *-kṣ-* is a way to write /gz/ and (ii) Bactr. /gs/ underwent voice assimilation to [gz]. If *-kṣ-* indeed stood for /gz/, this would be another example of what seems to be a more general tendency to write the first voiced sound in a consonant cluster with the grapheme normally used to write the corresponding voiceless sound (cf. also §4.3.8; §4.3.13).⁶⁶¹

4.3.12 -γγ- /ηg/

Because of the occurrence of non-etymological aspirates and voicing of consonants after nasals (§2.1.3; §2.1.5), <ṃk>, <ṃg>, and <ṃgh> became interchangeable spellings of /ηg/ in Niya Prakrit.⁶⁶² Therefore, all three would be possible renderings of Bactr. -γγ- /ηg/. This seems to be confirmed by the etymologies listed below.

Secure loanwords from Bactrian (§3.2.1)

- (7.) *prigha* ‘(monochrome) damask’ ← πριγγο* /priṅgə/ (attested πριγγο-οαβγο) < **pir-aina-ka-*

Arguable loanwords from Bactrian (§3.2.3)

- (36.) *caṃkura* ‘imposer of penalties’ ← *ζιαγγαρο /z(i)yāṅgarə/ (attested ζιανο κια-) < **ziyāni-kara-*
- (38.) *tomga* (57x *-ṃg-*; 33x *-ṃgh-*; 5x *-gh-*), a title ← *τ(ο)οαγγο /t(u)wāṅgə/ < **tuwāna-ka-* ‘strong’

Tentative loanwords from Bactrian (§3.2.4)

- (56.) *ṣvaṭhamgha* / *ṣoṭhamga* (101x *-ṃg-*; 73x *-ṃgh-*) ‘finance officer’ ← *αζβαρσταγγο /əzvarstāṅgə/ < **uz-bara-stān-āna-ka-* ‘the person in charge of the place disbursements are stored’ with haplogy of *-ān-*

⁶⁶¹ No discussion is needed on *harga* ‘dues, tax’ ← υαργο /hargə/ (§3.3.1 s.v.). For the clusters *-tg-* ← *-δγ-* /dg/, *-sg-* ← *-ζγ-* /zg/, and *-pg-* ← *-βγ-* /vg/, see §3.2.3 s.vv. *atga*; *aṣgara*; *vaṃga*; §3.4.2 s.vv. *Apge*; *Katge*; *Kutge*; *Pitga*; §4.3.8; §4.3.13; §4.3.19. As there appear to be no secure examples of sequences like ***-tg-*, ***-sg-*, or ***-pg-*, the *-g-* /γ/ in the clusters *-tg-*, *-sg-*, and *-pg-* may have a graphic rather than a phonetic background.

⁶⁶² An inherited word exemplifying this type of orthographic variation is *upaśaṃk-* (CKD 515) next to *upaśaṃg-* (CKD 86; 272) and *upaśaṃgh-* (CKD 88; 722) < OIA *upa* + √*śaṅk* ‘to suspect’.

Plausible loanwords from Bactrian or another language (§3.3.2)

- (64.) *draṃga* (16x **-ṃg-**; 7x **-ṃgh-**) ‘office’ ← δραγγο* /draṅgə/ (attested δραγγα in DilT₅ and δδραγγοληρο ‘office-holder’) < **dranga-*

prigha,⁶⁶³ *tomga*, *ṣvaṭhamgha* / *soṭhamga*, and *draṃga* are normally spelled with <ṃg> or <ṃgh>, and *caṃkura*, an arguable etymology, is consistently written with <ṃk>.

4.3.13 -ḍ- /d/

The main point of debate regarding the phonological interpretation of the Graeco-Bactrian grapheme <ḍ> is whether, as I assume, it always indicates /d/ or if it could also stand for /ḍ/ (see §2.2.3.1).

The only example of word-initial ḍ- in the loanword corpus is *draṃga* (also *tr-*) ← δραγγο*, whose status as a Bactrian loan is debatable.

Plausible loanwords from Bactrian or another language (§3.3.2)

- (64.) *draṃga* (19x **dr-**; 4x **tr-**) ‘office’ ← δραγγο* /draṅgə/ (attested δραγγα in DilT₅ and δδραγγοληρο ‘office-holder’) < **dranga-*

The corpus contains more instances of intervocalic -ḍ-, which is typically substituted in Niya Prakrit with either *-t-* or *-d-*; compare, for instance, *-vida* next to *-vita* (*daśavida*; *śadavida*; *jenavida*) ← -βιδο and *śada* next to *śata* ← βαδο.⁶⁶⁴

Secure loanwords from Bactrian (§3.2.1)

- (5.) *daśavida* (99x **-d-**; 21x **-t-**) ‘chief of ten households’ ← λασοβιδο* /lasəvidə/ (attested λασοβιδιγο) < **dasa-pati-* with adaptation of the first part of the compound
- (12.) *śadavida* (22x **-d-**; 7x **-t-**) ‘chief of a hundred households’ ← *σαδοβιδο /sadəvidə/ < **sata-pati-* with adaptation of the first part of the compound
- (13.) *śada* (34x **-d-**; 8x **-t-**) ‘pleased, happy’ ← βαδο /śādə/ < **cyāta-*

Plausible loanwords from Bactrian (§3.2.2)

- (20.) *Khotamṇa* ‘Khotan’ (80x **-t-**; 1x **-th-**; 1x **-d-**) ← *χοαδανο /xwadənə/ (or *χοατανο /xwatanə/) ← Khot. *hvatana-*
- (21.) *jenavida* ‘chief of the armour’ ← ζηνοβιδο /zēnəvidə/ < **zaina-pati-*

Secure loanwords from Bactrian or another language (§3.3.1)

- (57.) *ajhate* (6x **-t-**; 5x **-d-**) ‘free, noble’ ← αζαδο /āzādə/ < **āzāta-*

⁶⁶³ For the absence of anusvāra, see §3.2.1 s.v.

⁶⁶⁴ For arguable and tentative examples, cf. §3.2.4 s.v. *reda* and §3.3.3 s.v. *ageta*. Occasional variant spellings with aspirates (e.g. *Khothana* next to *Khotana*) are due to unetymological aspiration (§2.1.3).

Plausible loanwords from Bactrian or another language (§3.3.2)

- (65.) *namata* ‘felt’ (20x *-t-*; 1x *-th-*) ← * $\nu\alpha\mu\alpha\delta\omicron$ /*namadə*/ < **namata-*

-d- is overall more common than *-t-*, but the frequency differs for each word individually, as made clear by the list above. The reason for this interchange between *-t-* and *-d-* is that both letters are alternative ways of writing the same phoneme, i.e. / δ / (see §2.1.2). The fact that Bactrian intervocalic *- δ -* is substituted with Niya / δ / should, however, not be taken as evidence for a Bactrian phoneme / δ / since nothing excludes that Bactr. /*d*/ was substituted with Niya / δ /, in the same way that Bactr. *- γ -* /*g*/ can correspond to Niya *- \underline{g} -* / γ / (see §4.3.11). In other words, the Bactrian loanwords in Niya Prakrit unfortunately do not help in deciding the phonological value(s) of Bactr. < δ >.

Finally, two consonant clusters should be briefly discussed, i.e. *- $\delta\mu$ -* /*dm*/ and *- $\delta\gamma$ -* /*dg*/.⁶⁶⁵

Plausible loanwords from Bactrian (§3.2.2)

- (26.) *yatma* ‘measurer of rations’ ← * $\iota\alpha\delta\mu\alpha$ /*yādmā*/ (later * $\iota\alpha\delta\mu\omicron$ /*yādmə*/) < **yāta-mā-*

Arguable loanwords from Bactrian (§3.2.3)

- (32.) *atga* ‘additional, complementary’ ← * $\alpha\delta\gamma\omicron$ /*adgə*/ < **ati-ka-*

The consistent rendering of Bactr. *- $\delta\mu$ -* /*dm*/ as Niya *-tm-* seen in *yatma* ← * $\iota\alpha\delta\mu\alpha$ /*yādmā*/ seems orthographic in nature, as (i) there is no example of *-dm-* in Niya Prakrit, only of *-tm-*, and (ii) there seems to be a preference to use the sign for the voiceless sound as the first element in a cluster of two voiced consonants (cf. §4.3.8; §4.3.10).⁶⁶⁶ The substitution of Bactr. *- $\delta\gamma$ -* /*dg*/ with Niya *- $\underline{t}\underline{g}$ -* presupposed by *atga* ← * $\alpha\delta\gamma\omicron$ /*adgə*/ (cf. also §3.4.2 s.vv. *Katge*; *Kutge*; *Pitga*) would be explainable along the same lines, as there is likewise no example of a ligature ***-dg-*.

4.3.14 *- σ -* /*s*/

The phonological interpretation of < σ > is one of the main cruxes in the study of Bactrian phonology: two phonemic values, i.e. /*s*/ and /*ts*/, are accepted by most scholars, but there is debate whether < σ > had still more values. In

⁶⁶⁵ Other clusters are treated in more detail elsewhere and therefore not included here: *- $\delta\omicron\beta$ -* /*dš*/ in §4.3.18; *- $\zeta\delta$ -* /*žd*/ in §4.3.21; *- $\rho\delta$ -* /*rd*/ in §4.3.24; *- $\gamma\delta$ -* /*γd*/ in §4.3.27; and *- $\nu\delta$ -* /*nd*/ in §4.3.29. For *- $\mu\delta$ -* /*md*/, see §3.2.3 s.v. *badho*.

⁶⁶⁶ There is an example of *-dm-* in Kuča Prakrit, the PN *Yodma(ṃ)re* in CKD 838.

§2.2.4.2, I tentatively concluded there to be two more, i.e. /ś/ and /tś/. Now the question arises how the loanword corpus relates to these earlier conclusions, themselves mainly based on language-internal data.

In this subsection, I discuss the secure and plausible examples of Bactr. /s/ in the loanword corpus (see the list below).⁶⁶⁷ The other phonemic values of <σ> will be treated in the next subsections (§§4.3.15–4.3.17).

In initial position, Bactr. σ- /s/ is, as expected, borrowed with s- in Niya Prakrit. *Suliga* is a secure example of this correspondence and *saste* a plausible one.⁶⁶⁸

Secure loanwords from Bactrian (§3.2.1)

- (14.) *Suliga* ‘Sogdian’ ← σογλιγο* /suyliḡə/ (attested βονοσογολιγο ‘Sogdian estate’) < *sugdiya-ka-

Plausible loanwords from Bactrian (§3.2.2)

- (28.) *saste* ‘day, elapsed’ ← σαχτο /saxtə/ < *saxta-

Regarding intervocalic position, one should take into account that all intervocalic sibilants were voiced in Gāndhārī (cf. §2.1.2), which explains the -ś- /z/ in *śpaśa* (cf. §3.3.1 s.v.).⁶⁶⁹

Secure loanwords from Bactrian or another language (§3.3.1)

- (58.) *śpaśa* ‘watching, guarding’ ← πασο /spāsə/ < *spāsa-

The cluster -στ- /st/ can be faithfully rendered as Niya -st-, as exemplified by *lastana*, *stora*, and, if a Bactrian loan, *tavastaga* (cf. also §3.3.3 s.v. *hastama*).⁶⁷⁰

Secure loanwords from Bactrian (§3.2.1)

- (9.) *lastana* ‘dispute, lawsuit’ ← λαστανο /lāstānə/ < *dāta-stāna-
- (15.) *stora* ‘large animal, horse, camel’ ← στωρο /stōrə/ < *staura-

Plausible loanwords from Bactrian or another language (§3.3.2)

- (63.) *tavastaga* ‘carpet’ ← ταβασταγο /tāvastəḡə/ < *tāpasta-ka-

⁶⁶⁷ As in the rest of this chapter, I also include loanwords where it cannot be decided if the donor was Bactrian or another Iranian language.

⁶⁶⁸ For an arguable etymology exhibiting the same correspondence, cf. §3.2.3 s.v. *sujinakirta*.

⁶⁶⁹ If Niya *rasamna* ‘rope (?)’ is a loanword from Bactr. *ρασανο /rasanə/ < *rasanā- (an arguable etymology; see §3.3.3 s.v.), -σ- would correspond to Niya -s-, but the latter also stands for /z/ phonologically (§2.1.2; §2.1.7.3).

⁶⁷⁰ On the substitution of Bactr. -ρστ- /rst/ with Niya -th- /ʃt^(h)/ presupposed by the tentative etymology *śvaṭhamgha* / *ṣoṭhamga* ← *αζβαρσταγγο /əzvarstāḡə/ (§3.2.4 s.v.), cf. §4.3.24.

The cluster -σπ- /sp/ shows two different substitutions.

Secure loanwords from Bactrian (§3.2.1)

- (16.) *sp̄ara* / *sp̄ura* ‘full, completely’ ← *σπορο /spurrə/ (attested (α)σπορο) < *us-p̄na-

Plausible loanwords from Bactrian (§3.2.2)

- (19.) *asp̄ista* ‘lucerne’ ← *ασπιστο /aspistə/ < *aspa-sti-

Secure loanwords from Bactrian or another language (§3.3.1)

- (58.) *sp̄aša* (also 1x with *sp-*, 1x with *sv-*) ‘watching, guarding’ ← σπασο /spāsə/ < *spāsa-

In the case of *sp̄ara* / *sp̄ura* and *sp̄aša*, σπ- /sp/ corresponds to Niya *sp̄-* /sf/ (cf. the variant spelling of *sp̄aša* with *sv-*), whereas *asp̄ista* exhibits a correspondence between Bactr. -σπ- /sp/ and Niya -*sp̄-*. The *sp̄-* /sf/ in *sp̄ara* / *sp̄ura* and *sp̄aša* is due to a sound change also operative in inherited vocabulary, e.g. *parosp̄ara* ‘one another’ < OIA *paraspara-* (cf. §3.2.1; §3.3.1 s.vv.). The most likely reason for the -*sp̄-* in *asp̄ista* ‘lucerne’ is a folk etymological influence of *aspa* ‘horse’ (cf. §3.2.2 s.v.).

For the rendering of Bactr. /gs/ as Niya -*kṣ-* in *nokṣari* ‘month of the new year’ ← *νωγοσαρλι /nōgsarlī/, see §4.3.11.

4.3.15 -σ- /ts/

When the unconditioned reflex of OIr. *č, Bactr. <σ> is thought to stand for /ts/ (§2.2.4.2). Since there is a cluster -*ts-* in Niya Prakrit, including in loanwords,⁶⁷¹ one anticipates that Bactr. /ts/ would be rendered as Niya -*ts-*. There is, however, no example of such a correspondence in the loanword corpus.

In case Niya *paraša* is a loan from Bactr. παρασσο /parātsə/ ‘away’ < *parāčā (see above), this word would instead exemplify a substitution of Bactr. /ts/ with Niya -*ṣ-* /z/ (1x also -*s-*).

Plausible loanwords from Bactrian or another language (§3.3.2)

- (66.) *paraša* (9x -*ṣ-*; 1x -*s-*) ‘abduction, plundering’ (and derivatives) when ← παρασσο /parātsə/ ‘away’ < *parāčā rather than ← *παραζο /parāzə/ < *parāza- ‘taking away’

For this, there may be a parallel in the form of the feminine marker -(*i*)sa (-(*i*)śa), in all likelihood a loan from Bactr. -σα /tsā/ < *čī-ā- (see §6.4.4). This substitution is phonologically a little unexpected, but one could assume that

⁶⁷¹ Cf. e.g. *tsamgina*, a type of corn or *putgetsā*, a type of camel.

/ts/ was first simplified to /s/, either in Bactrian or during the borrowing process, and subsequently lenited to /z/ in Niya Prakrit.⁶⁷²

4.3.16 -σ- /ś/

The idea that <σ> can also stand for /ś/ is mainly based on Manichaean examples which suggest that OIr. *s was palatalised to Bactr. /ś/ when preceded by /ĩ/, e.g. *wyś(p)* ~ οισ(π)ο ‘all’ < **wispa*-.⁶⁷³ The issue with this argument is that the Manichaean fragment is late and the observed palatalisation thus potentially a post-Kuṣāṇa (or dialectal) phenomenon.

Yet, I believe that one of the secure etymologies in the loanword corpus, i.e. *guśura*, provides robust evidence that this palatalisation had been completed and phonologised already in Kuṣāṇa times.

Secure loanwords from Bactrian (§3.2.1)

- (3.) *guśura* (also SA Gandh. *guśuraka**) ‘prince’ ← γοσοβοργο /γυśvǔrgə/ < **wisah puθra-ka*- (or *γσοβφο /γυśvǔrə/ < **wisah puθra*-)

As pointed out in the relevant lemma (§3.2.1 s.v.), the -ś- /ź/ in *guśura* is difficult to account for if the -σ- in γοσοβοργο stands for /s/. Therefore, it seems better to assume that, as in MBactr. *wyś(p)* < **wispa*-, the *s in **wisah* became palatalised, as the -σ- in γοσοβοργο would then spell /ś/ and be a plausible source of the -ś- /ź/ in *guśura*. This hypothesis moreover implies the palatalisation to be phonemic in Bactrian because it will have been phonologised at the same time that the *w in **wisah* caused colouring of *-i- to Bactr. -o- /u/.

Otherwise, the loanword corpus does not provide decisive evidence of a Bactrian phoneme /ś/. Since preceded by the vowel -ι- /i/, the cluster *-στ- in *ασπιστο ‘lucerne’ → *aśpista* could be assumed to stand for /št/.

⁶⁷² One could be tempted to compare the simplification of OIA -ts- to Niya -s- in a word such as *osuka* ‘eagerness’ < *autsukya*-. This word is, however, not an exact parallel as the -s- in *osuka* probably stands for a geminate /ss/ and not for **/z/. Another fake parallel is Gandh. *uśiaṇa* ‘settling on’ (SĀ^{S5} recto 7; 11), which is probably not a direct continuant of **utsīdana*- (cf. Pāli *ussīdana*-) but a case of recomposition with the preverb *u*- < *ud*- (on which cf. Brough 1962: 106). In other words, the pre-form of *uśiaṇa* can be set up as **u-sīdana*-, meaning that the -s- /z/ in *uśiaṇa* does not result from *-ts- but from *-s-.

⁶⁷³ It is unclear whether palatalisation of OIr. *s also occurred when followed by -ι- /ĩ/ (cf. §2.2.4.2). The loanword corpus is uninformative on this point.

Plausible loanwords from Bactrian (§3.2.2)

- (19.) *aspista* ‘lucerne’ ← *ασπιστο /aspištə/ < **aspa-sti-*

Yet, Niya *aspista* cannot prove this: the *-st-* in this word could be due to a substitution of a foreign and phonotactically inadmissible cluster /št/ with Niya *-st-* (cf. §3.2.2 s.v. and §4.3.27 on *saste* ‘day, elapsed’ ← σαχτο), but *aspista* would, of course, also be consistent with the view that the *-στ- in *ασπιστο stood for /st/.⁶⁷⁴

Another indecisive case is *kojava* (also *kośava*) ‘rug, blanket’.

Arguable loanwords from Bactrian or another language (§3.3.3)

- (73.) *kojava* (18x *-j-*; 7x *-ś-*) ‘rug, blanket’ ← κωσοβο, perhaps /kōśəvə/, but the inner-Iranian etymology is unknown

It is possible that (i) this word is a loan from Bactr. κωσοβο ‘idem’; (ii) the *-σ-* in κωσοβο stands for /ś/; and (iii) Bactr. /ś/ was borrowed as Niya /ž/ (spelled as *-j-* or *-ś-*) due to the intervocalic voicing of sibilants in Gāndhārī. Yet, all of this remains hypothetical because of the absence of an inner-Iranian etymology of Bactr. κωσοβο (cf. §3.3.3 s.v.).

4.3.17 -σ- /tś/

In §2.2.4.2, I hypothesised that <σ> had a phonemic value /tś/ when continuing OIr. *č in front of *-i-* /ĩ/. The main reason for this hypothesis was the cluster *-nž-* /ndž/ in MBactr. *y’wyd’nžyg* ~ ιασηδανζιγο ‘for ever’ < **yāwaitāna-čiya-ka*-.⁶⁷⁵ Does the loanword corpus provide more evidence?

In the case of *sujinakirta*, Bactr. *-σ- < *-č- in front of **-i-* /i/ corresponds to Niya *-j-* /ž/.

Arguable loanwords from Bactrian (§3.2.3)

- (48.) *sujinakirta* ‘needlework, embroidery’ ← *σωσινοκιρδο /sōtśinəkirdə/ < **saučanya-kṛta-* or *σοσινοκιρδο /sūtśinəkirdə/ < **sūčanya-kṛta-*

This correspondence would seem to be most easily explained when assuming that *-σ- stood here for /tś/, which could have been approximated in Niya Prakrit with the voiceless palatal *-c- and subsequently weakened to *-j-* /ž/ (cf. §3.2.3 s.v.).

⁶⁷⁴ The tentative etymology *lastuga*, textile product ← *λιστογο /lištəgə/ would be another example of this kind (§3.2.4 s.v.).

⁶⁷⁵ If this argument is correct, one could either say that depalatalisation of *č to /ts/ did not occur in front of *ĩ, parallel to what happened in Khotanese and Tumshuqese (Emmerick 1989: 213). Else, one could assume a secondary reversal from *tsĩ out of *čĩ back to /tśĩ/.

A similar example is *apcira*, where *-σι- < *-čī- would be rendered in Niya Prakrit as -*ci*- without further lenition (cf. §3.2.4 s.v.).

Tentative loanwords from Bactrian (§3.2.4)

- (49.) *apcira*, a unit of measure (for vineyards), ← *αβο σι(υ)ρο /āvə tsi(h)rə/ < *āp- ‘water’ + *čīθra- ‘seed’

This etymology is admittedly only tentative, but §5.2.2 will present a more secure grammatical borrowing exhibiting the same correspondence, viz. the adoption of the Bactrian suffix -σ(ε)ιγο /tśīgə/ < *-čīya-ka- as Niya -*ci*.

I would cautiously conclude that these examples provide further evidence that OIr. *č yielded Bactr. /tś/ in front of -ι- /ĩ/. The etymologies themselves do, however, not depend on the correctness of this argument, since, as pointed out by Nicholas Sims-Williams (p.c.), there are at least two other options: Bactr. -σ- /ts/ could have had an allophonic pronunciation [tśi] before -ι- /ĩ/ or Bactr. -σι- /tsĩ/ could have been approximated as Niya -*ci*- as the closest sound combination available.⁶⁷⁶

4.3.18 -p- /š/

The substitution of Bactr. -p- /š/ is overall quite simple: it typically corresponds to the retroflex sibilant -ṣ- in Niya Prakrit. In Anlaut, this substitution is exemplified by *śada* (see also §3.3.3 s.v. *śaṃna*).

Secure loanwords from Bactrian (§3.2.1)

- (13.) *śada* ‘pleased, happy’ ← pαδο /šādə/ < *čyāta-

A plausible etymology, i.e. *vaše*, provides an example in intervocalic position (see further §3.2.3 s.v. *muṣḍhaṣi*).

Plausible loanwords from Bactrian (§3.2.2)

- (27.) *vaše* ‘garments’ ← *οαpο /wašə/ < *wastra-

As concerns clusters, *kṣuna* yields evidence for Bactr. χp- /xš/ being rendered as Niya *kṣ-* (*kṣ-*), and *laṣi* for Bactr. -pv- /šn/ corresponding to Niya -ṣ- /ṣn/.⁶⁷⁷

⁶⁷⁶ In support of the second option, it can be noted that there are only two inherited words in Niya Prakrit containing a cluster -*tsi*-, both times morphologically induced: (i) *savatsi* ‘having calves’ (CKD 7), dir.pl. in -*i* < -*e* made from *savatsa** (LKD: §60) and (ii) *vatsiya* ‘with a calf’ (CKD 676, 2x), an adj. made from *vatsa* ‘calf’ with the suffix -*i* (LKD: §75).

⁶⁷⁷ See also §3.2.4 s.v. *laṭhana* and §4.3.27 for a possible substitution of Bactr. -χp- /xšt/ with Niya -ṭh- /ṣṭ^(h)/.

Secure loanwords from Bactrian (§3.2.1)

- (2.) *kšuna* (also *kš-*) ‘date, reign, regnal year’ ← *χβono* /*xšunə*/ ← Gr. χρόνος ‘time (period)’
- (8.) *laši* ‘gift’ ← **λαβνι* /*lāšni*/ (attested *λαβνο*) < **dāšini*-

The fact that Indo-Aryan loanwords into Bactrian display the same sound correspondence makes me conclude that Bactr. -*β*- /*š*/ was most likely realised as [ʃ] (thus also Michetti 2024: 186f.).⁶⁷⁸ As noted by Sims-Williams (p.c.), a retroflex pronunciation is also suggested by the sign *β* being derived from the Greek letter rho (ρ) (Falk 2022: 155–167).

The plausible etymology of *maġa* illustrates a correspondence between Bactr. -*βκ*- /*šk*/ and Niya -*ġ*-.⁶⁷⁹

Plausible loanwords from Bactrian (§3.2.2)

- (24.) *maġa* ‘bean’ ← **μαβκο* /*māškə*/ < **māša-kā*-

This correspondence finds its explanation in the observation that Kharoṣṭhī 𑀧𑀺𑀢𑀺 can also be used for the combination of a sibilant and -*k*- in inherited words (see in more detail Schoubben 2021).⁶⁸⁰

The substitution of Bactr. -*δοβ*- /*dš*/ with Niya -*c*- exemplified by the plausible etymology *picara*⁶⁸¹ may have to do with Bactrian phonetics.

Plausible loanwords from Bactrian (§3.2.2)

- (23.) *picara* ‘(mark of) honour’ ← **πιδοβαρο* /*pidšarə*/ (attested *πιδοφαρο*) < **pati-fšarV*-

Phonologically, -*δοβ*- must be interpreted as /*dš*/, but voice assimilation to [tʃ] can have happened at the phonetic level. If so, the voiceless palatal -*c*- (phonetically perhaps [tʃ]) would be a sufficiently close approximation of the Bactrian cluster.⁶⁸²

⁶⁷⁸ Relevant examples include MBactr. *šmn** (attested obl.pl. *šmn’n*) ‘(Buddhist) monk’ ← Gandh. *śamaṇa* < OIA *śramaṇa*-, *βιβνο* /*višnə*/ ← *Viṣṇu*- ‘a theonym’, and *ιαβνο* /*yakšə*/ ← *yakša*- ‘a mythical being’. Sims-Williams (2011a: 174) gives two possibilities for the phonetic value of *β* /*š*/, i.e. [ʃ] and [ʂ].

⁶⁷⁹ For two arguable etymologies displaying the same correspondence, cf. §3.2.3 s.vv. *avaliġa*; *paġe*.

⁶⁸⁰ It seems likely that Bactr. -*σκ*- /*sk*/ would be substituted in the same way, but there is no example of this cluster in the loanword corpus assembled here.

⁶⁸¹ Two arguable etymologies illustrate the same correspondence. See §3.2.3 s.vv. *aco*; *picav*-.

⁶⁸² Assuming the phonetic value of Bactr. /*dš*/ was indeed [tʃ], it is noteworthy that this Bactrian cluster was not rendered as Niya -*kš*-, since the phonetic value [tʃ] sometimes assumed for the latter (see §2.1.6) would seem to be an even

4.3.19 -ζ- /z/

This and the next two subsections build further on §2.1.7 and §2.2.4.3, whose conclusions are therefore briefly recapitulated below.

§2.1.7 concerned the Kharoṣṭhī sign 𑀘 *pha*. This akṣara remained the standard way to render a foreign *z* throughout the history of Gāndhārī. Once, however, the intervocalic lenition of sibilants resulted in the addition of /z/ to the phonemic inventory of Gāndhārī, 𑀘 *pha* became interchangeable intervocalically and in certain consonant clusters with 𑀓 *sa* and the newly created sign 𑀚 *ṣa*.

§2.2.4.3 concluded that <ζ> had five different phonological values in the Graeco-Bactrian script: (i) /z/ as the outcome of OIr. *z (< Plr. *ʃ) in an unconditioned environment; (ii) /ž/ when continuing OIr. *ʃ, possibly also from a palatalised *z; (iii) /ǰ/ if the result of OIr. *ǰ or clusters whose voiceless counterpart yields -p- /š/; (iv) /dz/ when due to postnasal voicing of /ts/ < OIr. *č or deriving from *-tVz-; and (v) /dž/ as a palatalised variant of /dz/ in front of -i- /ĩ/.

In this subsection, I study how Bactr. /z/ was substituted in Niya Prakrit (examples are listed below). The substitution of /ž/ is treated in §4.3.20 and that of /ǰ/ in §4.3.21. Because there are no examples of /dz/ and /dž/ in the loanword corpus, these phonological values do not require further discussion.

There is one secure and one plausible example of Bactr. /z/ in initial position.

Secure loanwords from Bactrian (§3.2.1)

- (4.) *jheniga* ‘in charge of, under the care of’ ← *ζηνιγο /zēnīgə/ (attested ζιιιγο) < *zainiya-kā-

Plausible loanwords from Bactrian (§3.2.2)

- (21.) *jenavida* ‘chief of the armour’ ← ζηνοβιδο /zēnəvidə/ < *zaina-pati-

The first (*jheniga*) shows Bactr. /z/ to be rendered, as expected, with Niya *jh-*, while the second (*jenavida*) exemplifies the occasional interchange between initial *jh-* and *j-* (for which see §2.1.7).

The examples concerning intervocalic position are all loans that could but need not have been borrowed from Bactrian. If they are Bactrian, they show

closer approximation of [tʃ]. Therefore, I still believe that “the phonetic value of <kʃ> ... deserves a re-examination” (Schoubben 2022a: 150 fn. 12).

that intervocalic /z/ could be substituted with either *-jh-* or *-s-/ṣ-* /z/ and that both options may occur within the same word.

Secure loanwords from Bactrian or another language (§3.3.1)

- (57.) *ajhate* (10x *-jh-*; 1x *-s-*) ‘free, noble’ ← αζαδο /āzādə/ < *āzāta-

Plausible loanwords from Bactrian or another language (§3.3.2)

- (66.) *paraṣa* (9x *-ṣ-*; 1x *-s-*) ‘abduction, plundering’ (and derivatives) when ← *παραζο /parāzə/ < *parāza- ‘taking away’ rather than παρασο /parāso/ ‘away’ < *parāčā

Arguable loanwords from Bactrian or another language (§3.3.3)

- (75.) *pajhavaṃta* (1x *-jh-*; 1x *-s-*) ‘breastband (?)’ ← *παζοβανδο /pāzəvandə/ < *pāza(h)-banda- ‘bound around the breast’

ajhate is by default written with *-jh-*, but a variant form with *-s-* is attested once; if to be traced back to OIr. **parāza-*, *paraṣa* would render /z/ with *-ṣ-*, once with *-s-*; and *pajhavaṃta* is once spelled with *-jh-* and once with *-s-*.⁶⁸³

The phonological integration of clusters of *-z-* followed by a nasal was also not too complicated.

Plausible loanwords from Bactrian or another language (§3.3.2)

- (62.) *gavaṣa* ‘deer, stag’ ← *γαοαζνο /γawaznə/ < *gawazna-

Independent of whether *gavaṣa* is a loan from Bactr. *γαοαζνο /γawaznə/ or a cognate of it, the etymology points to a substitution of Ir. **-zn-* with Niya *-ṣ-* /sn/. As Niya /sn/ may have been phonetically realised as [zn] due to voice assimilation of the sibilant to the following nasal, this can be seen as an exact match (cf. §3.3.2 s.v.). The Niya names ending in *-rasma* ← Ir. **-razman-* ‘battle’ (§3.4.1) show a similar correspondence between Ir. **-zm-* and Niya *-sm-*; they can alternatively be written with *-jhm-* /zm/ (see also §3.3.4 s.v. *ujhmayuga*).

Consonant clusters in which *-z-* combines with a stop or a fricative will have been more challenging to integrate due to the near-complete absence of such clusters in Niya Prakrit. If correctly etymologised, *aṣgara* ← *αζγαρο /azgarə/ and *ṣvaṭhaṃgha* ← *αζβαρσταγγο /əzvarstāṅgə/ would both suggest that *-z-* could be rendered as *-ṣ-* /z/ in this type of cluster (cf. §3.2.3; §3.2.4 s.vv.).

⁶⁸³ Concerning the non-Bactrian loanwords, it can be noted that Khot. *-ys-* /z/ is substituted with *-jh-* in the case of *hinajha* ‘army commander’ ← *hīnāysa-*.

Arguable loanwords from Bactrian (§3.2.3)

- (34.) *ašgara* ‘herald (?)’ ← *αζγαρο /azgarə/ (attested PN αζγαρακο) < *azda-kara- < *azdā-kara-

Tentative loanwords from Bactrian (§3.2.4)

- (56.) *švaṭhaṃgha* / *šoṭhaṃga* ‘finance officer’ ← *αζβαρσταγγο /əzvarstāngə/ < *uz-bara-stān-āna-ka- ‘the person in charge of the place disbursements are stored’ with haplology of -ān-

A third instance of this substitution could be the PN *Mašdhige* if, as proposed in §3.4.1, this represents Mr. **mazdīg(ə)* < **mazd-iyā-ka-* ← **mazdā-* ‘wisdom’ and *-zd- was thus borrowed as -šdh- /zḏ^(h)/. While one must admit the fragility of conclusions based on these uncertain etymologies, two observations add further plausibility to the idea that a foreign -z- could be rendered as -š- /z/ in clusters.⁶⁸⁴

First, one can invoke the parallel of the non-Bactrian loanword *darš-* ‘to load’ ← **darz-*; unless one follows Bailey (1946: 768) in positing the donor form as **darž-* < **darz(a)ya-*, this loanword exemplifies a substitution of Ir. *-rz- with Niya -rš- (§3.5.1 s.v.).⁶⁸⁵

Secondly, it appears that there are not many alternatives to the proposed substitutions of *-zd-, *-zg-, and *-zv-. Given that foreign *-z- is most commonly rendered as -jh- (cf. supra), one could anticipate *-zd-, *-zg-, and *-zv- to have been borrowed as ***-jhd-*, ***-jhg-* / ***-jhḡ-*, and ***-jhv-*, respectively. In reality, none of these clusters occurs in Kharoṣṭhī sources, in contrast to, for instance, -jhb-, which occurs in the frequent word *cojhbo*. Assuming that the *z in these clusters would be borrowed with Niya -s-, as in -š- /sn/ ← **-zn-*, does not seem too attractive either: there are no attestations of ***-sd-* in the Gāndhārī corpus; -sg- occurs only twice;⁶⁸⁶ and -sv- is mainly limited to Sanskritisms because OIA -sv- developed to Niya -śv- /-śp- (LKD: §49). The clusters -šdh-, -šg-, and -šv-, on the other hand,

⁶⁸⁴ Interestingly, Thomas (1921: 280) already mentioned “the possibility that some of the š’s, e.g. in *ašgara*, were pronounced as z’s”.

⁶⁸⁵ In his edition of CKI 721, Falk (2001: 314f. = 2013a: 53f.) argued that the sequence of akṣaras he reads as *arṣaṇo* is a variant of the Iranian title *erjhuṇa* in CKI 53. If correct, *-rz- would in the same word be rendered as either -rjh- and -rš-, but the reading and interpretation of *arṣaṇo* are uncertain.

⁶⁸⁶ The examples are the theonym *Acokisgiya* (CKD 361) and the anthroponym *Casgeya* (CKD 601). The latter is otherwise always written with <sg> (more than 40 attestations), which suggests that the instance in CKD 601 is a mistake.

typically occur in loanwords,⁶⁸⁷ making them suitable candidates as approximations of *-zd-, *-zg-, and *-zv-.

4.3.20 -ζ- /ž/

The instances of /ž/ in my loanword corpus are all special cases discussed in more detail in other sections: the plausible etymology *nihanñ* ‘to deposit, to put down’ ← *νιανζ- /nihanž/ (§3.2.2 s.v.) exemplifies the Niya Prakrit loss of voiced consonants after nasals treated in §4.3.29; the etymologies of *aḍini* ‘(broomcorn) millet’ and *oḍ-* ‘to let go’ from respectively *αρζινο /aržinə/ and pres.3sg. *ωιρζιδο /ōhiržidə/ (§3.2.3 s.vv.) are based on the idea that Bactr. /rž/ could be substituted with Niya -ḍ- /r/, for which see §4.3.26; the interpretation of *caṃkura* ‘imposer of penalties’ as a loan from *ζιαγγαρο /ž(i)yāṅgarə/ (§3.2.3 s.v.) requires initial devoicing to *c-*, which will be dealt with in §4.3.28; and *rāji* ‘cloak, woollen cloth’ would, if a loan from Bactr. *ραγζι /rayži/ (§3.2 s.v.), illustrate a substitution of Bactr. -γζ- /γž/ with Niya -j- /ž/ž/, as discussed further in §4.3.27.

4.3.21 -ζ- /ž/

The loanword corpus contains three arguable instances of Bactr. /ž/ (they are listed below). Although none of these etymologies is fully secure, they at least point to the same conclusion, viz. that Bactr. -ζ- /ž/ is borrowed with Niya -ṣ-, which, intervocalically or in contact with a voiced consonant, most likely stands for /z/ (cf. §2.1.2).⁶⁸⁸

Arguable loanwords from Bactrian (§3.2.3)

- (44.) *muṣḍhaṣi*, woman exchanged within exogamous marriage practices ← *μοζδοφι /muždəšī/ < *mižda-strī- ‘reward woman’ or *miždušī- ‘gnädige (Frau)’
- (45.) *leṣ-* ‘to dispatch, to conduct’ ← *λιζ- /liž/ or *ληζ- /lēž/ < *darzaya-

⁶⁸⁷ It has been argued that Niya Pkt. *muṣga* is an inherited word meaning ‘testicle’ < Skt. *muṣka-* (LKD: §49; Duan & Tshelothar 2016: 8; 76). Yet, the implied voicing of OIA -ṣk- to Niya -sg- is phonologically implausible, so I do not accept this interpretation. -ṣv- is rare in Niya Prakrit; besides *ṣvaṭhaṅgha*, this cluster only occurs in the foreign PN *Ṣvalýaya* (CKD 709), also written as *Ṣpalyaya* (CKD 579; 709) and *Ṣpalyiya* (CKD 817).

⁶⁸⁸ Parallel to my argument that Bactr. /š/ was a voiceless retroflex [ʂ] (§4.3.18), I suppose that /ž/ corresponds to IPA [z].

Arguable loanwords from Bactrian or another language (§3.3.3)

- (71.) *agiṣḍha* ‘cover, rug’ ← *αγιζδο /ǎgiždə/ (or /ǎyiždə/; attested γιζδο) with unknown etymology

A further example of this sound substitution is the PN *Aṣamna*, which should probably be compared with Bactr. αζανο /ǎžānə/ ‘worthy’ < **arjyāna*- (cf. §2.2.4.3 and §3.4.1).

In the case of *muṣḍhaṣi* and *agiṣḍha*, Bactr. -ζδ- /žd/ corresponds to -ṣḍh-, which suggests that the dental stop was assimilated to the preceding retroflex sibilant. The unetymological aspiration in -ṣḍh- may be a graphic phenomenon, seeing that a ligature <ṣḍ> never occurs in Niya Kharoṣṭhī.⁶⁸⁹

4.3.22 -o- /w/

While /w/ is absent from the phonemic system of most Old and Middle Indo-Aryan languages, it is commonly accepted that the special Kharoṣṭhī sign 𑀧 *ya* writes a glide /w/ (see §2.1.6). 𑀧 *ya* would therefore be a likely rendering of Bactr. -o- /w/, an expectation confirmed by a few Gāndhārī coins on which the Bactrian royal name οημο /wēmə/ is rendered in Kharoṣṭhī script as *Yima* (see Falk 2009 = 2013a: 184–195).

As shown by the list of etymologies below,⁶⁹⁰ there are instances where Bactr. -o- /w/ is likewise substituted with -y- in Niya Prakrit. Yet, one should note that substituting Bactr. -o- /w/ as Niya -v- happens in fact more frequently.

Secure loanwords from Bactrian (§3.2.1)

- (11.) *valaqa* ‘animal keeper’ ← οαλαγο /wālāgə/ < **wād-āka*- ‘leader’

Plausible loanwords from Bactrian (§3.2.2)

- (27.) *vaṣe* ‘garments’ ← *οαβο /wašə/ < **wastra*-

Arguable loanwords from Bactrian (§3.2.3)

- (30.) *aco* (also loc.sg. *acovaṃmi*; cf. also *acoviṃna* ‘border official’) ‘frontier, border post’ ← *αδοβαοο /adšāwə/ < **ati-čyāwa*-
- (41.) *picav-* ‘to hand over’ ← *πιδοβαο- /pidšaw/ < **pati-čyawa*-

⁶⁸⁹ The only instance of Kharoṣṭhī <ṣḍ> is in Kuča Prakrit document CKD 833 (gen.sg. *ṣḍayaṣa*, a PN).

⁶⁹⁰ The list concerns the substitution of Bactr. -o- /w/ in initial and intervocalic position. For the rendering of -Cwǎ-, see §4.3.1. If I am right in assuming that the toponym *Remena* renders Bactr. *ρη(ο)μηναοο /rē(w)mēhanə/ < **raiwa-maiθana*- ‘rich dwelling’, it is uncertain whether -w- was already lost in Bactrian or if the loss should be attributed to the borrowing process.

- (43.) *badho* (also 4x *-ava*; 2x *-ova*) ‘pledge, mortgage’ ← *βαμδαοο /bāmdāwə/ ← *βαμδο ‘loaned’ (cf. βαμδιγο ‘loan’) < *apāmita- + suffix -ao
- (48.) *yapga* ‘weaver’ (5x *y-*; 1x *v-*) ← οαβγο* /wāvgə/ < *wāba-ka-

Plausible loanwords from Bactrian or another language (§3.3.2)

- (61.) *ayana* (96x *-y-*; 14x *-v-*) ‘village, territory of a clan’ ← *αοαυανο /āwahanə/ < *ā-wahana- ‘dwelling’
- (62.) *gavaśa* ‘deer, stag’ ← *γαοαζνο /γawaznə/ < *gawazna-
- (68.) *pravamṇaga* ‘(authoritative) document’ ← παροοαναγο /parwānāgə/ < *parwānākā- (with analogical adaptation to *pramana* ‘authority’)

So far, only the arguable etymology *yapga* shows a nearly consistent rendering of Bactr. *o-* /w/ as Niya *y-*. One potentially Bactrian loanword, i.e. the plausible etymology *ayana*, has most often *-y-* (96 tokens), but sometimes also *-v-* (14 tokens). The other words listed above consistently substitute Bactr. *-o-* /w/ with Niya *-v-*. Hence, it seems that Bactr. *-o-* /w/ can, in initial and intervocalic position, be rendered as either *-v-* or *-y-*, without there being any clear pattern as to when which is used.

The most likely reason behind the substitution of Bactr. *-o-* /w/ with either *-v-* or *-y-* is the weak distinction between these two sounds (LKD: §29), which also frequently interchange in inherited vocabulary, e.g. *viṃṇaveti* beside *viṃṇaveti* ‘(s)he orders’ < OIA *vijñāpayati*.

4.3.23 *-v-* /*h-*/

Both Bactrian and Niya Prakrit have a phoneme /h/, so the default expectation must be that, except in some clusters, Bactr. *-v-* /h/ is rendered as Niya *-h-*. This expectation is met by *nihamñ-*, *nihala*, and, if indeed a Bactrian loanword, *harga*.

Plausible loanwords from Bactrian (§3.2.2)

- (22.) *nihamñ-* ‘to deposit, to put down’ ← *νιυανζ- /nihanz/ < *ni-θanǰa-

Arguable loanwords from Bactrian (§3.2.3)

- (39.) *nihala* ‘settlement, agreement’ ← *νιυαλο /nihālə/ ← *νιυαλ- ‘to settle’ (attested *νααλ-*) < *ni-śādaya-

Secure loanwords from Bactrian or another language (§3.3.1)

- (59.) *harga* ‘dues, tax’ ← υαργο /hargə/ ← OP *harkā-

At the same time, *-h-* often drops in Niya Prakrit (see LKD: §28), and it seems that the (potentially) Bactrian loanwords were not immune to this phonological tendency. Most importantly, a few of the etymologies proposed in Chapter 3, admittedly none of them fully secure, require that

intervocalic *-h-* was lost during or after the borrowing process with subsequent vowel contraction. See the list below.

Arguable loanwords from Bactrian (§3.2.3)

- (30.) *Acomena*, place name ← *αδοβαοομηναο /adšāwəməhənə/ < *ati-čyāwa-maiθana- ‘dwelling located at the border’ (discussed s.v. *aco* ‘frontier, border post’)
- (35.) *oq-* ‘to let go’ ← *ωσιρζ- /ōhirz/ < *awa-hrz-

Tentative loanwords from Bactrian (§3.2.4)

- (50.) *kilme* ‘family estate’ ← *γιρλομηνο /γiɾlmēhə/ < *gr̥da-maiθa- ‘dwelling of a household’
- (53.) *Remena*, place name, ← *ρη(ο)μηναο /rē(w)mēhənə/ < *raiwa-maiθana- ‘rich dwelling’

Plausible loanwords from Bactrian or another language (§3.3.2)

- (61.) *avana* ‘village, territory of a clan’ ← *αοαυαο /āwahanə/ < *ā-wahana- ‘dwelling’

The same phonological process is occasionally observable in inherited vocabulary in variations of the type *danagrana* (CKD 577; 588) next to *danagrahana* ‘giving and taking’ or *goma* (CKD 72 (15x); 683 (3x); 718) besides *gohuma* / *gohumi* / *goduma* < *godhūma*- ‘wheat’. Therefore, I would say that the loanwords and forms such as *danagrana* and *goma* reflected the spoken language more accurately, whereas I would interpret forms in which intervocalic *-h-* was preserved, e.g. *danagrahana*, as historical spellings.⁶⁹¹

Also worth mentioning is *maravara* ‘accountant’.

Plausible loanwords from Bactrian or another language (§3.3.2)

- (69.) *maravara* ‘accountant’ ← *υμαροβαο /hmārəvārə/ < *hmāra-bāra-

With this plausible etymology, one can posit a simplification of the ***hm-* in the Iranian source to Niya *m-* because initial ***hm-* inhibited Prakrit phonotactics.

Another word to discuss is the arguable etymology *hastama*, also attested as *astama* (§3.3.3 s.v.).

⁶⁹¹ My interpretation rests on the assumption that the loss of intervocalic *-h-* is to be dated after the adoption of Bactrian loanwords in Niya Prakrit or that this sound change was synchronically active over a more extended period. To my knowledge, there is no counterevidence against either option. Unless they are likewise historical spellings, the preservation of the *-h-* in *nihamñ-* and *nihala* may have been motivated by the synchronically obvious morpheme boundary after *ni-* (cf. §3.2.3 s.v. *nihala*).

Arguable loanwords from Bactrian or another language (§3.3.3)

- (79.) *hastama* (10x **ha**-; 5x **a**-) ‘quarrel, dispute’ ← *(**v**)ασταμβο /(**h**)astambə/ < **ha(m)-stamba-*

Here, there are two options: either the variant form *astama* merely exemplifies the loss of *-h-* also observed in inherited words in Niya Prakrit (so Burrow), or it is ascribable to variation within the donor language. The second option would be possible under the assumption of a Bactrian loan since **υασταμβο* and **ασταμβο* < **ha(m)-stamba-* could have co-existed in the same way that *υαμοπαλο* and *αμβαλο* ‘accordingly, immediately’ < **hama-pada-* did (BD II: 272).

Finally, a note on *apcira* ← **αβο σι(υ)ρο* /*āvə tsi(h)rə*/ is due (cf. also §3.2.4 s.v.).

Tentative loanwords from Bactrian (§3.2.4)

- (49.) *apcira*, a unit of measure (vineyards) ← **αβο σι(υ)ρο* /*āvə tsi(h)rə*/ < **āp-* ‘water’ + **ciθra-* ‘seed’

As implied by the brackets in **αβο σι(υ)ρο*, there are again two possibilities if this tentative etymology is correct. Option one is that /*hr*/ was simplified to /*r*/ in Bactrian before the reconstructed form **αβο σι(υ)ρο* was borrowed into Niya Prakrit as *apcira*. This possibility is suggested by the existence of doublets, such as *πορο* /*pūrə*/ next to *πουρο* /*puhrə*/ ‘son’ < **puθra-* or *παρο* /*šārə*/ next to *παυρο* /*šahrə*/ ‘city’ < **xšaθra-*, which prove that /*hr*/ could indeed be simplified to /*r*/ within Bactrian.⁶⁹² Yet, given that an intervocalic cluster *-hr-* is not attested in Kharoṣṭhī sources, there is the alternative possibility that Bactrian /*hr*/ was substituted with *-r-* in Niya Prakrit, similar to how Ir. **xšā(h)buhr* < **xšāyaθiya-puθra-* ‘son of the king’ was borrowed into Gāndhārī as *kṣabura* (Schoubben 2022a).⁶⁹³

In short, Bactr. *-υ-* /*h*/ was in initial and intervocalic position borrowed as *-h-* in Niya Prakrit, but the latter could, in turn, disappear due to phonetic processes also active in inherited vocabulary. Foreign clusters involving /*h*/ probably required simplification.

⁶⁹² Simplified forms such as *πορο* and *παρο* already occur in early Bactrian sources, e.g. doc. A (datable to 332 AD).

⁶⁹³ Another parallel could be the Gāndhārī PN *Arajha(m)da* (CKI 108; 564), which in fn. 65 I proposed to derive from Bactr. **αυροζαδο* /*ahrəzādə*/ ‘born through (the will of) Ahura’ < **ahura-zāta-*.

4.3.24 -ρ- before a dental: -ρδ- /rd/ and -ρστ- /rst/

Here and in the following subsections, I will be concerned with three types of Bactrian clusters involving the phoneme -ρ- /r/ that either undergo further phonetic developments also occurring in native vocabulary (this section) or get simplified during the borrowing process (§§4.3.25–4.3.26).

The first type concerns clusters in which -ρ- /r/ precedes a dental, i.e. -ρδ- /rd/ and -ρστ- /rst/. For -ρδ- /rd/, there are two relevant examples: (i) *sujinakirta* where -ρδ- /rd/ would be substituted with -rt- and (ii) *aṭa* where, if not a loan from another Iranian language, -ρδ- /rd/ would correspond to -ṭ- /tṭ/.⁶⁹⁴

Arguable loanwords from Bactrian (§3.2.3)

- (48.) *sujinakirta* ‘needlework, embroidery’ ← *σωσινοκιρδο /sōtsinəkirdə/ < *saučanya-ḱṛta- or *σοσινοκιρδο /sūtsinəkirdə/ < *sūčanya-ḱṛta-

Plausible loanwords from Bactrian or another language (§3.3.2)

- (60.) *aṭa* ‘flour’ ← αρδο /ārdə/ < *ārta-

In my view, the apparent discrepancy between these two words can be accounted for without recourse to the assumption that *sujinakirta* and *aṭa* were borrowed from different languages (or that one of the etymologies is wrong).

With inherited words, the rule in Niya Prakrit is that, except for historical spellings, a preconsonantal -r- assimilates to a following consonant (cf. LKD: §37). When that consonant is a dental obstruent, the outcome of such assimilation may, as in other MIA languages, be a retroflex geminate (cf. also von Hinüber 2001²: §256). In some words, this sound change is always reflected in writing, e.g. in *parivaṭ-* /parivaṭṭ/ ‘to exchange’ < OIA *parivart-*; but in others, historical spellings occur side by side with the linguistically more innovative form, e.g. in gerv. *kaṭavo* /kaṭṭavo/ ‘to be done’ next to *kartavo* /kartavya < OIA *kartavya-* or *aḍha* /aḍḍha/ ‘half’ next to *ardha* < OIA *ardha-*.

⁶⁹⁴ We would have another example of Bactr. -ρδ- /rd/ → Niya -rt- if the PN *Lampurta* (CKD 678) represents Bactr. *λαμβορδο /lāmburdə/ < *dāmi-bṛta- ‘carried by the creator’ (see fn. 510). In the case of the non-Bactrian loanword *khakhordi* (also *khakhorti(ya)*) ‘witch’ (§3.5.2 s.v.), Ir. *-rd- was rendered both as -rd- and -rt-. If *bhaṭaraga* ‘lord, owner’ continues Ir. *frataraka- (§3.6 s.v.), its -ṭ- /tṭ/ could continue *-rt- or *-rd- in the Iranian pre-form, but it could also be due to a folk etymology with MIA *bhaṭṭr-* ‘lord, husband’.

My hypothesis is that Niya *-rt-* ← Bactr. *-ρδ-* /rd/ could still undergo this assimilation and result in a retroflex geminate *-ṭ-* /ṭṭ/. Under this scenario, the apparent discrepancy between *sujinakirta* and *aṭa* would be of the same kind as that between *kaṭavo* /kaṭṭavo/ and *kartavo* / *kartavya*. In other words, *sujinakirta* could be a historical spelling and *aṭa* a linguistically more innovative form.⁶⁹⁵

The substitution of Bactr. *-ρστ-* /rst/ with Niya *-ṭh-* /ṣṭ/ required by my tentative etymology of Niya *ṣvaṭhaṃgha* / *ṣoṭhaṃga* ‘finance officer’ could be accounted for along similar lines (cf. §3.2.4 s.v.).

Tentative loanwords from Bactrian (§3.2.4)

- (56.) *ṣvaṭhaṃgha* / *ṣoṭhaṃga* ‘finance officer’ ← *αζβαρσταγγο /əzvarstāṅgə/ < *uz-bara-stān-āna-ka- ‘the person in charge of the place disbursements are stored’ with haplology of *-ān-*

In this case, there would even be an extra motivation for changing **-rst-* into *-ṭh-* /ṣṭ/ since a cluster **-rst-* did not occur in inherited words.

4.3.25 -ρλ- /rl/

Niya Prakrit does not have clusters in which the liquid sounds *-l-* and *-r-* combine, so it would be interesting to know how Bactrian clusters of this type were rendered. The corpus of loanwords assembled so far does not contain an example of Bactr. *-λρ-* /lr/, but three words, including a secure (*nokṣari*) and a plausible (*are*) etymology, point to the conclusion that Bactr. *-ρλ-* /rl/ was simplified to Niya *-r-* intervocalically.⁶⁹⁶

Secure loanwords from Bactrian (§3.2.1)

- (6.) *nokṣari* ‘month of the new year’ ← *νωγοσαρλι /nōgsarlī/ (attested βιδδιγονωγοσαρλο ‘second new year’) < *nawa-ka-sardī-

Plausible loanwords from Bactrian (§3.2.2)

- (18.) *are* ‘a half’ ← *αρλο /arlə/ < *arda- or *αρλαγο /arləgə/ < *arda-ka-

⁶⁹⁵ A possible reason for this difference could be that *aṭa* was more deeply integrated into the language than *sujinakirta*. After all, this would not be remarkable, seeing that *aṭa* must have been frequent enough for it to be passed on to other Indo-Aryan languages (cf. Skt. *aṭṭa-* ‘food’; Hindi *āṭā* ‘flour’; etc.), whereas *sujinakirta* is a hapax legomenon occurring in a list of textile products.

⁶⁹⁶ NP *falāxan* ‘sling’ ← Bactr. *φορλαχανο ‘sling’ < *fra-daxšanā- illustrates a similar type of simplification from Bactr. *-ρλ-* /rl/ to NP *-l-* (Sims-Williams 2011c: 194).

Tentative loanwords from Bactrian (§3.2.4)

- (51.) *taravara* ‘sword’ ← *ταρλοβαρο /tarlḗvārə/ < *tarda-bāra- ‘splitter’

If one subscribes to the tentative idea that *kilme* continues Bactr. *γῖρλομηου /γῖρilmēhə/, there would further be an example of a simplification of Bactr. /rlm/ to Niya -*lm*-.

Tentative loanwords from Bactrian (§3.2.4)

- (50.) *kilme* ‘family estate’ ← *γῖρλομηου /γῖrilmēhə/ < *grda-maiθa- ‘dwelling of a household’

Although one can doubt this particular example, it would indeed be conceivable that -ρλ- /rɫ/ was simplified in different ways according to its phonetic environment.

4.3.26 -ρζ- /rʒ/

The two words listed below may exemplify a substitution with Bactr. -ρζ- /rʒ/ (from OIr. *rz in front of -i- /i/) as Niya -ḍ- /r/.⁶⁹⁷ While their etymologies need too many assumptions to prove this substitution (cf. §3.2.3 s.vv.), this sound correspondence would at least be phonetically understandable, as I hope to show here.

Arguable loanwords from Bactrian (§3.2.3)

- (31.) *aḍini* ‘(broomcorn) millet’ ← *αρζῖνο /arʒinə/ < Pre-Bactrian *arzani-
- (35.) *oḍ-* ‘to let go’ ← *ωσιρζ- /ōhirz/ (3sg. *ωσιρζῖδο /ōhirʒido/) < *awa-hʀz-

A first observation has to do with the possible phonetics of Niya -ḍ- /r/. Like von Hinüber (2001²: §201) and Baums (2009: 141), I consider it probable that /r/ corresponds to IPA [ɾ] because this is the pronunciation found in NIA languages, and there is no evidence that the phonetic value changed over time (cf. also §2.1.6). Conventionally labelled a “voiced retroflex flap”, [ɾ] is pronounced in Hindi and other NIA languages somewhat more fronted than retroflex stops, i.e. in the post-alveolar region of the mouth. This more fronted articulation “is due to the tongue movement taking place during its articulation; the tongue tip is curled inwards and approaching the post-alveolar region but flaps out before the actual contact takes place” (Hamann 2003: 25). Since the element /ʒ/ in Bactr. -ρζ- /rʒ/ would be the result of a palatalised dental *z, it could also have been realised as a post-alveolar

⁶⁹⁷ In the case of *oḍ-* ‘to let go’, this idea requires that it was the 3sg. *ωσιρζῖδο /ōhirʒido/ that was borrowed. See §3.2.3 s.v. and §4.4.4.

(approximately IPA [ʒ]), and, if so, the places of articulation of Bactr. -ρζ- /rʒ/ and Niya -ḍ- /r/ would have been sufficiently close to one another to allow for the former being substituted with the latter.

Secondly, there may not be many alternative ways in which *-rʒi- could have been approximated in Niya Prakrit. One could, for instance, expect such a sequence to be borrowed as **-rjhi- or **-rʒi- (cf. Bailey's 1946: 768 argument that Niya *darṣ-* 'to load' reflects Ir. **darʒ-* < **darz(a)ya-* 'idem'). Yet, the absence of a sequence *-rjhi- in the Kharoṣṭhī corpus and the fact that the occurrences of -rʒi- are mostly morphologically motivated⁶⁹⁸ may, in the end, speak against this idea. A substitution of *-rʒi- with **-rʒi- seems unlikely as well because the Niya Prakrit cluster -rʒ- is largely restricted to words made from the OIA root √*dṛś* 'to see', and it certainly is not a marker of loanwords, whereas Niya -ḍ- /r/ occurs in other words that are clearly not inherited, e.g. the toponym *Caḍota* 'Niya'.

4.3.27 Velar fricatives borrowed as sibilants

Intervocally, the Bactrian voiced velar fricative -γ- /ɣ/ can, as discussed in §4.3.10, be faithfully substituted with Niya -ḡ- /ɣ/. Its voiceless counterpart -χ- /x/ lacks an exact match in Niya Prakrit, but can be approximated with the voiceless aspirate -kh- /kʰ/ (cf. §3.2.2 s.v. *Khotamṇa*).⁶⁹⁹ While these substitutions are more or less predictable from the basic facts of Niya Prakrit phonology, one cannot so easily anticipate how -χ- /x/ and -γ- /ɣ/ would be rendered as part of a consonant cluster. Yet, the long-known Iranian loanword *načira* /naścira/ 'hunting' ← Ir. **naxčir* (see §3.6 s.v.) indicates that at least one option was to borrow velar fricatives in consonant clusters with sibilants.

Some newly proposed etymologies (listed below) seem to strengthen that conclusion, although the evidence they provide is often indirect.

Plausible loanwords from Bactrian (§3.2.1)

- (28.) *saste* 'day, elapsed' ← σαχτο /saxtə/ < **saxta-*

⁶⁹⁸ Cf. e.g. *paruvarši* 'of last year' ← *paruvarša* 'last year' + suffix -i or *darṣitavo* (and variants) 'to be loaded' ← *darṣ-* 'to load' + gerundive ending -itavo.

⁶⁹⁹ Cf. also the non-Bactrian loanword *khakhordi* 'witch' (§3.5.2 s.v.), whose internal -kh- renders Ir. *-x-. For the substitution of χp- /xš/ with kʒ-/kʒ̄-, see §4.3.18.

Arguable loanwords from Bactrian (§3.2.3)

- (46.) *vaṣḍhiga*, festival on the mountain ← *βαγδιγο /vaγdīgə/ ‘tribute’ ← βαγδο ‘distributed’ < **baxta*- + suffix -ιγο

Tentative loanwords from Bactrian (§3.2.4)

- (54.) *laṭhana* ‘plain, open land (?)’ ← *λαχβτανο /laxštānə/ ← λαχβτα (later λαχβτο) ‘desert, plain’ < **daxštā*- + adj. suffix -ανο < **-āna*-

Plausible loanwords from Bactrian or another language (§3.3.2)

- (70.) *raji* ‘cloak, woollen cloth’ ← *ραγζι /rayzi/ (attested παγαζο) < **ragzi*-

The strongest piece of evidence is the plausible etymology *saste* ‘day, elapsed’ ← Bactr. σαχτο /saxtə/. Because a cluster /xt/ is absent from the phonemic system of Gāndhārī, it needed to be adapted to Gāndhārī phonotactics when σαχτο was borrowed, and the eventual outcome of this adaptation process appears to be *-st-*. I believe that the most attractive way to account for this substitution is to say that *-st-* derives from an earlier cluster **-št-* since this would nicely parallel the rendering of Ir. **-xč-* as *-č-* /*šc*/ in *načira* ‘hunting’. A reason for the subsequent assimilation of **-št-* to *-st-* is also easily found: there were no other words in Gāndhārī exhibiting a cluster **-št-*.

vaṣḍhiga, festival on the mountain ← *βαγδιγο /vaγdīgə/ ‘tribute’ provides a second instance of this type of sound substitution. This etymology is arguable, but the phonological reasoning behind it is similar to what I assume for *saste*. For *vaṣḍhiga*, I namely hypothesise that **-zd-* would have been option number one to render the foreign cluster /γd/. **-zd-* faced, however, the same difficulty as **-št-* given that it was likewise absent from the phonemic system of Gāndhārī. Therefore, a further change from **-zd-* to *-ṣdh-* /zḍ^(h)/ was probably the best solution available.⁷⁰⁰

Regarding *laṭhana* ‘plain, open land (?)’ ← *λαχβτανο /laxštānə/ and *raji* ‘cloak, woollen cloth’ ← *ραγζι /rayzi/, one can argue that /x/ and /γ/ were dropped during the borrowing process in an attempt to accommodate the foreign cluster to Gāndhārī phonology. With this argument, these words would be comparable to *Suliga* ‘Sogdian’ ← σογλιγο* /suγlīgə/ (§3.2.1 s.v.), where the voiced velar has likewise been lost without a trace.

However, it is also conceivable, albeit unprovable, that they are further examples of borrowing velar fricatives as sibilants. For *laṭhana*, one could

⁷⁰⁰ Due to the lack of a cluster **/zd/ in Gāndhārī, it was not possible to change **-zd-* into ***-zd-*, akin to the assumed assimilation of **-št-* to *-st-*. Cf. also the substitution of Ir. **-zd-* with Niya *-ṣdh-* /zḍ^(h)/ which I have posited to derive the PN *Maṣḍhige* out of Ir. **mazdīgə* < **mazd-ya-ka-* (§3.4.1 and §4.3.19).

hypothesise that the observed simplification of Bactr. -χβτ- /xšt/ as Niya -th- /ṣṭ/ is due to Bactr. /x/ being perceived as a palatal sibilant that was subsequently assimilated to the ensuing retroflex sibilant (§3.2.4 s.v.). As regards *raji*, it seems reasonable to assume that -γζ- /γź/ was rendered as /źź/, seeing that the -j- in *raji* could also indicate a geminate (§3.3.2 s.v.).

A typological parallel for the substitution of a velar fricative with a palatal sibilant is provided by Arm. *šloros* ‘yellow, green, pale’, a loanword from Gr. χλωρός ‘idem’ attested in *Revelation* 6.8 (Kölligan 2020: 138).⁷⁰¹

Also noteworthy is the pronunciation of *š* and *ğ* in Pashto dialects. In NE Pashto, these are pronounced as velars, i.e. [x] and [g]. Yet, in other dialects, they are realised as palatals or postalveolars: in NW Pashto as [ç⁺] and [ʒ]; in SW Pashto as [ʃ] and [ʒ]; and in SE Pashto as [ʃ] and [ʒ] (EDP: viii).

From a phonological perspective, such examples can be interpreted as velar fronting (or velar palatalisation), a type of sound change whereby the velar fricatives [x] and [χ] are fronted to [ç], [ç], or [ʃ] and [j], [z], or [ʒ], respectively. Usually, segmental triggers like front vowels induce this type of change. In certain German dialects, /x/ (spelled <ch>) is, for example, fronted to [ç] after [i], as in *Licht* ‘light’.⁷⁰² Velar fronting can also occur at syllable end before a coronal consonant (Kümmel 2007: 216). This phonetic environment would, depending on syllable divisions in Bactrian, apply to σαχτο /saxtə/, *βαγδιγο /vaydīgə/, *λαχβτανο /laxštānə/, and *ραγζι /rayzi/.

The observed rendering of a velar fricative as a (palatal) sibilant is finally of some importance for the field of Kharoṣṭhī palaeography. This sound correspondence can namely be seen as an additional argument in support of Bühler’s (1895: 55) idea that the origin of the Kharoṣṭhī sign Π *śa* lies in the palaeographically almost identical Aramaic letter Π *hēth*. As *hēth* probably still indicated a velar fricative [x] in Achaemenid times and had not yet merged with the pharyngeal fricative [ħ] as in Biblical and Qumran Aramaic

⁷⁰¹ Elsewhere in the Bible translation, Armenian borrows Gr. χ as *k*^ʿ /k^h/, e.g. *kʿyamid* ‘cloak, mantle’ ← χλαμύς, gen. χλαμύδος ‘idem’. The most likely reason for the different treatment in *šloros* is that the Armenian translation of *Revelation* was revised in the 12th century by Nersēs Lambronac^ʿi when Gr. χ was no longer pronounced as /k^h/ but as a velar fricative /x/ (cf. Kölligan 2020: 134 fn. 10).

⁷⁰² Hall (2022) is a recent monograph on velar fronting in German dialects. Modern Greek is another language where velar fronting is phonetically active. The χ- /x/ in χίλια ‘thousand’ is, for instance, pronounced as [ç] before the front vowel -ι- /i/ and the γ- /γ/ in γέροντας ‘old man’ as [j] in front of -ε- /e/.

(Steiner 2005; Cook 2022: 20), adopting Aramaic 𐤆 *ḥēth* as Kharoṣṭhī 𐭑 *śa* conceivably reflects the same type of sound substitution as discussed above.

4.3.28 Initial devoicing

The arguable and tentative etymology listed below presuppose initial devoicing to have happened, a phonological process seen with consonants of all places of articulation (see §2.1.4; §6.3).

Arguable loanwords from Bactrian (§3.2.3)

- (36.) *caṃkura* ‘imposer of penalties’ ← *ζιαγγαρο /ǰ(i)yāṅgarə/ (attested ζιανο κιρ-) < *ziyāni-kara-

Tentative loanwords from Bactrian (§3.2.4)

- (50.) *kilme* ‘family estate’ ← *γιρλομησο /γirlmēhə/ < *gr̥da-maiθa- ‘dwelling of a household’

Initial devoicing was not limited to inherited words, e.g. *kilane* < *glāna*- ‘ill’ or the inf. *ciyanae* < √*jīv*. It did also affect obvious Iranian loans, such as *gaṃñā* ‘treasury’, also 1x *kañi* ‘of the treasury’; 1x *kaṃjhavaliya* ‘treasurer’, ← OP **ganza*- ‘treasury’ (cf. ZMP *ganj*; MMP *ganz*) or *divira*, also 51x *tivira*, ‘scribe’ ← OP **dipīra*- (cf. MP *dibīr*).⁷⁰³ Therefore, it seems possible that *caṃkura* and *kilme* are additional examples of the same phonological process.

Two points should be acknowledged, however: (i) initial devoicing is a sporadic process (cf. §2.1.4), and (ii) Niya Prakrit words undergoing initial devoicing are usually also attested with a voiced initial, which, if their etymologies are correct, is not the case for *caṃkura* and *kilme*. Still, there is at least one frequently attested word whose initial is also consistently devoiced, i.e. *paḷyī* ‘tax’ < OIA *bali*- (ca. 90 attestations; cf. Burrow 1935b: 675; LKD: §14; Lüders 1936b: 647).

With *caṃkura* and *kilme*, there could be an additional motivation for the devoicing in the fact that initial /ǰ/ as in *ζιαγγαρο and initial /γ/ as in *γιρλομησο are absent from the phonological system of Niya Prakrit. Bactr. initial /γ/ is nevertheless substituted with *g*- in the case of *guśura* ‘prince’ (§3.2.1) and, if it is a Bactrian word, *gavaśa* ‘deer, stag’ (§3.3.2).⁷⁰⁴

⁷⁰³ Cf. also foreign names of the type *Giraka* besides *Kiraka* or *Jimoya* besides *Cimoya*.

⁷⁰⁴ With loanwords, unexpected devoicing of initial consonants occurs cross-linguistically more often. Syriac, for instance, also sometimes devoices originally voiced stops when borrowing Iranian words (Ciancaglini 2008: 69–72). An

4.3.29 Loss of voiced consonants after homorganic nasals

In §2.1.5, I introduced the Niya Prakrit sound change (also operative in some other forms of Gāndhārī), whereby originally voiced consonants are lost after homorganic nasals (see further §5.4.6). It appears that one Bactrian loanword and two words possibly borrowed from Bactrian still underwent the same sound change.

Plausible loanwords from Bactrian (§3.2.2)

- (22.) *nihamaññ-* ‘to deposit, to put down’ ← *νιωα**νζ**- /nihanǰ/ < *ni-θanǰa-

Plausible loanwords from Bactrian or another language (§3.3.2)

- (67.) *parivanae* ‘burden, provisions’ ← *παροβα**νδ**αγο /parəv**and**əgə/ < **pari-banda-ka-* ‘bound around (the beast of burden)’

Arguable loanwords from Bactrian or another language (§3.3.3)

- (79.) *hastama* ‘quarrel, dispute’ ← *(υ)αστα**μ**βο /*(h)astambə*/ < **ha(m)-stamba-*

At the same time, this change seems not to have happened with four other loanwords, including a secure one.⁷⁰⁵

Secure loanwords from Bactrian (§3.2.1)

- (1.) *avi**ṃ**dama* (12x *-(ṃ)d-*; 5x *-(ṃ)t-*; 4x *-(ṃ)dh-*) ‘fine, recompense’ ← αβ**νδ**αμο /əv**ind**āmə/ derived from *αβ**ι**v- < **upa-ayanā-*

Plausible loanwords from Bactrian (§3.2.2)

- (17.) *am**ṭ**agi* ‘belonging to the district’ ← *am**ṭ**aga** ‘district’ ← α**νδ**αγο /*andǰəgə*/ (or /*andǰəgə*/) with debated etymology

Arguable loanwords from Bactrian (§3.2.3)

- (29.) *am**ḃ**ukaya*, a title ← α**μ**βουκαο /*ambūkā(y)ə*/ (?) with unknown etymology

Arguable loanwords from Bactrian or another language (§3.3.3)

- (75.) *pajhava**ṃ**ta* ‘breastband (?)’ ← *παζοβ**ανδ**ο /*pāzəv**and**ə*/ < **pāza(h)-banda-* ‘bound around the breast’

example of the opposite tendency, i.e. voicing an originally unvoiced stop, is (Vulgar) Latin *gamba* next to *camba* ‘leg’ ← Gr. καμπή (J. N. Adams 2013: 786f.). Both *gamba* and *camba* have descendants in the Romance languages (cf. e.g. French *jambe* ‘leg’ < *gamba* and Catalan *cama* < *camba*), which confirms that both variants were *sprachwirklich*.

⁷⁰⁵ Due to the absence of a Kharoṣṭhī grapheme <ṇ>, one would not be able to discern a change from /ṅg/ to /ṅ/. Therefore, I leave Bactrian loanwords containing a cluster -γγ- /ṅg/ aside here; they are treated in §4.3.12.

These loanwords are, I suggest, comparable to inherited words which fulfil the necessary phonological conditions for loss of a voiced consonant after a nasal but do not exhibit this change in writing, e.g. the frequently attested *daṇḍa* ‘stick’ < OIA *daṇḍa-*.⁷⁰⁶ Such words are probably historical spellings (cf. LKD: §45; Brough 1962: 98f.), as there are also words where the assimilation is sometimes reflected in writing and sometimes not, e.g. *baṃdhitaga* ‘bound’ (CKD 660) besides *baṃnidaga* (CKD 436) / ins.sg. *baṃnitagena* (CKD 767).⁷⁰⁷ Therefore, loanwords such as *aviṃdama*, *aṃtagi*, and *aṃbukaya* could likewise be historical spellings, whereas the spelling of *nihaṃñ-*, *parivanae*, and *hastama* could have reflected the actual pronunciation more faithfully.⁷⁰⁸

The advantage of this account is that one does not need to assume that *nihaṃñ-*, *parivanae*, and *hastama* were borrowed before the relevant sound change stopped operating and the other words thereafter, which would seem unlikely since there is otherwise no decisive evidence for different chronological layers among the Bactrian and potentially Bactrian loanwords.

4.4 Morphological integration

In this section, I investigate to what extent and in which way(s) loanwords ascribable to Bactrian (§3.2) and loanwords borrowed from either Bactrian or another language (§3.3) were integrated into the morphology of Niya Prakrit. After surveying the relative frequency with which different parts of speech are represented in the loanword corpus (§4.4.1), I first discuss nouns and adjectives (§§4.4.2–4.4.3) before delving deeper into the morphology of borrowed verbs (§4.4.4).

4.4.1 Parts of speech

As the list below shows,⁷⁰⁹ most words certainly or possibly borrowed from Bactrian are nouns (69 cases ~ 86,3%). Adjectives/adverbs and verbs occur

⁷⁰⁶ Contrast Gandh. **kaṇa* ‘stick, stroke’ < OIA *kāṇḍa-*, whence Tumsh. *kaṇa-* ‘idem’ (Hitch 1988b: 149f.; 2009: 19).

⁷⁰⁷ The Old Persian loanword *gaṃñā* ← OP **ganza-* is another example of this type. This word is normally spelled with *-ṃñ-* but the compound *kaṃjhavaliya* ‘treasurer’ presents us with a historical spelling with *-ṃjh-*.

⁷⁰⁸ Cf. the argument made about the substitution of Bactr. *-ṛḍ-* /*rd/* in §4.3.24.

⁷⁰⁹ Three notes on the list: (i) loanwords only attested as an adjective, but of which it is likely that the underlying noun was borrowed are put under the category “nouns”; (ii) adjectives and adverbs are allocated to one category

too, but they are decidedly less frequent (6 cases ~ 7,5% and 5 cases ~ 6,3%, respectively).⁷¹⁰

These statistics are in line with typological expectations.⁷¹¹ Most noteworthy is the fact that Niya Prakrit borrowed some verbs from Bactrian because it has often been claimed that verbs are more resistant to borrowing than nouns, especially in synthetic languages (see e.g. Tadmor 2009: 61–63).⁷¹² Yet, the significance of these verbs should not be overstated, as four of them belong to the same semantic category, all having to do with “transport and travel” (see §4.5.2).

Nouns: 69 cases (~ 86,4%)

Secure loanwords from Bactrian (§3.2.1): 13 cases

aviṃdama ‘fine, recompense’ (also denominative pret.3sg. *aviṃdamavita* ‘he imposed a fine’) (1.); *kṣuna* ‘date, reign, regnal year’ (2.); *gušura* ‘prince’ (3.); *dašavida* ‘chief of ten households’ (5.); *nokṣari* ‘month of the new year’ (6.); *prigha* ‘(monochrome) damask’ (7.); *laši* ‘gift’ (8.); *lastana* ‘dispute, lawsuit’ (9.); *vaga* ‘rent (paid for the use of land)’ (10.); *valaga* ‘animal keeper’ (11.); *śadavida* ‘chief of a hundred households’ (12.); *Suliga* ‘Sogdian’ (14.); *stora* ‘large animal, horse, camel’ (also *storabala* ‘animal flock’; *storavara* ‘horse driver’; *storvana* ‘groom’) (15.).

Plausible loanwords from Bactrian (§3.2.2): 11 cases

*aṃtaga** ‘district’ → adj. *aṃtagi* ‘belonging to the district’ (17.); *are* ‘a half’ (18.); *aśpista* ‘lucerne’ (19.); *Khotamna* ‘Khotan’ (also adj. *Khotamni(ya)* ‘Khotanese’) (20.); *jenavida* ‘chief of the armour’ (21.); *picara* ‘(mark of)

because the loanwords belonging here can usually be used in both ways; and (iii) compounds, secondarily derived adjectives, and denominative verbs have not been taken into special consideration in the statistics. After each word, I give the serial number of the relevant lemma in Chapter 3 in round brackets.

⁷¹⁰ Leaving out the tentative etymologies hardly alters the picture. If one does so, there are 60 nouns (~ 85,7%), 5 adjectives/adverbs (~ 7,1%), and 5 verbs (~ 7,1%). The 12 non-Bactrian loanwords (§3.5) show a similar picture: 11 are nouns (~ 91,7%) and 1 is a verb (~ 8,3%). Of the 5 loanwords from an unidentified Iranian language (§3.6), 3 are nouns and 2 are adjective or adverb.

⁷¹¹ For a typological view, cf. e.g. Myers-Scotton (2006: 226–229); Tadmor, Haspelmath & Taylor (2010: 231); Matras (2020²: 179–208). See additionally Noonan (2019: 266f.) and Dragoni (2023b: 225f.), whose figures about respectively non-Semitic loanwords in Biblical Hebrew and Khotanese loans in Tocharian agree in large parts with those observed here.

⁷¹² The various reasons why verbs are borrowed less often are treated in detail in Wohlgemuth (2009). For the borrowed verbs in Niya Prakrit, see §4.4.4.

honour' (23.); *maġa* 'bean' (24.); *milima*, a unit of measure (also adj. *milimi* 'with a capacity of X *milima*') (25.); *yatma* 'measurer of rations' (26.); *vaše* 'garments' (27.); *saste* 'day, elapsed' (28.).

Arguable loanwords from Bactrian (§3.2.3): 15 cases

ambukaya, a title (29.); *aco* 'frontier, border post' (also *acoviṃna* 'border official'; *Acomena*, place name) (30.); *ađini* '(broomcorn) millet' (31.); *avalika* 'swaddle' (33.); *ašgara* 'herald (?)' (34.); *caṃkura* 'imposer of penalties' (36.); *tomga*, a title (38.); *nihala* 'settlement, agreement' (39.); *paġe* 'allotment, share' (40.); *piro* 'military post, fort' (also adj. *pirovi* 'of the fort') (42.); *badho* 'pledge, mortgage' (43.); *mušdhaši*, woman exchanged within exogamous marriage practices (44.); *vašdhiga*, festival on the mountain (also adj. *vašdhigaiṃ*) (46.); *vaṃga* 'weaver' (47.); *sujinakirta* 'needlework, embroidery' (48.).

Tentative loanwords from Bactrian (§3.2.4): 8 cases

apcira, a unit of measure (for vineyards) (49.); *kilme* 'family estate' (also *vegakilme* 'outside (?) the family estate') (50.); *taravara* 'sword' (51.); *reda* 'seed, sprout (?)' (52.); *Remena*, place name (53.); *laṭhana* 'plain, open land (?)' (54.); *lastuga*, textile product (55.); *švaṭhaṃgha* / *šoṭhaṃga* 'finance officer' (56.).

Secure loanwords from Bactrian or another language (§3.3.1): 2 cases

spaša 'watching, guarding' (also *spašavaṃna* 'guard, watchman') (58.); *harga* 'dues, tax' (59.).

Plausible loanwords from Bactrian or another language (§3.3.2): 11 cases

aṭa 'flour' (60.); *aṃana* 'village, territory of a clan' (also adj. *aṃaneṃci* 'belonging to the village') (61.); *gavaša* 'deer, stag' (62.); *tavastaga* 'carpet' (63.); *draṃga* 'office' (also *draṃgadhara* 'office holder') (64.); *namata* 'felt' (65.); *paraša* 'abduction, plundering' (also denominative pret.3pl. *parasitaṃti* / *parašitaṃti* 'they abducted', etc.) (66.); *parivanae* 'burden, provisions' (67.); *pravamaṃga* '(authoritative) document' (68.); *maravara* 'accountant' (69.); *raji* 'cloak, woollen cloth' (70.).

Arguable loanwords from Bactrian or another language (§3.3.3): 9 cases

aḡiṣdha 'cover, rug' (71.); *aḡeta* 'tax collector' (72.); *kojava* 'rug, blanket' (73.); *namanaḡa* / *namaṃniya* 'exchange' (74.); *pajhavaṃta* 'breastband (?)' (75.); *rasamaṃna* 'rope (?)' (76.); *vara* 'load' (77.); *šamaṃna* 'hemp, hempen (?)' (78.); *hastama* 'quarrel, dispute' (79.).

Adjectives and adverbs: 6 cases (~ 7,4%)

Secure loanwords from Bactrian (§3.2.1): 3 cases

jheniga ‘in charge of, under the care of’ (4.); *ṣada* ‘pleased, happy’ (also denominative pres.1sg. *ṣademi* ‘I am happy’, etc.) (13.); *ṣpara / ṣpura* ‘full, completely’ (16.).

Arguable loanwords from Bactrian (§3.2.3): 1 cases

atga ‘additional, complementary’ (32.).

Secure loanwords from Bactrian or another language (§3.3.1): 1 cases

ajhate ‘free, noble’ (also special adv. *ajhatu*) (57.).

Tentative loanwords from Bactrian or another language (§3.3.4): 1 case

ujhmayuga ‘trustworthy, skilled (?)’ (80.).

Verbs: 5 cases (~ 6,2%)

Plausible loanwords from Bactrian (§3.2.2): 1 case

nihamñ- ‘to deposit, to put down’ (22.).

Arguable loanwords from Bactrian (§3.2.3): 4 cases

oḍ- ‘to let go’ (35.); *tim-* ‘to be concerned about, to be angry’ (37.); *picav-* ‘to hand over’ (41.); *leṣ-* ‘to dispatch, to conduct’ (45.).

4.4.2 The inflection of borrowed nouns and adjectives

As inferable from the list in §4.4.1, most of the nouns and adjectives that were or could have been borrowed from Bactrian were in Niya Prakrit adopted into the productive thematic declension type in *-a* (LKD: §§51–67).⁷¹³ Historically speaking, these loanwords were usually also *a*-stems in Bactrian (and other Iranian languages), although this group additionally includes a few old *i*-stems in which the final **-i* caused umlaut of a preceding **-a-* (e.g. *-vida* ← *-βiḍo /vidə/ < *-pati-*). One can debate whether these words still ended in a schwa in Bactrian (as I tentatively assume in my phonological transcriptions) or if they ended in a consonant and were added to the productive *a*-declension in Niya Prakrit because consonant stems had largely died out in the latter (LKD: §72).

Besides, there may be some evidence among the Bactrian and potentially Bactrian loanwords in Niya Prakrit for the preservation of *i*-stems < OIr. **-i*

⁷¹³ For Bactrian loanwords ending in *-o*, such as *aco* ‘frontier, border post’ or *piro* ‘military post, fort’, cf. §4.3.1.

and *-ī in early Bactrian (see §4.2.1 for an overview). Morphologically, there is not much difference between these *i*-stems and the bulk of (potentially) Bactrian loanwords in Niya Prakrit, as the *i*-stems tended to be transferred to the more productive *a*-declension anyhow (LKD: §70).

One can conclude that the morphological integration in Niya Prakrit of nouns and adjectives borrowed from Bactrian was overall quite simple, presumably because the nominal morphology of both languages did not differ too much.⁷¹⁴

There is one group of Bactrian borrowings whose morphology needs more discussion, viz. nouns and personal names ending in *-e*; they receive a separate treatment in the next section.

4.4.3 A special case: Final *-e* in nouns and personal names

Some Bactrian loanwords/names in Niya Prakrit and one potentially Bactrian loanword (*ajhate*) end in a final vowel *-e*. See the list below.⁷¹⁵

Plausible loanwords from Bactrian (§3.2.2)

- (18.) *are* ‘a half’ ← *αρλο /arlə/ < *arda- or *αρλαγο /arləgə/ < *arda-ka-
- (27.) *vaṣe* ‘garments’ ← *οαβο /wašə/ < *wastra-
- (28.) *saste* (cf. loc.sg. *sasteyammi*) ‘day, elapsed’ ← σαχτο /saxtə/ < *saxta-

Arguable loanwords from Bactrian (§3.2.3)

- (40.) *paḱe* ‘allotment, share’ ← *παρκο /pəškə/ < *pišta-ka-

Tentative loanwords from Bactrian (§3.2.4)

- (50.) *kilme* ‘family estate’ ← *γιρλομηνο /γιρilmēhə/ < *gr̥da-maiθa- ‘dwelling of a household’

Secure loanwords from Bactrian or another language (§3.3.1)

- (57.) *ajhate* ‘free, noble’ ← αζαδο /āzādə/ < *āzāta-

⁷¹⁴ The same observation holds for the non-Bactrian borrowings in Niya Prakrit (§3.5). The exceptions are *khakhordi* (also 1x *khakhorda*) ‘witch’, a fem. in *-i* (LKD: §68); *prahoni* ‘garment’, whose final *-i* may come from the Khotanese nom.sg. in *-ä*; and the religious title *ratu*, potentially an old *u*-stem in its Iranian source. For the problem of the final *-u* in *kremeru* ‘crimson, scarlet’, an Iranian loanword from an unidentified source, see §3.6 s.v.

⁷¹⁵ The longer form of this ending is *-eya*, which regularly turns up in the oblique cases (LKD: §6). Words ending in *-ae*, e.g. *parivanae* ‘burden, provisions’, have not been included because in these cases the final *-e* is merely due to a phonologically regular development of earlier *-aga* (LKD: §53).

Bactrian PNs (§3.4.2)

- (81.) *Apge* ← *αβγο /āvǵə/ < *āpa-ka-
- (82.) *Katge* ← *καδγο /kādǵə/ < *kāta-ka- (or *καδγο /kadǵə/ < *kata-ka-)
- (84.) *Kutge* ← *κοδγο /kudǵə/ < *katu-ka- or *kuta-ka-
- (86.) *Palge* ← *παλγο /pālǵə/ < *pāda-ka-

Only in the case of *kilme* ‘family estate’, whose etymology is merely tentative, would there be a direct source for this vowel in the Bactrian donor form, i.e. *-ηυο /ēhə/. Regarding the other words, I can think of at least three explanations, although none can be proved for now.⁷¹⁶

As a first option, one could consider that *-e* is shortened from *-ae* < *-aga*. Burrow may actually have had this scenario in mind when he derived *Niya are* ‘a half’ from *arda-ka- (LKD: 77 s.v.).⁷¹⁷ Yet, the change of *-ae* to *-e* occurs only infrequently (see LKD: §53), and there are at least two other problems with this suggestion. First, if *-e* comes from *-ae* < *-aga*, one might expect spellings with *-ae* and *-aga* to be attested too; compare, for instance, *namate* ‘felt’ (CKD 154) next to *naṃmatae* (CKD 714) and *na(ṃ)mataga* (CKD 728 (2x)) < *namata-ka-. Second, not all words ending in *-e* can easily come from an Iranian source containing the *ka-suffix. It would, for instance, be hard to justify the existence of a form like **σαχταγο, only to account for the *-e* in *saste* ← σαχτο /saxtə/.

A second option would be to interpret the *-e* as a fossilised nom.sg. in *-e < OIA *-aḥ*, whose prior existence in *Niya Prakrit* is strongly suggested by the abl.sg. in *-ade* (-āde) < OIA *-ātaḥ (cf. Śaur. -ādo; Māh. -āo; see LKD: §56). The issue with this approach is that most loanwords in *Niya Prakrit* simply follow the productive declension of the *a*-stems with dir.sg. in *-a* (cf. §4.4.2). Accordingly, one would have to make the unverifiable assumption that the words ending in *-e* belong to a more archaic stratum of loanwords than the majority of Bactrian borrowings or that they resisted, for as yet unclear reasons, the morphological change of nom.sg. in *-e to dir.sg. in *-a*. Assuming a fossilised nom.sg. ending *-e* may nonetheless still be the best option to account for the personal names *Apge*, *Katge*, *Kutge*, and *Palge*. Being foreign names, they could perhaps have retained archaic forms no longer found in common nouns due to their being less well integrated morphologically.

⁷¹⁶ These explanations are of a morphological rather than a phonological nature, which is why I did not discuss this final *-e* with the phonological correspondences in §4.3.

⁷¹⁷ In view of the co-existence in Middle Persian of *āzād* and *āzādag* ‘free’, one could likewise assume that *ajhate* ‘free’ comes from a descendant of *āzāta-ka-.

For the nouns, I prefer a third option. With these, one could derive the Niya Prakrit ending *-e* from one of the Bactrian case endings in *-ε /e/*, i.e. the obl.sg. or the dir.pl.⁷¹⁸ This possibility was already entertained by Maggi (2017: 157; 2022b: 152), who derived the Niya hapax *vaṣe* ‘garments’ from the dir.pl. **οαφε* /*waše*/ of Bactr. **οαφο* /*wašə*/ ‘garment’ < **wastra-*;⁷¹⁹ and I have previously (2021: 53) suggested that *paḱe* ‘share’ comes from a dir.pl. **παρκε* of Bactr. **παρκο* /*pəškə*/ ‘share’ < **pišta-ka-* ‘that which is cut > share’. An argument in favour of deriving these words from a plural is that both *vaṣe* and *paḱe* are attested with numerals higher than one (cf. *vaṣe* 4 in CKD 534 or *paḱe* 3 in CKD 66).⁷²⁰ Borrowing plural morphemes is furthermore typologically common (Matras 2020²: 190f.; Gardani 2012).

Although the evidence is admittedly limited, the same kind of explanation could work for *are* ‘a half’, *saste* ‘day, elapsed’, and *ajhate* ‘free, noble’. Since *are* ‘a half’ is never attested with a numeral higher than one, and a word meaning ‘half’ is in any case usually used in the singular, the source of *are* may have been the obl.sg. **αρλε*. Yet, in case expressions such as ***are* 2 ‘two halves’ or ***are* 3 ‘three halves’ were possible too, the dir.pl. **αρλε* could be another possibility. *saste* ‘day, elapsed’ often occurs in the plural, even though a dir.pl. *σαχτε** ‘days’ is so far not attested. The obl.sg. *σαχτε* is, however, found in NPlate 6 (Sims-Williams 2015: 257; 261), which could be an alternative source for Niya Prakrit *saste*. Similarly, *ajhate* occurs in the plural (note e.g. gen.pl. *ajhateyana* CKD 242) and frequently combines with *jaṃna* ‘people’ (CKD 120 (2x); 272; 593; 889), which can take plural concord because of its semantics.⁷²¹ Still, I have been unable to find an instance of a dir.pl. *αζαδε** ‘free’ in Bactrian, despite the frequent attestation of the word *αζαδο*.

⁷¹⁸ For TB *sapule* ‘pot, jar’ ← Bactr. *σαβολο* ‘idem’ < **sapauda-*, I proposed in §4.2.1 that the final *-e* in *sapule* continues an archaic nom.sg. ending in *-ι /i/* < **-ah*. For the Niya loanwords in *-e*, this option seems unlikely because the vowels *-i-* and *-e-* are mostly kept distinct in Niya Prakrit, including in loanwords (see §§4.3.3–4.3.5). In other words, one would expect the Bactrian nom.sg. to be borrowed as ***-i*, not as *-e* (or at least to see fluctuations between *-i* and *-e*).

⁷¹⁹ Conceivably, *vaṣe* / **οαφε* was used as a general term for ‘cloths’ in much the same way as Dutch *kleren*, which is derived by sound law from *klederen*, the plural of *kleed* ‘garment’ (Philippa et al. 2005–9 III: 72).

⁷²⁰ At least *paḱe* is also used as a singular; cf. e.g. *paḱe* 1 in CKD 66 (2x).

⁷²¹ Cf. e.g. *ajhade jaṃna abhisajṃmitaṃti* ‘the free people came to an agreement’ (CKD 120 obverse 2f.) or *ajhate jaṃna ... abomata kareṃdi* ‘the free people disobey’ (CKD 272 obverse 10).

Deriving the final *-e* in these loanwords out of the Bactrian dir.pl. in *-ε /e/* may be supported by one more argument. The standard dir.pl. ending in Niya Prakrit is *-a* < OIA *-āḥ*. There exists, however, an alternative ending in *-e*, sometimes also written as *-eya* or *-i* (LKD: §60). This ending can occur with inherited words, e.g. *prahare* ‘blows’ (CKD 209; 462; 554; 609) next to more frequent *prahara* ‘idem’ < OIA *prahāra-*. Interestingly, the same ending also occurs with six (possibly) Bactrian loanwords, where one wonders if the final *-e* is again a rendering of Bactr. *-ε /e/*: *daśavite* ‘chiefs of ten households’; *śeṣavalage* ‘remaining animal keepers’; *śadavide* next to *śadavida* ‘chiefs of a hundred households’; (*surva*)*tomge*, a title; *sṗaṣavaṃne(ya)* / *sṗaṣavaṃne* ‘guards, watchmen’; and *namate* / *na(ṃ)mati* ‘felts’ (see §3.2.1; §3.2.3; §3.3.1–2 s.vv.). Burrow (LKD: §60) moreover noted that the Niya Prakrit dir.pl. in *-e* is especially frequent with the suffix *-ci*, which, as I argue in §5.2.2, seems likewise borrowed from Bactrian.

In brief, there are various options to account for the *-e* in some Bactrian loanwords and personal names in Niya Prakrit. While the evidence is too slender to reach definitive conclusions, my preference is to explain the *-e* in personal names as a Prakrit fossilised nom.sg. in **-e* < **-aḥ* and the *-e* in the common nouns as a rendering of the Bactrian dir.pl. *-ε /e/* or, with a word such as *are* ‘a half’, perhaps the homonymous obl.sg.

4.4.4 The conjugation of borrowed verbs

In the present tense, Niya Prakrit verbs are divided into two conjugation classes, one with the 3sg. in *-ati*, e.g. *ichati* ‘(s)he desires’ < Skt. *icchati*, and one with the 3sg. in *-eti*, e.g. *nikhaleti* ‘(s)he removes, (s)he produces’ < Skt. *niṣkālayati*. Outside the present tense, every verb is by and large conjugated along the same patterns.⁷²² Similarly, Bactrian verbs either use a 3sg. present ending in *-ido /idə/* (class A) or in *-do /də/* (class B), while being conjugated according to the same paradigms in other tenses and moods (see BD II: 41–49).

Thus, one can pose the following two questions: (i) into which of the two conjugation classes in Niya Prakrit are Bactrian verbs borrowed; and (ii) is there a correlation between the conjugation class a verb belongs to in Bactrian and the class it gets integrated in when borrowed into Niya Prakrit?

⁷²² See LKD (§§93–116) for the verbal morphology in Niya Prakrit. For the comparable situation in other MIA languages, see e.g. Bubeník (1996: 96–127); von Hinüber (2001²: 273–317 = §§412–500); Oberlies (2019² I: 318–654).

As seen from the list below, the presently available data are too limited to answer these questions conclusively.

Plausible loanwords from Bactrian (§3.2.2)

- (22.) *nihamñ-* ‘to deposit, to put down’ ← *νιωνζ-/ *nihanž*/ < **ni-θanǰa-*: no present tense forms attested.

Arguable loanwords from Bactrian (§3.2.3)

- (35.) *ođ-* ‘to let go’ ← *ωσιρζ-/ *ōhirz*/ (3sg. *ωσιρζιδο) < **awa-hr̥z-*: 3sg. *ođeti* attested.
- (37.) *tim-* ‘to be concerned about, to be angry’ ← *τιμ-/ *tīm*/ < **tāmya-*: no present tense forms attested.
- (41.) *picav-* ‘to hand over’ ← *πιδοβαο-/ *pidšaw*/ (3sg. *πιδοβαοιδο) < **pati-čyawa-*: 3sg. *picaveti** reconstructable based on 2sg. *picavesi*; 2pl. *picavetu*.
- (45.) *leš-* ‘to dispatch, to conduct’ ← *λιζ-/ *liž*/ or *ληζ-/ *lēž*/ < **darzaya-*: no present tense forms attested.

Of *nihamñ-*, *leš-*, and *tim-*, no present forms are currently attested, so not much can be said about their morphology.⁷²³ Yet, we can at least say something about the morphological integration of the other two verbs, i.e. *ođ-* and *picav-*. Both verbs belong to the *eti*-class, and it is plausible that their hypothesised Bactrian sources *ωσιρζ- and *πιδοβαο- formed their pres.3sg. in -ιδο (class A) given that the base verbs σιρζ- and βαο- are attested in the pres.3sg. as σιρζιδο and βαοιδο, respectively (cf. §3.2.3 s.vv.).

Therefore, my hypothesis is the following. Seeing that verbs are often borrowed in their 3sg. form (Matras 2020²: 193; cf. also Wohlgemuth 2009: 82f.), I would argue that Bactrian verbs ending in pres.3sg. -ιδο were adopted into the Niya Prakrit *eti*-class because of the phonological resemblance between the 3sg. endings. Yet, discoveries of additional data will be necessary to confirm whether the assumed correspondence between -ιδο and -*eti* was a general rule and to determine how Bactrian class B verbs in -δο were integrated in Niya Prakrit.

4.5 A semantic analysis

This section classifies the corpus of Bactrian loanwords (§3.2) and words possibly borrowed from Bactrian (§3.3) according to their semantics. After some methodological preliminaries (§4.5.1), I give an overview of the four

⁷²³ There are likewise no present tense forms attested of *darš-* ‘to load (a beast of burden)’, so far the only instance of a verb borrowed from an Iranian language other than Bactrian (see §3.5.1 s.v.).

semantic categories posited together with a list of the words assigned to them and a brief commentary (§§4.5.2–4.5.5).

4.5.1 Methodological preliminaries

While it has long been known that, for instance, words relating to clothing are often borrowed from Iranian languages (cf. Lüders 1936a), a semantic analysis of the hitherto identified Iranian loanwords in Niya Prakrit has not yet been attempted (see also §4.1). This section aims to compensate for this lack.

As in the rest of this chapter, I will concentrate on the Bactrian loans (§3.2) and the words that could come from Bactrian but for which other donor languages are possible too (§3.3).⁷²⁴ With the latter group, we cannot be entirely sure whether they are all borrowed from Bactrian, so I will indicate which words belong to which category. It will nevertheless become clear that the semantic domains covered by the two types of loanwords do not substantially differ, which could be one more indication that most of the words treated in §3.3 were borrowed from Bactrian specifically (see also §4.2.6). Arguable and tentative etymologies are also included since leaving them out does not change the overall picture.

As grouping words into semantic categories can at times be slightly arbitrary, I have chosen to work with four sufficiently large categories that do not show too much overlap.

- (i) Administrative, political, military, and economic terms (§4.5.2: 58 words ~ 72,5%)
- (ii) Textiles and clothing (§4.5.3: 13 words ~ 16,3%)
- (iii) Fauna, flora, and food (§4.5.4: 6 words ~ 7,5%)
- (iv) Emotions and values (§4.5.5: 3 words ~ 3,8%)

When developing these categories, I based myself on the 24 semantic domains posited by the Loanword Typology project (Haspelmath & Tadmor 2009: 7; 22–34). My categories (ii) and (iv) respectively correspond to Haspelmath and Tadmor’s domains “textiles and grooming” (their no. 6) and “emotions and values” (their no. 16). Category (iii) combines three of their domains, i.e. “animals” (their no. 3), “food and drink” (their no. 5), and

⁷²⁴ The number of loanwords securely ascribable to donor languages other than Bactrian is too scanty to warrant a full-scale semantic analysis. See §4.2 for some brief notes.

“agriculture and vegetation” (their no. 8). Category (i) comprises seven subcategories, which are likewise inspired by Haspelmath and Tadmor’s semantic domains (see §4.5.2). Sometimes, however, the nature of the material—technical words attested in administrative texts from an ancient culture—forced me to deviate from their classification system, which is based on analyses of loanwords in modern languages and not always directly applicable to ancient languages (cf. also Clackson 2023: 399f. and Dragoni 2023b: 229).

Words belonging to categories (i)–(iii) are cross-linguistically known to be highly susceptible to borrowing (Tadmor, Haspelmath & Taylor 2010: 232).

4.5.2 Administrative, political, military, and economic terms

The vast majority of the loanwords collected in §§3.2–3.3 (58 words ~ 72,5%) belong to the category of “administrative, political, military, and economic terms”, thus reflecting the role played by the ancestor of Niya Prakrit in the Kuṣāṇa administration (see §7.3). While being much more frequent, they resemble in their semantics the few Old Persian loanwords preserved in Niya Prakrit (§4.2.2).

Although some words would arguably fit into more than one category, one can distinguish seven subgroups.

- (i) Official titles and professions (14 words ~ 24,1%)
- (ii) Legal terminology (13 words ~ 22,4%)
- (iii) Economic terms (10 words ~ 17,2%)
- (iv) Geographical terms and administrative units (7 words ~ 12,1%)
- (v) Transport and travel (6 words ~ 10,3%)
- (vi) Military terminology (5 words ~ 8,6%)
- (vii) Calendrical terms (3 words ~ 5,2%)

The first subcategory, i.e. “official titles and professions”, comprises fourteen lemmata (see the list below). One could further add a few compounds that did not receive a separate lemma: *acoviṃna* ‘border official’ (§3.2.3 s.v. *aco*); *spāṣavaṃna* ‘guard, watchman’ (§3.3.1 s.v. *spāṣa*); and *draṃgadhara* ‘office-

holder (§3.3.2 s.v. *dramga*).⁷²⁵ Haspelmath and Tadmor do not have a separate semantic domain for this type of word.

Secure loanwords from Bactrian (§3.2.1)

- gušura* ‘prince’ (3.)
- dašavida* ‘chief of ten households’ (5.)
- valaga* ‘animal keeper’ (11.)
- śadavida* ‘chief of a hundred households’ (12.)

Plausible loanwords from Bactrian (§3.2.2)

- jenavida* ‘chief of the armour’ (21.)
- yatma* ‘measurer of rations’ (26.)

Arguable loanwords from Bactrian (§3.2.3)

- aṃbukaya*, a title (29.)
- ašgara* ‘herald (?)’ (34.)
- caṃkura* ‘imposer of penalties’ (36.)
- toṃga*, a title (38.)
- yaṃga* ‘weaver’ (48.)

Tentative loanwords from Bactrian (§3.2.4)

- švaṭhaṃgha* / *šoṭhaṃgha* ‘finance officer’ (56.)

Plausible loanwords from Bactrian or another language (§3.3.2)

- maravara* ‘accountant’ (69.)

Arguable loanwords from Bactrian or another language (§3.3.3)

- ageta* ‘tax collector’ (72.)

A second subgroup concerns “legal terminology”, e.g. regarding punishments, marriage practices, and different transactions of property such as sale or leasing. This subgroup, which basically overlaps with Haspelmath and Tadmor’s semantic domain “law” (their no. 21), consists of thirteen items.⁷²⁶

Secure loanwords from Bactrian (§3.2.1)

- aviṃdama* ‘fine, recompense’ (1.)
- jheniga* ‘in charge of, under the care of’ (4.)
- laši* ‘gift’ (8.)

⁷²⁵ *storavara* ‘horse driver’ and *storvana* ‘groom’, two compounds formed from *stora* ‘large animal, horse, camel’ (§3.2.1 s.v.) could be added here too. In the word lists below, numbers in round brackets refer to the serial number of the relevant lemma in Chapter 3.

⁷²⁶ Of the official titles listed above, *caṃkura* ‘imposer of penalties’ has probably the closest connection to legal activities (see §3.2.3 s.v.).

lastana ‘dispute, lawsuit’ (9.)
vaga ‘rent (paid for the use of land)’ (10.)

Arguable loanwords from Bactrian (§3.2.3)

nihala ‘settlement, agreement’ (39.)
badho ‘pledge, mortgage’ (43.)
muṣḍhaṣi, woman exchanged within exogamous marriage practices (44.)

Secure loanwords from Bactrian or another language (§3.3.1)

ajhate ‘free, noble’ (57.)

Plausible loanwords from Bactrian or another language (§3.3.2)

pravaṃnaga ‘(authoritative) document’ (68.)

Arguable loanwords from Bactrian or another language (§3.3.3)

namanaga / *namaṃniya* ‘exchange’ (74.)
hastama ‘quarrel, dispute’ (79.)

Tentative loanwords from Bactrian or another language (§3.3.4)

ujhmayuga ‘trustworthy, skilled (?)’ (80.)

A group of ten words encompasses “economic terms”, e.g. units of measure and other words related to taxation.⁷²⁷ There is no exact correspondent in Haspelmath and Tadmor’s list of semantic domains, but the units of measure and words such as *śpara* / *śpura* ‘full, completely’ or *are* ‘a half’ would fit under “quantity”, their domain no. 13.

Secure loanwords from Bactrian (§3.2.1)

śpara / *śpura* ‘full, completely’ (16.)

Plausible loanwords from Bactrian (§3.2.2)

are ‘a half’ (18.)
milima, a unit of measure (25.)

Arguable loanwords from Bactrian (§3.2.3)

atga ‘additional, complementary’ [used of prices] (32.)
paḳe ‘allotment, share’ (40.)
vaṣḍhiḡa, festival on the mountain (46.)

Tentative loanwords from Bactrian (§3.2.4)

apcira, a unit of measure (for vineyards) (49.)
reda ‘seed, sprout (?)’ [used when measuring vineyards] (52.)

⁷²⁷ Official titles belonging to the same semantic sphere are *daśavida* ‘chief of ten households’; *śadavida* ‘chief of a hundred households’; *yatma* ‘measurer of rations’; *ṣvaṭhaṃgha* / *ṣoṭhaṃga* ‘finance officer’; *maravara* ‘accountant’; and *aḡeta* ‘tax collector’.

Secure loanwords from Bactrian or another language (§3.3.1)

harga ‘dues, tax’ (59.)

Plausible loanwords from Bactrian or another language (§3.3.2)

dramga ‘office’ [place where taxes are stored] (64.)

Seven lemmata can be attributed to the subcategory “geographical terms and administrative units”.⁷²⁸ None of the semantic domains of Haspelmath and Tadmor corresponds exactly to this subcategory; the one that comes closest is “social and political relations” (their no. 19).

Secure loanwords from Bactrian (§3.2.1)

Suliga ‘Sogdian’ (14.)

Plausible loanwords from Bactrian (§3.2.2)

aṃtagi ‘belonging to the district’ (17.)

Khotamna ‘Khotan’ (20.)

Tentative loanwords from Bactrian (§3.2.4)

kilme ‘family estate’ (50.)

Remena, place name (53.)

laṭhana ‘plain, open land (?)’ (54.)

Secure loanwords from Bactrian or another language (§3.3.1)

ayana ‘village, territory of a clan’ (61.)

There are six words, including four verbs, that seem to relate in one way or the other to “transport and travel”. This subgroup can be compared to Haspelmath and Tadmor’s semantic domain “motion” (their no. 10).⁷²⁹

Plausible loanwords from Bactrian (§3.2.2)

nihamñ- ‘to deposit, to put down’ (22.)

Arguable loanwords from Bactrian (§3.2.3)

oḍ- ‘to let go’ (35.)

picav- ‘to hand over’ (41.)

leṣ- ‘to dispatch, to conduct’ (45.)

Plausible loanwords from Bactrian or another language (§3.3.2)

parivanae ‘burden, provisions’ (67.)

⁷²⁸ Cf. also the toponym *Acomena* discussed §3.2.3 s.v. *aco*.

⁷²⁹ Niya Prakrit *darṣ-* ‘to load (a beast of burden)’ (§3.5.1 s.v.) and *paṅēvara* ‘provisions (for a journey)’ (§3.6 s.v.) are additional examples of this type of word from the broader category of Iranian loanwords. *tomga* is an example of a functionary who was responsible for transport (see §3.2.3 s.v.).

Arguable loanwords from Bactrian or another language (§3.3.3)

vara ‘load’ (77.)

A sixth subgroup consists of “military terminology”, mostly concerning the defence of the outer borders of the Shanshan kingdom.⁷³⁰ There are five words in this category, which in essence corresponds to Haspelmath and Tadmor’s semantic domain no. 20, viz. “warfare and hunting”.

Arguable loanwords from Bactrian (§3.2.3)

aco ‘frontier, border post’ (30.)

piro ‘military post, fort’ (42.)

Tentative loanwords from Bactrian (§3.2.4)

taravara ‘sword’ (51.)

Secure loanwords from Bactrian or another language (§3.3.1)

spāṣa ‘watching, guarding’ (58.)

Plausible loanwords from Bactrian or another language (§3.3.2)

paraṣa ‘abduction, plundering’ (66.)

Finally, a small but consistent group is formed by three “calendrical terms”. Two of them, i.e. *kṣuna* and *saste*, also occur in Gāndhārī inscriptions and are, together with the Macedonian month names borrowed into Gāndhārī (Salomon 2011a), evidence for a western influence on the calendrical system. These words belong to Haspelmath and Tadmor’s semantic domain “time” (their no. 14).

Secure loanwords from Bactrian (§3.2.1)

kṣuna ‘date, reign, regnal year’ (2.)

noḳṣari ‘month of the new year’ (5.)

Plausible loanwords from Bactrian (§3.2.2)

saste ‘day, elapsed’ (28.)

4.5.3 Textiles and clothing

The presence of “a wonderful variety of fabrics” (Stein & Andrews 1920: 5) in the archaeological record from Niya is nicely mirrored in the textual evidence, as the Niya documents contain a plethora of terms for “textiles and

⁷³⁰ Some official titles listed above are probably also related to the military, viz. *guśura* ‘prince’ [listed amidst military officers in CKD 478]; *jenavida* ‘chief of the armour’; and *ambukaya*, whose presumed Bactrian source αμβουκαιο may be a military title.

clothing". This category of words corresponds to Haspelmath and Tadmor's semantic domain "clothing and grooming" (their no. 6). Since, however, none of the words included here has to do with "grooming", I have renamed it "textiles and clothing".

While it has long been known that many such terms have an Iranian etymology (cf. e.g. Lüders 1936a; Agrawala 1953a), it can now be specified that, with the exception of the Khotanese loanwords *thavaṃnaga* 'cloth' and *prahoni* 'garment' (cf. §4.2.5), most of these words are or could have been borrowed from Bactrian.⁷³¹ The Niya documents thus provide additional linguistic evidence for a flourishing manufacture of textile products in ancient Afghanistan.⁷³²

Secure loanwords from Bactrian (§3.2.1)

prigha '(monochrome) damask' (7.)

Plausible loanwords from Bactrian (§3.2.2)

vāṣe 'garments' (27.)

Arguable loanwords from Bactrian (§3.2.3)

avalika 'swaddle' (33.)

sujinakirta 'needlework, embroidery' (48.)

Tentative loanwords from Bactrian (§3.2.4)

lastuga, textile product (55.)

Plausible loanwords from Bactrian or another language (§3.3.2)

tavastaga 'carpet' (63.)

namata 'felt' (65.)

raji 'cloak, woollen cloth' (70.)

Arguable loanwords from Bactrian or another language (§3.3.3)

agiṣḍha 'cover, rug' (71.)

kojava 'rug, blanket' (73.)

paḥhavaṃta 'breastband (?)' (75.)

rasaṃna 'rope (?)' (76.)

ṣaṃna 'hemp, hempen (?)' (78.)

Based on the linguistic evidence presented here (13 loanwords), one expects that the textiles discovered in the archaeological record of the Shanshan

⁷³¹ Besides the textile products listed below, Niya Prakrit may also have borrowed a word for 'weaver' from Bactrian, i.e. *vaṃpga* (cf. §3.2.3 s.v.).

⁷³² More evidence of this type is provided by the Aramaic documents from Bactria (ADAB), as they likewise contain some words for textile products with Iranian etymologies. See recently Benvenuto (2018; 2020).

kingdom would include imports from Bactria or that locally produced textiles were at least influenced in their design by those made in Bactria.⁷³³ Pending an interdisciplinary investigation into these matters,⁷³⁴ it can already be noted that the carpets found in Niya (cf. *kojava* ‘rug, blanket’ and *tavastaga* ‘carpet’) have been demonstrated to closely resemble contemporary carpets from ancient Bactria (see H. Zhang 2019). In addition, Cohen (1999) has shown that a woollen flat weave from Niya is woven in a style that is still found today in the weaving traditions of NW India, Pakistan, and Afghanistan (cf. also Padwa 2007: 1).

On a different note, it bears mentioning that textiles additionally functioned as a currency in the Shanshan kingdom and that they were collected as taxes (cf. e.g. Høisæter 2020: 264).⁷³⁵ In other words, these textiles were an integral part of the same economic system reflected by the economic terms borrowed from Bactrian into Niya Prakrit and treated in the preceding section.

4.5.4 Fauna, flora, and food

A third semantic category one can identify among the (potentially) Bactrian loanwords in Niya Prakrit is that of “fauna, flora, and food”. This category encompasses three of the semantic domains posited by Haspelmath and Tadmor (2009: 7), i.e. “animals” (their no. 3), “food and drink” (their no. 5), and “agriculture and vegetation” (their no. 8). In total, I have assigned six words to it, all of them “cultural borrowings” that typically show a special connection with Afghanistan (see also the respective lemmata).

Secure loanwords from Bactrian (§3.2.1)

stora ‘large animal, horse, camel’ [= “animals”] (15.)

⁷³³ On the import of textiles to the Shanshan kingdom, see in general Høisæter (2020: 263–278; 2023: 414–416). For the local manufacture, see e.g. Iyer (2015), who argues that a weft-beater discovered in Niya implies the local production of carpets.

⁷³⁴ Such an investigation would face several methodological challenges, e.g. ascertaining the exact origins of textiles found in the archaeological material (cf. Høisæter 2020: 264) and “matching terms for textiles in excavated documents and historical texts with extant textile fragments” (Hansen & Wang 2013: 156).

⁷³⁵ For the use of textiles as money on the Silk Road, see Wang (2013), Duan (2013), and the other articles in the 2013 issue of the *JRAS* devoted to the topic. These papers mainly focus on sources from the Tang period, but their overall conclusions are also valid for the culture reflected in the Niya documents.

Plausible loanwords from Bactrian (§3.2.2)

aśpista ‘lucerne’ [= “agriculture and vegetation”] (19.)

maśka ‘bean’ [= “agriculture and vegetation”] (24.)

Arguable loanwords from Bactrian (§3.2.3)

aḍini ‘(broomcorn) millet’ [= “agriculture and vegetation”] (31.)

Plausible loanwords from Bactrian or another language (§3.3.2)

aṭa ‘flour’ [= “food and drink”] (60.)

gavaśa ‘deer, stag’ [= “animals”] (62.)

Concerning the plant names, the first thing to note is that, according to a famous story from the Chinese annals, lucerne, Niya Pkt. *aśpista*, was brought to the Han emperor Wu by envoys returning from a mission to Central Asia (Laufer 1919: 208–219).⁷³⁶ Beans, *maśka*, are a type of legume first cultivated in Iranian-speaking regions before spreading east to China (Laufer 1919: 305–308). Millet, *aḍini*, has been a staple food in Central Asia, including Afghanistan, since at least the first millennium BC due to its capacity to grow well in arid regions (Spengler 2019: 79f.).⁷³⁷

One can make similar observations about the two animal names. Regarding *stora*, the meaning ‘camel’ is worth noting, as the close association of this animal with Bactria goes back to antiquity (cf. §6.2 s.v. *amklatsa*). *gavaśa* ‘deer, stag’, on the other hand, may have been the word used for the *Cervus hanglu*, the “Central Asian red deer” or “Tarim red deer”, a type of deer differing substantially in appearance from the species living in South Asia (Ahmad et al. fthc.).⁷³⁸

⁷³⁶ Unfortunately, there is currently only limited archaeobotanical data for the early domestication of lucerne (Spengler 2019: 172f.).

⁷³⁷ The preservation of the word for ‘(broomcorn) millet’ in modern Dardic languages suggests that the word was not limited to the administrative register seen in Niya Prakrit texts but also entered the vernacular languages spoken in Gandhāra. The same may be true of other words in this semantic category, although confirmatory evidence for this is lacking.

⁷³⁸ Biologists draw a further distinction between the *Cervus hanglu bactrianus* living in Afghanistan and the *Cervus hanglu yarkandensis* living in the Tarim Basin. *gavaśa* could have referred to both species.

4.5.5 Emotions and values

Finally, three Bactrian loanwords do not easily fit into one of the semantic categories posited in the previous sections.⁷³⁹ Instead, they can be captured under the heading “emotions and values” (= semantic domain no. 16 of Haspelmath and Tadmor).

Secure loanwords from Bactrian (§3.2.1)

ṣada ‘pleased, happy’ (13.)

Plausible loanwords from Bactrian (§3.2.2)

picara ‘(mark of) honour’ (23.)

Arguable loanwords from Bactrian (§3.2.3)

tim- ‘to be concerned about, to be angry’ (37.)

A common characteristic of at least *ṣada* ‘pleased, happy’ and *picara* ‘(mark of) honour’ is that both words also occur in Gāndhārī Buddhist texts from the Bajaur collection (see §3.2.1 and §3.2.2 s.v.). Therefore, they are reminiscent of a few Buddhist terms of Bactrian origin used in the languages from the Tarim Basin. The best-known example of such a term is Bactr. αζαβο /āžžānə/ ‘worthy, Arhat’ < **arjyāna-*, borrowed into Khotanese as *āṣana-*, into Tocharian A as *āṣām*, and into Tocharian B as *aṣām* (Weber 1985; Dragoni 2023b: 41).⁷⁴⁰ Given that the scanty traces of Buddhist literature in Bactrian discovered so far are overall quite late (cf. §1.4.2), it remains a moot point whether Buddhist literature in Bactrian was already composed in Kuṣāṇa times, and, if so, how widespread the practice was. Yet, αζαβο and its congeners at least point to the existence of a class of moral and religious terms in Bactrian that could be adapted to suit specifically Buddhist purposes. In my view, lexemes such as *picara* ‘(mark of) honour’, *ṣada* ‘pleased, happy’, and perhaps also *tim-* ‘to be concerned about, to be angry’ could have belonged to this same category of words.⁷⁴¹

⁷³⁹ As a typical component of epistolary formulae, *ṣada* ‘pleased, happy’ could perhaps still be seen as an administrative term. Its occurrence in Buddhist texts (see just below) suggests that this is too narrow a view, however.

⁷⁴⁰ Another instance could be TA/TB *perāk* ‘faithful, credible’ (DTTA: 295; DoT: 424), if borrowed from Bactr. *πηραγο /pērāgə/, an agent noun in *-āka- from the attested verb πηρ- ‘to believe’ < **parya-* (cf. also the noun πηρο ‘faith’). The commonly cited BSogd. *pyr’k* ‘believer’ (SD: 336) is a misreading of Uyghur *pyl’k* ‘gift’ (see Sims-Williams 1983: 44).

⁷⁴¹ It may also be noted that the Middle Persian and Parthian cognates of Bactr. πιδοφαρο came to be used as a technical term in Manichaean texts, thus further

4.6 Conclusions

This chapter addressed four topics concerning the Iranian loanwords in Niya Prakrit (cf. §4.1):

- (i) Possible donor languages (§4.2)
- (ii) Phonological integration (§4.3)
- (iii) Morphological integration (§4.4)
- (iv) The semantics of the loanwords (§4.5)

For each topic, I will now draw some general conclusions. In Chapter 7, I will come back to these conclusions when attempting to define the type of contact between Bactrian and Niya Prakrit in sociolinguistic terms.

4.6.1 Possible donor languages

Niya Prakrit clearly has been in contact with Iranian languages other than Bactrian, undoubtedly Old Persian and Khotanese, perhaps also Parthian and Sogdian. Attributing specific loanwords to these languages can be challenging nevertheless. Notably, only very few loanwords were certainly borrowed in the Tarim Basin: nearly all Bactrian words could have been adopted before Niya Prakrit entered the Tarim Basin, and loanwords from Khotanese are scarce.

4.6.2 Phonological integration

Bactrian words are overall well integrated into the phonology of Niya Prakrit. Foreign sounds and consonant clusters are adapted to native phonotactics, and borrowings undergo the same lenitions and other phonological processes active in inherited vocabulary. One can observe clear tendencies in these sound substitutions, but there is no complete consistency. In my opinion, this lack of consistency does not necessarily imply chronological or geographical variation in the sources of these loanwords. Instead, it seems more plausible that loanwords were subject to the same historical spellings and other orthographic idiosyncrasies so characteristic of Kharoṣṭhī literacy in general.

underlining the potential religious connotations of this word. Regarding Bactr. *ḅaḍo*, it is noteworthy that its Sogdian and Khotanese cognates developed a new meaning ‘rich’ in a Buddhist context due to the influence of Skt. *bhoga*- ‘enjoyment, wealth’ (see Bernard 2023: 74f.; 160f.; 195).

4.6.3 Morphological integration

As expected, most of the Bactrian and potentially Bactrian borrowings are nouns. There are also some adjectives/adverbs and verbs, which are potentially, yet not necessarily, significant to determine the intensity of the contact. On the whole, the loanwords are again well integrated into the productive declension and conjugation classes in Niya Prakrit. Although evidence remains scarce, there may be a correlation between the morphological class a word belongs to in Bactrian and the class it is adopted in when borrowed into Niya Prakrit.

4.6.4 The semantics of the loanwords

Most of the Bactrian and potentially Bactrian words in Niya Prakrit are “administrative, political, military, and economic terms”. Smaller semantic categories, such as “textiles and clothing” or “fauna, flora, and food”, tend to include words that refer to products strongly associated with ancient Afghanistan. The semantic categories covered by the Bactrian loanwords are thus consistent with the ancestor of Niya Prakrit having been used as a chancellery language of the Kuṣāṇa empire. In Chapter 7, I will draw a parallel with Achaemenid Official Aramaic, as the Old Persian loanwords in this language occupy similar semantic domains.