Whatever Happened to Gāndhārī? Prakrit, Sanskrit, and the "Gāndhārī Orthography"

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1. Linguistic diversity in "Gāndhārī" Sources

In 1946, Harold Bailey famously introduced the term "Gāndhārī" to cover, in his words:[1]

> the forms of the one Middle Indian dialect of the north-west of India, centered in the old Gandhāra region, around modern Peshawar, and which we meet in most varied sources. Under this name I propose to include those inscriptions of Aśoka which are recorded at Shahbazgaṛhi and Mansehra in the Kharoṣṭhī script, the vehicle for the remains of much of this dialect. To be included also are the following sources: the Buddhist literary text, the Dharmapada found at Khotan, written likewise in Kharoṣṭhī […]; the Kharoṣṭhī documents on wood, leather, and silk from Caḍota (the Niya site) on the border of the ancient kingdom of Khotan, which represented the official language of the capital Krorayina […] of the Shan-shan kingdom, and of one document, no. 661, dated in the reign of the *Khotana maharaya rayatiraya hinajha dheva vijida-siṃha*. […] The modern Dardic languages Ṣiṇā, Khowar, Phalūra and others represent the same type of Middle Indian.[2]

The language of these sources had previously been known as "Bactrian Pali" and "Northwestern Prakrit." In the years since Bailey's article, the scope of the designation "Gāndhārī" has undergone numerous modifications and other subcategorizations have been suggested, just as the number and kind of available sources kept expanding.

To begin with, one may object to the expression "the one Middle Indian dialect" in Bailey's definition, and Sten Konow, writing in 1929 in the preface of his collection of Kharoṣṭhī inscriptions, already observed that

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2   Bailey 1946: 764–765.

the language of the inscriptions is fairly uniform. We cannot, however, expect to find an absolute consistency. In the first place the area is very extensive, and there are consequently minor dialectic variations. [...] On the other hand, we must reckon with a certain influence exercised by literary languages.[3]

Concerning dialectal variation, Konow proposed that the nominative singular ending of the a-declension was *e* West of the Indus river, and *o* in other localities;[4] further discoveries of Gāndhārī inscriptions have, however, failed to confirm this pattern. As for the influence of literary languages on Gāndhārī inscriptions, he proposed an eastern Middle Indo-Aryan substrate in Buddhist literary quotations, and a more general influence of Sanskrit, correctly pointing out that Gandhāra had long been a seat of Sanskrit learning.[5] It is this relationship between Gāndhārī texts and Sanskrit that will concern us in particular in the following.

In his 1989 magisterial overview "Gāndhārī écrite, gāndhārī parlée," Gérard Fussman excluded the Gāndhārī-language documents from the kingdoms of Krorayina and Kucha,[6] noted the special linguistic features of other Gāndhārī texts in Central Asia (true at least of the Khotan Dharmapada, CKM 77), and underlined the necessity of understanding Gāndhārī in its homeland as a living language, subject to evolution through time as well as dialectal differentiation. He despaired, however, of actually tracing this dialectal differentiation due to the insufficient number of securely provenanced sources, which at the time meant inscriptions.

The numerous Gāndhārī manuscript discoveries made since the 1990s do, in fact, reveal a broad range of linguistic variation, some of which may be due to dialect differences, but the field continues to suffer from the problem highlighted by Fussman: almost none of the newly available Gāndhārī manuscripts have a secure (or in fact any) provenance, with the partial exception of the Bajaur collection that by hearsay is attributed to a village in the Dir district of Bajaur.[7]

While dialectal studies thus remain elusive, Richard Salomon distinguishes four registers of Gāndhārī:[8]

"Gāndhārī translationese"
"colloquial *avadāna* style"
"scholastic Gāndhārī"

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"Sanskritized Gāndhārī"

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3   Konow 1929: xcv.
4   Konow 1929: cxii; cf. also Brough 1962: 115.
5   Konow 1929: xcv.
6   Contra Brough 1962: 49.
7   Even this, however, is only one of two alternative origin stories for the collection, the other placing it in the region of Kandahar in Afghanistan (Khan & Khan 2004: 9f.).
8   Salomon 2001; 2002.

In the words of Salomon, the first of these is characterized by "clearly discernible traces of the phonology and morphology of a substratum language of the midland MIA type," the third (somewhat vaguely) by its "technical or scholastic style,"[9] and the fourth by the (inconsistent) use of Sanskritic "consonantal conjuncts"[10] and "Sanskrit endings" such as *-sya*.[11] The latter is, however, also a matter of spelling, and Salomon points out that there are no other morphological Sanskritisms in this last variety.[12]

In other words, Sanskritized Gāndhārī is distinguished from regular Gāndhārī by orthographic rather than linguistic features, and within regular Gāndhārī the translationese variant can be distinguished by phonetic and morphological substrate influence, while another variant (that I prefer to call "literary Gāndhārī" rather than "scholastic Gāndhārī" as it encompasses, for instance, also Mahāyāna sūtras) is characterized by stylistic features that are shared with texts of corresponding genres in other Prakrits and Sanskrit.

The picture is completed by a small number of texts in Kharoṣṭhī script that are written in full-fledged Sanskrit, employing a full range of consonant conjuncts and vowel length marks to represent Sanskrit phonetics and in addition exhibiting full Sanskrit morphology.

We can now modify the above table as follows, with the understanding that the horizontal line indicates an orthographic rather than linguistic divide. The linguistic variants above the line are within the range of what in the following I shall call "Gāndhārī orthography" (an expression used by my teacher Clifford Wright),[13] the variants below the line of what we may call "Sanskrit orthography" (more or less perfectly applied).

> Gāndhārī translationese
> colloquial *avadāna* style
> scholastic Gāndhārī
>
> ———————————
>
> Sanskritized Gāndhārī
> Sanskrit

2. Language, script, and orthography

It is important to distinguish orthography not only, as we have seen, from language, but also from script. The Kharoṣṭhī script, as is well-known, died out in its homeland in the third or, at the latest, fourth century CE. There is no consensus on the reasons for its disappearance. Salomon suggested that it had lost one of its main reasons for existence – as an administrative

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9   Salomon 2001: 242.
10   Salomon 2001: 244f.
11   Salomon 2001: 241: 245.
12   Salomon 2001: 245f.
13   Cf. for instance Wright 2001: 418.

language of the Kuṣāṇa empire – when this empire faltered, but Strauch countered that in fact Bactrian was the main administrative language of the Kuṣāṇas.[14] To this in turn one can reply that we do see reflected in Krorayina and Kucha an administrative system using Kharoṣṭhī that in its essence is likely to go back to that of the Kuṣāṇas. Eltschinger suggested that in the Buddhist sphere, the use of Sanskrit was a strategy against claims of Brahman superiority, rather than due to any belief in its innate superiority.[15] Baums argued that the relocation of a mainland Buddhist community was responsible for the spread and eventual ubiquity of Brāhmī, Sanskrit, and the pothi manuscript format in at least the western part of the former Kharoṣṭhī area.[16]

We need to remind ourselves again, however, that the choice of Sanskrit language is independent of both script and orthography. Salomon points out that Kharoṣṭhī could easily have been modified to write the ascendant Sanskrit language in precisely the same way as Brāhmī ended up doing, and could thus have survived or even become the predominant South Asian script.[17] Both he and Strauch[18] illustrate this with the well-known Niya document CKD 523, presenting non-Buddhist Sanskrit verses in just such an orthography (sample):[19]

> *yathā manuṣyaḥ pathi vartamānaḥ*
> *kva cit kva cid viśramate śramārta[ḥ]*
> *tathā manuṣyasya dhanāni kāle*
> *kāle saṃmāśvāsya punar vrajaṃti* 1

as well as the Kucha palm-leaf fragment CKM 90 (sample):

> */// (pa)rihanya · ma sparśaśatro[bh](ut). ///*
> */// sya ciraṃjñaḥ · janapade naparadhaḥ · [t]. ///*
> */// [h]. tasya dutaṃ saṃpreṣayaṃti · bravi(ti) ///*
> */// (sva)mi[na](ṃ) duto p(ra)ha ∈ k. [s]. ? ///*

Strauch calls this writing of the Sanskrit language in the Kharoṣṭhī script using the Sanskrit orthography known from Brāhmī documents "external Sanskritization," and contrasts it with what he calls the "internal Sanskritization" illustrated in a manuscript containing a Rājanīti text in the Bajaur collection (CKM 272) – Sanskrit language in Kharoṣṭhī script using an only slightly modified Gāndhārī orthography:[20]

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14 Salomon 2008; Strauch 2012.
15 Eltschinger 2017.
16 Baums 2021.
17 Salomon 2008: 144.
18 Salomon 2008; Strauch 2012.
19 Here and in the following, text-critical marks have the following meanings: [ ] unclear reading, ( ) reconstructed text, ? unclear akṣara, . unclear or missing part of akṣara, /// edge of support.
20 Strauch 2012: 152.

dhaṇadhanyakupyayavaseṃdhaṇ{e}ṇi
yatrayudhani ca rathaā
upakaraṇani ca kośo
naravahanaśipiyodhaā

It might have been better to avoid the term "Sanskritization," since all the texts in question are and (with the possible exception of the Kucha fragment) were never anything but proper Sanskrit, but the important point stands. In the Kharoṣṭhī script, Sanskrit can be written in two different orthographies: in regular Gāndhārī orthography, revealing its linguistic nature only in matters such as morphology and sandhi, or in a Sanskrit orthography fully equivalent to Sanskrit orthography in Brāhmī script.

In the following, I will refine the picture by two case studies, showing how two different Kharoṣṭhī scribes use two different kinds of Gāndhārī orthography, the one effectively hiding a Sanskrit verse and Sanskrit loanwords, the other by contrast revealing a phonetic feature described by the Sanskrit phoneticians but invisible in Brāhmī documents.

3. Sanskrit hidden by "Gāndhārī orthography"

One manuscript in the British Library collection of Kharoṣṭhī scrolls (CKM 4)[21] contains a commentary on a selection of Buddhist verses. The scribe[22] employs a minimal kind of Gāndhārī orthography that I would like to call "writer-oriented": it does not use *anusvāra* nor any of the Kharoṣṭhī diacritic marks indicating subtleties of pronunciation, making it easy to write text in, but putting a heavier burden of interpretation on the reader. A typical example verse is the following:

ṇa vedago driṭhie na mudiyo
su mu ṇa mi di ṇa hi tamayo so
ṇa kamuṇo ṇo vi ṣudeṇa ṇoyo
aṇuaṇido ho ṇiveśaṇehi

It has parallels in the *Suttanipāta*[23] and the Sanskrit and Chinese *Arthapada*. In order for its *triṣṭubh* meter to scan correctly, the pronunciation would need to have been more or less as follows:

nə ʋeːðəjoː driṣṭiːjə noː muðiːjə
? ? ? ? ? nə ɦi təmːəjoː so
nə kəmːunoː noː ʋi ṣuðeːnə nejːo
ənuːʋəniːðoː ɦo niʋeːjəneːɦi

21   Ed. Baums 2009.
22   British Library scribe 4 in the classification of Glass 2000.
23   Sn 846 ed. Andersen & Smith 1913: *na vedagū diṭṭhiyā na mutiyā, sa mānam eti na hi tammayo so,*
       na kammanā no pi sutena neyyo, anūpanīto so nivesanesu.

Note in particular how the ending [iːjə] has the Middle Indo-Aryan heavy-light pattern. Another verse that is of particular interest in the present context is the following:

> *taṣadudio puruṣo*
> *tatratatraüavatie*
> *teṇa teṇeva sabhodi*
> *dukham edi puṇapuṇo*

This verse has partial parallels in the *Suttanipāta*,[24] *Aṅguttaranikāya,* and *Udānavarga* from Subashi, which however do not include the second and third *pāda*s. In order for it to scan correctly in the *anuṣṭubh* meter, its pronunciation must have been along the following lines:

> təṣṇaːduðiːjoː puɾuʐoː
> tətrətatroːʋəʋətːijeː
> teːnə teːneːʋə səmbʰoːði
> dukʰːəm eːði punəpːunoː

Note here in particular the Sanskrit long penultimate in [təṣṇaːduðiːjoː], the Sanskrit light-heavy pattern in the ending [ijeː] and the Sanskrit vowel sandhi in [tətrətatroːʋəʋətːijeː]. A reader sufficiently versed in Sanskrit and recognizing the linguistic nature of the verse (hidden behind its Gāndhārī orthography) might even have pronounced it fully as Sanskrit (with two metrical licenses):

> tr̥ṣṇaːdʋitiːjəh puɾuʂəs
> tətrətatroːpəpətːija
> teːnə teːneːʋə səmbʰoːti
> duhkʰəm eːti punəhpunəh

In the same way, the Gāndhārī orthography of this verse commentary hides a number of loanwords. A technical term borrowed from a central MIA dialect is *vijaṭeti*, "disentangle" (3rd pl. pres., cf. P *vijaṭenti*), which in proper Gāndhārī linguistic form would have been spelled **vijaḍeti*. Following the logic of the orthography of this scribe, in which the letter *ṭ* must stand either for the geminate or for the class nasal followed by *ṭ*, a reader would have pronounced the spelling *vijaṭeti* as [ʋid͡ʐəʈːenti] (cf. English [ˈɡarɪd͡ʒ]). A reader familiar with the donor language of the term may have opted for a learned pronunciation [ʋid͡ʐəʈːiː] (cf. English [ɡəˈrɑːʒ]) instead.

A Sanskrit technical term hides behind the spelling *padastaṇa-* "foothold" (cf. Skt. *padasthāna-*), which in fully naturalized Gāndhārī form would have been **padaṭhaṇa-*. Here a correspondingly naturalized pronunciation would be [pəðətʰːaːnə] (with some uncertainty about the phonetic value of *ṭh*), a learned pronunciation [pədəstʰaːnə].

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24   Sn 740 ed. Andersen & Smith 1913: *taṇhādutiyo puriso, dīgham addhāna saṃsaraṃ, itthabhāva-ññathābhāvaṃ saṃsāraṃ nātivattati.*

Finally, a Buddhist Sanskrit term occurs in the orthographic garb *vriṣavida-* "majesty" (cf. BHS *vṛṣabhitā-*, P *visabhitā-*). The scribe of this commentary does not otherwise use the conjunct *vr*, which thus provides a clear indication of the foreign nature of the word suggesting a learned pronunciation [ʋɽʂəbʰitaː], although a regular Gāndhārī reader would probably simply have substituted [ʋɪʐəʋɪðə].

4. Local Sanskrit revealed

In contrast with the British Library verse commentary, which hides the above range of Sanskrit (and central MIA) material under its minimal Gāndhārī orthography, the British Library *Saṃgītisūtra* commentary (CKM 17)[25] uses a diametrically opposed orthographic philosophy that we may call "reader-oriented." Here, *anusvāra* and a large number of Kharoṣṭhī diacritics indicate even the finest details of pronunciation, easing the task of interpretation on the part of the reader, but putting a heavy burden of precision on the writer. As it turns out, this kind of Gāndhārī orthography reveals one particular phonetic feature that was also known to the Vedic phoneticians and laid down by them in the Prātiśākhyas. This feature was evidently shared between Gāndhārī and the local pronunciation of Sanskrit in the northwest. (The existence of local forms of Sanskrit is noted, for instance, in Rājaśekhara's *Kāvyamīmāṃsā*.)

The reflex of OIA [sm] is in this manuscript written with a clear ligature *śp* that has an additional footmark pointing to the right and upwards from the bottom of the stem of the *akṣara*, as in the words *budhaṇuśp(?)aṭi-* (OIA *buddhānusmṛti-*) and *taśp(?)a* (OIA *tasmāt*):
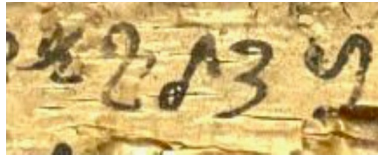

Figure 1.1: Gāndhārī *Saṃgītisūtra* commentary, detail of l. 321

Figure 1.2: Gāndhārī *Saṃgītisūtra* commentary, detail of l. ED3

The reflex of OIA [sʋ] is written using the same ligature with the same mystery footmark, as in *avhaśp(?)ara-* (OIA *ābhāsvara-*):
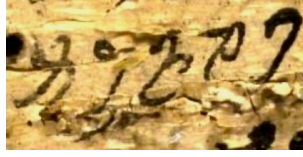
25   British Library scribe 15.

Figure 1.3: Gāndhārī *Saṃgītisūtra* commentary, detail of l. 74

Graphically, the mystery footmark on this *akṣara* is somewhat ambiguous between the "post-consonantal *r*" mark and the "postconsonantal *v*" mark. By a process of phonetic dissocia-tion,[26] the "postconsonantal *r*" mark had acquired the secondary function of marking the weakening of intervocalic simple consonants (in which case the mark is transcribed as a macron below the consonant, e.g., *s̱*). Neither the value [ɾ] nor consonantal weakening are ap-plicable, however, in the case of the original OIA clusters [sm] and [sʋ], and we will therefore in the following transliterate the *akṣara* that we are concerned with as *śpv* without prejudging its pronunciation.

In general, the OIA clusters [sm] and [sʋ] undergo largely parallel developments in the history of Indo-Aryan. For [sm] (or more generally sibilant + [m]), we find the following possibilities:[27]

1. epenthesis (e.g., OIA *uṣman* > P *usumā*)
2. metathesis (e.g., OIA *raśmi* > P *raṃsi*)
3. s assimilation (e.g., OIA *tasmin* > Śaurasenī *tassiṃ*)
4. m assimilation (e.g., OIA *grīṣma* > P *gimha*)
5. p assimilation: [Sm] > [Sᵖm] > [Sp] (e.g., OIA *tasmāt* > G *taspa*, Kalsi *tapha*), but maybe Northwestern [Sm] > [Sʋ] > [Sp] (cf. OIA *smṛti* > G *svadi*, OIA *asmin* > G *asvi*)?

In the case of [sʋ] (and other sibilants + [ʋ]), this is reduced to three possibilities:[28]

1. epenthesis (e.g., OIA *svāmin* > P *suvāmin*)
2. s assimilation (e.g., OIA *śveta* > P *seta*)
3. p assimilation: [Sʋ] > *[Sβ] > *[Sɸ] > [Sp] > [pph] (e.g., OIA *viśvāsa* > G *viśpasa*, OIA *śleṣman* > *sepha* [Hemacandra])

The developments of sibilant + [m] or [ʋ] in Gāndhārī and into the modern Dardic languages are illustrated in the following table:[29]

26   For the details of this cf. Baums 2009: 199.
27   Bloch 1935.
28   Sakamoto-Gotō 1988.
29   After Baums 2009: 175.

	Dhp-G[K]	Khvs-G	EĀ-G Dhp-G[L] AG-G[L]	PY-G BL 4	SĀ-G[S5]	Nid-G[L2]	LC	ND	Dardic languages
[sm]	*sv, s, sm*	*sv, s*	*śp*	*śp*	*sp*	*sp*	—	*sm*	Khowar *ispa*, Shina *ăsĕi*, *ăsō̃*
[sʋ]	*sv, s, sp*	—	*śp*	*śp*	*śp*	*sp*	*sv, śp*	*sv*	Shina *ĭspāvŭ*, *ŭspáŭ, ĭspá* ; Tirahi *spas*
[ṣm]	—	—	—	—	*śp*	—	—	(*ṣm*)	Khowar *griṣp*; Shina *baṣ*, *bhāṣ, bāṣ*
[ṣʋ]	—	—	—	—	—	—	(*ṣm*)	—	Khowar *prazgár*
[çm]	*śm, sv*	—	*śp*	*sp*	—	—	—	—	Shina *răš*
[çʋ]	*śv, ś, śp*	—	*śp*	—	—	*sp*	—	*śv, śp*	Kalasha *haš*, Shina *ăšpŭ*, *ăšp, ăšap*, *ášpō*

Table 1.1: The Old Indo-Aryan etyma for the cited Dardic words are *asmad-*, *svādu-*, *svasṛ-*, *grīṣma-*, **bhaṣma-*, **pruṣvākara*, *raśmi-* and *aśva-*[30]

Here we see only two out of the broader range of possible developments: p assimilation in the Gāndhārī sources and into the modern languages, and s assimilation first at the stage of the modern languages. It is the process of assimilation of [sʋ] and [sm] into [sp] that we have to focus on then to shed light on the mystery orthographic feature in the *Saṃgītisūtra* commentary.

Here the Prātiśākhya of the Vedic Taittirīya school comes to our help.[31] It contains the following set of rules:

> *aghoṣād ūṣmaṇaḥ paraḥ prathamo 'bhinidhānaḥ sparśaparāt tasya sasthānaḥ* (14.9)

> After a voiceless fricative ([x], [ç], [ṣ], [s], [ɸ]) followed by an occlusive ([k], [kʰ], [g], [gʰ], [ŋ] … [p], [pʰ], [b], [bʰ], [m]) (is inserted) a voiceless unaspirated occlusive ([k], [c], [ʈ], [t], [p]) as unreleased sound of the same place of articulation as the latter.

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30   Cf. Turner 1966–1985 s.vv.
31   Whitney 1871: 294–298; cf. Bloch 1935: 264–265 and Allen 1953: 78.

aghoṣe plākṣeḥ (14.10)

Only if (the latter) is voiceless ([k], [kʰ] … [p], [pʰ]), according to Plākṣi.

uttamaparāt tu plākṣāyaṇasya (14.11)

On the contrary, (only) after (a voiceless fricative) followed by a nasal ([ŋ], [ɲ], [ɳ], [n], [m]), according to Plākṣāyaṇa.

These rules describe an articulation of Sanskrit sibilant + [m] with insertion of a stop element [p]. Applying this synchronic observation of regional Sanskrit pronunciation to the diachronic development of the cluster in question in the northwest, we may posit the following sequences for the sample words OIA *grīṣma-* (cf. table above) and OIA *ayasmaya-*, leading to the attested modern forms with p assimilation via the Gāndhārī stage with assimilated forms side by side with unassimilated forms (which may reflect dialectal variation):

1. *grīṣma* [ɡɾiːʂmə] > [ɡɾiːʂ͡pmə] (pre-stopped nasal; literally: [ɡɾiːʂp̚mə]) > [ɡɾiːʂpᵐə] (stop with nasal release) > [ɡɾiːʂpə]
2. *ayasmaya* [əjəsməjə] > [əjəsᵖməjə] > [əjəspᵐəjə] > [əjəspəjə]

The spelling *śpv* in the first-century Gāndhārī *Saṃgītisūtra* commentary thus provides documentary evidence for the sound change of the type *grīṣma-* > [ɡɾiːʂpmə], as described in the *Taittirīyaprātiśākhya*, under the interpretation of Plākṣāyaṇa.

From this it follows that the "postconsonantal *v*" element of the cluster *śpv* should probably be interpreted as [m] rather than [ʋ] because

1. this is a necessary condition for the insertion of [p] under the specific interpretation of Plākṣāyaṇa (*uttamaparāt*) as well as under the general rule (*sparśaparāt*);
2. a sound change [Sʋ] > [Sm] > [Sp] (with consistent increase of occlusion) is phonetically more plausible than [Sm] > [Sʋ] > [Sp] (with decrease followed by increase of occlusion);[32] and
3. direct evidence for [ṣʋ] > [ṣm] is preserved in OIA *ikṣvāku-* > G *iṣmaho-*.[33]

This may also provide an explanation for the shape of the Kharoṣṭhī so-called postconsonantal *v* diacritic, resembling as it does the right half of a full letter *m*.

5. Conclusions

I hope to have shown how intimately connected the Gāndhārī and Sanskrit language traditions have been from their very beginning. The interactions of these languages are complicated and various, and they need to be analyzed along the independent parameters of script

32   Bloch 1935.
33   Salomon & Baums 2007.

(Kharoṣṭhī vs. Brāhmī) and orthography (Gāndhārī vs. Sanskrit). Sanskrit could be and was written both in the Brāhmī and Kharoṣṭhī scripts, and in the latter case the scribe could employ one out of a range of Gāndhārī orthographies or a Sanskrit orthography. One task for modern scholarship is the tracing of Sanskrit material in the more minimal Gāndhārī orthographies that tend to obscure the linguistic nature of the text they write. On the other hand, the more elaborate Gāndhārī orthographies can record phonetic details beyond what is possible in the Sanskrit orthography, and in one case confirm observations of a Sanskrit phonetic process in the *Taittirīyaprātiśākhya*. This process evidently operated both in the regional Sanskrit and in the vernacular of the northwest, underlining once more the necessity of considering both languages together, and showing that the numerous so-called Gāndhārī manuscripts found in recent years hold much value also for Sanskrit studies beyond their Buddhist content.

Abbreviations

CKD, CKM: Corpus of Kharoṣṭhī Documents / Manuscripts; see Baums & Glass 2002–

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