

Linguistica e Filologia è inclusa in ERIH PLUS
(*European Reference Index for the Humanities and Social Sciences*)

Internet: <http://aisberg.unibg.it/handle/10446/6133>

I contributi contenuti nella rivista sono indicizzati nelle banche dati
Modern Language Association (MLA) International Bibliography
e Linguistics and Language Behaviour Abstracts (LLBA),
Directory of Open Access Journals (DOAJ) e Web of Science

Licenza *Creative Commons*:

This journal is published in Open Access under a Creative Commons License
Attribution-Noncommercial-No Derivative Works (CC BY-NC-ND 3.0).

You are free to share – copy, distribute and transmit –
the work under the following conditions:

You must attribute the work in the manner specified by the author or licensor
(but not in any way that suggests that they endorse you or your use of the work).

You may not use this work for commercial purposes.

You may not alter, transform, or build upon this work.



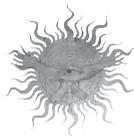
Volume pubblicato dal Dipartimento di Lingue, Letterature e
Culture Straniere e finanziato con fondi di Ateneo di ricerca.

ISSN: 1594-6517

Linguistica e Filologia

39

Dipartimento di Lingue, Letterature e Culture Straniere
UNIVERSITÀ DEGLI STUDI DI BERGAMO 2019



BERGAMO UNIVERSITY PRESS

sestante edizioni

Direttore Responsabile:

Giuliano Bernini, Università degli Studi di Bergamo

Comitato Scientifico:

Maria Grazia Cammarota, Università degli Studi di Bergamo

Régine Delamotte, Université de Rouen

Klaus Düwel, Universität Göttingen

Edgar Radtke, Universität Heidelberg

Ada Valentini, Università degli Studi di Bergamo

Comitato Editoriale:

David Ashurst, University of Durham

Lucia Avallone, Università degli Studi di Bergamo

Mario Bensi, Università degli Studi di Bergamo

Luisa Chierichetti, Università degli Studi di Bergamo

Gabriele Cocco, Università degli Studi di Bergamo

Adriana Constăchescu, Universitatea din Craiova

Pierluigi Cuzzolin, Università degli Studi di Bergamo

Cécile Desoutter, Università degli Studi di Bergamo

Maria Gottardo, Università degli Studi di Bergamo

Roberta Grassi, Università degli Studi di Bergamo

Dorothee Heller, Università degli Studi di Bergamo

Maria Iliescu, Universität Innsbruck

Stefania Maci, Università degli Studi di Bergamo

John McKinnell, University of Durham

Piera Molinelli, Università degli Studi di Bergamo

Maria Chiara Pesenti, Università degli Studi di Bergamo

Heidi Siller-Runggaldier, Universität Innsbruck

Andrea Trovesi, Università degli Studi di Bergamo

Marzena Ważorek, Université Paris VIII

Maria Załęska, Uniwersytet Warszawski

Comitato di Redazione:

Jacopo Saturno, Università degli Studi di Bergamo

INDICE

MARIA GRAZIA CAMMAROTA <i>Ricordo di Maria Vittoria Molinari</i>	pag. 7
LUCIA AVALLONE <i>Le parole e il gesto.</i> <i>Il discorso del Presidente Sādāt alla Knesset</i>	» 9
MAURO MAGGI <i>Le parole e il gesto.</i> <i>Morphology of the Khotanese verbs in -Vṣ-</i>	» 43
LUCA ALFIERI <i>La storia della derivatio, il problema del tempo</i> <i>e le grammatiche “filosofiche” tra il XIII e XVIII secolo</i>	» 63
MARIA LAURA RESTIVO <i>Sulla segmentazione delle parole in lettere di semicolti</i>	» 107
FILIPPO PECORARI <i>Punteggiatura in rete: i puntini di sospensione</i> <i>nella comunicazione mediata dal computer</i>	» 129
GIULIANO BERNINI <i>Marina Chini e l’italiano L2: dalla linguistica acquisizionale</i> <i>alla linguistica educativa</i>	» 177

MAURO MAGGI
(Università degli studi di Roma La Sapienza)

Morphology of the Khotanese verbs in -Vš-

*All Khotanese verbs in -Vš- with attested third singular present indicative have been regarded so far as type B verbs, that is, synchronically, verbs with no intervening vowel between the present stem and the third singular endings ¹tä active < Iranian *-a-ti and -te middle < Iranian *-a-ta_i (variously assimilated to the stem finals, e.g. -'tä, -š-ḍe). Besides, all of them have been considered to be middle verbs with third singular present indicative -šḍe apart from the active verbs *käš- 'to think; to protect', and *häš- 'to send' with third singular present indicative -'tä. This article shows that, among the verbs in -Vš-, some of the type B verbs (*druš- 'to bite', *biräš- 'to split', *ššäš- 'to cling', *haräš- 'to burst') are active, not middle, and that *käš- and *häš- are not type B, but type A verbs, that is, verbs with the active ending -ätä (as against B ¹tä) < Iranian *-a-ti. It also suggests etymologies for ttäš- 'to sprinkle' and *bruš- 'to break up'.*

1. Verbs in -Vš-

Khotanese has a fair number of present stems ending in -š- [z] preceded by a vowel. I term them collectively “verbs in -Vš-”.¹ Their voiced final sibilant basically goes back to Iranian *-š- between vowels (Emmerick 1989: 214). It is most clearly visible with consonants in secondary contact: for instance, *pyūšḍe* 3S prs. ind. mid. with *šḍ* [zḍ], *pyūšta*-pst. ptp. with *št* [ʃt] from *pyūš-* ‘to hear’. Before suffixes and endings beginning with a vowel, -š- was soon dropped in Old Khotanese and replaced by the so-called subscript hook (possibly expressing breathiness and usually transliterated as an apostrophe or an aleph sign), which was often combined with hiatus-bridging consonants: -t', -v', -š(')-, and -' (Emmerick 1992a: 158-165).

¹ I am grateful to Federico Dragoni (Leiden), Alessandro Del Tomba (Rome), Douglas A. Hitch (Whitehorse), and Nicholas Sims-Williams (London) for useful comments on a draft of this article. Doug Hitch was also so kind as to check and polish my English.

Several verbs in *-Vṣ-* are only attested in the past participle, but their present stem can be established fairly confidently: **²kūṣ-* ‘to agitate; to flay’ [4]² < Ir. **¹kauš-*; **na-rāš-* ‘to break’ [9], **pā-rāṣ-* ‘to burst (tr.)’ [13], **va-rāṣ-* ‘to split (intr.)’ [22], all < Ir. **raṣ-*; and **nā-ṣṣāṣ-* ‘to be attached (intr.)’ [11] < Ir. **tśraṣ-*. In contrast, morphophonologically speaking, the expected present stem corresponding to the pst. ptcp. *naṣpuṣṭa-* cannot be **naṣpūṣ-*, but is rather **naṣpūs-* (or **naṣpuśś-* with *śś* [ʃ] if palatalised by a suffix), because the Khotanese verb, like the Middle Persian denominative *pōšīdan* ‘cover, put on, wear’, New Persian *pušīdan* ‘id.’, etc., is not from Ir. **pauš-* (KT 6.129), but **pautś-* (EDIV 303).

The existence of a separate verb “*nijṣuṣ-* : [***] *nijṣuṣṭa-* ‘show’” from a palatalised variant **čauṣ-* of **kauṣ-* as postulated by Harold W. Bailey (Dict. 182; cf. [1] and [3]) is debatable. Apart from OKh. *nijṣū*’ 2S imp. mid. in the Suvarṇabhāṣasūtra 19.32 (easily explained as a contraction **nijṣātu*’ from *nijṣaṣ-*, cf. Skjærvø 2004: vol. 2, 288 s.v. *nājsāṣ-*), all of the forms assigned to “*nijṣuṣ-*” by Bailey are written in the highly unstable orthography of Late Khotanese texts from Dunhuang (the past participle being spelled there *najsūṣṭa-/nūjsūṣṭa-/najsauṣṭa-/nījsāṣṭa-/nījsāṣṭa-*) and are commonly assigned to the verb *nijṣaṣ-*: LKh. *nijṣuṣḍe*’ 3S prs. ind. mid. (Karmām Deśana 42 Ch. 00268 202, Emmerick 1977: 106), *nūjsūṣṭa* 3S prf. tr. m. (Mañjuśrīnairātmyāvatārasūtra 402 KBT 133, SGS 53), *nījsāṣṭa* pst. ptcp. (Vajrayāna Text v3, Degener 1989: 231). Accordingly, I only have *nijṣaṣ-* ‘to show’ [10] here.

Verbs in *-Vṣ-* [Vz] must not be confused with verbs in *-Vṣṣ-* [Vṣ], whose last consonant derives from Ir. **-xš-*, for instance, *huṣṣ-* ‘to grow’ (3S prs. ind. *huṣṭā*) < Ir. **uxš-a-* from **uaxš-* ‘to grow; increase’ with unetymological *h-* (SGS 154, EDIV 428-429). Thus, though Ronald E. Emmerick listed *parruṣ-* among the verbs in *-ṣ-* in his “Reverse index of present stems” (SGS 169), this is not a verb in *-Vṣ-* but in *-Vṣṣ-*, as is shown by OKh. *parruṣṭe* 3S prs. ind. (not *-ṣḍe*, cf. *pyūṣḍe* above) from **parruṣṣ-* ‘to be afflicted (by)’ < Ir. **rauxš-*, *s*-extension of **rauk-* “desire” (SGS 74), and is not taken into account here.

² Homophonous stems and roots are distinguished by raised number before them. Numbers in brackets refer to the list of *-Vṣ-* verbs in § 1.1, where also references to SGS and other secondary literature can be found.

Emmerick (SGS 86) lists a verb “*pūhāt* - ‘to bind (?)’ ” with uncertain meaning and etymology and with an OKh. 3S prs. ind. *pūhei tā* (Book of Zambasta 22.168). This hapax does not exist and will be dealt with elsewhere.

Also not included here are the loanwords *ājīṣ-* ‘to ask for; to beseech’ (← Gāndhārī < Buddhist Sanskrit *adhyeṣ(ay)ati*, SGS 8) and *marṣ-* ‘to forgive’ (← Buddhist Skt. *marṣayati*, SGS 108). Intervocalic *-ṣ-* [z] in the comparatively recent loanword *ājīṣ-* is not dropped nor accompanied by the subscript hook (OKh. *ājīṣāmā* 1S prs. ind. act., *ājīṣāte* 3S prs. act., *ājīṣāte* 3S prf. m.). The cluster *-rṣ-* in *marṣ-* is original and not due to syncope of a vowel before *-ṣ-* as in, for instance, OKh. *harṣḍā* 3S prs. ind. from **harāṣ-* ‘to burst’ [26].

1.1. *Alphabetical list*

The following list provides summary information on the verbs in *-Vṣ-*. The heading is standardised, and reconstructed if necessary, in that the classical orthography of Old Khotanese is adopted throughout (e.g. ṣṣ [ʃ], śś [ʃ] as against Late Khotanese ṣ [ʃ], ś [ʃ] etc.: see Emmerick 1989: 208). Also the underlying stem final *-ṣ-* is restored, whatever its attested spellings may be (*-t’-*, *-v’-*, etc.). Reference is made to SGS and occasionally other secondary literature where references to the textual sources of the forms quoted can be found. Information on derivational classes of present stems (Ib, Ic, Iib)³, voice (act./mid.), and synchronic inflection types (A/B) is provided where possible in line with SGS (see esp. 177-178). The forms quoted, usually in the most conservative spellings available, are: (1) the 3S prs. ind., (2) the 3P prs. ind., and (3) the pst. ptcp.; when these are not attested or do not furnish sufficient information for the present study, other forms are quoted as required. Etymology is mostly limited to the Iranian root as given in EDIV, with slight modifications, and preverb, if any.

- [1] **uskūṣ-** ‘to act frivolously’ Ib mid. B (SGS 17)
 3S prs. ind. OKh. *uskūṣḍā*
 Et. < **²kauṣ-* (+ **us/z-*).

³ Ib = full grade root + *-a-*; Ic = zero grade root + *-á-*; Iib = reduplicated zero grade root + *-á-*.

- [2] ***kāṣ-** ‘to think; to protect’ Ib act. A (SGS 22 *kāt*’- B)
 3S prs. ind. OKh. *kei`tä* < **kätä`tä* < **kāṣätä*
 3P prs. ind. OKh. *kätī`ndi*, *kei`ndä*
 pst. ptcp. OKh. *kāṣta-*
 Et. < **kaš-*.
- [3] ¹**kuṣ-** ‘to look at’ Ic mid.? B (SGS 22 mid.)
 3S prs. ind. OKh. *kuṣde*
 Et. < *²*kauš-*.
- [4] *²**kũṣ-** ‘to agitate; to flay’ (SGS 22-23 *²*kuṣ-*)
 pst. ptcp. LKh. *kuṣta-*, *kaṣta-*
 Et. < *¹*kauš-*.
- [5] **jīṣ-** ‘to boil’ IIB voice? B (SGS 35-36 mid.)
 3S prs. ind. LKh. *jīṣdi`*
 pst. ptcp. LKh. *jīṣta-*
 Et. < **ja-iṣ-a-* redupl. of **jah-*.
- [6] **ttäṣ-** ‘to sprinkle’ Ic act. B (SGS 38 ‘to cut’ Ib mid. < **taš-*)
 3S prs. ind. OKh. *ttäṣdä*
 Et. < **HaṣṣH-* (+ **ati-*) (see § 2.1).
- [7] ***tcäṣ-** ‘to perceive’ Ib mid. B? (SGS 40 *tcäṣ*’- A/B)
 3P prs. ind. OKh. *tcäṣä`ri*
 Et. < *¹*čaš-*.
- [8] ***druṣ-** ‘to bite’ Ic act. B (not in SGS)
 3S prs. ind. OKh. *durṣdä*
 3P prs. ind. LKh. *drvīdä* < **druvī`ndä*
 pst. ptcp. LKh. *dū(r)ṣta-*
 Et. < **drau(H)ṣ-*.⁴
- [9] ***naräṣ-** ‘to break’ (not in SGS; see Degener 1989: 127-128)
 pst. ptcp. **narṣta-* in LKh. *narṣtīka-* ‘(having a) rupture or hernia’
 Et. < **raṣṣ-* (+ **niš/ž-*).
- [10] **nijaṣ-** ‘to show’ Ib mid. B (SGS 53)
 3S prs. ind. OKh. *nijaṣde*
 3P prs. ind. OKh. *näṣätä`re*

⁴ The Khotanese occurrences of this verb, on which see Maggi 2018 (esp. 249-250 for the etymology), lend support to the reconstruction of a root **drau(H)ṣ-*, given in EDIV 80 with a query and without reference to any Khotanese cognate.

- pst. ptcp. OKh. *näjsašta-*
Et. < *¹*čaš-* (+ **ni-*).
- [11] ***näššäš-** ‘to be attached (intr.)’ (SGS 130 s.v. *ššiš-*; see Emmerick 1967b: 22)
pst. ptcp. OKh. *näšäšta-*
Et. < **šrajš-* (+ **ni-*).
- [12] ***pasūš-** ‘to become soundless’ class? voice? B (SGS 78 *pasuš-* Ib mid.)
3S prs. ind. LKh. *pasušđi, pasaušde*
Et. < **šauš-* (+ **pa-*).
- [13] ***pāräš-** ‘to burst (tr.)’ (not in SGS; see Degener 1989: 235 and cf. Shafer 1977: 226)
pst. ptcp. LKh. *pā(r)šta-*
Et. < **rajš-* (+ **pa(ti)-*).
- [14] **päjsaš-** ‘to look at’ Ib mid.? B (SGS 82 mid.)
3S prs. ind. OKh. *päjsašde*
pst. ptcp. OKh. *päjsäšta-*
Et. < *¹*čaš-* (+ **pati-*).
- [15] **pyūš-** ‘to hear’ Ib mid. B (SGS 87)
3S prs. ind. OKh. *pyūšde*
3P prs. ind. OKh. *pyūvä’re*
pst. ptcp. OKh. *pyūšta-*
Et. < **gauš-* (+ **pati-*).
- [16] ***biräš-** ‘to split’ Ic act. B (SGS 98 *birät’-* Ib act. tr., mid. intr.)
3S prs. ind. LKh. *beršđä* (cf. OKh. 3S subj. or opt. act. *biräta*)
3P prs. ind. OKh. *birätīndi*
pst. ptcp. OKh. *biršta-*
Et. < **rajš-* (+ **ui-*).
- [17] ***byūš-** ‘to burn’ Ib mid. type? (SGS 105 *byūv’-*)
3P prs. ind. OKh. *byūvä’re*
Et. < **Hauš-* (+ **ui-*).
- [18] ***bruš-** ‘to break up’ Ic voice? B (SGS 101-102 *burš-* “Probably act. tr./mid. intr. (= pass.)”)
3S prs. ind. LKh. *bu(r)šđä, baušđi*
pst. ptcp. OKh. *buršta-*
Et. < **rauš-* (+ **ui-*) (see § 2.2).

- [19] **ysūš-** ‘to value; to approve’ Ib mid. B SGS 113
 3S prs. ind. OKh. *ysūšde*
 3P prs. ind. OKh. *ysvā`re*
 pst. ptcp. OKh. *ysūšta-*
 Et. < **džauš-*.
- [20] **vajsāš-** ‘to perceive, see’ Ib mid. B (SGS 117)
 3S prs. ind. OKh. *vajsāšde*
 3P prs. ind. OKh. *vajsā`re*
 pst. ptcp. OKh. *vajsāšta-*
 Et. < *¹*čaš-* (+ **aṃa-*).
- [21] **vaticiš-** ‘to besprinkle’ Ic mid.? B (SGS 117 Ib mid.)
 3S prs. ind. OKh. *vaticišde*
 pst. ptcp. *vaticāšta-*
 Et. < *²*čaš-* ‘to drip; to drink’ (+ **aṃa-*) (see EDIV 35-36).
- [22] ***varāš-** ‘to split (intr.)’ (not in SGS; see Degener 1989: 234;
 Dict. 380 differs)
 pst. ptcp. LKh. *vašta-* < **varšta-*
 Et. < **raiš-* (+ **aṃa-*).
- [23] ***ššāš-** ‘to cling’ Ic act. B (SGS 130 *ššiš-* ‘to take hold
 of’ mid.)
 3S prs. ind. LKh. *šišdā*
 3P prs. ind. LKh. *š(š)aidā* < OKh. **šsei`ndā*
 pst. ptcp. LKh. *šišta-*, *šaišta-*
 Et. < **tsraiš-*.
- [24] **hamggūš-** ‘to heed’ Ib mid. B? (SGS 138 A/B)
 3P prs. ind. LKh. *hamgvāre*
 pst. ptcp. LKh. *hamgūšta-*
 Et. < **gauš-* (+ **ham-*).
- [25] **hamjsaš-** ‘to be about, intend to’ (SGS 139) Ib mid. B
 3S prs. ind. OKh. *hamjsašde*
 3P prs. ind. OKh. *hamjsašā`re*
 pst. ptcp. OKh. *hamjsašta-*
 Et. < *¹*čaš-* (+ **ham-*).
- [26] ***harāš-** ‘to burst’ Ic act. B (SGS 149 *harāt`-* Ib mid.)
 3S prs. ind. OKh. *ha(r)šdā*, *haršdi* (cf. 2S prs. impt. act. *harāta`*)
 pst. ptcp. OKh. *haršta-*
 Et. < **raiš-* (+ **fra-*).

- [27] ***häš-** ‘to send’ Ic act. A (SGS 154-155 *hei*’- B)
 3S prs. ind. OKh. *hei*’tä < **hätä*’tä < **häšätä*
 3P prs. ind. LKh. *hīdā* < **hei*’ndā
 pst. ptcp. OKh. *hīšta-*, *hīštāta-*
 Et. < **HaišH-* (+ **fra-*).
- [28] **huš-** ‘to become dry’ Ic mid. B (SGS 153 Ib)
 3S prs. ind. LKh. *hūšdi*, *haušde*
 3P prs. ind. LKh. *hvāri*
 pst. ptcp. LKh. *hušta-*, *haušta-*
 Et. < **Hhauš-*.

2. Etymological questions

2.1. *ttäš-* ‘to sprinkle’ [6]

I have shown recently on the basis of parallels in Pali and other Indian languages that OKh. *ttäšdā* (Book of Zambasta 2.139) does not mean ‘he cuts’ (< Ir. **taš-*: KT 6.274-275, 105, 91; Emmerick 1967a: 90; 1968a: 35; SGS 38; EDIV 384), but ‘he sprinkles’, and I have proposed that the verb *ttäš-* ‘to sprinkle’ is an *-s-* “inchoative” from **ati-* + **saik/č-* ‘to pour out, moisten’ (EDIV 127-128): Ir. **ati-šix-sa-* > **tī-zīs-* > **tī-zis-* **ti-zs-* > Kh. *ttäš-* (Maggi 2019). While the meaning is not in doubt, I now find it simpler and hence preferable to derive Kh. *ttäš-* ‘to sprinkle’ < Ir. **ati-HišH-a-* from the root **HaišH-* ‘to set in motion’ (cf. **häš-* ‘to send’ [27] < Ir. **fra-HišHa-*).

2.2. **bruš-* ‘to break up’ [18]

Emmerick (SGS 102) proposed deriving **bruš-* from Ir. “**vi-rauxš-*, [...] *s*-extension < **raug-* in O[ld] Ind[ian] *rujāti* ‘breaks’ and probably Av[estan] *fra-uruxti-*”. The voiced cluster *-šd-* in the 3S prs. ind. LKh. *bu(r)šdā*, *baušdi* rules out this etymology because Ir. **-xš-* + *-t-* results in the voiceless cluster *-št-*, as is shown by comparison with *parrušte* 3S prs. ind. of **parrušš-* ‘to be afflicted (by)’, supposedly from the same root **rauxš-* (see § 1). One expects Indo-Iranian **ui-* + **rauxš-*, but the meaning of Skt. *roṣ-* ‘to resent, become cross, be angry’, which lacks a satisfactory etymology, is unsuitable⁵. Rather, the Khotanese verb is from IE **reus-* ‘to dig’ known in this meaning from Balto-Slavic (LIV² 511).

⁵ Cf. EWAia 2.471 s.v. *ROŠ* (‘übelnehmen, verdrießlich werden, zürnen [...] Nicht zufriedenstellend erklärt’).

2.3. List by Iranian root

* ¹ čāš- see *kaš-	
* ² čāš- (EDIV 35-36)	<i>vatciš-</i> ‘to besprinkle’ [21]
* <i>drau(H)š-</i> (EDIV 80)	* <i>druš-</i> [8]
* <i>džauš-</i> (EDIV 473)	<i>ysūs-</i> [19]
* <i>gauš-</i> (EDIV 115-116)	<i>pyūš-</i> [15], <i>hamggūs-</i> [24]
* <i>HaišH-</i> (EDIV 159)	<i>ttāš-</i> [6], * <i>hāš-</i> [27]
* <i>Hauš-</i> (EDIV 170)	* <i>byūš-</i> [17]
* <i>Hhauš-</i> (EDIV 173-174)	<i>huš-</i> [28]
* <i>jah-</i> (EDIV 209-210)	<i>jīš-</i> (< * <i>ja-iš-</i> by reduplication) [5]
* <i>kaš-</i> / ¹ <i>čaš-</i> (EDIV 35)	* <i>kāš-</i> [2], * <i>tcāš-</i> [7], <i>nijaš-</i> [10], <i>pājsaš-</i> [14], <i>vajsāš-</i> [20], <i>hamjsaš-</i> [25]
* ¹ <i>kauš-</i> (EDIV 251-252)	* ² <i>kūs-</i> [4]
* ² <i>kauš-</i> (EDIV 252)	<i>uskūs-</i> [1], ¹ <i>kuš-</i> [3]
* <i>raiš-</i> (EDIV 308-309)	* <i>narāš-</i> [9], * <i>pārāš-</i> [13], * <i>birāš-</i> [16], * <i>varāš-</i> [22], * <i>harāš-</i> [26] ⁶
* <i>rauš-</i> (not in EDIV)	* <i>bruš-</i> [18]
* <i>īsauš-</i> (not in EDIV)	* <i>pasūš-</i> [12]
* <i>īsraiš-</i> (EDIV 355)	* <i>nāššāš-</i> [11], * <i>ššāš-</i> [23].

3. Morphological questions

In *Saka grammatical studies*, Ronald E. Emmerick described all verbs in *-Vš-* with attested third singular present indicative as type B verbs, that is, verbs with no intervening vowel between the present stem and the endings act. *-itā* < Ir. **-a-ti* and mid. *-te* < Ir. **-a-taj* (variously assimilated to the present stem finals, e.g. *-š-de*)⁷. Besides, he regarded all of them as middle verbs apart from **kāš-* ‘to think; to protect’ and **hāš-* ‘to send’ and attributed the outcome *-’tā* in these verbs as against *-šde* in all others to their different voice⁸. This can be summarised as follows:

⁶ These verbs are not from Ir. **Hrajtš-* ‘to tear’ as in EDIV 189.

⁷ Hitch (2015: 666 and esp. 2016: 192, 194-197) has shown that these endings can be described synchronically as act. *-itā* and mid. *-te* with /t/ resulting from reanalysis of specific forms. I keep to the traditional forms for simplicity’s sake.

⁸ See SGS 177 on verb types, and 193 no. 13 (last two columns) on the postulated outcomes in the active and middle (Ir. **-š-a-ti* act. > **-ž-a-ti* (“**-ž-t’*”) > *-’tā*, e.g. *kei’tā* ‘he thinks’; Ir. **-š-a-taj* mid. > **-ž-a-te* (“**-ž-t’*”) > *-šde* e.g. *pyūšde* ‘he hears’).

Type	3S	
	Active	Middle
B	- 'tā	-šde

Table 1. Verb type and grammatical voice of verbs in *-Vš-* in SGS

This description is unconvincing because of several inconsistencies to be surveyed below. Most importantly, it does not account for the fact that, “[i]f a verb shows a third person plural in *-īndā*, we can be sure it is active, if in *-āre* it is middle, however these terminations may be spelled” (SGS 4), as we shall see.

3.1. *Type B middle verbs in -Vš-*

Emmerick’s description of verbs in *-Vš-* having the B middle ending *-šde* (Table 1) works perfectly in the case of verbs also attested in the third plural indicative with the ending *-āre*: OKh. *nājsātā’re* from *nijaša-* ‘to show’ [10], OKh. *pyūvā’re* from *pyūš-* ‘to hear’ [15], OKh. *ysvā’re* from *ysūš-* ‘to value; to approve’ [19], OKh. *vajsā’re* from *vajsāš-* ‘to perceive, see’ [20], OKh. *hamjsašā’re* from *hamjsaš-* ‘to be about, intend to’ [25], and LKh. *hvāri* from *huš-* ‘to become dry’ [28].

One cannot be entirely sure that the middle verbs **tcāš-* ‘to perceive’ [7], **byūš-* ‘to burn’ [17], and *hamggūš-* ‘to heed’ [24] are B verbs because they are not attested in the third singular, but this is likely in the case of **tcāš-* and *hamggūš-* on account of the B inflection of other middle verbs from the same Iranian roots **1čaš-* and **gauš-* (*nijaša-* [10], *vajsāš-* [20], *hamjsaš-* [25], and *pyūš-* [15] respectively).

Likewise, it is virtually certain that the B verbs *pājsaš-* ‘to look at’ [14], *kuš-* ‘to look at’ [3], and *vaticiš-* ‘to besprinkle’ [21] are middle, though not attested in the third plural, because their 3S prs. ind. OKh. *pājsašde*, *kušde*, and *vaticišde* (Book of Zambasta 23.161, 22.249, and 22.140 respectively) are spelled with *-e*, which should be taken at face value in Old Khotanese and points, thus, to the middle B ending *-te* (see

§ 3.2). A middle inflection of *pājsaṣ-* is likely also on account of the middle inflection of other B verbs from the same root *¹*čaṣ-* (see above).

Also the 3S prs. ind. OKh. *uskūṣḍā* (from *uskūṣ-* ‘to act frivolously’ [1]), can be safely regarded as containing the rare variant spelling *-tā* of the middle ending *-te*, because this form does not show the palatalisation of *-ū-* to *-vī-* required by the active ending *-itā* (see § 3.2 and cf. e.g. *rrvītā* 3S prs. ind. act. from *rrūd-* ‘to grow’, Book of Zambasta 15.4 etc.: SGS 116).

3.2. Type B active verbs in *-Vṣ-*

Other type B verbs, however, cannot be middle because their 3P prs. ind. forms end in *-īndā* or variants thereof and, thus, do not fit into Emmerick’s description (Table 1):

(1) **druṣ-* ‘to bite’ [8] has 3S prs. ind. OKh. *durṣḍā* (Berlin fragment bi 43 b2, Maggi 2018: 247), but 3P prs. ind. LKh. *drvīdā* (Jīvakapustaka 76r2 KT 1.161) < **druvī’ndā*.

(2) **birāṣ-* ‘to split’ [16] has 3S prs. ind. (mid.?) *berṣḍā* ‘(the swelling) bursts’ in Late Khotanese (Siddhasāra 24.3 138v1 KT 1.76), but 3P prs. ind. act. (!) *birātīndi* ‘they split (my belly)’ in Old Khotanese (Book of Zambasta 22.330), which indicates that the verb is active. Emmerick supposed that *berṣḍā* is middle because it is used intransitively and *birātīndi* is active because transitive⁹, but this is improbable because the OKh. 3S prs. subj. or opt. act. (!) *birāta* ‘(the earth) would split’ (Book of Zambasta 13.79) is used intransitively as well.

(3) **ṣṣāṣ-* ‘to cling’ [23] has 3S prs. ind. (mid.?) LKh. *ṣiṣḍā* ‘(fever) clings (to him)’ (Siddhasāra 23.4 136r4, 23.6 136v1 KT 1.72), but 3P prs. ind. act. (!) LKh. *ṣ(ṣ)aidā* ‘(the eyes) cling’ (Piṇḍasāstra 6, 8, 128 P 2893 45, 65, 266 KT 3.84, 85, 93) and *ṣaide* ‘(diseases) cling’ (Siddhasāra 21.17 131r3 KT 1.64) < OKh. **ṣṣei’ndā*.

(4) **harāṣ-* ‘to burst’ [26], though not attested in the third plural, also has 3S prs. ind. (mid.?) OKh. *harṣḍā* ‘(that king) breaks up (the land)’ (Suvarṇabhāṣasūtra 12.22), *haṣḍā* ‘(the connection) is (not) broken’ (Book of Zambasta 5.81), and *harṣḍi* ‘(breath) is broken up (by the lips)’ (Book of Zambasta 20.57) used both transitively and intransitively (=

⁹ “Where [...] there is a distinction between act. and mid. [with the same verb], the regular usage is to oppose act. tr. to mid. intr. e.g. *bar-* act. tr. ‘to carry’, but mid. intr. ‘to ride’” (SGS 4; cf. Canevascini 1991). There are, at any rate, transitive verbs inflected in the middle (e.g. *drjs-* ‘to hold’, SGS 46) and intransitive verbs inflected in the active (e.g. *hīs-* ‘to come’, SGS 153).

passively) (Emmerick 1969: 72-73), but the transitive 2S prs. impt. act. (!) OKh. *harāta* ‘Shatter (doubts)!’ (Book of Zambasta 6.23)¹⁰.

All this suggests that the 3S prs. ind. forms LKh. *durṣḍā*, *berṣḍā*, *ṣiṣḍā*, and OKh. *harṣḍā/haṣḍā/harṣḍi* are not middle but contain the active B ending *-tā*. In particular, the OKh. spellings *harṣḍā*, *haṣḍā*, *harṣḍi*, and *durṣḍā*, with *-ā/i*, are significant and point decidedly to the active B ending *-tā*, though final *-ā* in LKh. *berṣḍā* and *ṣiṣḍā* might, but need not, be a variant spelling for *-e* compatible with the middle ending *-te*.

Concerning the third singular present indicative endings of the middle, Emmerick writes that “*-āte* (mid.) is never in Z spelled *-ātā*” in type A verbs and “O.Kh. has *-te*, *-tā* and rarely *-ti*” in type B verbs, and gives the examples from the Book of Zambasta listed in Table 2 nos. 1-5 (SGS 198, 199). As a matter of fact, however, *-tā* and *-ti* occur rarely and even the verbs of Emmerick’s examples more frequently have the regular middle ending *-te*. The endings *-tā* and *-ti* are definitely rare with other verbs too. Suffice it to say that, of the common verbs *nās-* ‘to take’, *bud-* ‘to perceive, know’, and *yan-* ‘to make, do’, there is only one occurrence of *nāstā* in the Book of Zambasta (12.63) as against 36 occurrences of *nāste*, 52 of *butte*, and 46 of *yande* (Table 2 nos. 6-8) and that, of all the certainly middle verbs in *-Vṣ-* attested in the third singular in the Book of Zambasta, there is only one occurrence of *vajsiṣḍā* (22.170) against a total of 65 occurrences with *-te* (Table 2 nos. 9-14).

Further, “[o]ne may note that with type B verbs the 3 sg. prs. act. is always *-tā*, *-ti*/mid. *-te*” in the early, orthographically conservative manuscript of the Śūraṅgamasamādhisūtra (Emmerick 1970: xx). The rarity of the spellings *-tā*, *-ti* of the middle ending, combined with the unmistakably active forms *drvīdā*, *birātīndi*, *ṣ(ṣ)aidā/ṣaide* (3P prs. ind.), *birāta*’ (3S prs. subj. or opt.), and *harāta*’ (2S prs. impt.), confirms that *durṣḍā*, *berṣḍā*, *ṣiṣḍā*, and *harṣḍā/haṣḍā/harṣḍi* are active and contain the active ending *-tā*. Once the existence of active B verbs in *-Vṣ-* has thus been established, it seems advisable to take at face value the vowel *-ā* in OKh. *ttāṣḍā* (from *ttāṣ-* ‘to sprinkle’ [6]) and to regard this verb as active too¹¹.

¹⁰ Emmerick (1968a: 119) has the slightly free translation ‘Suppress doubts’.

¹¹ It may be recalled that Emmerick himself was prepared to accept an active B ending *-tā* since he not only left undecided the voice of OKh. *ttāṣḍā* but also postulated that LKh. *bu(r)ṣḍā/bauṣḍi* (from **bruṣ-* ‘to break up’ [18]) may be middle (*-te*) when intransitive and active (*-tā*) when transitive (but see below, § 3.4).

	Examples in SGS 199	<i>-te</i>	<i>-tä</i>	<i>-ti</i>
1	<i>īs-</i> ‘to return’	<i>īste</i> 4×	<i>īstā</i> 2×	
2	<i>kaśś-</i> ‘to appear; to fall’	<i>kašte</i> 5×	<i>kaštā</i> 2×	
3	<i>did-</i> ‘to appear’	<i>ditte, dätte</i> 15×	<i>dittā</i> 2×	
4	<i>ysān-</i> ‘to shine’	<i>ysānde</i> 4×		<i>ysāndi</i> 1×
5	<i>hvañ-</i> ‘to be called’	<i>hvīnde</i> 33×		<i>hvīndi</i> 2×
	Sample common verbs	<i>-te</i>	<i>-tä</i>	<i>-ti</i>
6	<i>nās-</i> ‘to take’	<i>nāste</i> 36×	<i>nāstā</i> 1×	
7	<i>bud-</i> ‘to perceive, know’	<i>butte</i> 52×		
8	<i>yan-</i> ‘to make, do’	<i>yande</i> 46×		
	Certainly middle verbs in <i>-Vṣ-</i>	<i>-te</i>	<i>-tä</i>	<i>-ti</i>
9	<i>nījsaṣ-</i> ‘to show’	<i>nījsaṣḍe,</i> <i>nājsaṣḍe</i> 16×		
10	<i>pājsaṣ-</i> ‘to look at’	<i>pājsaṣḍe</i> 1×		
11	<i>vajsāṣ-</i> ‘to perceive, see’	<i>vaj(s)iṣḍe, vaj(s)</i> <i>āṣḍe</i> 18×	<i>vajsiṣḍā</i> 1×	
12	<i>haṃjsaṣ-</i> ‘to be about, intend to’	<i>haṃjsaṣḍe</i> 7×		
13	<i>ysūs-</i> ‘to value; to approve’	<i>ysūsḍe</i> 1×		
14	<i>pyūs-</i> ‘to hear’	<i>pyūsḍe</i> 22×		

Table 2. Frequency of the 3S prs. ind. mid. endings *-te*, *-tä*, *-ti* of selected verbs in the Book of Zambasta

The ending *-itā* has a palatalising effect on the palatalisable phonemes in the previous morpheme. Non-palatalisable phonemes either are already palatal and stop palatalisation or are neutral to palatalisation and enable it to be transmitted further back up to the stressed vowel in the morpheme¹². Thus, mid. *yande*, from *yan-* ‘to make, do’ with the non-palatalising ending *-te*, contrasts with act. *yīndā*, where the cluster *-nd-* is neutral to palatalisation and the previous *-a-* is palatalised to *-ī-*. In *durṣḍā*, *berṣḍā*, *ṣiṣḍā*, and *harṣḍā/haṣḍā/harṣḍi*, where the phonemes in *-(r)ṣḍ-* are neutral to palatalisation, the potential for palatalisation simply does not emerge, which may have hindered their recognition as active forms. However, the absence of palatalisation is only apparent: in *durṣḍā*, the vowel *-u-* is neutral and cannot be palatalised; in *ttāṣḍā* and *ṣiṣḍā*, the vowels *-ā-* and *-i-* are already palatal and absorb palatalisation; in *berṣḍā* (from **bi-rāṣ-*) and *harṣḍā/haṣḍā/harṣḍi* (from **ha-rāṣ-*), the vowel in **-rāṣ-*, though dropped in the actual forms, was likewise already palatal.

3.3. Type B verbs in *-Vṣ-* with undetermined voice

In the case of verbs that are not attested in unambiguously middle forms like the third plural in *-āre* and cannot display palatalisation, it is impossible to rely on the spellings of the third singular present indicative (act. *-itā* or mid. *-te*), because the vowels *i*, *ä*, and *e* interchange freely in Late Khotanese. Accordingly, it is impossible to determine the voice of *jīṣ-* ‘to boil’ [5] (LKh. *jīṣḍi*), **pasūṣ-* ‘to become soundless’ [12] (LKh. *pasuṣḍi*, *pasauṣḍe*), and **bruṣ-* ‘to break up’ [18] (LKh. *burṣḍā*, *buṣḍā*, *bauṣḍi*).

Emmerick suggested that **bruṣ-* ‘to break up’ is “[p]robably act. tr./mid. intr. (= pass.)”, compared the similar use he postulated for **birāṣ-* ‘to split’, and gave LKh. *burṣḍā* in *Jātakastava* 83 (19v1) as an instance of the intransitive (= passive) use of the verb. We have seen above that this is not correct for **birāṣ-*, which is active whether it is used transitively or intransitively (§ 3.2). All the more so Emmerick’s suggestion does not hold true for **bruṣ-* because *burṣḍā* is transitive also in *Jātakastava* 83, where the power of the Buddha destroying ignorance is compared to the power of the thunderbolt: *tta khu viṣi’rā paṃna *uḍārīnai*¹³ *garā burṣḍā*.

¹² See Hitch (1990: esp. 182-183) for a description of how palatalisation works in Khotanese.

¹³ **uḍārīnai* ‘pertaining to crystal, made of crystal’ emended by Dresden (1955: 470) for manuscript *urvārīnai* on account of LKh. *uḍāra-*, which translates Skt. *kāca-* ‘crystal’ in *Siddhasāra* 26.31 148v5 KT 1.92, “the signs for *rv* and *ḍ* being similar”.

This was translated ‘as the thunderbolt bursts the crystal mountain’ by Mark J. Dresden, who did not translate *paṃna* and commented “*paṃna* uncertain 19v1” (Dresden 1955: 433, 459). Bailey translated ‘(the bolt [...]) bursts the mountain’ at first (KT 6.252; Dict. 298), but must have changed his mind afterwards because, in an attempt to account for *paṃna*, he translated ‘just as before [*paṃna*] the thunderbolt the crystal mountain bursts’ elsewhere (Dict. 40). Actually, the passage needs one further emendation since the problematic *paṃna* falls into Dresden’s category, though not listed by him there (1955: 405), of “misspelling [...] which are partly due to misreading, paralleled elsewhere, by the copyist because of similarity of characters”. The similarity of *p* and the open form of *rr* in the Late South Turkestan Brāhmī script of the Jātakastava manuscript¹⁴ suggests that *paṃna* has to be emended to **rraṃna* ‘jewel’ to obtain *tta khu viṣi`rā` *rraṃna` *uḍārīnai garā burṣḍā`* ‘as the thunderbolt jewel bursts crystal mountains (so you destroyed the darkness of ignorance)’, which is paralleled by *vīṣai`ra raṃna māñamda gara bauṣḍi tta tta ṣa` rūṃ tta āchā jaida`* ‘As the thunderbolt jewel bursts mountains, so this oil removes diseases’ (Jīvakapustaka 8.3 55r2 KT 1.147).

Finally, there is no way to determine the grammatical voice of those verbs that only occur in the past participle: **kūṣ-* ‘to agitate; to flay’ [4], **narāṣ-* ‘to break’ [9], **nāṣṣāṣ-* ‘to be attached (intr.)’ [11], **pārāṣ-* ‘to burst (tr.)’ [13], and **varāṣ-* ‘to split (intr.)’ [22].

3.4. Type A active verbs in -Vṣ-

It is apparent that, if *berṣḍā*, *ṣiṣḍā*, *harṣḍā/haṣḍā/harṣḍi*, and *durṣḍā* are from type B active verbs, this cannot apply at the same time to *kei`tā* from **kāṣ-* ‘to think; to protect’ [2] and *hei`tā* from **hāṣ-* ‘to send’ [27]. As Emmerick (1998) has shown, OKh. *ei* [aɛ] is the result of *a + ā* and *ā + ā*¹⁵. It is thus clear that *kei`tā* and *hei`tā* derive from **kātā`tā* and **hātā`tā* respectively and contain the 3S prs. ind. act. ending *-ātā* peculiar to type A verbs. Accordingly **kāṣ-* and **hāṣ-* are active A, not B verbs.

¹⁴ For instance in 19r1 *parrīyastāni* (see the facsimile in Bailey 1938: 163).

¹⁵ The development *ā + ā > ei* was already recognised by Ernst Leumann (but only in conjunction with the subscript hook, i.e. *āṣā > ei`*) in an unpublished paper titled “Hiatus und Kontraktion im Nordarischen”, an incomplete photocopy of which is now preserved in the library of the Asien-Afrika-Institut of the University of Hamburg (not listed in Plutat 1998). Its present whereabouts is unknown.

3.5. *Summary*

To sum up, the information in Table 1 can be supplemented and rearranged thus:

Type	Active		Middle	
	3S	3P	3S	3P
A	- 'tā	- 'indā	—	—
B	-ṣdā	*-'indā	-ṣde	- 'āre

Table 3. Type and grammatical voice of verbs in *-Vṣ-*

Type A active verbs in *-Vṣ-* (§ 3.4):

**kāṣ-* ‘to think; to protect’ [2]

**hāṣ-* ‘to send’ [27].

Type B active verbs in *-Vṣ-* (§ 3.2):

ttāṣ- ‘to sprinkle’ [6]

**druṣ-* ‘to bite’ [8]

**birāṣ-* ‘to split’ [16]

**ṣṣāṣ-* ‘to cling’ [23]

**harāṣ-* ‘to burst’ [26].

Type B middle verbs in *-Vṣ-* (§ 3.1):

'kuṣ- ‘to look at’ mid.? [3]

**tcāṣ-* ‘to perceive’ B? [7]

nijsaṣ- ‘to show’ [10]

pājsaṣ- ‘to look at’ mid.? [14]

pyūṣ- ‘to hear’ [15]

ysūṣ- ‘to value; to approve’ [19]

vaciṣ- ‘to besprinkle’ mid.? [21]

vajsäs- ‘to perceive, see’ [20]
hamggūš- ‘to heed’ B? [24]
hamjsas- ‘to be about, intend to’ [25]
huš- ‘to become dry’ [28].

Type B verbs in *-Vš-* with undetermined voice (§ 3.3)

*²*kūš-* ‘to agitate; to flay’ [4]
jīš- ‘to boil’ [5]
**naräs-* ‘to break’ [9]
**näššäs-* ‘to be attached (intr.)’ [11]
**pasūš-* ‘to become soundless’ [12]
**pāräs-* ‘to burst (tr.)’ [13]
**bruš-* ‘to break up’ [18]
**varäs-* ‘to split (intr.)’ [22].

Middle verbs in *-Vš-* of undetermined type (§ 3.1)

**byūš-* ‘to burn’ [17]

Mauro Maggi
Università degli studi di Roma La Sapienza
Istituto italiano di studi orientali
Circonvallazione Tiburtina 4
I-00185 Roma
mauro.maggi@uniroma1.it

Abbreviations

Books

Catalogue	Skjærvø 2002
Dict.	Bailey 1979
EDIV	Cheung 2007
ESiJa	Rastorgueva / Èdel'man 2000–2007 (vols. 1-3), Èdel'man 2011- (vols. 4-)
EWAia	Mayrhofer 1992-2001
KBT	Bailey 1951
KT	Bailey 1945-1985
LIV ²	Rix et al. 2001
SGS	Emmerick 1968b.

Other

1/2/3P	first/second/third plural
1/2/3S	first/second/third singular
act.	active
dat.	dative
gen.	genitive
impt.	imperative
ind.	indicative
Ir.	Iranian
LKh.	Late Khotanese
loc.	locative
m.	masculine
mid.	middle
OKh.	Old Khotanese
opt.	optative
pl.	plural
prf.	perfect
prs.	present
pst. ptcp.	past participle
ptcp. nec.	participle of necessity
Skt.	Sanskrit
subj.	subjunctive
tr.	transitive.

Khotanese texts

Book of Zambasta	Emmerick 1968a
Jātakastava	Dresden 1955 (Ch. 00274)
Jīvakapustaka	KT 1.135-196 (Ch. ii.003); paragraph numbers according to Konow 1941 with added verse numbers according to Emmerick 1992b and Chen 2005
Karmām Deśana	Emmerick 1977
Mañjuśrīnairātmyāvātārasūtra	KBT 113-135 (P 4099)
Piṇḍaśāstra	KT 3.84-93 (P 2893) + Catalogue 487-489 (IOL Khot S 9); paragraph numbers according to Maggi 2008
Saṅghātasūtra	Canevascini 1993

Siddhasāra	KT 1.2-132 (Ch. ii.002), 5.315-324 (P 2892); paragraph numbers according to Emmerick 1980-1982
Śūraṅgamasamādhisūtra	Emmerick 1970
Suvarṇabhāṣasūtra	Skjærvø 2004
Vajrayāna Text	Catalogue 292-296.

References

- Bailey, Harold W., 1938, *Codices Khotanenses: India Office Library Ch. ii 002, Ch. ii 003, Ch. 00274 reproduced in facsimile with an introduction*, Copenhagen, Levin and Munksgaard.
- Bailey, Harold W., 1945-1985, *Khotanese texts*, Cambridge, Cambridge University Press: vol. 1, 1945; vol. 2, 1954; vol. 3, 1956 (vols. 1-3, 2nd ed. in one volume 1969; repr. 1980); vol. 4, *Saka texts from Khotan in the Hedin collection*, 1961 (repr. 1979); vol. 5, 1963 (repr. 1980); vol. 6, *Prolexis to the Book of Zambasta*, 1967; vol. 7, 1985.
- Bailey, Harold W., 1951, *Khotanese Buddhist texts*, London, Tailor's Foreign Press (2nd ed., Cambridge, Cambridge University Press, 1981).
- Bailey, Harold W., 1979, *Dictionary of Khotan Saka*, Cambridge, Cambridge University Press.
- Canevascini, Giotto, 1991, "Medio-reflexive verbs in Khotanese". In: Ronald E. Emmerick / Dieter Weber (eds.), *Corolla Iranica: papers in honour of Prof. Dr. David Neil MacKenzie on the occasion of his 65th birthday on April 8th, 1991*, Frankfurt am Main, Lang: 23-26.
- Canevascini, Giotto, 1993, *The Khotanese Saṅghāṭasūtra: a critical edition*, Wiesbaden, Reichert.
- Chen, Ming 陳明, 2005, *Dunhuang chutu Hu yu yi dian "Qipo shu" yanjiu 敦煌出土胡語彙典 <<耆婆書>> 研究 = A study on Sanskrit text of Jivaka-pustaka from Dunhuang*, Taipei 臺北, Xin Wenfeng Chuban Gongsi 新文豐出版公司.
- Cheung, Johnny, 2007, *Etymological dictionary of the Iranian verb*, Leiden, Brill.
- Degener, Almuth, 1989, *Khotanische Suffixe*, Stuttgart, Steiner.
- Dresden, Mark J., 1955, *The Jātakastava or "Praise of the Buddha's former births": Indo-Scythian (Khotanese) text, English translation, grammatical notes and glossaries*, Philadelphia, The American Philosophical Society (= Transactions of the American Philosophical Society, n.s., 45/5), 397-508.

- Ėdel'man, Džoj I., 2011-, *Ėtimologičeskij slovar' iranskih jazykov*, Moskva, Vostočnaja Literatura: vol. 4: I-K, 2011; vol. 5: L-N, 2015.
- Emmerick, Ronald E., 1967a, "Notes on the 'Tale of Bhadra'". *Bulletin of the School of Oriental and African Studies* 30/1: 83-94.
- Emmerick, Ronald E., 1967b, "The ten new folios of Khotanese". *Asia Major*, n.s., 13/1-2: 1-47.
- Emmerick, Ronald E., 1968a, *The Book of Zambasta: a Khotanese poem on Buddhism*, London, Oxford University Press.
- Emmerick, Ronald E., 1968b, *Saka grammatical studies*, London, Oxford University Press.
- Emmerick, Ronald E., 1969, "Notes on *The book of Zambasta*". *Journal of the Royal Asiatic Society* 1969: 59-74.
- Emmerick, Ronald E., 1970, *The Khotanese Śūraṅgamasamādhisūtra*, London, Oxford University Press.
- Emmerick, Ronald E., 1977, "The confession of acts". In: *Varia 1976*, Leiden, Brill: 87-115.
- Emmerick, Ronald E., 1980-1982, *The Siddhasāra of Ravigupta*, Wiesbaden, Steiner: vol. 1, *The Sanskrit text*, 1980; vol. 2, *The Tibetan version with facing English translation*, 1982.
- Emmerick, Ronald E., 1989, "Khotanese and Tumshuqese". In: Rüdiger Schmitt (Hrsg.), *Compendium linguarum Iranicarum*, Wiesbaden, Reichert: 204-229.
- Emmerick, Ronald E., 1992a, "The Dunhuang MS. Ch 00120: its importance for reconstructing the phonological system of Khotanese". In: Alfredo Cadonna (ed.), *Turfan and Tun-huang: the texts: encounter of civilizations on the Silk route*, Firenze, Olschki: 145-170.
- Emmerick, Ronald E., 1992b, "The Svastika antidote". *Journal of the European Āyurvedic Society* 2: 60-81.
- Emmerick, Ronald E., 1998, "Khotanese *ei*". In: Nicholas Sims-Williams (ed.), *Proceedings of the Third European conference of Iranian studies held in Cambridge, 11th to 15th September 1995*, vol. 1, *Old and Middle Iranian studies*, Wiesbaden, Reichert: 93-97.
- Hitch, Douglas A., 1990, "Old Khotanese synchronic umlaut". *Indo-Iranian journal* 33/3: 177-198.
- Hitch, Douglas A., 2015, "*tt* in Old Khotanese". *Journal of the American Oriental Society* 135/4: 663-688.

- Hitch, Douglas A., 2016, "The Old Khotanese metanalysis", PhD diss. Harvard University, Cambridge, Mass.
- Konow, Sten, 1941, *A medical text in Khotanese: Ch. ii 003 of the India Office Library with translation and vocabulary*, Oslo, Dybwad.
- Leumann, Ernst, 1933-1936, *Das nordarische (sakische) Lehrgedicht des Buddhismus: Text und Übersetzung*, aus dem Nachlaß hrsg. von Manu Leumann, Leipzig, Brockhaus.
- Maggi, Mauro, 2008, "A Khotanese medical text on poultices: mss. P 2893.32-267 + IOL Khot S 9". *Traditional South Asian medicine* 8: 77-85.
- Maggi, Mauro, 2018, "Bits and bites: the Berlin fragment bi 43 and Khotanese **drus*". *Annual report of the International Research Institute for Advanced Buddhology at Soka University* 22: 247-260, plates 4-5.
- Maggi, Mauro, 2019, "Annotations on the *Book of Zambasta*, V: Indian parallels to 2.139 and the musk of Khotan". In: Almut Hintze, Desmond Durkin-Meisterernst, and Claudius Naumann (eds.), *A thousand judgements: Festschrift for Maria Macuch*, Wiesbaden, Harrassowitz: 291-309.
- Mayrhofer, Manfred, 1992-2001, *Etymologisches Wörterbuch des Altindoarischen*, Heidelberg, Winter: vol. 1, 1992; vol. 2, 1996; vol. 3, 2001.
- Plutat, Birte, 1998, *Catalogue of the papers of Ernst Leumann in the Institute for the Culture and History of India and Tibet*, University of Hamburg, Stuttgart, Steiner.
- Rastorgueva, Vera S. / Édel'man, Džoj I., 2000-2007, *Ėtimologičeskij slovar' iranskih jazykov*, Moskva, Vostočnaja Literatura: vol. 1, *A-Ā*, 2000; vol. 2, *B-D*, 2003; vol. 3, *F-H*, 2007.
- Rix, Helmut et al., 2001, *Lexikon der indogermanischen Verben: die Wurzeln und ihre Primärstambildungen*, bearbeitet von Martin Kümmel et al., 2., erweiterte und verbesserte Auflage, bearbeitet von Martin Kümmel und Helmut Rix, Wiesbaden, Reichert.
- Shafer, Robert L., 1977, "IE **po-* in Slavic and Iranian". *Zeitschrift für vergleichende Sprachforschung* 91/2: 219-230.
- Skjærvø, Prods O., 2002, *Khotanese manuscripts from Chinese Turkestan in the British Library: a complete catalogue with texts and translations*, with contributions by Ursula Sims-Williams, London, The British Library.
- Skjærvø, Prods O., 2004, *This Most Excellent Shine of Gold, King of Kings of Sutras: the Khotanese Suvarnabhāsottamasūtra*, [Cambridge, Mass.], Department of Near Eastern Languages and Civilizations, Harvard University, 2 vols.