

## Parthian ž

Agnes Korn

► **To cite this version:**

Agnes Korn. Parthian ž. Bulletin of the School of Oriental and African Studies, Cambridge University Press (CUP), 2010, 73 (3), pp.415-436. <<http://journals.cambridge.org/action/displayAbstract?fromPage=online>

aid=7918586

fulltextType=RA

fileId=S0041977X1000039X>. <10.1017/S0041977X1000039X>. <halshs-01340734>

**HAL Id: halshs-01340734**

**<https://halshs.archives-ouvertes.fr/halshs-01340734>**

Submitted on 5 Oct 2016

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers. L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



# Parthian ž

Agnes Korn\*

University of Frankfurt am Main  
a.korn@em.uni-frankfurt.de

## Abstract

This article argues that the opposition between Old Iranian \*č and \*ǰ was preserved in Manichaean Parthian not only word-initially, but also in post-vocalic position, at least at the time of the introduction of the Manichaean script. The approach is phonological, and attempts to show that Pth. /č/ (< OIr. \*č), written <c> and <č>, and Pth. /ǰ/ (< OIr. \*ǰ and \*ž), written <j>, are consistently distinguished in the Manichaean script. Pth. /č/ may have developed a postvocalic allophone [j] (not affecting the phonemic opposition), which might have been a motivation for the use of the letter <č>. Transcriptions into Sogdian script and the cantillations suggest a coalescence of the Pth. phonemes, but it is not clear whether this is a later development of the Pth. language itself or a peculiarity of the liturgical pronunciation of Parthian as practised by Manichaeans in Central Asia.<sup>1</sup>

In Parthian, Old Iranian č is preserved in word-initial position while OIr. \*ǰ yields Parthian ž. For the word-internal position, it has generally been assumed that OIr. \*ž, \*ǰ and postvocalic \*č all come out as ž (with an allophonic ǰ after *n*), and that the Manichaean letters 𐭑 (transliterated <c>), 𐭒 (<j>), and 𐭓 (<č>)<sup>2</sup> in word-internal position all encode the (one)

\* This paper owes much to discussions with Desmond Durkin-Meisterernst, who is, however, not responsible for its conclusions. I am also very grateful to Thomas Jügel for his close and critical reading of this paper and to Nicholas Sims-Williams for valuable comments. The essential points of this article were presented at the conference “The sound of Indo-European: Phonetics, phonemics, and morphophonemics”, University of Copenhagen, April 2009. A list of abbreviations is given at the end of the article.

1 The data used for this paper were extracted from the TITUS text database (<http://titus.uni-frankfurt.de/texte/etcs/iran/miran/manich/mirankb/mirma.htm>), from Boyce 1975, Durkin-Meisterernst 2004 and its reverse index at <http://www.bbaw.de/bbaw/Forschung/Forschungsprojekte/turfanforschung/de/iranischeTexte>. I also used Durkin-Meisterernst’s collection of transliterated texts at <http://www.bbaw.de/forschung/turfanforschung/dta/mirtxt/wmirtxt.html>, and the photos of the Berlin fragments at <http://www.bbaw.de/forschung/turfanforschung/dta/>. As a rule, details about attestations of word forms, their numbers, etc. refer to the data in Durkin-Meisterernst 2004 (i.e. to fragments published before 2004).

Transliterated Pth. and MP words are noted without brackets here (e.g. *bwj-*); phonemic transcription is noted as /bōž-/. <> mark transliteration of individual letters, e.g. <j>. Transliterations and transcriptions follow Durkin-Meisterernst 2004 unless otherwise noted. OIr. words and phonemes are noted with an asterisk to indicate the underlying phonemic form, disregarding the specifics of Old Persian and Avestan. Quotations from works in languages other than English are given in translation.

2 This letter is now commonly transliterated <ž>, probably because of the general assumption that it encoded /ž/. Since this assumption is one of the topics of the present article, I follow Henning 1958 (e.g. pp. 74 f.) and use the more descriptive transliteration <č>

phoneme /z/.<sup>3</sup> In what follows, I will investigate some evidence speaking against this assumption chiefly by looking at the Manichaean Parthian orthography and the Pth. loanwords in Armenian. Parthian in Sogdian script and cantillated Pth. texts will also be discussed.

## 1. The distribution of the Manichaean letters <c>, <j> and <ž> in Parthian

A look at the available Manich. Pth. material indicates that the letters **𐭪** <c>, **𐭫** <j> and **𐭬** <ž> are not used arbitrarily. Grouping the words by their spellings, the categories described in sections 1.1–1.4 emerge.

### 1.1

As in other Middle Ir. orthographies, a letter corresponding to the Semitic letter *šāde* **𐭪** is used as <c> in the Manich. script.<sup>4</sup> It is regularly employed to write word-initial /č/.<sup>5</sup> As far as the word-internal position is concerned, many words are found exclusively with <c>, for instance those in Table 1.

### 1.2

The letter transliterated <j> was newly developed in the Manich. script.<sup>6</sup> Many Pth. words are written consistently with word-internal <j>, such as those listed in Table 2. <j> is also the orthography for the Pth. outcome of OIr. word-initial \**j* (see section 4.1). For the pronunciation of Pth. <j>, a comparison with the loanwords in Armenian is particularly interesting.

---

(meaning the letter *zayin* **𐭪** with two dots above) to avoid phonemic or phonetic implications, and confusion between letters and their interpretation.

For a list of the graphemes of the Manich. script, see Andreas and Henning (1934: 911) and Skjærvø (1996: 519). Parthian in Sogdian script is discussed in sections 6.1–6.2.

- 3 Thus e.g. Rastorgueva and Molčanova (1981: 159, 168 f., 176 f.), Sundermann (1989a: 122) and Durkin-Meisterernst (2000: 169), implicitly also Boyce (1977 etc.) and Ghilain (1939: 42 f.). Henning (1958: 75) differs a bit from this and classifies the voicing of post-sonantal voiceless stops as “not being entirely completed yet” at the time when the Manich. script was introduced, and compares this to the “use of *šādē* (=č) for original č also after sonorants” (cf. n. 4).
- 4 Henning (1958: 75). “Conversely, Iranian č is frequently rendered by š (specifically in Arabic)” (Henning 1958: 60, n. 3), e.g. Arabic *rašāš* “tin, lead” vs. Armenian (from Parthian) *arčič* (Tafažžolī 1987: 232, Hübschmann 1897: 111, 511). Replacement by š also occurs, “specifically in Old Aramaic, thence probably also in Parthian later on” (Henning *ibid.*).
- 5 In a few instances, <tš> is written instead of <c> in the word *čē* “what”. Most attestations of *tšv(y)* (also with enclitic pronoun) occur in alphabetic hymns in the position of the letter *t* (Desmond Durkin-Meisterernst, personal communication). I have been unable to confirm the existence of other words using <tš> for <c> implied by Henning (1958: 75).
- 6 There have been various suggestions concerning its graphical basis: it could have been developed from <c> (Lentz 1926: 254) or also from <š> (Boyce 1975: 16), or from <ž> (Durkin-Meisterernst 2000: 177, n. 50) or “have the same origin” as the Christian Sogdian letter transliterated <ž> “and may be related to Tumshuqese Brahmi ž” (Skjærvø 1996: 533). In early Iranological works the letter is transliterated by the Hebrew letter *zayin* with macron above: *ī*.

Table 1. Pth. words with word-internal **ux** <c> (examples)

Parthian	cognates	meaning
<i>w(y)cʔr-</i>	Av. <i>vi</i> + <i>√čar-</i>	“to perform”
<i>wʔc-</i> ,	Av. <i>√vač</i>	“to speak”
<i>wcn</i> ,		“voice; word”
<i>pdwʔc-</i>		“to reply”
<i>nmʔc</i>	OIr. <i>*namāč-<sup>7</sup></i>	“praise”
<i>pcg</i>	Av. <i>√pač</i>	“cook”
<i>wrc</i>	Av. <i>varəčah-</i>	“deed; energy”
<i>swc-</i>	Av. <i>√suč</i>	“to burn”
<i>pdyc</i>	OIr. <i>*patīč-</i>	“towards”

Table 2. Parthian words with **Δ** <j> (examples)

Parthian	cognates	loanword in Armenian	meaning
<i>bwj-</i> ,	Av. <i>√buĵ</i>	<i>buž-</i>	“to save”
<i>bwjʔgr</i>			“saviour”
<i>ʔrjʔn</i>	Av. <i>arəĵah-</i>	<i>a(r)žan</i>	“worthy”
<i>prywj</i>	OIr. <i>*pari-auĵah-<sup>8</sup></i>		“victory”
<i>djn<sup>9</sup></i>	OIr. <i>*daĵ-</i>	<i>dažan</i>	“hot, spicy”
<i>drwj-</i> ,	OIr. <i>*druĵ</i>	<i>drž-, džr-</i>	“to tell lies”
<i>drwjn</i> , etc.		<i>družan</i>	“lying, false”
<i>dwj<sup>o</sup></i>	Av. <i>duž<sup>o</sup></i>	<i>dž<sup>o</sup></i>	“bad”
<i>xwj</i>	* <i>xwřžū-<sup>10</sup></i>	<i>axorž</i>	“good”
<i>mwjd</i>	Av. <i>mižda-</i>		“wages”
<i>ʔjdh<sup>g</sup></i>	Av. <i>aži- dahāka-</i>		“dragon”

### 1.3

Several words show either <c> or <j>.<sup>11</sup> In the position after *n*, <j> is used nearly consistently (e.g. *ʔnjmn* “assembly”, *nydrynj-* “to oppress”, *frhynj-* “to educate”, etc.). The number of instances with <nc> is very small,<sup>12</sup> and at

7 The interpretation and further derivation of this word is not entirely clear (see Sims-Williams 2007: 238 for discussion and references).

8 Bartholomae (1904: 862).

9 For this word, see Korn (2005a: 210).

10 The word may be derived from PIE *\*sulǵʰsu-* “tasty” (Sims-Williams 2007: 280).

11 *cmn* is not a variant of *jmʔn* “hour” (pace Andreas in Lentz 1926: 255; and Andreas and Henning 1934: 898), but a derivative of *cm-* “to move” (Durkin-Meisterernst 2004: 125b). *ʔĵ*, which is noted as a variant of *ʔbʔc* “back; again” in Durkin-Meisterernst (2004: 7b), does not exist: its one occurrence in the St. Petersburg fragment S 32 B 3 (= SI (Kr IV/841) 30) is clearly *ʔbž* (see the photo in Sundermann 1996: plate 180 top, and the correct form in Boyce 1977: 4). Salemann’s transliteration (1912: 25) by the Hebrew letter *zayin* ʔ with a somewhat slanted dot above is surely a misprint for *zayin* with two dots above, i.e. <ž> (cf. n. 19, vs. ʔ for <j>, see n. 6). So *ʔbʔc* / *ʔbž* is an instance of the variation <c> / <ž>, which is discussed in section 1.4.

12 There do not appear to be any examples of <nc> for OIr. *\*nĵ*.

least some of them might be discounted as not being Pth., or not a real sequence of <nc>, while the others could be cases of MP orthography:<sup>13</sup>

- the hapax legomena *šqync* “twisted rope”,<sup>14</sup> *tncyšn* “?”,<sup>15</sup> and *plync* “bronze”,<sup>16</sup>
- *pnc* (once<sup>17</sup>) “five” vs. *pnj*(°) (c. 100 occurrences, including derivatives like “fifteen”, “fifth”, etc.);
- *dyncyhyft* “behaviour in conformity to religion” is one of the compounds with *cyhr* “essence, being; seed; shape” (*dyn-cyhr-yft*); these are always written with <c>;
- *zyncyhr*<sup>18</sup> (twice) “chain” vs. *zynjyhr* (once), the former surely being due to association with the compounds with *cyhr*.

The few words showing a variation <c> / <j> in positions other than after *n* will be discussed in section 3.1.

#### 1.4

<ž>, i.e. a sign corresponding to the Semitic letter *zayin* ʔ with two dots above,<sup>19</sup> occurs only in a limited number of words (listed in Table 3). Apart from one unclear hapax legomenon (which would at the same time be the only case of word-initial <ž>), all of them are also found with <c>, and the occurrences with <c> outnumber those with <ž>. So from a functional point of view, <ž> is an orthographic variant of <c>.<sup>20</sup>

In some cases, the use of <ž> appears to be motivated by space restrictions (as the letter is much narrower than <c>). This is likely to hold for the variants occurring at the end of the line (marked with “#” in Table 3), e.g. *ʔž* (which also omits the -y- and uses the abbreviation dots instead, see n. 19), and for

- 13 There is occasional confusion on the part of the scribes as to which language they are copying; i.e. a MP word may slip into a Pth. text and vice versa (cf. Durkin-Meisterernst 2000: 169, n. 32, Korn and Durkin-Meisterernst 2009: 18, n. 61), e.g. Pth. *bwjʔwmʔn* “save us” (M 448 A 5) and *wjyydgʔn* “Elect” (M 221 v 11; for this word, see also section 1.4) in MP texts, etc.
- 14 The line of the fragment reads [*ʔhynd cw*]ʔgwn *šqnc* “(the souls) are like a twisted rope (?)” (M 6300 B 12, Sundermann 1997: § 105).
- 15 The attestation is *pnjwm kw pd tncyš(n)* [“fifthly, that to the prohibitions(?)...” (M 4450 v 5, Sundermann 1992: 115, § 67).
- 16 The word agrees with Arm. *plinj*, etc. (Sundermann 1981: 168, Hübschmann 1897: 231); Hübschmann (1895: 28) considers the Ir. word a borrowing from an unknown source. See also n. 31.
- 17 The relevant line is extremely fragmentary, but the context confirms the topic: [*mʔnhʔg p*](*nc r*)[*wšn*] “like the five Lights” (M 5185 r 4, Sundermann 1992: § 6).
- 18 According to Henning (apud Boyce 1952: 447, n. 2), the word may be derived from *\*zʔmčarī-*.
- 19 In early Iranological works the letter is transliterated by the Hebrew letter *zayin* with trema above: ʔ. Two diacritic dots below or above a letter may also be used to indicate the omission of a following *aleph*, *yod* or *waw* (cf. Boyce 1975: 19). However, I have not come across a case of <ž> with abbreviation dots. For more discussion about <ž>, see n. 2 and section 5.
- 20 This implies that statements like <ž> has “the same value as the letter j” (Boyce 1975: 17) and <j> “usually represents the same sound as ž [i.e. <ž>], with which it alternates in all but initial position” (Boyce 1975: 16) are not quite supported by the data.

Table 3. Pth. words with ž &lt;ž&gt; (full list)

variant with <c> <sup>21</sup>	variant with <ž> <sup>22</sup>	meaning
–	žyšm(r.)[ (1)	“?” <sup>23</sup>
<i>rwc</i> (c. 130 instances)	<i>rwž</i> (#) (9)	“day”
<i>w<sup>2</sup>c</i> (1); <i>pdw<sup>2</sup>c</i> (1) <sup>24</sup>	<i>w<sup>2</sup>ž</i> # (1, MP) <i>z<sup>2</sup>wrw<sup>2</sup>ž</i> # (1, MP) <sup>25</sup>	“speech”; “reply” “liar”
<i>mw<sup>2</sup>c</i> (?) <i>g</i> (27)	<i>hmwž<sup>2</sup>g<sup>2</sup>n</i> (1, MP) <sup>26</sup>	“teacher”
<i>ʔb<sup>2</sup>c</i> (9)	<i>ʔb<sup>2</sup>ž</i> # (1)	“back; again”
present stem (°) <i>s<sup>2</sup>c-</i> : <i>s<sup>2</sup>c-</i> (5), <i>p-s<sup>2</sup>c-</i> (2), <i>ny-s<sup>2</sup>c-</i> (1)	<i>ny-s<sup>2</sup>žyd</i> # (1)	“to prepare”
present stem ° <i>cyn-</i> : <i>wy-cyn-</i> (1) <i>n-cyn-</i> (1)	<i>w-žynyd</i> # (1)	“to elect” “to build”
-( <i>y</i> ) <i>c</i> in: <i>m<sup>2</sup>h-yc</i> (6), <i>mn-yc</i> (6), <i>ny<sup>2</sup>c</i> (10), <i>ɣw-yc</i> (5) <i>by-c</i> (c. 50),	-( <i>y</i> ) <i>ž</i> in: <i>m<sup>2</sup>h-yž</i> (1, MP), <i>mn-yž</i> # (1), <i>nyž</i> # (1), <i>nyž</i> (#) (2, MP), <i>ɣw-yž</i> (1), <i>by-ž</i> (#) (2), <i>d<sup>2</sup>lwg<sup>2</sup>n-yž</i> # (1)	“also” suffixed to /am(m)āh/ “we” <sup>27</sup> /man/ “I” /an(y)/ “other” /ēw/ “one” /bēh/ “out” /dālūg/ “tree”
and many more		
<i>ʔc</i> (over 500)	<i>ž</i> (#) (c. 50)	“from”

*ʔb<sup>2</sup>ž<sup>28</sup>* in S 32 B 3 at the end of a line where <c> would not have fitted at all. Other examples include a squeezed ž “from” at the end of the line M 5815 I r 13 vs. the prolonged ʔc at the end of the preceding line, and M 5815 II v 18, the second half of which reads *byc rwc rwž*. However, shortage of space cannot always have been the motivation for the use of <ž>. For instance, there would have been quite enough space at the end of the line in M 801a folio c verso 7 (Henning 1937: 30, line 396) for *rwc* instead of *rwž*. Moreover, the words marked with “(#)” in Table 3 also occur in the middle of lines, and the unmarked ones only so. Nevertheless, it is striking that ž is particularly frequent in the middle of a line.

21 The numbers given in this column refer to the attestations in Pth. texts. Additional instances might be found within MP texts (see n. 13).

22 # indicates that the form occurs at the end of a line, (#) that it occurs at the end of a line and elsewhere. In this column, “MP” means that the item occurs within a MP text.

23 For discussion of this word, see section 5.

24 See also the (common) associated Pth. verb and its derivatives (always written *w<sup>2</sup>c-*) quoted in Table 1.

25 MP also uses *z*(°)*wrw<sup>2</sup>g* “lying”.

26 *hmwž<sup>2</sup>g<sup>2</sup>n* (in a Pth. text) is a mixed form from MP *hmw<sup>2</sup>c<sup>2</sup>g* (also *hmw<sup>2</sup>ž*) and Pth. *mw<sup>2</sup>c<sup>2</sup>g* (rarely also *mw<sup>2</sup>c<sup>2</sup>g*).

27 For the possible geminate in the Pth. word, see Korn and Durkin-Meisterernst (2009: 11).

28 Sic; not †*ʔb<sup>2</sup>ž* (see n. 11).

Also, the number of fragments in which <ž> occurs is quite small,<sup>29</sup> with the manuscript M 5815 featuring an unusually high number of instances (three cases of ž and five other words with <ž>). Four of the nine occurrences of *rwž* are in just two lines of M 533 r 4a (an abecedary hymn), and two others are doublets of the same text line (M 667 v 1 and the combined set of M 502h & M 2751 v 3).

## 2. Interpretation of the distribution of the letters <c>, <ž> and <j>

The fact that almost all Parthian words are consistently written either with <c / ž> or with <j> (see section 3.1 for the exceptions) suggests the possibility that the scribes intended to encode two different Pth. sounds, and that these may have been two phonemes. Combining the spellings with the etymologies of the words yields the following preliminary results:<sup>30</sup>

- words written with <c> (section 1.1) and those written with <c> and <ž> (section 1.4) show the Pth. outcome of OIr. \*č;
- words written with <j> (section 1.2) reflect the Pth. outcome of OIr. \*j and \*ž, and of OIr. \*č and \*j in the position after *n* (see section 1.3).

This speaks for Parthian preserving the OIr. distinction of \*č (> Pth. /č/) vs. \*j (> Pth. /ž/) not only in word-initial position, but in all positions of the word. The only exception is the position after *n*, where the opposition was lost. The pronunciation of <nj>, <nc> is likely to have been [nj],<sup>31</sup> so that /č/ and /ž/ have a post-nasal allophone [j].

29 Fragments with only instances of ž, but no other words with <ž>, are: M 4b, M 30 (= M 347 = M 468a), M 42, M 67, M 88 (= M 96), M 93 & 289a, M 94 +, M 168, M 208 (& M 638), M 229, M 311, M 502b, M 741 (= Otani 6208+), M 858e (= M 6220), M 871f, M 905, M 1026, M 2315, M 2339, M 4570, M 5263, M 6041, M 6222, M 6223, M 6300, M 6680 +, M 6726, Otani 6192, Otani 6205, P.M. 914.2.

The remaining fragments with <ž> are the following (those with several words with <ž> underlined): M 1, M 2, M 7, M 35, M 177, M 502h (& M 2751), M 533, M 667, M 727a, M 733, M 801a, M 5815, M 8110, Otani 6211, S 32 (= SI (Kr IV/841) 30).

“=” indicates duplicates of the same text, “&” marks joined fragments.

30 This applies to the Pth. lexicon as extracted from the sources quoted in n. 1 insofar as the words are etymologically clear.

31 Thus e.g. Rastorgueva and Molčanova (1981: 177) and Sundermann (1989a: 122). The issue of OIr. \*nč/j in Western Iranian might merit another investigation. Potentially relevant points include the fact that there are examples of -nč in Armenian (where, however, voiced and voiceless stops vary after *n* in the manuscripts, obscuring the Ir. reflexes, Hübschmann 1895: 225, 231). Also noteworthy are the MPM spellings *pnz* “five” (besides only two instances of *pnc*) and *hnzmn* “gathering” (Pth. *’njmn*) and the substitution of *nz* by *nj* in Parthian, e.g. *’njwg* “narrow” vs. MPM *hnzwg-* (OInd. *anihu-*, Av. *qzah-* “hardship”). The reason may be that /nz/ was “unusual” in Parthian (Henning 1963: 196; 1965: 32, n. 4). Indeed, there does not seem to be any example of tautosyllabic Pth. *nz* without an intervening morpheme boundary. The only candidate would be *brynz-* “roast”. In Durkin-Meisterernst (2004: 111a), the lemma is marked as Parthian, but its only occurrence is marked as MP; *brynz-* is found in a fragmentary word-list contrasting Sogdian words with MP or Pth. counterparts. A couple of words with Arm. *nj* [ndz] instead of *nj* (Hübschmann 1895: 231 f.) have been assumed to reflect Ir. dialectal variation (see Gippert 1993/I: 122 f. for a summary of the discussion). According to Olsen (2005: 478), these words belong to a group that also shows

### 3. Is the Manichaean Parthian orthography archaizing?

Although the Manich. script is as a rule very accurate,<sup>32</sup> there are several possible arguments that appear to speak against the statement made in the preceding paragraph.

#### 3.1

One such argument is the existence of the doublets listed in Table 4.

Table 4. Exceptional cases of Pth. orthography **𐭮** <c> vs. **𐭮** <j> (full list)

Etymological orthography	Unetymological orthography
<i>twj-</i> / <i>twj-</i> “to expiate, pay back” (2 occurrences), < OIr. * <i>tauĵ</i> (?) <sup>33</sup>	<i>twcyyd</i> (1)
<i>pdmwc-</i> “to clothe” (24), < OIr. * <i>mauč</i> (?) <sup>34</sup>	<i>pdmwjʰ</i> (1)
ʔ(b)[r](w)cyn(d) “illuminates” (1), < OIr. * <i>rauĉ-</i> (see section 1.4)?	ʔbrw]jʔgyn “bright” (1)
ʔc / ʔz “from” (c. 600, see section 1.4) < OIr. * <i>haĉa</i>	ʔjʔ (2)
<i>wcyd</i> “chosen”, <i>wcydg</i> “Elect”, <i>wcydgyft</i> “the (group of) Elect” (5), < OIr. * <i>vi-ĉita-</i>	<i>wjyd</i> , <i>wjydg</i> , <i>wjydyft</i> (over 90)

However, except for the last item, the unetymological spellings are very rare: ʔbrw]jʔgyn (if it is to be read this way at all),<sup>35</sup> *pdmwj-* and *twc-* occur only once each, vs. 24 instances of *pdmwc-* (plus 28 *pdmwcn* “garment”) and two of *twj-*. Unless some specific factors are at work in these three instances,<sup>36</sup> they might

peculiarities in the Arm. stem class they are assigned to, and they might have been borrowed from an Eastern Ir. variety.

32 Cf. e.g. Sundermann (1985: 111): “With regard to what had been common until that point in the practice of writing and reading Iranian, Mani’s innovation [= the Manich. script] amounted to something like a revolutionary deed. The letters rendered the phonemes of Middle Persian and Parthian of the third century as accurately as possible for an Aramaic script; there were no historic orthography, no letters of same shape but with different value, and no heterograms.”

33 The origin of the Ir. root \**tauĵ* is not clear; Cheung (2007: 388) suggests a relationship to Sogdian *twdy* etc. “masses”, in which case \**tauĵ* might be \**taud* + *ĵ*(?). Note also the OInd. root variants *tuj* and *tud* “push” and the possible identity of *tūj-* and *tūc-* “offspring” (Mayrhofer 1992–2001/I: 652, 670).

34 Cf. Cheung (2007: 139 f.).

35 For the attestation of ʔbrw]jʔgyn, see Henning (1940: 29), for ʔ(b)[r](w)cyn(d), see Sundermann (1997: § 97).

36 *pdmwj-* occurs in ʔspyxt *pdmwg pdmwjʰ* “Thou shalt put on a radiant garment” (combined fragment M 93 & M 289 II r 7, Boyce 1954: 100 f.). Perhaps the figura etymologica (which reoccurs in M 737 v 5 in the form: *nys*(ʔ)gyn *pdmwg pdmwcynd* “[t]hey put on the resplendent Garment”, Boyce 1951: 915) may have motivated a comparison with parallel sets of words such as *prywg* /paryōg/, *prywj* /paryōž/, both “victory” (see Table 2), *prywj-* (/paryōž-/), past stem *prywx* /paryōxt/) “to overcome”, and could



perhaps be attributed to a stage where the Pth. phonemes /č/ and /ž/ coalesced (see section 6.2).

The two occurrences of *jʹ* (vs. hundreds of examples of *ʹc* / *ž*, see section 1.4) have also been seen in the context of <c> vs. <j> and have been interpreted as an “allegro” or sandhi variant produced by the affixation of the “hymnic element” -ʹ (/ -ā/) to *ʹc* / *ž* “from” (Durkin-Meisterernst 2000: 169, n. 32), and are noted as a variant of *ʹc* / *ž* in Durkin-Meisterernst 2004. However, *jʹ* (strictly speaking *ʹ- jʹ*) is not an “allegro” variant of *ʹc* / *ž*, but its cantillated version (see section 6.3).

The only word that shows a major variation in its spelling is *wcyd* (five instances) vs. *wjyd* (over 90) “chosen” (including the derivatives *wcydg* / *wjydg* “Elect” and *wcydgyft* / *wjydggyft* “the (group of) Elect”). It is noteworthy that this word is a key term of the Manich. church while the present stem of the associated verb (*wycyn-* / *wžyn-* “to choose”, see section 1.4) agrees with the rest of the Pth. lexicon in showing a remarkably consistent use of the letters. So one wonders whether some special phenomenon might be involved. A possible explanation of the appearance of an unexpected <j> besides <c> might be that MP /wizīd/ could have been borrowed<sup>37</sup> with an adaptation to make it look like a Pth. word:<sup>38</sup> there may have been a hypercorrect application of the correspondence “Middle Persian /z/ equals Parthian /ž/”, which speakers and scribes could surely have deduced from obvious cognates such as Pth. *jʹyw-* /*žiw-*/ vs. MP *zyw-* /*zīw-*/ “to live”, Pth. *bwj-* /*bōž-*/ vs. MP *bwz-* /*bōz-*/ “to save”, Pth. *jmʹn* /*žamān*/ vs. MP *zmʹn* /*zamān*/ “time”, etc.<sup>39</sup> For instance, such a logic seems to be responsible for the unetymological *ž* in Pth. *ʹmyj-* /*āmēž-*/ vs. MP *ʹmyz-* /*āmēz-*/ “to mix” (Av. \**maiz-*, PIE \**mejǵ*, cf. Cheung 2007: 261), another important term in Manich. theology. Alternatively, one might assume a dissimilation \**wijīd* [widžīd]<sup>40</sup> > *wižīd* to account for the spelling *wjyd* (Nicholas Sims-Williams, personal communication).

### 3.2

If one assumes that the distinction of <c / ž> and <j> reflects a writing tradition dating back to times before the beginning of the Manich.

---

have favoured the association of the -g in *pdmwg* /*padmōg*/ with a present stem ending in a voiced consonant (\**padmōž-*, past stem *pdmwxt* /*padmōxt*/).

37 Several MP terms of pre-eminent religious importance have been borrowed into Parthian, among these /*gyān*/ “soul”, /*farrox*/ “glory” and /*wurraw-*/ “to believe” (cf. Korn and Durkin-Meisterernst 2009: 12–16, 18), *xrwhxwʹnʹn* “preachers” (Henning 1937: 24 line 220 [MP], line 270 [Pth.]).

38 Maybe *wcyd* / *wjyd* might also have been associated by popular etymology with its quasi-synonym *wyxt(g)* “selected, chosen” (for which cf. Korn and Durkin-Meisterernst 2009: 10, n. 15), which does not have a verbal paradigm in Parthian and could have given rise to speculation as to whether it should be associated with a present stem \**wyc-* or \**wyj-*. The MPM word and its derivatives are found as *wzyd* only twice, but otherwise as *wcyd* (c. 40 instances).

39 The fragment (in Sogd. script) So 14152 (cf. Reck 2007: 328) seems to reflect such a scribal logic, presenting MP *ʹrzʹn* (v 6), Pth. *ž-mʹn* (v 11), both correct for the respective languages, and – in the next line – <ž> for Pth. /z/ in *xwž-m* [sic] (Manich. script *wxžʹm*) “we want” (corresponding to MP *xwāh-*), apparently thinking “for Parthian, <ž> /ž/ is the right choice”.

40 For a possible change Pth. /-č/ > [j], see section 4.2.

orthography,<sup>41</sup> potential candidates for a model include other scripts used for Parthian and Middle Persian.

However, the possible models are not quite similar to the Manich. Pth. orthography. The script used in the MP and Pth. inscriptions did not develop a separate letter <j>, but the Pth. epigraphic texts<sup>42</sup> do distinguish the Pth. results of OIr. \*č and \*j/\*ž (presumably Pth. /č/ and /ž/). These are written <š> and <z> respectively; i.e. in the orthography of the inscriptions, Pth. /č/ and /š/ are represented by the same letter,<sup>43</sup> while /ž/ and the post-nasal allophone [j] are written with the letter also used for /z/.<sup>44</sup> So if the inscriptional orthography had been the model, one would expect that the orthography of <š> for /č/ would have been maintained (either regularly, or at least in a number of cases) in the Manich. texts, and that <z> would be used for /ž/ either regularly or alongside the newly developed <j>.

### 3.3

Another potential candidate for a model for the Manich. Pth. orthography is Manichaean Middle Persian; it is possible that the Manich. script was used for MP first, and later on also employed for Parthian and other languages (Henning 1958: 73), but this is hard to prove (Durkin-Meisterernst 2000: 163–9). However, there is a major difference between MP and Parthian as far as the use of <c> etc. is concerned: in MP, <c> for MP /z/ < OIr. \*-č is regularly used besides <z>, indicating systematic historical orthography,<sup>45</sup> while in Parthian, the few exceptions (discussed in section 3.1) to the etymological use of <c> are hardly a solid basis for assuming (pseudo-)historical orthography.

To a certain extent, the assumption of the Pth. orthography being based on Middle Persian implies the underlying idea of a parallel development as sketched in Table 5. It could be assumed that there is a common Western Mİr. development producing a coalescence of OIr. \*j, \*ž and postvocalic \*č into one sound, which only differs in the language-specific articulation of the resulting sibilant. This is indeed the *communis opinio*,<sup>46</sup> but there is some evidence to the contrary.

41 Thus Skjærvø (1996: 521): “The Manichean script shares with the Parthian and Middle Persian [epigraphic] scripts the archaizing use of c (or j) for intervocalic Parth. ž and MPers. z”. (For the latter issue, see section 3.3.)

42 This term includes the Arsacid and Sasanian inscriptions, the ostraca from Nisa and Dura-Europos and the parchment “Awroman III”.

43 This orthography is unlikely to imply that /č/ and /š/ coalesced in a certain variety of Parthian (Henning 1958: 60, Rastorgueva and Molčanova 1981: 153, Sundermann 1989a: 120, n. 80). Epigraphic examples for /č/ are (transliterations based on Gignoux 1972 with a few modifications): *šwgnw* /čawāyōn/, *ššmk* /Čašmak/, *šyhr* /čihr/, *pššhr* /Pā-čihr/, *B<sup>1</sup>TRš* /paš-ič/; for /š/: *rššt* /raššt/. It is not quite clear why the letter <c> is used for /č/ in the MP inscriptions (e.g. *cygwn* /čiyōn/, *cšmk* /Čašmak/) and in the Sogdian ones, but is only employed for heterograms in the Pth. ones. See also n. 4.

44 Examples for /ž/: *wyznkn* /Wēžanakan/, *zmn* /žamān/; for /z/: *brzmtirk* /Barz-mihrag/, *dyzpt* /dēzbad/. For [j], Rastorgueva and Molčanova (1981: 154) quote *rnz* /ranj/ (not in Gignoux 1972) from unspecified “inscriptions of the third century”.

45 MacKenzie (1967: 21). There are also some cases of MPM pseudo-historical orthography. For a description of the extremely historical orthography of MPZ, see e.g. Henning (1958: 67–72), MacKenzie (1967: 17).

46 Thus explicitly e.g. Tedesco (1921: 190–92), Lentz (1926: 254) and Paul (1998: 167, 170); the same view is usually also implied in grammars of Parthian and MP (cf. n. 3).

Table 5. *Communis opinio* on the development of OIr. affricates and \*ž

Old Iranian	*č / _V; *j̥, *ž	
Middle Iranian	Northwest Ir. (Parthian)	Southwest Ir. (Middle Persian)
	/ž/	/z/
Manich. orthography	𐭮 <c>, 𐭮 <j>, 𐭮 <ž>	𐭮 <c>, 𐭮 <z>

The use of etymologically unjustified <c> for cases of OIr. \*z and \*j̥ in the early Sasanian MP inscriptions shows that OIr. \*-č had already resulted in MP z by that time (Henning 1958: 67, MacKenzie 1967: 21, Back 1978: 135), e.g. 𐭮čʰt and 𐭮žʰt /āzād/ (< OIr. \*ā-zāta-), pyl[w]c /pērōz/ (< OIr. \*pari-aujah, cf. Table 2), etc. Armenian and Georgian also demonstrate that at a time when the intervocalic voiceless stops were still preserved in Western Middle Iranian, MP already had z < OIr. \*j̥,<sup>47</sup> e.g. Arm. *zatic* “Pessah” < OIr. \*jatika- “immolation”, Georgian *toziḱ-* “feast, banquet”.<sup>48</sup> For Parthian, on the other hand, the Armenian loanwords show a preservation of intervocalic č and stops alike, e.g. *spitak* “white”, *ročik* “daily bread”.<sup>49</sup> So the MP and Pth. developments of OIr. \*-č, \*j̥, \*ž are not parallel.

### 3.4

The orthography of certain stops might appear to be parallel to that of the Pth. results of OIr. \*-č and \*j̥ as far as the preservation of a difference is concerned: the output of OIr. postvocalic \*t (presumably Pth. /d/) may be written either <𐭮> 𐭮 or <d> 𐭮 (e.g. *pt* and *pd* /pad/ “in, at, on”, OIr. \*pati) while the result of OIr. postvocalic \*d (Pth. /ð/) is always written <d> (e.g. *kd* /kað/ “when”, OIr. \*kadā).<sup>50</sup> Similarly, <q> 𐭮 may be used for /g/ < OIr. \*k in Parthian and Middle Persian (besides <g> 𐭮), but not for /ɣ/ < OIr. \*<g>.<sup>51</sup>

47 Korn (2005: 287, 2009: 206). See also section 4.1 for another argument in favour of the early date of \*j̥ > MP z.

48 Note that *tōz-* (“\*something paid”) appears to have been widely known in its MP shape as it was also borrowed into Aramaic (*twzyk*), cf. Gippert (2004: 108–110). For the corresponding verb, see section 3.1.

49 These words belong to the Arsacid / Pth. layer of Ir. loanwords in Armenian (cf. Hübschmann 1897: 12–15), which is also characterized by (Pth.) ž for OIr. j̥ (see section 4.1). The *t* of Arm. *zatic* and *jatuk* shows that not all MP loanwords are necessarily younger than the Pth. ones. Conversely, the *o* of Arm. *ročik* (< Pth.) indicates that the word is a more recent borrowing since most loanwords from the Arsacid period show Arm. *i* and *u* for Mir. *ē*, *ō*, respectively, in non-last syllables while later ones have *e*, *o* (cf. Hübschmann 1897: 14). *spitak* (< \*spētak) and *tuz-* “punish” (from Mir. *tōž-*, for which see the preceding sentence of the text) are thus from an older layer than *ročik*.

50 Henning (1958: 75), Korn (forthcoming, n. 27), Durkin-Meisterernst (2000: 169–72). The latter – set in other terms than those applied here – notes that <𐭮> for \*t is very rare in Middle Persian. One possible interpretation is that the voicing of the OIr. postvocalic voiceless stops happened earlier in MP than in Parthian (cf. Durkin-Meisterernst 2000: 172). However, OIr. postvocalic \*d and \*g yield MP -y (vs. OIr. postvocalic \*t and \*k > MP d, g) so that there was no opposition to be noted anyway.

51 <q> may also be written for /k/ in various positions, including the postvocalic word-final one (Durkin-Meisterernst 2000: 170).

However, the parallel is again only partial: <ṭ> and <q> for /d/ and /g/ only appear alongside <d> and <g>, and only word-finally, while <d> and <g> are much more common (and the only orthography in word-internal position); <t> and <k> are not used at all for these purposes (cf. Henning 1958: 75, n. 2).<sup>52</sup> So the opposition (if any) between /d/ and /ḍ/, and between /g/ and /ɣ/, is only marked in a minority of cases, and the Manich. orthography essentially uses <b>, <d>, <g> to represent the Pth. outcome of both the OIr. postvocalic voiced and voiceless stops. The opposition between the Pth. results of OIr. \*č and \*j / \*ž, on the other hand, is marked systematically, and the former is written (in all positions of the word) with the letter that is etymologically expected for the voiceless member of the series. For instance, there is no variant †<rwj> alongside <rwč>, and no †<bwc> alongside <bwj> (with the few exceptions noted in section 3.1).

So the coalescence of the OIr. postvocalic voiceless and voiced stops is likely to have been “close to its completion”<sup>53</sup> at the time of the introduction of the Manich. script for Parthian, while /č/ and /ž/ were still distinct in all positions in the word (except after *n*).

#### 4. Pronunciation of the Parthian graphemes

Concerning pronunciation, the evidence of the Armenian loanwords shall be considered more closely.<sup>54</sup>

##### 4.1

The transliteration <j> has been assigned to the letter ձ for reasons of the MP evidence: MPM <j-> from OIr. \*y- corresponds to Arm. յ- in MP loanwords, e.g. *ḡatuk* “sorcerer” (Av. *yātu-*, New Persian *ḡādū*, cf. MPM *jʔdwgy* “sorcery”).<sup>55</sup> On the other hand, Arm. loanwords from Parthian show շ throughout for the outcome of OIr. \*j and \*ž.<sup>56</sup> Examples include Arm. *žahr* “poison” (Pth. *jhr*), *žamanak* “time” (Pth. *jmʔn*), *tuž-* “punish” (see n. 49), *džox-kʿ* “hell” (Pth.

52 Durkin-Meisterernst’s (2000: 173–6) explanation of the non-use of <ṭ> for postvocalic OIr. \*t, viz. that <ṭ> may have been a device for writing “foreign t”, is not convincing because both <ṭ> and (more commonly) <t> are regularly used for /t/ (< OIr. \*t in post-consonantal, word-initial and morpheme-initial position). Rather, one wonders whether the Manich. orthography might reflect Aramaic phonology. Semitic stops have fricative allophones in postvocalic position (for instance, <t> 𐤌 denotes [t] word-initially, but [θ] after vowels). Since the emphatic consonants do not show such a lenition, <ṭ> 𐤌 (whence the Manich. letter <ṭ>) is an unambiguous orthography for a voiceless stop.

<t> appears to stand for the result of OIr. \*t in Pth. *pwrt* “bridge”, *mwrt* “death”, and in words with OIr. \*-art- while OIr. \*rt gives Pth. *rd* otherwise (cf. Henning 1958: 75, n. 2). The special conditions at work here are discussed in Korn (forthcoming).

53 Henning (1958: 75 with n. 2, see also n. 3 above), similarly Sundermann (1989a: 123), Durkin-Meisterernst (2000: 171 f.). For further discussion of the Pth. development of the stops see section 6.

54 For the pronunciation of <nj>, <nc> see section 2.

55 Hübschmann (1897: 232). Note that this յ- must be older than the voicing of postvocalic stops, but younger than the change of OIr. \*j > MP z (see section 3.3) as otherwise OIr. \*y- (> MP յ-) would have resulted in MP z.

56 Hübschmann (1897: 229–31).

*dwjx*) and the items in Table 2, establishing that in Parthian, <j> denotes [ž].<sup>57</sup> Also, some orthographic peculiarities seem to indicate that Pth. <j> alone was not pronounced [j], e.g. *djrtbwhr* for the place name Jaṭāpura (Henning 1947: 57) and the use of diacritic dots in the borrowing *ḵdyšmr* (OInd. *jāṭismara-*) “recollection of a former existence” (Sims-Williams 1983: 134, n. 23, Sundermann 1993: 167).<sup>58</sup> Moreover, the position of <j> “in an alphabetical list of letters of the Manichean script after *z*, not after *c*” may also indicate that its pronunciation was “more like *z* than like *č*, i.e. it was *ž* rather than *ǰ* [= *ǰ*]” (Sundermann 1993: 167).

#### 4.2

For /č/ (see section 1.1), the Armenian evidence would suggest a pronunciation [č], e.g. *včar* “payment” (Pth. *w(y)cʰr-* “to perform”), *avač* “voice” (Pth. *wʰc* “word”), *patmučan* “garment” (Pth. *pdmwcn*, see section 3.1), etc. (cf. Hübschmann 1895: 225 f.). However, the stage of Parthian reflected in the Arm. loanwords is earlier than that of the Manich. texts since these words preserve the OIr. voiceless stops in postvocalic position, e.g. Arm. *spitak* vs. Pth. *ʰspyd* “white”, *ṛočik* “daily bread” vs. Pth. *rwc* “day”, *rwcg* “fast(-day)” (cf. section 3.3).

It is thus quite possible that in postvocalic position, the Pth. phoneme /č/ was subject to lenition; i.e. /č/ may have acquired an allophone [j] not only after *n*, but also after vowels (see section 5 for additional discussion). This would still not disturb the phonemic opposition with /ž/, though. The Pth. orthography situation at the time of the establishment of the Manich. script may be summarized as in Table 6.<sup>59</sup>

57 Cf. Lentz (1926: 254 f.), Henning (1958: 74). As suggested by MacKenzie (1967: 21), Manich. <j> can denote *ž* even in MP; it seems that the MP phoneme /j/ was pronounced [j] only in word-initial position (see n. 55) and after *n*, but [ž] elsewhere.

58 Sundermann (1989b: 145) generalizes this observation to the statement that “Buddhist terms with word-initial *ḵ-* could be written with a specific sign <j> with diacritic dots”, and concludes that “[undotted] <j> in Middle Persian words perhaps still meant /ž-/. However, this conclusion is disproved by the MP loanwords Arm. *ḵatuk* just mentioned, and *ḵok*, Georgian *ḵog-* “herd” (cf. Gippert 1993/I: 219 f., for the proto-form also Klingenschmitt 2000: 211). MPM *ḵōg* is written *ḵwḵg* (see Henning 1951: 50, n. 1, Sundermann 1981: 149a and Henning 1943: 57, 61, line 52 for the two attestations) and perhaps also *ḵwḵg* (in unclear context in M 788 V 5). This *ḵwḵg* is the only case of MPM word-initial <ḵ> I am aware of (*ḵdyšmr* is Parthian). The cases of diacritic dots above or below a word-internal <j> are instances of abbreviation dots (see n. 19).

59 The Turkic and Sogdian words and names occurring in Pth. and MP texts in Manich. script appear to confirm this: the instances of <ž> (these are the Sogdian place name *pnžknδyy* and the Turkic name *twsž*) are likely to reflect [j]. Otherwise, <c> is used in the position after *n*. <j> does not occur in Turkic words, mirroring the lack of /ž/ from the Turkic phonemic system.

The MPM and MPZ orthographies are (following MacKenzie 1967):

Middle Persian orthography			
MPM orthography	MPZ orthography	MP phoneme	< OIr.
<c>, <z>		/z/	*Vč, *ǰ, *ž
<j>	<c>	/j/: [j-], [nǰ], elsewhere [ž]	*y-, *nč/ǰ (plus <i>ǰ</i> from loanwords etc.)

Table 6. Parthian orthography

Manichaean script	vs. inscriptional orthography	Pth. phoneme	< OIr.
𐭪 <c>, 𐭪̇ <č̇>	<š>	/č/, maybe postvocalic [j]	*Vč
𐭫 <j>	<z>	/ž/	*j, *ž
𐭬 <nc>, 𐭬𐭪 <nj>	<nz>	/nč/, /nž/ = [nj]	*nč, *nj

Table 7. Sogdian orthography

Manichaean script	cf. Sogdian script <sup>60</sup>	Sogdian phoneme	< OIr.
𐭪 <c>	<c>	/č/	*č
𐭫 <j>	<z>, <ž>, <ž̇>	/ž/	*j, *ž
𐭬 <nc>, 𐭬𐭪 <nj>	<nc>	/nč/, /nž/ = [nj] (Vj)	*nč, *nj

### 4.3

This system is similar to Sogdian (see Table 7), which likewise has the phonemes /č/ <c> and /ž/ <j>, with the allophone [j] in the position after nasalized vowels (Gershevitch 1954: 8 f., Sims-Williams 1989a: 178 f.).

## 5. The letter <ž̇>

One might ask whether the general practice of transliterating the Manich. letter 𐭪̇ with “ž” is adequate. The letter is not used to represent the Pth. (or Sogdian) outcome of OIr. \*ž and \*j. If <ž̇> had denoted [ž], it should have been used for writing e.g. Pth. *žahr* (Arm. *žahr*) or *duž°* (Arm. *dž°*), but all instances of Pth. /ž/ only appear with <j> (*jhr*, *dwj°*, etc.). So it seems preferable to transliterate the letter with something different from <ž>, e.g. with <ž̇>, indicating that the sign is formed from the letter <z> by the addition of two dots above.<sup>61</sup> Such a notation would be parallel to the one common for the Sogdian script, where <z> with one or two diacritic dots below is transliterated as <ž̇> or <ž̈̇>, respectively.<sup>62</sup>

It is possible that <ž̇> was invented for Parthian j̇ (thus Henning 1958: 74),<sup>63</sup> i.e. for the postvocalic allophone of Pth. /č/ suggested in section 4.2. This would agree with the fact that it only occurs (see Table 3) in postvocalic position, except for *žyšm(r.)*, which might be connected with Pth. *j̇dyšmr* “recollection of a former existence” (from OInd. *jātismara-*) as suggested by Sundermann

60 See section 6.1–6.2 for discussion.

61 See also n. 2. Conversely, one might consider transliterating 𐭫 <j> as <ž̇>, which would describe its most common value in Parthian and Sogdian adequately and would even be justifiable for Middle Persian (see n. 57). However, such a change would result in confusion with the transliteration convention hitherto observed.

62 See section 6.2.

63 The occasional use of <ž̇> in MP texts is attributed to the “later Turkestan scribes” by Henning (1958: 74). This includes the cases labelled “MP” in Table 3.

and Yoshida.<sup>64</sup> It would also fit with the fact that the letter is derived from <z>, probably indicating a voiced consonant.<sup>65</sup>

## 6. Specific developments of the Parthian consonants

The fact that the MP and Pth. texts were preserved by Central Asian Manichaean communities, who also further developed liturgical traditions, had some consequences for the Pth. sound system as reflected by the fragments.

### 6.1

The speakers of Sogdian and Turkic who used the MP and Pth. texts in religious ceremonies transcribed them into scripts with which they were more familiar (Henning 1958: 76), the most important of which is the so-called Sogdian script.<sup>66</sup> The Pth. fragments in Sogdian script<sup>67</sup> do not distinguish /b/, /d/ from /β/, /δ/ respectively,<sup>68</sup> confirming that the opposition of the two series of OIr. stops (yielding Pth. postvocalic voiced stops vs. fricatives) is likely to have been lost at some point after the third century AD (see section 3.4).

### 6.2

If the Sogdian orthography mirrors a development of the Pth. language (rather than the Sogdians' liturgical pronunciation of Pth. texts), the question arises as to whether postvocalic /č/ and /ž/ also coalesced at some stage of Parthian, so that the Manich. orthography would have become historical with respect to these two phonemes.<sup>69</sup> If so, this stage of Parthian would exhibit a development also found in modern North-Western Iranian languages like Zazaki and Kurdish, which show no difference in the products of OIr. postvocalic \*-č and \*ž, e.g. Zaz. /vāj-/,<sup>70</sup> Kd. /bēž-/ "to say" (cf. Pth. w<sup>2</sup>c- /wāč-/), Zaz. /rōj/, Kd. /rōž/ "day, sun", Zaz. /jinike/, Kd. /žin/ "woman" (cf. Pth. jn /žan/), Kd. /dirēž/ "long", Zaz. /pānj/, Kd. /pēnj/ "five".<sup>71</sup>

The Sogdian script regularly uses <c> for Sogd. /č/ and the postnasal allophone [j], and <z> for /z/ and /ž/ (Sims-Williams 1989b: 322); some manuscripts employ diacritic dots under <z> (<ṣ> and <ḏ>) to differentiate /ž/ from /z/ (see

64 In Kudara, Sundermann and Yoshida (1997: 211). For further discussion of *ḵdyšmr*, see section 4.1.

65 Perhaps the comparatively high number of instances of *ž* "from" (see section 1.4) could then be attributed to the clitic character of the word, effecting an earlier or clearer voicing, cf. the irregular development in its Balochi cognate *až* (besides regular *ač* etc., Korn 2005: 85, 179).

66 For details on the Sogdian script, see Sims-Williams 1981.

67 A list of the Pth. fragments in Sogd. script in Berlin is provided by Reck (2006: 326), who also lists their previous numbers and editions where available.

68 An example of <β> for Pth. /b/ is *kyrβk* "virtuous" (Manich. script *kyrβg*); <β> can also render Pth. /f/, e.g. abstract suffix *-yβt* (Manich. script *-yβt* /-īft/). The opposition between postvocalic /g/ and /γ/ appears to be preserved, though (Henning 1958: 76).

69 Cf. Henning (1958: 72), who assumes that the Manich. script generally became historical due to language changes after its introduction.

70 The pronunciation in Zazaki depends on the dialect involved (cf. Gippert 2009: 81–7); some have *ž* or *dz* for the *ḵ* noted here.

71 Postvocalic stops are lost in most cases, e.g. Kd. /bā/, Zaz. /vā/ "wind" < OIr. \**vāta*-; Kd. /pē/, Zaz. /pā/ "foot" < OIr. \**pād*-, etc., showing a development that clearly had not yet taken place in Parthian.

Table 7).<sup>72</sup> In its use for Parthian, the Sogdian script shows <z> with or without dots for Pth. /ž/,<sup>73</sup> <c> and (more commonly) <z> with or without dots in places of expected Pth. /č/,<sup>74</sup> and <nc> for [nj].<sup>75</sup> While this blurs the difference between

72 Other manuscripts use the same device to differentiate /z/ from /n/, while many manuscripts do not employ <z> with dots at all (see Henning 1958: 59, n. 4, Sims-Williams 1981: 348, 352, 1989a: 176 for details).

73 Examples are:

Sogd. script	Fragment	Word in Manich. script	Meaning
wz-yδ(?)[k]	So 18060	the parallel texts in M 75 r 8 and M 544 r 4 have <i>wjy(y)dg</i> (see section 3.1)	“chosen”
<i>prywz-ʾn</i>	So 20187	<i>prywjn</i> (see section 1.2)	“victory”
[dy]z-wʾy-(βt)	So 14155 (cf. Reck 2007: 325)	<i>dywʾyft</i>	“hardship”
<i>z-mʾn</i> <i>z-mʾn</i>	So 14152 (Reck 2007: 328) So 10072	<i>jmʾn</i> (see section 4.1)	“time”
<i>zywn[tk,</i> <i>z-ywʾntk</i>	So 20187 So 20153	<i>zywndg</i>	“alive”
<i>z-yw(x)[</i>	So 10650(9)	<i>zywhr</i>	“life”
<i>pwz-</i>	So 14290	<i>bwj-</i> (see section 1.2)	“save”
<i>kʾmz-ny-βt</i> <i>qʾmjnyft</i>	So 20208 (Sims-Williams 1989b: 322 f., 330 f.)	<i>qʾmjnyft</i> <i>jyryft</i>	“passion” “wisdom”

74 Illustrative examples include the following (see sections 1.1, 1.4, 3.1 for details on several of these words):

Sogd. script: <c>	Sogd. script: <z> etc.	Word in Manich. script	Meaning
ʾc (e.g. in So 14290)	ẓ (several instances in So 20224 (see Waldschmidt and Lentz 1926: 95 f.) and So 10201(5)) ẓ (So 10650(9), So 20208, Ch/ So 20501) Both variants in So 10201 (5), p. 2 (sometimes subsumed under the no. 10200(1) (5), see Sundermann 1991: 171 f.)	ʾc, ẓ	“from”
<i>wcn</i> (Ch/So 20135, Sundermann and Yoshida 1992, line 1)	<i>wzn</i> (So 18120)	<i>wcn</i>	“voice”
	<i>šʾdz-n</i> (So 20185)	<i>šʾdcn</i>	“happy”
	<i>rwz</i> (So 13505, Reck 2007: 329)	<i>rwc, rwz</i>	“day”
	<i>nmʾz</i> (So 18130)	<i>nmʾc</i> in parallel text M 5262 r 6	“praise”

75 Examples are *ʾncywk* “life-giver, saviour”, *syncyn* “salvation” (both in So 20153 and So 20224) vs. *ʾnywg*, (*s*)*ynjyn* in the parallel text in Manich. script (Waldschmidt and Lentz 1926: 95 f.) and *pncwm* (So 10202, Sundermann 1981: 50) “fifth” (see section 1.3).



/č/ and /ž/, it does not necessarily exclude the existence of two different sounds, as the scribes may have tried to render [j] (the postvocalic allophone of /č/, see section 4.2) by a letter that they commonly used for the nearest voiced sound, all the more since a modification of <z> (i.e. <ž>) was regular for [j] also in the Manich. script (see sections 1.4, 5).<sup>76</sup> So the evidence of the Sogdian script is not entirely conclusive for Parthian.

### 6.3

The cantillations (something like songbook versions of hymns, in Manich. script)<sup>77</sup> are another reflex of Central Asian liturgical pronunciation of Manichaean Middle Persian and Parthian. Henning (1958: 76, n. 2) observes that they point to the same coalescence of the two series of stops that is indicated by the versions in Sogdian script (see section 6.1). The published specimens of cantillated text<sup>78</sup> indicate that such a coalescence also applied to word-internal Pth. /č/ and /ž/ (Table 8). Both phonemes are written <j> in the cantillations while the Pth. verses in plain text preceding the cantillated versions present the usual orthography described in Table 6 above.<sup>79</sup>

So in the versification and singing tradition which developed at some stage among the Manichaeans – probably in Central Asia, and rather late according to Brunner 1980 – Pth. /č/ and /ž/ may both have been pronounced as [ž] (written <j>) in postvocalic position.

## 7. Summary

The Manichaean letters 𐭪 <c>, 𐭫 <j> and 𐭬 <ž> show a characteristic distribution in Parthian, forming two groups of words: <j> is regularly employed for the Pth. result of OIr. \*j and \*ž while <c> and <ž> are used for the Pth. output of OIr. \*č. <ž> occurs in a limited number of fragments; it is found in ten different words (attested in c. 50 instances of ž “from” plus 25 other occurrences), all of which (with the exception of the hapax žyšm(r.)) are also found with <c>.

The use of the letters is remarkably consistent. The only exceptions in the available Pth. lexicon are one case each of unetymological *twc*- “to expiate”

76 Conversely, the Sogdian words *t'zyk* “Arab” and *t'zyk'nk* “Arabic” (found in early eighth-century AD documents), and *t'jyg'nyy* in a Sogdian phrase in the Manichaean fragment M 339 v line 7a could reflect a Pth. word \*[tāžīg] corresponding to MP *tāzīg*, both possibly from OIr. \**tāčīk*- (thus Sundermann 1993). This would imply a Pth. result [ž] from OIr. \*-č at the time relevant for these Sogdian sources. However, it would seem daring to base far-reaching conclusions on this widely travelled word, whose precise path of transmission is difficult to ascertain.

77 For Manich. cantillation, see Brunner 1980.

78 A list of fragments with cantillated text is given in Boyce (1960: 149). The vast majority of these are unpublished.

79 A survey of the unpublished cantillated Pth. fragments on <http://www.bbaw.de/forschung/turfanforschung/dta/> appears to confirm this: <ž> does not seem to occur in the cantillations, and the cases of <c> could be instances of word-initial č- (but this is difficult to substantiate since the highly fragmentary state of preservation often makes it very difficult to determine the word from the elaborately embellished cantillations). However, it is possible that I have overlooked something and that there are instances where these letters are used just as they are in the plain text versions.

Table 8. Examples for Pth. words with postvocalic /č/ and /ž/ in cantillation

Lemma	Cantillation <sup>80</sup>	Fragment	Meaning
<i>nm<sup>2</sup>c</i>	<i>nm<sup>2</sup>-YG<sup>2</sup>-.YG<sup>2</sup>-YGG<sup>2</sup>-j...</i> <i>n<sup>2</sup>-YG<sup>2</sup>-.YG<sup>2</sup>-YG<sup>2</sup>-m<sup>2</sup>-YG<sup>2</sup>-.<sup>2</sup>-YG<sup>2</sup>-jy-</i>	S 6 v 8 f., S 6 r 3 f. <sup>81</sup>	“praise”
<i>[m]n-yč / -yž</i> <i><sup>2</sup>c / <sup>2</sup>ž</i>	[ ] <i>YG<sup>2</sup>-ny(°)-(y)-j<sup>2</sup>-</i> <i>.<sup>2</sup>-j<sup>2</sup>- (M 64 v 6); <sup>2</sup>-j<sup>2</sup>- (M 64 r 7)</i>	M 66 r 10 <sup>82</sup> M 64 <sup>83</sup>	“me too” “from”
<i>bwj<sup>2</sup>gr</i>	<i>bw-.w-w-w-w-j<sup>2</sup>-Yg<sup>2</sup>-.YG<sup>2</sup>-YG<sup>2</sup>.YG<sup>2</sup>-</i> <i>ry-y-</i>	S 6 r 7-9 <sup>84</sup>	“saviour”
<i><sup>2</sup>rj<sup>2</sup>n</i>	<i><sup>2</sup>-YG<sup>2</sup>-YG<sup>2</sup>-ryy-.j<sup>2</sup>-YG<sup>2</sup>-YG<sup>2</sup>.n<sup>2</sup>-</i>	M 759 II v 12 <sup>85</sup>	“worthy”
<i>jywndg</i>	<i>jy-.w<sup>2</sup>-YGG<sup>2</sup>-nnd(°-).YG(°YG°).YG<sup>2</sup>-</i> <i>gyy-</i>	M 759 II r 5 f. <sup>86</sup>	“alive”

(alongside *twj-*) and *pdmwj-* “to clothe” (alongside *pdmwc-*), plus the special case of *wjyd* “chosen, elect” (including its derivatives *wjydg* and *wjydgylft*). The latter term might agree with other Manichaean technical terms in showing Middle Persian influence.

There is a clear difference between the Manich. Pth. orthography and those used for Middle Persian, as the latter employ historical orthography to a considerable extent. Evidence, e.g. from the Mlr. loanwords in Armenian, demonstrates that the MP changes of the OIr. affricates are earlier than the Pth. ones, so one need not expect the Pth. orthography to be parallel to the MP one anyway. The Pth. use of <č> / <ž> for postvocalic OIr. \*č is also different from the use of <č̣> and <q> for OIr. \*t and \*-k respectively, because the orthography is consistent for the Pth. result of the OIr. affricates, but the spellings with <č̣> and <q> only occur in a minority of instances, and only in word-final position.

The consistency of the Manich. Pth. orthography speaks against its being historical or archaizing, and suggests that at least at the time of the introduction of the Manich. script, the Pth. phonemic system included the two phonemes /č/ (<OIr. \*č̣>) and /ž/ (<OIr. \*j̣ and \*ẓ̌>) not only word-initially, but also post-vocally. The phonemic distinction was lost only in the position after *n*.

80 I follow Brunner (1980: 357, 360–67) in noting the letter group *yg<sup>2</sup>* with capitals, indicating that this element is likely to imply information for the recital rather than for the pronunciation of the text (see Müller 1904: 29 for a possible interpretation). Note that Brunner 1980 (maybe misinterpreting Salemann’s transliteration by *zayin* with macron above *ī*, see n. 7, and/or Müller’s transcription) rather unfortunately transliterates the instances of *Δ* <j> in the fragments S 6 and M 64 as <ẓ̌>, which otherwise is a common transliteration of *č̣* <ẓ̌> (see n. 2), while he correctly has <j> in other instances.

81 The fragment has the alternative number Kr IV/875. See Salemann (1912: 2 f.), Brunner (1980: 365–7) and the photos in Sundermann (1996, plate 162) for the attestation, and section 1.1 for the word.

82 Durkin-Meisterernst (2006: 112 f.). See section 1.4 for this clitic.

83 Müller (1904: 92 f.), Brunner (1980: 361–3). An additional occurrence (in the form *YG<sup>2</sup>-j<sup>2</sup>-*) is in M 759 II v (Durkin-Meisterernst 2006: 126 f.). See also sections 1.4, 3.1.

84 See n. 81. A similar version of this word occurs on M 759 II v (Durkin-Meisterernst 2006: 126 f.). See sections 1.2 and 4.1 for the words with <j>.

85 Durkin-Meisterernst (2006: 126 f.), see section 1.2.

86 Durkin-Meisterernst (2006: 124 f.).

Pth. /č/ may quite well have developed a postvocalic allophone [j] at some stage, but this change does not disturb the phonemic opposition.

It follows that it would be appropriate to differentiate the Pth. phonemes /č/ and /ž/ in phonematic transcription (all the more since it is common to differentiate e.g. /d/ from /ð/ although they are for the most part not distinguished in Manichaean writing). This would be easy to do since the transliteration indicates the phoneme, so that e.g. *w<sup>2</sup>c-* can be transcribed /wāč-/; *rwc*, *rwž* /rōč/; *bwj-* /bōž-/ , etc. The lexemes in section 3.1 could be transcribed /tōž-/ “to expiate”, /padmōč-/ “to clothe” (because the single instances of *twc-* and *pdmwj-* are insufficient reason to assume a phonemic change in these two words), and /wižīd/, /wižīdag(īf)/ (where specific conditions apply), while the assumption of a variant /ažā/ alongside /ač/ “from” is not necessary.

There is a different orthography in the cantillations of Pth. hymns and in the transcriptions of Pth. text into Sogdian script. Both appear to indicate that the Pth. phonemes /-č/ and /ž/ coalesced into /ž/ (written <j> in the cantillations and <z> with or without diacritic dots in Sogdian script, while <c> in cases of expected Pth. /č/ also occurs). It is not quite clear, however, whether the coalescence of the phonemes mirrors a change of the Pth. language in the strict sense (i.e. if it dates to a period when there were native speakers of Parthian), or whether it is to be attributed to the liturgical use of the Pth. language by Sogdians (and others), who may have developed their own “accent” in their pronunciation of Parthian.

## References

- Andreas, Friedrich C. and Walter B. Henning. 1934. “Mitteliranische Manichaica aus Chinesisch-Turkestan III”, in *Sitzungsberichte der preußischen Akademie der Wissenschaften*, pp. 846–912 (= Henning, *Selected Papers* I. (Acta Iranica 14.), 275–339).
- Back, Michael. 1978. *Die sassanidischen Staatsinschriften*. (Acta Iranica 18). Leiden, etc.: Brill.
- Bartholomae, Christian. 1904. *Altiranisches Wörterbuch*. Strasbourg: Trübner.
- Boyce, Mary. 1951. “Sadwēs and Pēsūs”, *Bulletin of the School of Oriental and African Studies* 13, 908–15.
- Boyce, Mary. 1952. “Some Parthian abecedarian hymns”, *Bulletin of the School of Oriental and African Studies* 14, 435–50.
- Boyce, Mary. 1954. *The Manichaean Hymn-Cycles in Parthian*. (London Oriental Series 3.) London, etc.: Oxford University Press.
- Boyce, Mary. 1960. *A Catalogue of the Iranian Manuscripts in Manichean Script in the German Turfan Collection*. Berlin: Akademie der Wissenschaften.
- Boyce, Mary. 1975. *A Reader in Manichaean Middle Persian and Parthian*. (Acta Iranica 9.) Leiden, etc.: Brill.
- Boyce, Mary. 1977. *A Word-List of Manichaean Middle Persian and Parthian*. (Acta Iranica 9 Suppl.) Leiden, etc.: Brill.
- Brunner, Christopher. 1980. “Liturgical chant and hymnody among the Manicheans of Central Asia”, *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 130, 342–68.
- Cheung, Johnny 2007. *Etymological Dictionary of the Iranian Verb*. (Leiden Indo-European Etymological Dictionaries Series 2.) Leiden and Boston: Brill.

- Durkin-Meisterernst, Desmond. 2000. "Erfand Mani die manichäische Schrift?", in Ronald Emmerick et al. (eds), *Studia Manichaica. IV. Internationaler Kongreß zum Manichäismus*. Berlin: Akademie der Wissenschaften, 161–78.
- Durkin-Meisterernst, Desmond. 2004. *Dictionary of Manichaean Texts III: Dictionary of Manichaean Middle Persian and Parthian*. (Texts from Central Asia and China 1. Corpus Fontium Manichaeorum Subsidia.) Turnhout: Brepols.
- Durkin-Meisterernst, Desmond. 2006. *The Hymns to the Living Soul. Middle Persian and Parthian Texts in the Turfan Collection*. (Berliner Turfantexte 24.) Turnhout: Brepols.
- Gershevitch, Ilya. 1954. *A Grammar of Manichean Sogdian*. Oxford: Oxford University Press.
- Ghilain, Antoine. 1939. *Essai sur la langue parthe. Son système verbal d'après les textes manichéens du Turkestan oriental*. Louvain: Muséon.
- Gignoux, Philippe. 1972. *Glossaire des inscriptions pehlevies et parthes*. (Corpus Inscriptionum Iranicarum: Supplementary series I.) London: Lund Humphries.
- Gippert, Jost. 1993. *Iranica Armeno-Iberica. Studien zu den iranischen Lehnwörtern im Armenischen und Georgischen*. (Veröffentlichungen der Kommission für Iranistik 26.) Vienna: Österreichische Akademie der Wissenschaften, 2 vols.
- Gippert, Jost. 2004. "Iranians and Iranian languages in Ancient Georgia", in Maia Sakhokia (ed.), *Indo-Iranica et Caucasia. Studies Volume in Honour of Prof. Mzia Andronikashvili*. (Perspective / Perspektiva XXI, 6.) Tbilisi: Ena da kultura, 106–13; <http://titus.fkidg1.uni-frankfurt.de/personal/jg/pdf/jg2003a.pdf>
- Gippert, Jost. 2009. "Zur dialektalen Stellung des Zazaki", *Die Sprache* 47, 77–107.
- Henning, Walter B. 1937. *Ein manichäisches Bet- und Beichtbuch*. (Abhandlungen der preußischen Akademie der Wissenschaften 1936/10.) (= Henning, *Selected Papers* I. (Acta Iranica 14.) Leiden: Brill, 1977, 417–557).
- Henning, Walter B. 1940. *Sogdica*. London: Royal Asiatic Society (= Henning, *Selected Papers* II. (Acta Iranica 15.) 1–68).
- Henning, Walter B. 1943. "The Book of the Giants", *Bulletin of the School of Oriental Studies* 11, 52–74 (= *Selected Papers* II, 115–37).
- Henning, Walter B. 1947. "Two Manichæan magical texts, with an Excursus on the Parthian ending *-ēndēh*", *Bulletin of the School of Oriental Studies* 12, 39–66 (= *Selected Papers* II, 273–300).
- Henning, Walter B. 1951. *Zoroaster: Politician or Witchdoctor?* (Ratanbai Katrak Lectures 1949.) London: Oxford University Press.
- Henning, Walter B. 1958. "Mitteliranisch", in *Handbuch der Orientalistik 1. Abteilung, 1. Band, 1. Abschnitt*, 20–130.
- Henning, Walter B. 1963. "Coriander", *Asia Major* 10, 195–9 (= *Selected Papers* II, 583–7).
- Henning, Walter B. 1965. "A grain of mustard", in *AION-L*, 29–47 (= *Selected Papers* II, 597–615).
- Hübschmann, Heinrich. 1895. *Persische Studien*. Strasbourg: Trübner.
- Hübschmann, Heinrich. 1897. *Armenische Grammatik*. Leipzig: Breitkopf & Härtel.
- Klingenschmitt, Gert. 2000. "Mittelpersisch", in Bernhard Forssman and Robert Plath (eds), *Indoarisch, Iranisch und die Indogermanistik. Arbeitstagung der Indogermanischen Gesellschaft vom 2. bis 5. Oktober 1997 in Erlangen*. Wiesbaden: Reichert, 191–229.
- Korn, Agnes. 2005. *Towards a Historical Grammar of Balochi: Studies in Balochi Historical Phonology and Vocabulary*. (Beiträge zur Iranistik 26.) Wiesbaden: Reichert.

- Korn, Agnes. 2005a. (Review of Durkin-Meisterernst 2004), *Orientalia Suecana* 54, 206–12.
- Korn, Agnes. 2009. “Lengthening of *i* and *u* in Persian”, in Almut Hintze, François de Blois and Werner Sundermann (eds), *Exegisti Monumenta. Festschrift in Honour of Nicholas Sims-Williams*. (Iranica 17.) Wiesbaden: Harrassowitz, 197–213.
- Korn, Agnes. Forthcoming. “Fußnoten zu einem parthischen Lautgesetz”, in Velizar Sadovski and David Stifter (eds), *Iranistische und indogermanistische Beiträge in memoriam Jochem Schindler (1944–1994)*. (Veröffentlichungen zur Iranistik.) Vienna: Österreichische Akademie der Wissenschaften.
- Korn, Agnes and Desmond Durkin-Meisterernst. 2009. “Parthian seen from a Balochi perspective”, *Studia Iranica* 38, 7–23.
- Kudara, Kogi, Werner Sundermann and Yutaka Yoshida. 1997. *Iranian Fragments from the Otani Collection. Text Volume*. (Facsimile Series of Rare Texts in the Library of Ryūkoku University 17.) Kyoto: Hozokan.
- Lentz, Wolfgang. 1926. “Die nordiranischen Elemente in der neupersischen Literatursprache bei Firdosi”, *Zeitschrift für Indologie und Iranistik* 4, 251–316.
- MacKenzie, D. Neil. 1967. “Notes on the transcription of Pahlavi”, *Bulletin of the School of Oriental and African Studies* 30, 17–29 (= MacKenzie, *Iranica Diversa* 1. (Serie Orientale Roma 84, 1.), 35–47).
- Mayrhofer, Manfred. 1992–2001. *Etymologisches Wörterbuch des Altindoarischen*. Heidelberg: Winter, 3 vols.
- Müller, F.W.K. 1904. *Handschriften-Reste in Estrangelo-Schrift aus Turfan, Chinesisch-Turkestan. II. Teil*. (Anhang zu den Abhandlungen der königlich preußischen Akademie der Wissenschaften.) Berlin: Reimer.
- Olsen, Birgit Anette. 2005. “On Iranian dialectal diversity in Armenian”, in Olav Hackstein, Gerhard Meiser (eds), *Sprachkontakt und Sprachwandel. Akten der XI. Fachtagung der Indogermanischen Gesellschaft, 17.-23. September 2000, Halle an der Saale*. Wiesbaden: Reichert, 473–81.
- Paul, Ludwig. 1998. “The position of Zazaki among West Iranian languages”, in Nicholas Sims-Williams (ed.), *Proceedings of the Third European Conference of Iranian Studies held in Cambridge, 11th to 15th September 1995. Part I: Old and Middle Iranian Studies*. Wiesbaden: Reichert, 163–77.
- Rastorgueva, Vera S. and Elena K. Molčanova. 1981. “Parfjanskij jazyk”, in *Osnovy iranskogo jazykoznanija* 2. Moscow: Nauka, 147–232.
- Reck, Christiane. 2006. *Mitteliranische Handschriften I: Berliner Turfanfragmente manichäischen Inhalts in soghdischer Schrift*. (Verzeichnis der orientalischen Handschriften in Deutschland XVIII, 1.) Stuttgart: Steiner.
- Reck, Christiane. 2007. “Tage der Barmherzigkeit: Nachträge zu den mitteliranischen manichäischen Montags- und Bemahymnen”, in Maria Macuch, Mauro Maggi and Werner Sundermann (eds), *Iranian Languages and Texts from Iran and Turan. Ronald E. Emmerick Memorial Volume*. (Iranica 13.) Wiesbaden: Harrassowitz, 317–42.
- Salemann, Carl. 1912. “Manichaica III”, *Izvestija imperatorskoj Akademii nauk* (St. Petersburg) 6, 1–32.
- Schmitt, Rüdiger (ed.). 1989. *Compendium Linguarum Iranicarum*. Wiesbaden: Reichert.
- Sims-Williams, Nicholas. 1981. “The Sogdian sound-system and the origin of the Uyghur script”, *Journal Asiatique* 269, 347–60.
- Sims-Williams, Nicholas. 1983. “Indian elements in Parthian and Sogdian”, in Klaus Röhrborn and Wolfgang Veenker (eds), *Sprachen des Buddhismus in Zentralasien. Vorträge des Hamburger Symposions vom 2. Juli bis 5. Juli 1981*.

- (Veröffentlichungen der Societas Uralo-Altaica 16.) Wiesbaden: Harrassowitz, 132–41.
- Sims-Williams, Nicholas. 1989a. “Sogdian”, in Schmitt 1989, 173–92.
- Sims-Williams, Nicholas. 1989b. “A new fragment from the Parthian hymn-cycle Huyadagmān”, in Charles-Henri de Fouchécour and Philippe Gignoux (eds), *Études irano-aryennes offertes à Gilbert Lazard*. (Studia Iranica Cahier 7.) Paris: Association pour l’avancement des études iraniennes, 321–31.
- Sims-Williams, Nicholas. 2007. *Bactrian Documents from Northern Afghanistan II: Letters and Buddhist Texts*. (Corpus Inscriptionum Iranicarum II, III.) London: Nour Foundation.
- Skjærvø, Prods O. 1996. “Aramaic scripts for Iranian languages”, in Peter Daniels and William Bright (eds), *The World’s Writing Systems*. Oxford and New York: Oxford University Press, 515–35.
- Sundermann, Werner. 1981. *Mitteliranische manichäische Texte kirchengeschichtlichen Inhalts, mit einem Appendix von Nicholas Sims-Williams*. (Berliner Turfantexte 11.) Berlin: Akademie der Wissenschaften.
- Sundermann, Werner. 1985. “Schriftsysteme und Alphabete im alten Iran”, in *Altorientalische Forschungen* 12, 101–13.
- Sundermann, Werner. 1989a. “Parthisch”, in Schmitt 1989, 114–37.
- Sundermann, Werner. 1989b. “Mittelpersisch”, in Schmitt, 138–64.
- Sundermann, Werner. 1991. “Anmerkungen zu: Th. Thilo, Einige Bemerkungen zu zwei chinesisch-manichäischen Textfragmenten der Berliner Turfansammlung”, in Horst Klengel and Werner Sundermann (eds), *Ägypten, Vorderasien, Turfan: Probleme der Edition und Bearbeitung altorientalischer Handschriften. Tagung in Berlin, Mai 1987*. (Schriften zur Geschichte und Kultur des alten Orients 23.) Berlin: Akademie-Verlag, 171–4.
- Sundermann, Werner. 1992. *Der Sermon vom Lichtnous. Eine Lehrschrift des östlichen Manichäismus*. (Berliner Turfantexte 17.) Turnhout: Brepols.
- Sundermann, Werner. 1993. “An early attestation of the name of the Tajiks”, in Wojciech Skalmowski and Alois van Tongerloo (eds), *Medioiranica. Proceedings of the International Colloquium organized by the Katholieke Universiteit Leuven from the 21st to the 23rd of May 1990*. (Orientalia Lovanensia Analecta 48.) Leuven: Peeters, 163–71.
- Sundermann, Werner. 1996. *Iranian Manichean Turfan Texts in Early Publications (1904–1934): Photo edition*. (Corpus Inscriptionum Iranicarum: Supplementary series III.) London: SOAS.
- Sundermann, Werner. 1997. *Der Sermon von der Seele. Eine Lehrschrift des östlichen Manichäismus*. (Berliner Turfantexte 19.) Turnhout: Brepols.
- Sundermann, Werner and Yutaka Yoshida. 1992. “Bäzäklik, Berlin, and Kyoto: Manichean Parthian hymn transcribed in Sogdian script”, *Oriente* (Tōkyō) 35, 119–34 (= Sundermann, *Manichaica Iranica* II. (Serie Orientale Roma 89, 2.), 683–95).
- Tafazzolī, Aḥmad. 1987. “Arabic: ii. Iranian Loanwords in Arabic”, *Encyclopædia Iranica* II, 231–3.
- Tedesco, Paul. 1921. “Dialektologie der mitteliranischen Turfantexte”, *Monde Oriental* 15, 184–258.
- Waldschmidt, Ernst and Wolfgang Lentz. 1926. *Die Stellung Jesu im Manichäismus*. (Abhandlungen der preußischen Akademie der Wissenschaften 4.) Berlin: Akademie der Wissenschaften.

**Abbreviations**

Arm.	Armenian
Av.	Avestan
Ir.	Iranian
Kd.	Kurdish (Kurmanci)
Manich.	Manichaean
MIr.	Middle Iranian
MP	Middle Persian
MPM	Manichaean Middle Persian
MPZ	Zoroastrian Middle Persian
OInd.	Old Indic
OIr.	Old Iranian
PIE	Proto-Indo-European
Pth.	(Manichaean) Parthian
Sogd.	Sogdian
Zaz.	Zazaki