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BOŽENA CZERNICKA

AN ATTEMPT TO RECONSTRUCT PRE-TOCHARIAN

Part I: Vowels

Introduction

The German expedition led by Professors A. Grünwedel and A. von Lecoq and the French one by Pelliot in 1906 discovered over the whole area of Kucha, Karashar and Turfan remains of written records from the VIIth century A. D. written in the Indian alphabet which can be traced down to Brāhmī. From names copied from Sanskrit literature, it was possible to identify these texts with the Sanskrit texts from which they had been translated. After deciphering, they proved to be documents written in two dialects of a language belonging to the Indo-European system, but having no connection whatsoever with the Indo-Iranian group. This language was later given the name Tocharian and the dialects distinguished as A and B. Dialect A was spoken in the region of Turfan and Karashar, and B in the region of Kucha and hence known also as Kuchean. The name of the language has presented some difficulty. The remains were mostly translations of Buddhist religious literature and the name of the people speaking the two dialects A and B was not mentioned in them. In 1918 dialects A and B were named „Tocharian“¹ by Emil Sieg, which proved to be erroneous, though this name has been used by scholars up to the present; in spite of later controversies on the subject².

The Tocharian remains have been distributed for elaboration among French and German scholars. The first discussion

¹ E. Sieg, W. Siegling, *Tocharische Sprachreste*. Leipzig—Berlin, 1921, Introduction.

² Lévi, *Fragments de textes koutchéens*, Paris, 1932, Introduction.

on the structure of dialect B was given by S. Lévi and A. Meillet¹. The work is in two parts: 1. The Noun, 2. The Verb. The A dialect has been discussed by the three German scholars E. Sieg, W. Siegling and W. Schulze². Their work is a detailed descriptive grammar with references to the texts³, previously edited without vocabulary and translation. It consists of five parts, in which word-formation, the noun and the verb have been discussed. The difficult question of phonetics has not been discussed; works on this subject have been rather scanty and dealt with only small sections. It was only Pedersen which in Tocharisch 219—255 gave the first comparative phonetics of the two Tocharian dialects.

The latest research, which is excellent, on the A dialect has been done by Paul Poucha⁴, the Czech scholar.

It should, however, be noted that most previous works have dealt with one of the dialects, without any attempt to compare them both. The first attempt was undertaken by Sylvain Lévi, who has given a small comparative vocabulary of the A and B dialects in his work *Fragments de textes Koutchéens*. There is a very important work on the comparison of the Tocharian dialects, *Tocharisch vom Gesichtspunkt der indo-europäischen Sprachvergleichung*, by Pedersen, in which the author gives the grounds of reconstruction of Pre-Tocharian.

This problem is the subject of my paper. Making the greatest possible use of material collected by Pedersen, I have tried to reconstruct the system of Pre-Tocharian by comparing these two Tocharian dialects. In working on this subject I have encountered great difficulties because of the frequent lack of the

¹ S. Lévi et A. Meillet, *Remarques sur les formes gramm. de quelques textes en tokharien B*. MSL, 18. 1—33; 381—423.

² E. Sieg, W. Siegling, W. Schulze, *Tocharische Grammatik*. Göttingen, 1931.

³ E. Sieg, W. Siegling, *Tocharische Sprachreste*. Leipzig—Berlin, 1921.

⁴ P. Poucha, *Institutiones linguae tocharicae*, Part I., II. Praha, 1956.

material in the B dialect, of which the remains are much scarcer than those of the A dialect. For this reason, many phenomena will sometimes be left unexplained.

ABBREVIATIONS IN THE BIBLIOGRAPHY

Fragm. see Lévi.

GGA = *Göttinger Gelehrte Anzeigen*.

IEW = *Indogermanisches Etymologisches Wörterbuch*.

K see Lévi, Fragn.

Kl. Schr. see Schulze.

KZ = *Zeitschrift für vergleichende Sprachforschung*. Begründet von A. Kuhn.

Lévi, Sylvain, *Fragments de textes koutchéens*, Paris, 1933. (*Cahiers de la Société Asiatique*, première série, II). Parts: U = Udanavarga; S = Udanastotra; A = Udanalamkara, K = Karma-vibhanga.

Lg. = *Language, Journal of the Linguistic Society of America*, Baltimore.

MSL = *Mémoires de la Société de Linguistique de Paris*.

Ped. Toch. = Pedersen, Holger, *Tocharisch vom Gesichtspunkt der indoeuropäischen Sprachvergleichung*. København, 1941.

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Van Wind. Lex. = Van Windeken, *Lexique étymologique des dialectes tokhariens*.

ABBREVIATIONS

Alb. — Albanian

Arm. — Armenian

Av. — Avestan

C. — Cymric

Dor. — Doric

Gall. — Gallic

Goth. — Gothic	OG. — Old German
Gr. — Greek	OHG. — Old High German
Hit. — Hittite	OIr. — Old Irish
Hom. — Homeric	ON. — Old Norse
Ieur. — Indo-European	OP. — Old Persian
Ir. — Irish	Osc. — Oscan
Lat. — Latin	Ptoch. — Pre-Tocharian
Lith. — Lithuanian	Skr. — Sanskrit
OCS. — Old Church Slavonic	Toch. — Tocharian

Table of the Development of the Indo-European Vowel-Sounds in the Pre-Tocharian Language and the Tocharian Dialects.

Ieur.	Ptoch	B	A
*e	e	e ⇒ a	e ⇒ a
*o	e	e ⇒ a	e ⇒ a
*a	a	a	a
	ā	a	a
*ē	ē	ā, e	ā, e
*ō	ā, -o, -u	ā, -o, -u	ā, -o, -u
*ā	ā	ā, o	ā
*i	i	i	i
*u	u	o	o
*ī	ī	ī	?
*ū	?	-i	-e
*r	ar	ar	ar
*l	al	al	al
*m	em, -am	em, -am	em, -am
*n	en, -an	en, -an	en, -an
*ei	ei	ei (ai, ey)	e
*oi	ai	ai	e
*ai	ai	ai	e
*eu	eu	au	o
*au	au	au (ow)	o
*ou	au	au (ow)	o

§ 1. The consonant-system in the language of the Tocharian dialects has developed almost in the same manner in both dialects, so that it will not be difficult to reconstruct the Pre-Tocharian picture. The vocalism of the Tocharian dialects, on the other hand, presents great difficulties on account of the

considerable splitting of the dialects, the numerous reductions and sometimes entirely unexpected deviations from the rule in cases of continuation of the Indo-European vowels; e. g.

A and B *e* ⇐ Ieur. **e*; A *a*, B *o* ⇐ Ieur. **ā*; A and B *ā* ⇐ **a*.

§ 2. The most intricate is the problem of quantity¹. Generally speaking, the Indo-European length was preserved (Ieur. **ē*, **ō*, **ā* became *ā*, Ieur. **ī* — B *ī*, and the Indo-European short vowels remained short in A and B). The only difficulty encountered here refers to Indo-European **ā* and **a*. Though **ā* is in A *mācar*, B *mācer* „mother“, but in A *pracar*, B *procer* occurs only as short *a*. Wolfgang Krause, GGA 1942. 25 even attempted to accept A *pracar* „brother“ as a certain evidence of Ieur. **ā*, explaining that A *mācar* developed under the influence of A *pācar*. Again Ieur. **a* became in many cases in Toch. A and B *ā*:

Ieur. **al-*, A *ālym* — „life“

Ieur. **arǵuio*, A *ārki*, B *arkwi* „white“

Ieur. **dʰug(h)ster-*, A *ckācar*, B *tkacer* „daughter“ (**a* ⇒ *a* ⇒ A and B *ā*).

Thus it apparently seems as if Ieur. **ā* = A and B *a*, Ieur. **a* = A and B *ā*. But examples of the opposite change can be given, and they are more numerous. Ieur. **a* is certainly found in:

Ieur. **alios*, A *ālak*, B *alyek*, „other“ Lat. *alius*, with *a-* in the whole paradigm (cf. also SSS § 321—323).

B *lac* „he has gone away“ 3rd pers. pl. *late*, cf. Gr. *ἐλαθε*, *ἐλαθον*.

Also Ieur. **ā*: A and B *ā* is certain in B *tāka* „he has become“ **stā-*; B *pāsk* — „guard“, inf. *pāssi*, cf. Lat. *pāscō*.

Thus the only example of Ieur. **ā*: A and B *a* is A *pracar* „brother“: it is therefore an exceptional development, which should not be taken into consideration.

There remains only Ieur. **ā*: A and B *ā* and Ieur. *a*: A and B *ā*, from which it is concluded that the symbols for *a*

¹ Holger Pedersen, *Zur Tocharischen Sprachgeschichte*, § 58—60.

and $\bar{a}$ in the Tocharian dialects were to represent two different sounds qualitatively and not quantitatively.

§ 3. This was perhaps the way of denoting accent, which might have fallen on the second syllable from the end:

Ieur. **bhag-*, A *pāk*, B *pāke* „part“ IEW 107

Ieur. **del-*, A *tālo*, B *tāllawo* „unhappy“ IEW 196

Ieur. **aiy-*, A *āym* „life“ IEW 17

Ieur. **bharek-*, A *prākər*, B *prākre* „firm“ IEW 111.

In the last example the reduction of the vowel, which probably disappeared in an unaccented syllable, is a still better confirmation of this hypothesis, also indicating the fact that the accent in the Tocharian dialects was very strongly expiratory. A difficulty in accepting this hypothesis is caused by examples where the symbol of length was repeated twice, which would abolish the possibility of the existence of main and secondary accents. In connection with this fact we may offer another suggestion, viz. that the symbol of length was used in the language of the Tocharian dialects in order to denote accent as well as quantity. This would also be confirmed by the examples where the length is a characteristic trait and constantly occurs, e. g. in the imperfect A *klisṇā*, *nuṣār*, in the endings of the Present A 1st pers. sing. — *mār*², 2nd pers. sing. — *tār*², (3rd pers. sing. — *ter*²).

§ 4. It is remarkable that the symbol of length is used only with the sound *a*. E. g.

Ieur. **del-*, B *tselt*, *tsālt-* „chew“ IEW 195.

Accent or the other function which the symbol of length fulfilled was marked here after *e* had changed into *a*. It might be explained by the fact that the long Indo-European vowels * $\bar{e}$, * $\bar{o}$, * $\bar{a}$, slurred into $\bar{a}$ in the Tocharian dialects A and B, thus the symbol of length was transferred by analogy only to short *a*.

§ 5. The reduction of vowels in the A and B dialects is a fairly frequent phenomenon. It generally occurs in the first

syllable; it may be suggested that the accent of the following syllable was so strong that it caused the vowel in an unstressed syllable to disappear. E. g.

Ieur. **qetwər-*, A *štwar*, B *štwär*, *štwer* „four“ (in B the accent would even have been marked). Fragm K 148

Ieur. **bharek-*, A *prākər*, B *prākre* „firm“ IEW 111

Ieur. *qetwər-*, Toch. *ṣdardh*, *ṣtardh*, „fourth“ W 512.

§ 6. The Indo-European vowel-sounds which had passed into Pre-Tocharian and then into both Tocharian dialects, are as follows:

vowels	pure	semi-consonants
short	e o a	i u r l m ŋ
reduced	ə	
long	ē ō ā	ī ū
diphthongs		
short	ei oi ai	eu ou au

§ 7. The reconstructed Pre-Tocharian vowel-system is probably as follows:

vowels	pure	semi-consonants
short	e o a	i u
long	ā	ī ū
diphthongs		
short	ei oi ai	eu ou au

Note: In assuming that Indo-European **o* had already in Pre-Tocharian passed into *e*, and that no other Indo-European vowel had become Pre-Tocharian *o* (I have no examples to this), the Pre-Tocharian *o* might have arisen only secondarily by rounding under the influence of the next labial stop (if this phenomenon had already taken place in Pre-Tocharian). E. g.

Ieur. **oktō*, B *okt*², A *okət* „eight“ (the vowel *o* in the first syllable did not change into *e*, on account of the $\bar{o}$ in final position).

§ 8. In the two Tocharian dialects A and B which had developed from Pre-Tocharian, this system underwent considerable changes. The vowel-sounds are represented by the following set of graphic signs:

vowels	pure	semi-consonants
short	e o a	i u
reduced	ə ě	
long	ā	i ū
diphthongs		
short	ey oy ai	ew ow au

Note: We have no indisputable example of the existence of long *u* in the Tocharian dialects, derived from Ieur. **u*. Ped. Toch. § 107.

§ 9. The Indo-European vowels **a*, **e*, **u*, **i* developed into Tocharian A and B *a*, *e*, *u* (B *o*), *i* following the normal process.

Ieur. **a* Ptoch. *a*:

Ieur. **aġo-*, B *ak-*, A and B *āk-* „travel, lead“

Skr. *ājati* „he rushes“, Av. *azaiti*, Arm. *acem* „I lead“

Gr. *ἄγω*, Lat. *agō*. IEW 4.

Ieur. **aiu-*, **aiu-*, „life“, A *āym-* „spirit of life“ (*m* taken from *aīm* „life“), Av. *āyū* „Lebensdauer“ IEW 17.

Ieur. **am(m)a* „mother“, B *ammaki* „mother“ Alb. *amē* „aunt“, „mother“, Gr. *ἀμμή*, *ἀμμα*, IEW 19,

Ieur. **alios*, B *alyek*, A *alak*, Lat. *alius* „other“ Ped. Toch. 219.

Ieur. *e* became Tocharian A and B *e* (most often preceded by palatalization), and then became *a*. This is an innovation which occurs within the dialects, often in the A dialect, more seldom in B.

Ieur. **dem-* „build“, B *tem-*, A *tam-*, A and B *tem-* „bear“ IEW 199.

Ieur. *ġher-*, A *tsar*, B *šar*, „hand“ ($\Leftarrow$ *ker*), Gr. *χῆρ* „hand“, Hit. *ki-čš-šar* (*kessar*), W 603.

Ieur. **es-*, B *n-esau* „I am“, Skr. *asmi*, Gr. *εἰμι*, Lat. *set*. Ieur. **u* Ptoch. *u*:

Ieur. **dhugh-* „to milk“, A *tsuk*, B *tsok* „boire“ (possibly through an Iranian loan). J. Duchesne-Guillemin, *Le Muséon* 59. 573.

A *nu*, B *no* „but“ Gr. *no*, Skr. *nu*, Hit. *nu* „presently“ OCS. *nŭ* „but“. Ped. Toch. 219.

In the final position *u* disappears in both dialects:

Ieur. **seu* „bear“ B *soy*, A *se* (the *u*-stem), Gr. *βίς*, Skr. *sunū* Av. *hunū-š*, Got. *sunus*. W 470, Ped. Toch. § 17.

I assume that Indo-European **u* gave the Pre-Tocharian *u*, which only after the separation into two dialects, when *u* had become more open passed into *o* in dialect B.

Ieur. **i*, Ptoch. *i*:

A *wiki*, B *ik* „twenty“ Ir. *fiche*. Ped. Toch. 219.

In the final position:

A *pats* „husband“ (the *i*-stem) = Skr. *pāti*, Gr. *πόσις*. Ped. Toch. § 18.

§ 10. Ieur. **o*, Ptoch. *e* became A and B *e* without any preceding palatalization.

This phenomenon of vowels in the final position had long been known before G. Lane Lg. 14. 28 proved that it occurred in all syllables.

Ieur. **ġombho-s* „tooth“, A *kam*, B *keme*, Gr. *γόμφος*. IEW 369.

The vowel *a* which occurs in the A dialect in place of *e* originated secondarily and is the result of the widespread opening of the vowel *e*.

A *es* „arm“ $\Leftarrow$ **omso-s*, Gr. *ὤμος*, beside B *āntse* $\Leftarrow$ **omeso-s*, Lat. *humerus*.

In both dialects there is a tendency (stronger in A) for *e* $\Rightarrow$ *a*. This includes old *e* as well as *e* $\Leftarrow$ **o*.

B *šarm*, Lat. *sermō*

B *šak* „ten“ lat. *decem*.

Ieur. **epi*, **opi*, B *-epi*, A *-āp* the Genitive ending.

Thus wherever B *a* and A *a* occur they correspond to the older phonetic form *e*,

In the final position short **o* was also preserved as *e* but was reduced in A.

Ieur. **uento-s*, A *want*^o, *went*^o, B *yente*, Lat. *ventus* „wind“ IEW 82.

Ieur. **ekuos*, A *yuk*^o, B *yakwe* „horse“, Gr. *ἵππος*, Lat. *equus*, IEW 301.

Ieur. **gombhos*, A *kam*^o, B *keme*, „tooth“, Gr. *χόμπος*, IEW 369.

Ieur. **bhag-*, A *pāk*, B *pāke* „part“. IEW 107.

It is noteworthy that *e* derived from *o* has no palatalizing character. Ped. Toch. 219.

A *kam*, B *keme*, „tooth“, Gr. *χόμπος*;

B *ke*ⁿ, A *tka*ⁿ, Gr. Acc. *χθόνα*;

B *ke*, Lat. *bovem*.

§ 11. The normal development of short Indo-European vowels was disturbed by secondary opening, rounding and weakening. The rounding of open vowels under the influence of surrounding labial stops appears in both dialects, in B as a rule under the influence of vowels, but in A very often also under the influence of consonants. The vowel *o* was preserved before *-nts*, only in the B dialect without any labial influence, but disappeared in A.

B *walo*, A *wēl*^o „king“

1. A *oket*^o, B *okt*^o, „8“ Ieur. **oktō*. Without the influence of *ō* in the final position, the sound *o* in the first syllable must have passed into *e*.

2. B *yakwe*, A *yuk*^o „horse“; B *sak*^o, before a vowel *sakw*, A *suk* „happiness“. A change occurred in A: under the influence of the semivowel *w* the vowel *a* passed into *u*.

3. In B the numeral 7 is *šukt*^o; initial *š* shows that the vowel of the first syllable was originally *e*, as in other Indo-European languages. The *u* can be explained only by the

influence of the following labial stop *p*, which at the same time itself lost its labial character.

§ 12. Ieur. **a*, besides Pre-Indo-Iranian in which it became *i*, changed into *a* in all the other Indo-European languages, and also in Pre-Tocharian and in dialects A and B:

Ieur. **dhug(h)ster-*, B *tkācer*, A *ckācar* „daughter“,

Skr. *duhitār*, Gr. *θυγάτηρ*, W 868. IEW 277,

Ieur. **pater*, A *pācar*, B *pācer* „father“ OP. *pitā*, Gr. *πατήρ*, Skt. *pitā*.

Probably, the Indo-European **a* had already become *a* in Pre-Tocharian.

§ 13. The Indo-European semi-consonants **ŋ*, **ɲ*, are continued in Tocharian dialects first of all in *en*, *em*, without any preceding palatalization. It is also from the final position that *an*, *am* develop most often. E. g.

am-plakette „ohne um Erlaubnis zu bitten“.

Ieur. **ǵnō*, B *a-knātsa*, A *ā-knats* „unknown“, Skr. *á-jñata*, Gr. *ά-γνωτος*, Lat *ignōtus* = **in-gnōtus*, Goth. *un-kups*.

IEW 378. 377

Ieur. **kmtom* „100“, A *kant*, B *kante* (*n* instead of *m* before *t*, as an innovation in the language, cf. Lat. *centum*. Meillet, *Zarys gramatyki porównawczej języków indoeuropejskich*, 71), Skt. *śatam*. IEW 192.

Ieur. **dekm-to-s*, A *škant*, B *škante* „10“ Lith. *dešimtas* OCS. *desetъ*. IEW 192.

Ieur. **dnghuā* „language“ A *kantu*, B *kantwo*, Acc. *kantwa* sa = **kantwa* = **tankwa* OLat. *lingua*, OCS. *języ-kъ*. IEW 223.

Ieur. **ɲ*, **ɳ*, is carried on in the final position by an auxiliary vowel similar to *e*, which disappears in the final position. It has no power of palatalization.

Ieur. **nomɳ*, A *ñem*, B *ñom*, Lat. *nōmen*, Skt. *nāman*.

Indo-European consonant-endings of *-ɲ-* stems in: .

B *šukt*^o, A *spət*^o „7“, B *šak*, A *sěk*^o „10“ Gr. *ἑπτά*, *δέκα*, Lat. *septem*, *decem*. Ped. Toch. 40.

An auxiliary vowel derived from *ŋ* does not disappear before *-ts*:

Ieur. **trijāknt-s*, B *taryāka* „30“, A *taryāk^o*, Gr. *τριάκοντα*, „30“, Skr. *trīmśat*.

§ 14. Indo-European *ɾ*, *l*, are continued in Tocharian dialects A and B by *ar*, *al*:

B *tarkam* „we have remained“

A *kalar* „they have brought“ Ped. Toch. 220.

Lane, Lg. 14. 30 suggests that the original vowel in *ar*, *al* was more like *e*; hence *ɾ* is sought in the verb B *eršāⁿ*, A *arəš^o*, 3rd pers. sing. „rise, excite“, Skr. *ṛnoti*, Meillet, MSL 19. 159; *l* in B *telki*, A *talke* „sacrifice“ Goth. *dulgs* „debt“.

§ 15. The three Indo-European long vowels **ē*, **ō*, **ā*, slurred into *ā* in both Tocharian dialects, except in the final position where they received another form. In Pre-Tocharian it is probable that Indo-European **ō*, **ā*, became *ā*, but Indo-European **ē* gave Pre-Tocharian *ē*. I have come to this conclusion from the fact that palatalization and „affricatization“ always occur before Tocharian A and B *ā* (that one was derived from Indo-European **ē*), inter alia before *ē*, but never before long *ā*. Thus its development must be as follows:

Ieur. *ē* ⇒ Ptoch. *ō* ⇒ Toch. A and B *ā*.

§ 16. Indo-European **ē*, i. e. Pre-Tocharian *ē*, passes into *ā* in Tocharian A and B preceded by palatalization and „affricatization“. It is seen in the Imperfect which in dialect A is formed of the Present root, extending it by long *-ā-*, whereas consonants in the final position — except labial stops — are affected by palatalization. Hence it is concluded that it must have been older *-*ē-*.

	The Present	The Imperfect
But:	klisnā-š ^o „he sleeps“	klisnā
	nuseñc ^e „they growl“	nušār
	ypeñc ^e „they do“	ypār ^o
	šm-eš ^o „he sits“	šmā

Also in the negative *mā*, cf. Gr. *μή*, Arm. *mi*, *m* was not palatalized.

t-affricatization before **ē* is seen in:

Ieur. **dhēg^h-*, A *tsāk* „glow“, Skr. *dāhati*, Lat. *foveō*, -*ēre*. IEW 241.

In certain cases Indo-European **ē* appears in dialect A and B as *e*. The conditions of this change are not precisely known; Lane Lg. 14. 30 considers that they had simply been shortened already in prehistorical times.

Ieur. **mēn-*, B *meñe*, A *mañ^e* „month“, Gr. *μήν*, Lane in Lg. 14. 30.

Ieur. **uē-*, B *yente*, A *want* „wind“, Lat. *ventus*; Gr. *ἄησι* „it blows“. IEW 82.

Also in:

A the Coniunctivus 3rd pers. sing. *kareš* „he may laugh“, Pl. *kareñc*. Ped. Toch. 199.

B *peñiyo*, Acc. *peñai* „glow“, A *pañi* cf. perhaps Skr. *bhānu*, OCS. *belu* „white“. Ped. Toch. § 107.

§ 17. Ieur. **ō*, Ptoch. *ā*. Toch. A and B *ā*:

Ieur. **gnō-* „know“, A and B *knā-*, A *ā-knāts*, B *aknātsa*, Lat. *ignōtus*. IEW 378. 377.

In the final position Indo-European **ō* gives *o* in both dialects, but only if it is followed by a nasal, i. e. in elements containing *n*. On the other hand if it was not followed by a nasal it became *u* in A and B. Ped. *Zur Toch. Sprachgesch.* 36.

**ō* + nasal ⇒ A and B *o*:

B *wašmo* „friend“ acc. *wašmoⁿ*;

A *cēmpamo* „clever, able“, B nom. pl. *cēmpamón^e*, *cēmpmón^e*.

**ō* not followed by nasal ⇒ B *u*:

B *preku* „I shall ask“,

B *āyu* „I shall give“,

Ieur. **duo* m. „2“, A m. *wu* „2“. IEW 229.

§ 18. Ieur. *ā* ⇒ Ptoch. *ā* ⇒ Toch. A and B *ā* in most cases but sometimes it is continued by *o*:

Ieur. **mātē(r)*, A *mācar^o*, B *mācer*, Skr. *mātā*, OP. *mātā*,

Lat. *mater*, Gr. (Dor.) *μητηρ*,

Ieur. **bhāghūs* „elbow, forearm“, A and B *poke* „hand“, Skr. *bahu m.* „arm“ Av. *bāzu-š*, Gr. *πῆχυς*. W 130*, IEW 108.

Ieur. **bhrāter-*, A *pracar*°, B *procer*°, „brother“.

In the final position Ieur. **ā* gives A *o*, A *u*, but without any following nasal. If followed by a nasal, then **ā* ⇒ B *o* and probably a *o*. Ped. Zur Toch. Sprachgesch. 58.

Ieur. **ā* not followed by a nasal ⇒ B *o*, A *u*:

Ieur. **aqā*, B *yoko* „thirst“; it may belong to Skr. *ihā* „wish“

Ieur. **-ā* an ending of nom. pl., A *-u*; occurs in:

A *šnu* „wives“ Ped. Toch. 329

A *cmol*°, Pl. A *cmolu* „birth“ SSS 93

Perhaps A *wsāl*°, Pl. *wsālu* Ped. Toch. § 28

Ieur. **dnghuā* „language“, A *kəntu*, Gen. *kəntwis*, B *kəntwo*;

Lat. *lingua*, OCS. *języ-kъ*.

§ 19. Ieur. *ī* survived in the suffix of the Optative:

B *yamīmar*°, A *yamīmar*°, of the verb „to do“ Ped. Toch. 226.

§ 20. No convincing examples can be given of Indo-European **u* occurring medially. But in the final position Indo-European **ū* gave B *i*, A *e*:

Nom. Sing. of *-ūs*-stem became Nom. = Acc. Sing. ending in *i* in B, corresponding to Pl. forms of *-una*, or *-auna*, in dialect A Nom. = Acc. Sing. ending in *e*, so that this form has now a new structure in the Plural.

B *šotri* „stigma, character“, pl. *šotrūna*, A sing. *šotre*.

B *reki* „word“ Pl. *rekauna*, A sing. *rake*. Ped. Toch. § 33.

Ieur. **-u* appears also in A *kāwette* „beautiful“; *-te* may correspond to Lat. *-tūs* in *juventūs*. Ped. Toch. § 47.

§ 21. *Diphthongs*.

The diphthong exists only in dialect B; Sanskrit script cannot always mark it precisely, e. g. the pronominal forms B *cai* „these“ fem., *cau* „these“ masc. were also pronounced with *e*, as is indicated by the spelling *cey*, *cew*, *ce*. Also *šai* „he was“. The verbal form B *kausa* „he killed“ had also *o*, because the form *kowsa* also appears. Ped. Toch. § 13 Anm.

In dialect A all diphthongs became monophthongs: those from Indo-European as well those which appeared secondarily; e. g. the Sanskrit loan-word B *nrai*, A *nare* „hell“ Ped. Toch. § 108 Anm. I.

Examples:

Ieur. **trejes*, A *tre*, B *trai*, *traiy*° „3“

A *ko* „cow“, B *ke*°, Lat. *bovem*.

The secondary diphthong of the Optative *oy* gives *i* in dialect A : B *ontsoytte*, A *asinat*°.

In dialect B there was also diphthongization of a vowel, under so far unknown conditions. Ped. Toch. § 108 Anm. 2.

B *šaumo* „man“, A *šom*° „boy“ Lat. *homo*.

Ieur. **bhāghū-s*, A *poke*, B *poke*, *pauke* „hand“ Skr. *bahu*, Av. *bāzu-š* OHG. *buog* „arm“. IEW 108.

The diphthongization of *o* also appears in the adjective *kuraš* „cold“. The root of this adjective appears in B as *krost-*, *krošč-*, *krošš-* (*kraušš*), A **krašt-* (with softening) *krošš-*. SSS 43.

The diphthongization of **ē* would operate in B *par*, A *pe*, if it belonged to Ieur. stem **pēd-* „foot“ Lat. *pēs*. In SSS 2 there are objections to this.

Dialect B which is the more archaic, preserved a picture of the diphthongs very like that in Indo-European. For this reason I conclude that Indo-European diphthongs survived in Pre-Tocharian and then only in Tocharian dialects underwent more (in A) or less (in B) considerable changes.

§ 22. Ieur. **ei*, Ptoch. *er* is continued by the diphthong *ei* in dialect B, written *ai*, *ey*; in dialect A it becomes monophthongized into *e*.

Ieur. **tei*, B nom. pl. M. *cey*, *cai*, „this“, A nom. pl. m. *cem*°; Skr. *tē*, Gr. *τοί*, Goth. *pai*;

In the final position the diphthong **er* is found in the Infinitive ending, common to both dialects, *-tsi* ≤ **-tēi*. Ped. Toch.

Ieur. **aqā*, A and B *yok-tsi* „drink“. IEW 23.

§ 23. A and B *ai* in the majority of verb-like forms and verbal derivatives, came from Indo-European *oi*.

Ieur. **dhoiġho-s*, A *tseke*, (ši *peke ši*) „figura (sive pictura)“; *e* $\leftarrow$ *ai* $\leftarrow$ **oi*; Lat. *figūra* „structure, shape“. IEW 245.

B *waike* „lie“, A Praet. Part. *wāweku* „lie“; cf. ON. *svikva*, Praet. *sveik* „cheat“. K. Schneider, KZ. 66. 253.

They have not been ascertained in the final position.

§ 24. Ieur. **ai* $\Rightarrow$ A *e*, B *ai*.

Ieur. **ang-*, B *aikare*, *aikre*, A *ekro* ill., Lat. *aeger*; IEW 13.

B *aiskau* „I give“, A *esam*, Osc. *aeteis*, Gen. part. Gr. *αἶσα* „lot, share“.

Ieur. **ai-* „give, divide“, B *ai-* A *e-* in the Infinitive B *aitsi*, A *essi* „give“, Gr. *αἶνμαι* „take, pack“;

Hit. *pa-a-i* „he gives“. Ped. Toch. 227.

The example in the final position is uncertain. Perhaps in B *klai*, A *k^wle* Acc. „lady“. Ped. Toch. 42.

§ 25. Ieur. **eu* gave in B *au*, A *o* with preceding palatalization. Besides *o* there appears *u*, which also palatalizes a preceding sound.

Ieur. **bheu-*, B *pyautk-*, A and B *pyutk*, A *pyotk* „result“ IEW 150.

I have found some examples in which B *au*, A *o* come from **eu*, but are not preceded by palatalization:

Ieur. **bheudh*, A *pot*, B *paut* „worship“ IEW 267. Van Wind. Lex. 87.

Ieur. **dheur-*, A *tor*, B *taur* „dust“ IEW 267.

§ 26. The Indo-European diphthongs **au* and **ou* in both dialects were fused into one diphthong, which in B was pronounced *ow*; and in A became monophthongized into *o*.

Ieur. **au*:

B *aukšu*, A *okšu* „old“, Lat. *augeō*. SSS 426.

B *aulāre*, A *olar*, „companion“, Gr. *αὐλῶς*. IEW 57. 199.

Ieur. **ou*:

B *lauke* „tar“, *lau* „forward“, *laukito* „strange“.

In the final position the diphthong **ou* gives *o*:

Ieur. **-ous* Genitive ending in A *se* „son“, Gen. *seyo* ($\leftarrow$ **suyo*, *e* passed from Nominative). Ped. Toch. 53.

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ROMAN STOPA

BUSHMAN TEXTS

I. Introductory

All the texts that are given below have been written down in Africa during my stay there in the year 1935. As to the question why they are published only now after a lapse of more than twenty years, I may point to the lack of interest on the side of the editors as to the main reason of such a delay. No wonder, editors were deterred from printing a deficit thing referring to some far, almost extinct languages, the text itself being full of technical difficulties, odd symbols etc. In course of publishing other more attractive studies of my African materials, this attitude, I guess, have been changed, and thus, a part of my Bushman texts may be presented now to all who want to get a glimpse into a very primitive structure of language — as to the phonetic system (clicks and ejective sounds) it is perhaps the most primitive of all now accessible kinds of human speech — into an almost infantile type of thought, and a very low stage of culture development.

As to the texts themselves I should like to stress, at the very beginning, the difficulties and the unavoidable inconsistencies of writing down dialects of an unwritten language, the speakers of which vary in using different sounds — especially the various velar components of click blocks belonging to the same cluster of sounds¹, vowels and emitted consonants are

¹ I use this term for a group of related sounds which are substituted for each other in the same word according to the situation and disposition of the speaker himself; cp. C. Doke, *Phonetics of the ≠ Khomani*; for further details see also my *From Clicks to Expiratory Consonants*, part II. For „Explanation of symbols and abbreviations“ see op. cit. part I that has been printed in *Lingua Posnaniensis*, VI, Poznań, 1957.