# Genetic relations between the Yazghulami language and the Shughni-Rushani group

(Генетические отношения язгулямского языка у шугнанской языковой группы)

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## Introduction

The Yazghulami gorge is situated between the Vanj (downriver from the Panj) and the Bartang (upriver from the Panj). Nowadays Tajiks live in the Vanj, but it is well known that around 150 years ago the Vanji language was still preserved there. Although there are only a relatively small number of words attested for the Vanji language (around 30), it is nonetheless possible to use them in assessing its relatedness to the Yazghulami language and to the Shughni group. Compare, for instance, the following correspondences:

Vanji	Yazghulami	Shughni	Gloss
zamč	zamč	zimc	field; plot of land
rupč	rupč	rupč	fox
xarban	xarban		millet
nan(ik)	nān	nān	mother
majn	mawn	mōwn	apple
kajn	kawn		
kup	kəp		
vudičak		wiðič(ak)	sparrow
páski	páski		behind
padavdagin 'located	Rush. <i>půðīv</i>	pōðēv	
in the lower part of	'lower part of the	'below, beneath; in	
the river or village'	valley'	the legs'	

In addition to their political disjointness, their geographic isolation from one another also hindered the connection between the Shughni groups and the Yazghulamis. The right bank of the Panj River was almost impassable, such that the Yazghulamis could get to the Bartang and to Rushan or through the mountain passes (from Anderbag to Bartang and from Motraun to Rushan), or through the bypass route through the left bank of the Panj. One would think that in conditions of constant political separation, any type of crossing was hardly frequent at all.

Communication between the Yazghulamis and the population of the Vanj valley was carried out also through the mountain pass (from Jamak). Through prolonged and robust contact this road was, of course, more cleared and more lively. However, even here direct, widespread linguistic contact could not have taken place, just as it did not take place between the Bartangi-speaking populations and the Shughni-speaking populations, or between the Rushani-speaking populations and the Roshorvi-speaking populations.

Sources for research were found primarily in materials from recent years, written using an old phonological transcription system.

On the Shughni group:

- Зарубин (1960): Шугнанские тексты и словарь;
- Карамшоев (1963): Баджувский диалект шугнанского языка
- Соколова (1959): Рушанские и хуфские тексты и словарь
- Соколова (1960): Бартангские тексты и словарь
- Писарчик (1953): Рушанские тексты
- Карамхудоев (1963): Основные особенности переходных и непереходных глаголов бартангского языка

On the Roshorvi dialect of the Bartangi language the only sources are publications by I.I. Zarubin:

- Одна орошорская сказка. 1927. (Востогные записки, Т. 1)
- Орошорские тексты и словарь. 1930. (Памирская экспедиция 1928, вып. IV)

Although these materials were recorded phonetically, they are fully suitable for use, as Roshorvi phonetics is identical with that of Bartangi. Unclear cases found in these sources were vetted by me on individual basis with visiting Roshorvi speakers in Dushanbe. However, the Roshorvi dialect should be considered the least studied of all, and it is represented in these works in very limited fashion, and only its main features are shown. Its details remain largely unclear.

A lack of materials is felt even for the Sarikoli language, especially as regards its grammatical aspects. Of the materials of T.N. Pakhalina gathered (by her) in Xinjiang in 1956, only two short reports have been published (*Capukonbckuŭ duanekm u eco omhouehue k dpycum duanekmam uychaho-pyuahckoŭ cpynnui*<sup>1</sup>; *K xapakmepucmuke capukonbckoco duanekma*<sup>2</sup>), in addition to the old works of R. Shaw (*On the Ghalchah languages*: JASB, vol. 45, 1876). These works give only the most general grammatical information. However, the largest portion of texts from the collection of T.N. Pakhalina came to my disposal in the form of a manuscript. These texts form the primary source on the Sarikoli language in the present work. At a later time, I also received from T.N. Pakhalina a manuscript of her Sarikoli dictionary, which has allowed me to make a number of substantial additions to the present work. However, in some cases there are gaps in the Sarikoli language, and to fill these it will be necessary to have additional data.

For the remainder of the languages of the Shughni-Rushani group, the necessary facts are brought in as we go along. These were received primarily from doctoral students N. Karamkhudoev (for Bartangi) and from M. Faizov (on Rushani). Some new data were taken also from the abstracts of their dissertations.<sup>3</sup>

<sup>&</sup>lt;sup>1</sup> This appears to be a conference presentation: (XXV Междунар. конгр. востоковедов, М., 1960).

<sup>&</sup>lt;sup>2</sup> From Иранский спорник, М., 1963.

<sup>&</sup>lt;sup>3</sup> Н. Карамхудоев. Бартангский язык; Н. Гайзов. Рушанский язык. (abstracts taken in 1965)

For the Yazghulami language, the primary source was materials gathered by Joy I. Edelman (texts, dictionary, and a detailed grammatical description), which were also given in full in a manuscript by the author for my use. Of these materials, only the abstract of the dissertaion, a short grammatical sketch, and an article on verbs have been published.<sup>4</sup>

As an auxiliary material, a manuscript of I.I. Zarubin's entitled Язгулямские тексты и словарь was also used, where collections are presented from 35 to 50 years ago.<sup>5</sup>

As regards comparative-historical research, two works on the Shughni language can be noted, in which everything that can be attained in this field after the summary of B. Гейгер (V. Geiger: 1898-1901) is presented rather thoroughly: these are (i) is the famous work of G. Morgenstierne *Notes on Shughni*, which has made a significant contribution both in the field of the history of Shughni sounds, as well as in the field of the etymology of Shughni words; and (ii) the work of P. X. Додыхудоев entitled *Историческая фонетика шугнанского языка (консонантизм)*, which was defended by the author in the form of a dissertation in 1963 and subsequently published in an abbreviated form.<sup>6</sup> This work consists of a systematic presentation of the historical correspondences of Shughni consonants using the totality of all previous publications on the topic.

On the Yazghulami language the only work of a comparative-historical character is *Notes sur le Yazgoulami* by Robert Gauthiot. The parallels established in this work, as well as the sound correspondences and the etymologies of words were limited by extremely scant factual data available at that time on the Yazghulami language (a list of 160 verbs compiled by M. C. Андреев and a short period of data collection carried out by Gauthiot in 1914).

All Indo-European roots are taken from the dictionary of Pokorny. The etymology of Pamiri words is given as they appear and the majority are not repeated. For ease of reference, in particular for finding etymologies, an index prepared by  $\Pi$ .  $\Gamma$ .  $\Gamma$  EPUEHGEPT has been attached.

<sup>&</sup>lt;sup>4</sup> Д. И. Эдельман. 1) Язгулямский язык. (diss. abstract from 1964); 2) Язгулямский язык. In the collection: Языки народов СССР, Т. 1, М., 1966., pages 436-454.; 3) Глагольная система язгулямского языка. Иранский сборник. М., 1963.

<sup>&</sup>lt;sup>5</sup> At the present time the following works have been published: Д. Эдельман. *Язгулямский язык*. М., 1966; Т. Пахалина. *Сарикольский язык*. М., 1966.

<sup>&</sup>lt;sup>6</sup> Р.Х. Додыхудоев. 1) *Материалы по исторической фонетике шугнанского языка*. Dushanbe. 1962; 2) *Историческая фонетика шугнанского языка (консонантизм)*. Diss. abstract. Leningrad. 1963.

# Modern relations between Yazghulami and the Shughni-Rushani group

A general introduction to the Yazghulami language and the languages of the Shughni-Rushani group can be obtained from their descriptions in the collection *Languages of the peoples of the SSSR*. In the present study, we will be examining only those features which are considered similarities and discrepancies between them.

## Yazghulami-Shughni similarities

Among the similarities between Yazghulami and Shughni, we will consider only those features which are specific to these languages and set them apart from the other Pamir languages (Wakhi, Ishkashimi, Munji).

The most clear similarities between Yazghulami and Shughni are found in the lexicon and grammar. The phonetic systems similarities appear to a lesser extent.

## In the lexicon

**§1.** In the list of lexical correspondences, some words of unclear origin are included, such as Sh./Yaz. *kaš* 'warm'; *rīm* 'poplar'. If words such as these are borrowed, then their common borrowings are revealing. For the Shughni-Rushani group, examples are taken from the Shughni language. If the word in question is not attested in the Shughni language, then it is taken from another language of the group.

Shughni Group	Yazghulami	Gloss
ðīf	ðůf	eye of a needle
sifc	safč	bead(s)?
<i>rafc</i> (Bart.)	rafc	broom
yirambā	yərəmbá	(a mulberry porridge)
$z\bar{o}\chi$	zey	fat; lard
nuyulmáy (Rush.)	nəyəlmáy	(wooden bowl)
tavůng	taváng	box; chest (Yaz. for clothes; Sh. for storing grain in the mill
<i>x</i> ed	<i>x</i> ayd	stone slate
parðūm	porðəm	wretch?
wīz	wāz	load
<i>yi</i> jīd	yəgůd	stable; stall
Х́Ēð	хаð	summer herding for cattle
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х̄ѻ҄ð	<i>x</i> aðga	yard?
paðīnd	paðan	threshold
virž	vorž	horsehair
w <sup>ů</sup> n	wawn	sheep's wool
rūrv	rurv	light (bright?) red
yerv (Sar.)	γ <sup>o</sup> ərféģ	kid (young goat)
wižū <i>ž</i> j	$\check{x}^{o}ig$	comb (ridge?)
<i>x</i> ūvd	<i>x</i> °ovd	milk
wēb	wāb	sheaf (bundle of grain or
		straw)
zimc	zamč	plot of land
pižēw-; pižud-	pəšaw-; pəšéd	to shear sheep
pōy; pēyd	pay; payd	to take care of cattle
nay-; nid (Rush.)	nay-; ned	to churn butter
šap-; šapt	šap-; šapt	to wash clothes; to mix (clay)
		with water
xēx̆-; xēx̆t	x°až-; x°ažt	to mix batter/dough
wixkamb-; wixkūvd	<i>x</i> ° <i>amb</i> −; <i>x</i> ° <i>ovd</i>	to twirl wool?
үāс	yačag	girl
<i>lōd</i> ; <i>lō</i> (Rshrv)	le	younger brother
pitiš	pataš	cousin (m./f.)
afa <i></i>	afaw	day after tomorrow
asīd	asůð	this year
parwōs	pərwés	last year
biyōr	biyér	yesterday
xīr	xəwůr	sun <sup>7</sup>
zimāð	zəmāð	land <sup>8</sup>
žinij	zənay	snow
zīmb	zamb	edge; bank
zōrð	zāwð	heart
CĪW	сů	(tiny) hair
pibizg	papažg	bladder (organ)
$ hetaar{o}d$	$\theta ed$	liver
$ heta \overline{l}k$	θůk	stutterer
xēð	$x^{o}i\check{O}$	sweat; perspiration
xūðm	xuðm	sleep
х̄оj	<i>x</i> °ayék	fear
cūðm	cůðm	wormwood
rīm	rim	poplar
wān	wanég	willow
šūð	xəðnág	prickle; thorn

<sup>&</sup>lt;sup>7</sup> Wakhi *yir* is (likely not?) from this root; Iskh. *rimuzd*; Munji *mīra*<sup>8</sup> In Munji, the word for 'land' is of the same root, but of a different formation: *zaxma* (with metathesis); Ishk., Wakhi *zamin* is borrowed.

pōw	pů	rotten core of a tree
yūrž	yůrž	bear
ðē <i></i>	ðəwāg	marten (animal)
čāf	kaf	jackdaw (bird)
buc	boc	baby (of an animal)
cīxĭ	сůž	bitter
<i>yēw</i>	<i>¥iw</i>	hunt (n.)
<i><i>šak</i> (Rush.)</i>	<i>y</i> ăm	full
pizōr	pəzé	some
tambā	təmbárk	thick; dense; tight; tightly crowded, packed
tīr	tůr	top
xīč	x <sup>o</sup> ačk	small
хīп	šīn	blue
<i>x</i> irf	žerθ	slippery
bawōn	bawən	hole; opening
tōv	tev	time; instance
bispār ðēdōw	bispůr ðayáj	to kick
andiz-; andūyd	əndaž-; əndoyd	stand up; get up
biðēmb-; biðēmt	bəðamb-; bəðovd	to close (eyes)
firāp-; firīpt	fərip-; fərapt	to arrive; reach
nixarθ-; nixux̃t	fərxis-; fərxaxt	Shg: to fall down; collapse; Yaz: to slip and fall down
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ўīf-; <i>ў</i> īft	<i>ğaf-</i> ; <i>ğaft</i>	to spray
čēw-; čēwd	kaw-; kawd	to comb
pijēn-; pijēnt	pədgan-; pədgont	to string
riwōys-; riwēyd	pərway-; pərwed	to starve; go hungry
raf-; raft	bərəf-; bərəft	to touch; stick; tinker
ði-; ðōd	ðay-; ðed	to hit
х́ōfc-; х́ōvd	$p(\partial)xas$ -; $pxovd$	to sleep
šarð-; šuxt	xůð-; xažt	to defecate

**§2.** The most significant from this list are words which are similar not only in their root, but also in their composition or structure, which indicates a common way of forming words in the past. Compare, for instance Shughni  $yi-j\bar{i}d$  and Yazghulami  $y\partial-gud$  (\*gaw-kata-) ''; Sh.  $a-s\bar{i}d$ ; Yaz.  $asud\delta$  'this year' and other similar formations shared by the two languages.

A list could be filled with those roots which are present in other languages but continue either another word formation, or are very different phonetically. Compare, for instance, Sh. *mɛst*. Yz. *māst* 'month' with Wakhi *mыy*, Munji *yumágå* (Ishk. *ma* is borrowed). Compare Sh. *firɛw-*; *firud*, Yz. *fəraw-*, *fərawd* 'to rinse' with Ishk. *parafur-*; *parafurd*, Munji *frakōn*; *frakevd*; Sh. *růpc*, Yz. *rəpc* 'fox' with Ishk. *urwesók*, Munji *rūsa*; Sh. *xitɛrdz*, Yz. *xətarág* 'star' with Ishk. *strůk*, Wakhi *sətor*, Munji *stōrəy*.<sup>9</sup> However, these words alone are enough to form a representative sample of the general correspondences between Yazghulami and Shughni words.

#### In the grammar

#### In the conjugation of verbs

**§3.** There are matches in both the formation and meaning of basic verb forms of both the present and past tenses.

In the present tense:

	Shughni	Rushani	Bartangi	Sarikoli	Yazghulami
1sg.	kinúm	kinúm	kinúm	kanam	kº ənín
2sg.	kiní	kiní	kiní (Rsv. kin)	kan	k°ənáy
3sg.	kižt	kižt	kižt	kažt	kəxt
1pl.	kinām	kinám	kinán	kanán	k°ənín
2pl.	kinēt	kināt	kināt	kináf	kº ənít
3pl.	kinēn	kinán	kinán	kanín	kº ənín

#### Verb "to do"

The differences in verbal endings between Yazghulami and Shughni are of the same magnitude as those found among the languages within the Shughni-Rushani group itself. Here, we can see a contamination which differed in earlier conjugations. Yazghulami *-in* in the first-singular may continue the ending of the old conjunctive, but can be explained simply by an irregularity of the nasals *n-m* (cf. Bar. 1pl. *kinan*). The final *-ay*, *-i* (2sg.) constitutes phonetic variations (compare Yz. & Ru. *way* 'him' with Sh. *wi*, Bar.  $w\bar{i}$  – see §139).

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The meaning of the forms of the present tense are identical for Yazghulami and for Shughni: it indicates any action of the present or future, modulated by context. In addition to context, the enclitic particle =ta (Sh.), ta//da (Yz.) also serves as a way of qualifying the meaning of a verb and attaches a meaning of categoricalness or authenticity of the action: Ru. *az-ta vārum*; Yz. *az-da varin* "I will (certainly) bring".<sup>10</sup>

<sup>&</sup>lt;sup>9</sup> In the final example, Shughni and Yazghulami are united by the identical treatment of the cluster \**st*, which in other cases is preserved, as it is in other Pamir languages (e.g. Sh. *sitan*, Yz. *sətan* 'post; column').

<sup>&</sup>lt;sup>10</sup> In Sarikoli the particle *-ta* has been lost. In Yazghulami it has been grammaticalized a bit more in the present tense than in the Shughni group and, likely, can already serve as a marker of indicative mood.

In the past tense:

In the past tense, the Yazghulami language, like Rushani and Bartangi, preserves the distinction between transitive and intransitive verbs. Intransitive verbs are all conjugated the same with the use of separate person markers, which match the predicative copula.

	Shughni	Rushani	Bartangi	Sarikoli	Yazghulami
1sg.	sút-um	sút-um	sút-um	sыt-ат	šód-əm
2sg.	sút-at	sút-at	sút-at	sыt-at	šód-at
3sg.	sut	sut	sut	sыt(-i)	šód
1pl.	sát-ām	sát-am	sát-an	<i>ѕыt- ѕыt</i>	šód-an
2pl.	sát-ēt	sát-af	sát-af	sыt-af	šód-əf
3pl.	sát-ēn	sát-an	sát-an (Rv.	sыt-af	šód-an
_			sát-af)	_	

#### Verb "to go"

In transitive constructions Yazghulami fully matches Rushani: when there is an oblique subject present in the phrase, the verb is not conjugated (unlike Bartangi, in which transitive verbs are always accompanied by person markers, analogously with intransitive verbs).

#### Verb "to eat"

	Bartangi	Rushani	Yazghulami
1sg.	mún-um xūg	mu xūg	můn xůg
2sg.	tā-at xūg	tā xūg	tu xůg
3sg.	wī-yi xūg	way xūg	way xůg

Yazghulami person markers for transitive verbs, on the other hand, match those of Bartangi: in the third-person plural, the person markers for transitive and intransitive verbs in both languages differ in form:

	Bartangi	Rushani	Yazghulami	Gloss
Intr.	sát <b>-an</b>	sát-an	šód <b>-an</b>	"they went"
Trns.	xūg <b>-af</b>	xūg-an	xůg- <b>əf</b>	"they ate"

Thus, all features characterizing the Yazghulami transitive verb also appear in the languages of the Shughni-Rushani group. If we use this data to reconstruct the Proto-Shughni stage, then we get the very type of transitive verb which is found in the modern Yazghulami language.

**§4.** It must be stressed that the verbal system, in its general characteristics, is the same in all Pamir languages, and this may be one basis for arguing their genetic convergence. Nonetheless, the verb systems of the other groups have significant deviations from that of the Shughni-

Yazghulami group. The Ishkashimi language, for instance, its sharply distinguished for its preserving the thematic vowel in the third-person singular with the loss of the \*t ending. Compare Ishk. kásu ("looks") with Rush. čast (< \*kasati or \*kasat), and all other verbs. The Munji language gives analogous results to those of Ishkashimi with respect to its verbs in continuing the conjugation in \*aya (Munji xådi "laughs" with Rush. šānd, Yz. xant). The Wakhi language differs with respect to the formation of past stems not only in having verbal nouns which come from Proto-Iranian stems ending in \*-ta, but also those ending in \*-(a)na (cf. Wakhi wərəč-; wərəğn "to stay" with Yz. raxs; rayd and Rush. rays; rayd, etc.). The Munji and Wakhi verb also differs with respect its special transitive suffix -  $\partial v$ , -ov, which does not appear in the other Pamir languages.

Thus, the full matching of verbal forms in all their elements is found only for the Yazghulami language and the Shughni-Rushani group.

## In participles

**§5.** Participial constructions match almost fully. Characteristics include:

1. The secondary (full) participle of the past tense from the perfect stem with the suffix *ín* (Yz.), *īn* (Sh, Ru, Bt), *énj* (Sr.); for instance: Yz. *pəx<sup>o</sup>ag-ín*; Ru. *poxč-īn* 'cooked; ripened'; Yz. *nistag-ín*; Ru. *nosč-īn*; Sr. *nыlыšč-énj* 'seated'.<sup>11</sup>

2. The participial formation from stems of the present tense with the suffix -*ék* (Yz.),  $\bar{o}\check{c}$  (Bt.);  $\mathring{u}\check{c}$  (Ru.). In Shughni it has been displaced by another formation with the suffix - $\bar{i}\check{j}$  (see the following point).<sup>12</sup> This formation indicates an agentive noun, in Yazghulami also the participle of intention and appointment, as it has been contaminated with a different formation using -*ag* (see the following point): Yz. *badék* 'about to go'; Yz.  $x^{o}r\acute{k}k$ ; Ru.  $x^{o}r\mathring{u}\check{c}$  'eater'; Ru. *navišūč*, B. *navišōč*, Sh. *navišīj* 'writer; writing (relational adj.)'. This formation is widespread in compounding; for instance: Ru. *garða-pazūč* 'baker'; Yz. *awqót-pajék* 'cook; chef'; Ru. *xac-varůč*; Yz. *xex-varék* 'water carrier'; Sh. *sōz-lūvīj* 'singer'; and so on.

3. The participial formation of the present stem with the suffix  $-\dot{a}g$ ,<sup>13</sup> Bt.  $-\bar{o}j$ , Ru.  $-\dot{o}j$ , Sh.  $-\bar{i}j$ . This indicates intention, appointment, and the instrument of an action. It is widely used in all these meanings only in Bartangi. In Yazghulami it is replaced by the previously discussed formation with  $-\dot{e}k$ ; in Rushani it has been preserved only as part of frozen formations; in Shughni it has taken on the meaning of the participle  $-\bar{o}č$ , which it has displaced. i.e. the meaning of agent noun. Examples: Bt. *xarōj* "about to eat; wanting to eat"; Yz. *x*°*arag* "wanting to eat; hungry"; Bt.  $\bar{a}z$ -um sawōj "I'm about to go / I plan to go"; Yz. *paxság-əm* "I want to sleep"; Bt. *niθōj jōy*, Yz. *jayāni niθag* "place for sitting";

<sup>&</sup>lt;sup>11</sup> The deviation in Sarikoli is not completely clear. It may be that *-enj* represents a contamination with relational adjectives (see section 11, pt. 4).

<sup>&</sup>lt;sup>12</sup> In Sarikoli, all participial formations from the present stem have apparently been lost.

<sup>&</sup>lt;sup>13</sup> Yazghulami  $-\dot{ag}$ , rather than the expected  $-\dot{ag}$  is not fully clear. See Note 33 in section 114 on this.

Ru. *bīẋ-xarój* 'leftovers'; *biš-kawój* "cross-beam for flaying a carcass", *paðinój* "chips for kindling"; Bt. *i-čiz vandōj* "something used to tie things up".

4. The participial formation from the present stem with the suffix - un, -on (Yz.), Bt. -on, Ru. -on, Sh. -in. This formation indicates a permanent feature of a person. In Shughni it is almost completely lost and is seen only in a few cases, primarily in the Bajuwi dialect. In Yazghulami it is also not very productive. Examples: Yz. wayón, Bajuwi wayin 'crybaby'; Bt. nawon, Ru. nawón "whining; crybaby"; Bt.  $\delta a \delta on$ , Ru.  $\delta a \delta on$ , Bajuwi  $\delta a \delta in$  'fighter; pugnacious'; odámi xarón 'glutton'.

**§6.** In the other Pamir languages are apparently not very developed. In the existing publications for Ishkashimi only a single participle is indicated, which ends in *-i* (*vbrtůki* 'broken'). There is also only one participle attested for the Munji language, one which ends in *-gå* (*lūydigå* 'milking; bleeding'). (Some sources are given here).

## In pronouns

7. In the personal pronouns of the Shughni group, there are no possessive pronouns. Aside from this, the personal pronouns match completely between the Shughni-Rushani group and Yazghulami. In the plural, the personal pronouns do not distinguish case.

	Shughni	Rushani	Khufi	Roshorvi	Sarikoli	Bartangi	Yazghulami
1sg.dir	wuz	az	waz	waz	waz	āz	az
1sg.obl	ти	ти			ты, тып	mun, mu	můn, mon
2sg.dir	tu	tu		tu	tew	tū	tow
2sg.obl	tu	tā	taw		ta, tы	tā	tu
1pl	māš	māš			maš	māš	тох
2pl	tama	tama			tamaš	tamāš	təmóx

#### **Personal Pronouns**

8. In demonstrative pronouns, the Yazghulami language preserves only two series (distal and medial), and even then only in the oblique case, while the Shughni group preserves three series.<sup>14</sup> Nonetheless, these preserved forms formally coincide fully with their corresponding forms in the Shughni-Rushani group.

<sup>&</sup>lt;sup>14</sup> In Yazghulami, demonstrative pronouns can already be analyzed as personal pronouns, but they are still used in a demonstrative sense as well.

#### **Demonstrative Pronouns**

	Shughni	Rushani	Roshorvi	Sarikoli	Bartangi	Yazghulami
SG.DIR	<i>yu/yā</i> (m/f)	yā		уы	yā	$u, \bar{a}y^{15}$
SG.OBL.M	wi, di	way, day	wi, di	wi, di	$w\bar{\imath}, d\bar{\imath}$	way, day
SG.OBL.F	wam, dam	um, dum	wam, dam	dem	um, dim	im, dim
PL.OBL	wēv, dēv	(w)uf, duf	waf, daf	wef, def	uf, dif	<i>if, dif</i> (DIR&OBL)

Yazghulami has lost the case distinction in its demonstrative pronouns in the plural. The forms it has retained in the plural match the oblique forms of the plural demonstrative pronouns of the Shughni-Rushani group.

9. The other Pamir languages, although coinciding in some ways with respect to their pronouns and verbs, also show significant discrepancies. Compare, for instance, Ishkashimi *fak* "you (obl.)"; Munji *mof* 'you (pl)', which both continue the usage of distinct source forms. In Wakhi, personal pronouns in the plural are totally different: *sak* 'we'; *saišt* 'you (pl.)', among other deviations.

#### In function words

10. Function words are generally different and do not show many similarities. However, it is possible to point out some facts which are common only for the Yazghulami language and those of the Shughni-Rushani group.

1. Development of a new meaning for the preposition  $\dot{z}$ ,  $\dot{s}$  (Yz.), az, as (Sh.), which comes from \**hača*, as a marker of the direct object. In fact, in Yazghulami it has turned into a prefixal marker for the accusative case of pronouns, nearly ceasing its usage in combination with nouns ( $\dot{z}$ -dim 'her (acc.)';  $\dot{z}$ -way 'him (acc.); etc.'). In the Shughni-Rushani group, the usage of the preposition az in the role of direct-object marker (generally, also with pronouns) is common in Bartangi and Sarikoli. In the Roshorvi dialect of Bartangi and in Sarikoli, it has become the prefix a- when used in this function: Rv., Sr. a-wi, Bt. az-wi 'him (acc)'. In Rushani and Shughni, the use of az/as in front of direct objects if found relatively rarely, being lost, presumably, under the influence of the Tajik language.

<sup>&</sup>lt;sup>15</sup> The differences in the usages of u and  $\bar{a}y$  in Yazghulami are not clear. The relationship between Yazghulami  $\bar{a}y$  and Ru./Bt.  $y\bar{a}$  is also not clear – i.e., it is not known whether they continue a single source (which could have undergone contamination with the feminine form or the pronoun \*a, which has been lost in other languages.

2. The development of the common postposition *tů* (Yz.); *tīr*, *ti* (Sh.); *ti* (Ru.); *tōr* (Bt.); *ter* (Sr.) from the noun meant 'top': Yz. *tůr*; Sh. *tīr*; Ru. *tor*; B. *tō*; Sr. *ter*, with a wide range of commonalities not only in its locative meanings, but also among various abstract meanings as well. Cf. Yz. *ðow xůri tů-əm wāz keg* "I loaded (on) two donkeys"; Ru. *wáy-ti-yi wēz čūg* "He loaded (on) him"; Yz. *wób-da ðəyáy skad š-tů* 'you('ll) fall from the roof!'; Ru. *az dišād-ti tamošō kižt* "he/she is looking from the roof"; Yz. *xi pándi tů bad*; Ru. *xu pānd-ti tē* "go on your way"; Yz. *kəzláki tů-da jaráy* "you'll pay a little knife?"; Ru. *užtůr-ti ðāðam* 'I'll pay for a camel'; Yz. *ðůs miθi tů-əm yat* "I arrived in ten days"; Ru. *ūvd sōl-ti maktáb tayōr kinán* "they graduate school in seven years" (i.e. it's a seven-year course).

#### In word formation

11. Word-forming nominal suffixes nearly fully match in Yazghulami and the Shughni-Rushani group.

1. The abstract-noun suffix: Yz. -*áy*; Ru. -*áy*, -*i*; Sh., Sr. -*i*; B. -*ī*. Examples: Yz. *cəgagáy*; Rush. *buckáy*; Sh. *dzuliki*; Bt. *dzulikī* 'childhood' (cf. Yz. *cəgág*; Ru. *bucík*; Sh., Bt. *dzulík* ''small'').

2. The suffix Yz. *ij*, Sh. *ēdz*, Sr. *-ɛydz* (in Rushani and Bartangi this suffix is not attested). This suffix forms abstract nouns from qualitative nouns (primarily, those which indicate color). Examples: Yz. *wůyníj*, Sh. *tērēdz* "something black"; Yz. *du zərdíj-u naxčír* "that yellow thing is a mountain goat"; Sr. *xы tыrɛydz-i vrax̃t* "he satisfied his thirst". These nouns are most often used with auxiliary verbs and express a state: Yz. *šiníj-da det* "turning blue (of the sky)"; Sh. *yā dāx̃t tērēdz kix̃t* "the steppe is turning black"; Sr. *safc rыšteydz kax̃t* 'the beads are turning red (glow/shine by the fire)'.

3. The suffix Yz. -*ig*; Sh. -*ēj*, *ēdz*; Ru., Bt. -*īj*, -īdz, Sr. -*ɛyj*, which forms nouns expressing assignment/appointment: Yz. *ððdíg* 'trash which is lit on fire for smoke' (*ðod* 'smoke'); Ru. *vidirmīj* 'shrubs for (making?) a broom' (*vidírm* 'broom'); Sh. *kūrtayēj* 'cloth for clothing'; Yz. *vəradíg* 'blood brother; friend"; Ru. *virōdīj* 'blood brother; step-brother'; Ru. *pucīdz* 'stepson'; Sr. *šanɛydz* 'girl of marriageable age'. This same suffix forms nouns which indicate the geographical belonging of a person: Yz. *waxxarvíg* 'resident of Vaxxarv'; Sh. *xarayēj* "resident of Khorugh"; Bt. *basīdīj* "resident of Basid".

4. The suffix Yz. -áng, -anģ, -náng; Sh., Ru., Kh. -īnj, -nīnj; Ru. -ínj, nínj; Sr. -énj, -nénj. This suffix forms relational nouns, primarily from words signifying time, and more rarely place. Examples: Yz. asůðnáng 'born this year'; Sr. пыrnénj "today's"; Sh. biyōrnēnj "yesterday's"; Bt. pirōnīnj "before; former".

5. Significant matches in non-productive suffixes in common words, which speak to the languages' common word formation in the past. Examples: Yz. -*dég*, Sh., B. -*dōj*, Ru.  $duj \rightarrow$  Yz. xərəvdég; Sh. šarvidōj 'mountain stream' (cf. Ishk. xarav); Yz.  $\dot{\gamma}iwdég$ ; Sh.  $\dot{\gamma}ewdōj$  'hunter'.

There is also a common word with the suffix indicating a container of something: Yz. *waxtán*; B. *wuxtōn* 'hayloft'.

## In phonetics

12. Phonetic matches are found only in the consonant system.

1. The identical reflex of the Proto-Iranian clusters \*tr, \*dr with affrication to c (=[ts]): Sh. *cif*-; *cift*; Yz. *caf*-; *caft* "to steal" – cf. Ish. *tbrbf*-; *tbrbfd* (Avestan *trafwa*-); Sh. *puc*; Yz. *poc* 'son' – cf. Wkh. *patr*; Mnj. *pūr* (Av. *puθra*-); Sh. *yōc*; Yz. *yec* 'fire' – cf. Mnj. *yūr* (Av. *āθr*-, *ātr*-); Sh. *can* 'shotgun', *canič*, Yz. *canák* 'something for beating wool' (Skt. *druṇa*-); Sh. *ci*-; *cid*; Yz. *cay*-; *cad* 'to squeeze' – cf. Ish. *dbray*-; *dbrbd*; Wkh. *dburaw-; dburat*; Persian *daravīdan*; Sh. *ancāv-*; *ancūvd*; Yz. *ancav-*; *ancůvd* 'sew' – cf. Ish. *andbrv-*; *andbrvd*; Wkh. *dburav-; dburəv* (Skt. *drāpī*- 'cloth; clothing'; Av. *drafša*- 'cloth; banner').<sup>16</sup>

2. The shared development of initial \**dv*, the original cluster with *d* and the labiodental *v*, with the later insertion of an epenthetic vowel (and sometimes with the later spirantization of *d* to  $\delta$ ): Sh. *divi*, Yz. *dovůr* 'door' – cf. Ish. *var*; Wkh. *bar*; Mnj. *luvår*; Sh. *divēn*-; *divēnt*; Yz.  $\delta van$ -;  $\delta avůd$  'to blow' – cf. Wkh. *bun*-; *bond*; Mnj. *livō-n*; *livəy* (Av. *dvan*-);<sup>17</sup> Sr. *duvez*; Yz. *dovuz* 'fat' – cf. Ishk. *vbzůk*.

3. The shared *r* in the group \**rt* with its full vocalization, through *w* or *y* (and with the later contraction of the arising cluster into a monophthong): Sh. *vūd*; Ru. *vūg*; Sr. *vɛwg*; Yz. *vəg* 'brought' (\**barta* or *brta*); Sh. *vīd*; Ru. *vīg*; Sr. *vɛyg* 'bring'; Yz. *vigág* 'brought (passive)' (\**barti*). Compare the past stems: Ish. *mьl*; Wkh. *mərt*; Mnj. *mur*- 'died'; Ish. *kůl*; Wkh. *kərt*; Mnj. *kər* 'did'; etc.

-р. 15—

# Discrepancies between Yazghulami and the Shughni-Rushani group

#### In phonetics

<sup>&</sup>lt;sup>16</sup> Gauthiot analyzes this feature as one which separates the two languages, drawing upon the differing reflexes of \**tr* in the word 'three' (Yz. *cuy*; Sh. *aray*) – that is, their differing fates in initial position. However, the examples above show that this is not so. The word 'three' constitutes an exception, and Shughni *aray*, perhaps, shall find its explanation in the future among other cases of what has become of Proto-Iranian \**tr* (see, for instance, Bt., Ru. *arðon*; Yz. *θen* (?) (< \**atr-dãna*) 'hearth'; Sh. *tēr*; Ru. *tér* 'black' (Av. *taθrya* < *tantra*) and other cases which are unaccounted for.

<sup>&</sup>lt;sup>17</sup> Ish. *dbvin-*; *dbvind* 'blow' is likely borrowed from Shughni (source).

## In the vowel system

13. The Yazghulami vowel system is totally different from that of Shughni.

1. Although the languages of the Shughni-Rushani group also differ substantially amongst themselves with respect to their vowel systems, their commonalities are nonetheless quite easily visible. Specifically, the vowel system of the Shughni-Rushani group is based on the opposition of long and short vowels. See, for instance, the Shughni vowel system:

### Long: *ī*, *ē*, *ɛ*, *ā*, *o*, *ů*, *ū* Short: *a*, *u*, *i*

Short vowels generally correspond to one another among languages: Sh., Ru., Bt. *puc* 'son'; Sh., Ru., Bt. *sitir* 'female animal'; Sh., Ru., Bt. *vaz* 'goat (f.)'; etc. The phoneme  $\bar{a}$  also tends to correspond among this group: Sh., Ru., Bt. *yāc* 'girl'; Sh., Ru., Bt. *vārum* 'I bring'.

The discrepancies in the vowel systems within the Shughni-Rushani group priimarily concern the long vowels, but the basic correspondences between them are established rather simply. For instance:

Sh.	Ru.	Bt.
ī	0	$\bar{o}$
ī	ē	ē
ē	ī	ī

Sh.	Ru.	Bt.
Ē	ē	ō
ō	$\overset{\circ}{ar{u}}$	ō
$\dot{ar{u}}$	ō	ō
		(or another)

The Sarikoli language is an isolated case, in which the opposition between long and short vowels has been lost, in some cases accompanied by a change in the quality of vowels. For instance:

Sh., Ru., Bt.	Sarikoli	
u	bl	
ā	0	
ō	U	

However, behind these changes, which for the most part have taken place quite a bit later in the language's development, Sarikoli still exhibits evidence of the vowel system common to Shughni-Rushani languages, and we can easily establish the fundamental correspondences in vowels.

2. The Yazghulami vowel system is built on another basis. With respect to their qualitative relationships, vowels in Yazghulami are divided into three groups:

a. The pair a-ā, which are opposed by length.
b. Neutral vowels i, e, o, ů, u. With respect to its length, short a is equal to the vowels of this group.

c. The short or reduced central vowel  $\partial$ , which opposes all other vowels with its shortness.

The opposition of the pair  $a-\bar{a}$  is a residual phenomenon. It is limited to a single type of syllable: a stressed closed syllable with a single final consonant, where the distinction is still not always obligatory.

3. Establishing the pattern of correspondence between vowels of Yazghulami and those of the Shughni-Rushani languages while staying within the confines of their current, modern states, is in most cases not possible. Thus, for instance, Yazghulami *a* can correspond to any of the Shughni vowels:

Yz. vowel	Sh. vowel	Yz. ex.	Sh. ex.	Gloss
а	а	vaz	vaz	goat (f.)
		yat	yat	arrived
а	ā	pay	pāy	sour milk
		ƙan	čān	dig!
а	i	paš	pis	stew (v.)
		zamč	zimc	piece of land
		$\check{x}^o a d$	wixid	opened
а	ū	warģ	wūrj	wolf
а	u	az	wuz	Ι
		fərxaxt	nixuxt	Yz.: slipped and fell;
				Sh.: fell; collapsed
а	ī	yar	žīr	stone
		vard	vīrd	brings
		zard	zīrd	yellow
а	ē	pəsán	pisēn	grinding stone

		ðəván	divēn	PRS of 'blow'
а	Ē	bəráz	birēz	drink!
		mast	mēst	month
		pax°ág	pēxč	cook!; bake!
а	$\bar{o}$	səpáft	sipōft	sucks
		yazd	žōzd	runs
а	$\dot{ar{u}}$	vzan	wizū̀n	know!
		pand	pū̊nd	road

A correspondence between Yz. *e* with Sh.  $\bar{o}$  and Yz. *o* with Sh. *u* can be more or less clearly established. Compare, for instance, Yz. *vred* with Sh. *vir* $\bar{o}d$ ; Yz. *nabés* with Sh. *nab* $\bar{o}s$  'grandson'; Yz. *poc* with Sh. *puc* 'son'; Yz.  $\bar{o}om$  with Sh.  $\bar{o}um$  'tail'; etc. But even here exceptions are not rare, especially for *o*, which can also correspond to Shughni  $\bar{u}$ ,  $\bar{i}$ ,  $\bar{e}$ ,  $\bar{o}$ ,  $\tilde{u}$ . For instance: Yz. *andóyd*, Sh. *andūyd* 'got up'; Yz. *ancovd*. Sh. *ancūvd* 'sewed'; Yz.  $\gamma^o ovd$ , Sh. *wižīvd* 'returned'; Yz. *vor* $\check{x}$ , Sh. *vir* $\check{x}$  'horsehair'; Yz. *komt*; Sh. *čemt* 'agreed'; Yz. *paxóvd*, Sh.  $\check{x}\bar{o}vd$  'fell asleep'; Yz. *čon*, Sh. *c* $\mathring{u}nd$  'how much'. The Yazghulami *e* corresponds sometimes to Shughni  $\bar{i}$ , i,  $\bar{e}$ . For instance: Yz. *pen* $\check{j}$ , Sh. *pīndz* 'five'; Yz. *kebč*, Sh. *čib* 'spoon'; Yz. *ver* $\check{j}$ , Sh. *v* $\bar{e}rdz$  'mare'.

4. The Yazghulami language is also sharptly distinct from the Shughni-Rushani group with respect to the alternation of vowels. Almost every Yazghulami vowel (letter) can alternate, in an unstressed position, with *a* or with *a*, a fact which, of course, makes the establishment of vowel correspondences between Yazghulami and Shughni much harder. For example, Yz. *pašt* 'cook; boil', but *pašán* 'they cook/boil';  $půx^o$  'he/she cooked' but *pax<sup>o</sup>ag* 'cooked (adj.)'; *ðayd* 'falls', but *ðayín* 'I fall'; *ðed* 'fell', and *ðadág* 'fallen'; *ðoyd* 'daughter', but *ðaydár* 'daughters'; *wint* 'saw' but *wantag* 'seen'; etc. Thus, it is difficult to pinpoint to what extent these alternations have been inherited into the modern language, and to what extent they depend upon modern phonetic conditions. In a case such as *caft* 'steals' and *cafin* 'I steal', there is much reason to believe that unstressed *a* has transitioned to stressed *a*, than to believe that stressed *a* has transitioned to unstressed *a* (cf. the Avestan stem *trafya*- 'steal'). On the other hand, there are also doubtless cases of the later weakening of *a* to *e* in unstressed positions: Yz. *zažtág* 'taken' and the full (later) participle *zažtagín*; etc.

In the Shughni-Rushani group, where the stress in corresponding verb formations generally stays on the root vowel, there are no such alternations in vowels. Compare, for instance, Sh. *cift* 'steals', *cifum* 'I steal'; *zoxt* 'took' (= Yz. *zext*); *zoxč* 'taken' (= Yz. *zaxtág*); *zoxčcīn* 'taken (adj.)' (= Yz. *zaxtagín*). Only a few historical alternations are observed in the Shughni-Rushani group – to a significantly lesser extent than in Yazghulami – which are weak conditioned by old changes in vowels in unstressed positions: Sh. *čīd* 'house', *čadēn//čīdēn* 'houses'; Ru. *xoyum* 'I read', *xayidz* 'reading (n.)'; and a few others.

On the other hand, in the Shughni-Rushani group it is common to find alternations among stressed vowels which carry grammatical meaning, something which is not found in Yazghulami. Thus, for instance, in certain verbs the 3<sup>rd</sup> person singular form in the Shughni-Rushani group is different from the other person-number forms with respect to its stem vowel. Compare, for instance, Sh., Ru., Bt. *vārum*; Sr. *vórum* 'I bring' with Sh. *vīrd*, Ru. *virt*, Bt. *vērd*; Sr. *vird* 'brings'. These stand in contrast to Yz. *varín* 'I bring' and *vart* 'brings'; among other examples.

#### In the consonant system

14. The most significant differences in the consonant systems of Yazghulami and the Shughni-Rushani group are the following:

1. In the Yazghulami language there a series of labialized velar and uvular consonants  $(x^o, y^o, \check{x}^o, q^o, k^o, g^o)$ , which contrast with the non-labialized group  $(x, y, \check{x}, q, k, g)$ . The Shughni-Rushani group does not have labialized consonants at all. Compare Yz.  $x^o ar$  with Sh.  $x\bar{a}r$ 'eat!'; Yz.  $\check{x}^o ovd$  with Sh.  $\check{x}\bar{u}vd$  'milk'; Yz.  $k^o od$  with Sh. kud 'dog'; etc.

2. The differing reflex of Proto-Iranian  $*\check{c}$ , which in Yazghulami is  $\check{c}(\check{j})$ , while in Shughni it is c(dz). Among other Pamir languages, the reflex of this sound is c in Ishkashimi and Wakhi, and  $\check{c}$  in Munji. Compare Yz.  $\check{c}er$ ; Sh.  $cav\bar{o}r$ ; Ish. cbfur; Wkh. cbbbur; Mnj.  $\check{c}^ifur$  'four'; Yz.  $pa\check{j}$ ; Sh.  $p\bar{l}dz$ ; Ish. pac; Wkh. pac 'PRS of the verb 'cook''.

3. The differing reflex of Proto-Iranian \*j, which in Yazghulami, as well as in other Pamir languages, turns into  $j(\tilde{z})$ , but in the Shughni-Rushani group into z(before front vowels? – see § 163). For instance: Sh.  $z\bar{i}n$ -;  $z\bar{i}d$ ; Yz.  $z\bar{a}n$ -; zud; Ish. zan-; zad; Mnj. [da-]; ziy 'to kill; murder'.

4. The differing reflex of Proto-Iranian \**šy*, Skt. cy < PIE \*ky (Av. *šyava*; Old Persian *šiyava*; Skt. *cyava*-; PIE \* $\sqrt{kj}$ -*eu*), which in Yazghulami transitions into *š*, but in the Shughni group into *s*: Sh. *sut*; Yz. *šod*; Ish. *šъd*; Munj. *šəy* 'went'.

6. In the Shughni-Rushani group Proto-Iranian  $\frac{x}{y}$ , in the combinations  $\frac{x}{t}$ ,  $\frac{y}{d}$  sonorantized to y or w. Compare, for instance, Ru. *tuyd*, Bt. *tūyd*, Sr. *tuyd* 'left' (*\*taxta, \*tayda*); Ru., Bt. *panawd*; Sr. *pamɛwg* 'put on clothes' (*\*pati-muyda*). In the Yazghulami language we

get the cluster yd, as in other Pamir languages: Yz., Ish.  $t\hat{u}yd$ ; Wkh.  $ta\check{y}d$  'left'; Ru. rayd; Yz. rayd; Yz. rayd; Wkh. wərə $\check{y}d$  'stayed' (\*riyda, \* $\sqrt{raik}$ -); etc.

Similarly, Proto-Iranian k/c sonorantized into y in the Shughni-Group when in front of different consonants as well: Ru. *rays*-, Bt. *rays*-, *ris*-; Sh. *ris*- (PRS of the verb 'to stay'; but Yz. *raxs*-, Bt. *wərəč* (\**riks*-).

#### In the grammar

#### In nouns

15. Nouns in Yazghulami and in Shughni converges only typologically: they generally do not inflect to reflect their syntactic relations between function words and particles. The forms of nouns themselves, as well as function words and particles, are for the most part distinct.

1. The plural markers in these languages are distinct: Yz.  $-a\theta$ ; Sh., Ru., Bt.  $-\bar{e}n$ ; Rv.  $-\bar{i}f$ ; Sk.  $-\acute{e}f$  (Yz.  $pand\acute{a}\theta$  'roads'; Ru.  $p\bar{a}nd\bar{e}n$ ; Rv.  $p\bar{o}nd\bar{i}f$ ). Non-productive plural suffixes expressing (geneaological) terms of relation which are present in the Shughni-Rushani group (e.g. Ru., Bt.  $-\bar{e}rdz$ ,  $-\bar{o}r\check{j} - pid\bar{e}rdz$  'fathers';  $n\bar{a}n\bar{o}r\check{j}$  'mothers'), are absent in Yazghulami. Instead, Yazghulami has the non-productive suffix  $-\acute{e}zg$ , which attaches to a relatively small, semantically heterogeneous group of words:  $nan\acute{e}zg$  'mothers',  $\check{x}^oan\acute{e}zg$  'cows',  $zam\check{e}z\check{e}zg$  'fields'. There is a match observed only for the following non-productive suffixes – Yz.  $-\acute{e}n$ ,  $-g\acute{e}n$ ; Sh.  $-y\ddot{u}n$ ;  $-g\ddot{u}n$ ; Ru., Bt.  $-y\bar{o}n$ ,  $-g\bar{o}n$  – which are used with a small group of nouns signifying a geneaologically related or other type of community of people: Yz.  $pata\check{s}\acute{e}n$ ; Ru.  $piti\check{s}y\bar{o}n$  'cousins'; Yz.  $amrag\acute{e}n$ ; Ru.  $amrag\bar{o}n$  'traveling companions'; Sh.  $rafiqy\ddot{u}n$  'comrades'; and so on. There is also a match with respect to the plural form of the word for 'brother': Yz vradár; Sh. group viradār//virōdār.

2. In the Yazghulami language there is the attributive marker -*i*, which is often attached to the modifier: Yz. *cəgági yačág* 'small girl' *ðódi bi* 'smell of smoke'. The reverse order (*yačági cəgág*) is found only rarely and has possibly entered the Yazghulami language from Tajiki. In the Shughni-Rushani group, attributive relations are shown simply by setting the two words next to each other: Ru. *bicik yac* 'small girl'.

3. The almost complete loss of grammatical gender on nouns in the Yazghulami language, compared with the steadfastness of grammatical gender in the Shughni-Rushani group, can hardly be considered a distinctive feature, since in one of the Shughni-Rushani languages – Sarikoli – grammatical gender has also been lost.

4. Prepositions and postpositions are sharply distinct in Yazghulami and the Shughni-Rushani languages. The basic locative prepositions of the Shughni-Rushani group -pa, ar, tar – distinguishing the directions "upwards, downwards, horizontal (or neutral)', are completely absent in Yazghulami. In general, the entire set of prepositions and postpositions are for the most part different in Yazghulami and Shughni-Rushani.

## Shughni-Rushani Group

## **Basic prepositions:**

Shughni	Rushani	Bartangi	Sarikoli	Meaning/connotation
pi	ра	ра	ра	up(wards)
ar	ar	ar	ar	down(wards)
tar	tar	tar	tar	neutral; horizontal
pis	pas	pas	pas	(goal; purpose; path of motion)
as	az	az	az	from (source)
	par	par	par	instrument; in Srk. also purpose

## **Basic postpositions:**

Shughni	Rushani	Bartangi	Sarikoli	Meaning/connotation
-andīr	-andí	-indēr	-indér	inside; in Sr. also location in the
				presence of someone
-ard	-ari			(towards a place); rough location
-and	-an	-ā	-an	possession
(Kh. <i>-ōw</i> )				
-avēn	-avēn	-avān	-avón	purpose; cause; reason
-ēc	-ac	-ac	-ic	instrument; tool / limit in time
	-ri	-ri	-ri	direction; purpose

## <u>Yazghulami</u>

## **Basic prepositions:**

i	direction toward a place
ən; əm; dər(i)	inside
na	from
та	location on a surface; direction toward a surface
рәša	goal; aim; after/following

## **Basic postpositions:**

-me	belonging
-be	purpose; cause; reason
-ama	together; instrument; limit in time
-ra	direction; purpose

### In pronouns

16. Pronouns differ primarily in the reconstruction of their entire system in the Yazghulami language: the transition of demonstrative pronouns into personal pronouns with the loss of proximal grade pronouns and with the loss of case distinctions in the plural, by analogy with personal pronouns. Among the distinctions, which can be classified by features, we can only identify the following:

1. Personal pronouns in Yazghulami have three cases (direct, oblique, and possessive), while those in the Shughni-Rushani group have two cases (direct and oblique). The Yazghulami possessive forms are the following: *ni* 'my', *ti* 'your'. Pronouns of the remaining persons do not have special possessive forms, instead taking in the nominal attributive marker when used attributively (*móxi kůd* 'our house'; etc.).

2. The direct form of the reflexive pronouns has a distinct formation: Yz.  $x\hat{u}d$ ; Sh.-Ru. group  $x\hat{u}ba\theta$ ; the oblique forms are Yz. xi; Sh.-Ru. group xu.

#### In verbs

17. In verbs, the following distinctions can be noted:

1. The differing formation of infinitives. In Yazghulami the infinitive is formed from the present stem with the addition of the suffix  $-\dot{aj}$ , while in the Shughni-Rushani group it continues the deverbal noun in \*-*ti* or \*-*ta* with the optional addition of the suffix  $-\bar{ow}$ . Compare, for instance, Yz.  $x^{o}ar\dot{aj}$ ; Sh.  $x\bar{td}(\bar{ow})$  'to eat'; Yz.  $\partial ncav\dot{aj}$ ; Sh.  $anc\bar{v}vd(\bar{ow})$  'to sew'; etc.

2. The active participle form ending in *-arm* (*wayárm* 'crying'; *yazárm* 'running'), which is present in Yazghulami, is not found in the Shughni-Rushani group.

3. In Yazghulami we find the verbal prefix *x̃a*-, which is identical in its usage with Sh. *ri*-, *ra*-. Compare, for instance, Yz. *x̃amay*. Sh. *rimay* 'order; command'; Yz. *x̃awéz*; Sh. *riwāz* 'to fly up' (on this, see Yazg. 255).

#### In the lexicon

In the lexicon the following types of discrepancies among words can be identified:

§18. Iranian words, which are preserved in Yazghulami but which are lost in the Shughni-Rushani group:

- Av. *ðuydar* 'daughter' → Ish. wůdůyd; Wkh. *ðəyd*; Mnj. *lúyda* Sh. *rizēn*
- 2. Skt. watsa 'calf'  $\rightarrow$  Yz. wůs; Ish. wůsůk; Wkh. wəšk Sh. šīg
- 3. Yz. sək<sup>o</sup>ón 'puppy'; Wkh. sыkən; Mnj. səkən Sh. čux

-p. 20-

- Av. darəya- 'late' → Yz. ðury; Ish. dbš; Wkh. ðəš Sh. dēr (borrowed)
- 5. Av. *antara* 'another' → Ish. əndér; Wkh. *yan*; Oss. *ændær* Sh. *digar*; -*gi* (borrowed)
- 6. Av. zyam- 'winter' → Yz. zin; Oss. zimág; Pashto žəmai Sh. zimistůn (borrowed)
- Av. huška- 'dry' → Yz. wažk; Wk. wəsk; Mnj. wušk Sh. xužk (borrowed)
- 8. Av. uskāt, usča 'tall' → Yz. wask; Wk. wuč; Ish. uč Sh. bilānd (borrowed)
- 9. Av. √*raz* → Yz. *razģ*; Mnj. *wúruzg* Sh. *rōst* (borrowed)
- 10. Skt. *krīnāti* → Yz. *xarn-*; *xarnt* 'buy'; Ish. *xьrn-*; *xьrnьd*; Wk. *xьırid-*; *xьırid* (In Shughni, as in the following cases, there is not a special verb with this meaning)

11. Av. grab-, gərəbya- → Yz. yəráfs-; yəróvd 'grab; take'; Ish. yьrьfs-; yьrьvd; Mnj. yərv-; yərəvd

12. Av.  $\sqrt{mar}$ ; (Pers. *šumar-*)  $\rightarrow$  Yz. *pəmár-*  $\rightarrow$  *pəmág* 'expect'

13. Skt.  $ucyati \rightarrow$  Yz. šoxs-; šoxt; Ish. ixs-; ixt; Mnj. yuxs-; yuxt 'learn how'

14. Av. maya-  $\rightarrow$  Yz. nəmáy-; nəmáyd 'to measure (with a bucket)'

15. Skt.  $\sqrt{gudh} \rightarrow Yz$ .  $n \partial y^0 and$ ;  $n \partial y^0 ost$  "to clothe oneself"; Mnj. ayud; ayust; Psht.  $\bar{a}yund$ ; ayust

§19. Iranian words which have been preserved in the Shughni-Rushani group, but which have been lost in the Yazghulami language:<sup>18</sup>

- 1. Av. *strī*  $\rightarrow$  Sh. *sitir* 'female (animal)'; Wkh. *sutray*
- 2. Av. supti-  $\rightarrow$  Sh. sīvd 'shoulder'; Ish. sьvd
- Av. gaona- → Sh. yūnj 'hair'; Ish. yénuk; Mnj. yunəy Yz. jet
- Av. gantuma- → Sh. žindám 'wheat'; Ish. yůndьm; Wkh. ÿ∂dím; Mnj. yodum Yz. žů(w)
- 5. Av. aša- (\*arta) → Sh. yōwj 'flour'; Ish. uluk; Mnj. yōrəy Yz. vraxt
- 6. Av. *haētu* → Sh. *yēd* 'bridge'; Ish. *yatik*; Mnj. *yāya* Yz. *taw*
- Av uba- → Sh. varθ 'both'; Mnj. əvelyi Yz. arðow
- Sh. ðudz-; ðuyd 'to milk'; Ish. deš-; duyd; Wkh. ðic-; ðayn; Mnj. luž-; luyd Yz. cax-; coxt
- 9. Av. √daēs → Sh. divés-; divížt 'to show'; Wkh. disыv-; disovd Yz. ažaw-; ažawd
- 10. Av. *zaya* → Sh. *zi*-; *zōd* 'to give birth'; Ish. *ažiy*-; *ažid*; Mnj. *zīy*-; *zūy* Yz. *biray*-; *bared*
- 11. Sh. xičánd-; xičúxt 'to cut off'; Ish. skьnd-; skьšt; Wkh. šыkəd-; šыkən-
- 12. Av. *sūkā*-; Skt. *sūči* → Sh. *sidz* 'needle'; Wkh. *sic*, *sidz* Yz. *oncavn*
- 13. Skt. navate → Sh. nāw-; nīwd 'to cry'; Wkh. nыw-; nowd Yz. yəraw-; yərawd
- 14. Av.  $ux\check{s}an \rightarrow Sh. \check{x}\tilde{\imath}\check{\jmath}$  'bull; ox' Yz.  $\chi ew$

§20. Iranian roots with differing lexical meanings:

<sup>&</sup>lt;sup>18</sup> Words which have been preserved in all languages of the Shughni-Rushani group are given.

1. Av. gav- 'cow; bull'  $\rightarrow$  Sh. žōw 'cow'; Yz. yew 'ox; bull'

2. Av.  $va\bar{e}^iti$  'willow; willow bough'; Skt. *veta-* 'cane stalk; vine; stick'  $\rightarrow$  Sh.  $w\bar{e}d$ ; Yz.  $wi\delta g$  'grapevine'

3. Av. *pa'tu-šmuxta* 'wearing (adj.)'; *fra-muxtay* 'to take one's shoes off'; Skt. *mucáti* 'frees himself/herself; breaks free'  $\rightarrow$  Sh. *pinidz-*; *pinúyd* 'to put on (clothes); dress oneself'; Yz. *namoxs-*; *namoxt* 'to leave; get out'; Wkh. *pumыc-*; *pumayd*; Ish. *pbmbc-*; *pbmůyd* 'to put on (clothes)'

4. Av. stem *jamaya*- ( $\sqrt{gam}$ )  $\rightarrow$  Sh. *naýzimb*-; *naýzimt* 'to accompany; escort'; Yz. *ažam*-; *ažomt* 'to send'

5. \* $\sqrt{\text{kart-}(?)} \rightarrow \text{Ru. } raxar\theta$ -;  $raxu\check{x}t$  'to fall down; collapse'; Yz. farxis-;  $farxa\check{x}t$  'to slip and fall'; (Sh. variant is with a different prefix:  $nixar\theta$ -;  $nixu\check{x}t$  'to collapse'

6. Av. stem *tafsa-*  $\rightarrow$  Sh. *sitafs-*; *sitūvd* 'to fry; roast (intr.)'; Yz. *tafs-*; *tůvd* 'to heat up; overheat (intr.)'

Similar discrepancies in meaning have in some cases caused the usage of different roots for indicating a single meaning:

1. Sh. pinidz-; pinuyd (\* $\sqrt{mauk}$ ); ; Yz. nəy<sup>o</sup>and-; nəy<sup>o</sup>ost ( $\sqrt{gud}$ ) 'to put on clothes'

2. Sh. naýjís-; naýjíd ( $\sqrt{gam}$ ); Yz. wəráxs; wəráyd ( $\sqrt{raik}$ ) 'to pass'

3. Yz. *ažam-; ažomt* ( $\sqrt{gam}$ ); Sh. (a) $b\bar{b}z$ -; (a) $b\bar{b}xt$  ( $\sqrt{az}$ ) 'to send'

§21. Specific words of Yazghulami and the Shughni-Rushani group, whose etymology is for the most part unclear.

In the Shughni-Rushani group (examples are from Shughni): rizin 'daughter' (\*fra-zanya);  $c\bar{o}r$  'man' (cf. Old Prs.  $k\bar{a}ra$ -; source);  $p\bar{c}$  'face';  $\dot{x}ac$  'water';  $\dot{x}\bar{u}dz$  'wind';  $n\bar{e}x$  'plank bed';  $s\ddot{u}g$ 'legend';  $\dot{s}ut$  'lame; limping'l  $ba\dot{s}and$  'good';  $s\bar{s}g$  'calf';  $\dot{c}ux$  'puppy'; ribi-; ribuyd 'to put; to lay' ( $\sqrt{raik}$  with permutation/metathesis of the prefix? – cf. 3sg. rabizd); paloys-; paloyst 'to arrange; organize'; etc.

In Yazghulami:  $w\bar{a}g$  'older sister';  $f\bar{a}rg$  'younger sister'; wex 'man'; xex (Av.  $x\dot{a}$ ) 'water'; růvn 'pain';<sup>19</sup> wůyn 'black';  $\check{x}^{0}an$  'cow'; biráy-; baréd 'to build; to give birth';  $\check{z}aw$ -;  $\check{z}od$  'to survive an illness'; cax-; coxt 'to milk'; manor 'many; much'; etc.

<sup>&</sup>lt;sup>19</sup> Cf. Oss. *run, ryn* 'sickness' (<\**rafna* – В. И. Абаев. Историческо-этимологический словарь осетинского языка. т. 1, under the word *fyn*).

## Conclusions

§22. As can be seen, the similarities between the Yazghulami and Shughni-Rushani languages discussed here are so significant (mass matches in words, matches of systematic nature in verbs and in inflection, and specific matches in the consonant system), that they give us a full basis on which to propose a direct relationship between Yazghulami and the Shughni-Rushani group (by way of a Proto-Shughni stage).

However, proving this hypothesis is possible only upon being convinced that none of the discrepancies between Yazghulami and the Shughni-Rushani group (which are also quite a few and which sometimes give the impression that these languages are of different sources, for example discrepancies with respect to their vowel systems, function words, and nominal particles, as well as discrepancies in their consonant systems), do not prevent the reconstruction a common proto-language for both languages. In order to this we must make a historical analysis of each of the features in which the languages diverge.

In this analysis, first and foremost, we must look at the vowel system, since the modern vowel systems of the languages of the Shughni-Rushani group and of Yazghulami pretty much have no common ground. Without being sure that they can be derived from a common source, examining the other discrepancies between these languages would be futile.

This task requires a rather complex step-by-step examination:

1. Establishing the historical correspondences of vowels in the Shughni-Rushani group and reconstructing, based on these correspondences, the Proto-Shughni-Rushani vowel system;

2. Establishing the historical correspondences of Yazghulami vowels and reconstructing the early Yazghulami vowel system;

3. Comparing the Proto-Shughni-Rushani vowel system with the early Yazghulami vowel system and, if this turns out to be possible, reconstructing the Proto-Shughni-Yazghulami vowel system.

Further statements will be made in accordance with these requirements.

# Historical analysis of Shughni-Rushani and Yazghulami distinctions

# Vowels

## Vowel system of the Shughni-Rushani group

**§23.** The historical development of vowels in the Shughni-Rushani group of languages has not been thoroughly researched. On the Shughni language G. Morgenstierne has written the following (NTS I, p. 36): "The development of Iranian vowels, particularly short vowels, remains in large part unclear. It is possible that \*a transitions into  $\bar{i}$  in stressed syllables. such as in the words  $\tilde{c}\bar{i}d$ 'house'; *dīs* 'ten'; *pīdz-um* 'I cook'. But then why do we get *čān-um* 'I dig'; *wuz* 'I'; and other contradictory cases. The vowel a becomes  $\overline{i}$  through *i*-umlaut:  $n\overline{i}r$  'male';  $m\overline{i}\delta$  'waist';  $z\overline{i}rd$ 'yellow'; xīr 'sun'; rizīn 'daughter' (fra-zanyā?), žīr 'stone (\*gari)." The appearance of further facts in the Rushani and Bartangi languages seems to complicate the picture even more. It turns out that Shughni front vowels in some cases correspond to Rushani and Bartangi back vowels (cf. Sh. xīr, Ru. xor 'sun'; Sh. čīd, Ru čod 'house'; Sh. mēst, Bt. most 'month'). This requires us to check the validity of the hypothesis regarding the influence of the *i*-umlaut. In addition, there have been cases of the opposite kind of correspondences observed; that is, cases in which Shughni back vowels correspond with front vowels in other languages. For instance: Sh. xūrn, Srk. xern 'crow'. To this we must add numerous examples of correspondences which have not been taken into account. A report of this kind on the possible correspondences of Proto-Iranian \*a in Shughni was made by R. X. Dodykhudoev, who wrote of the complexity of the historical interpretation of the Shughni vowel system.<sup>20</sup>

Avestan a	Shughni reflex	Gloss
ašta-	wažt (a)	eight
kas-	čis- (i)	look
dasa	$\partial \bar{l}s$ ( $\bar{1}$ )	ten
xšwaš-	$x \bar{o} \check{y} (\bar{o})$	six
hapta-	$w\bar{u}vd$ ( $\bar{u}$ )	seven

Nonetheless, this list is not even full, and we must add four more Shughni vowels to which the Avestan *a* can correspond:

Avestan a	Shughni reflex	Sh. Gloss
bara 'take'	<i>vār</i> - (ā)	'bring'
$\sqrt{pak}$ - 'cook'	$p\bar{\epsilon}xt$ - (* $paxta$ -) ( $\bar{\epsilon}$ )	cooked
<i>rašta-</i> – participle of $\sqrt{raz}$ 'to direct; aim'	<i>ar-ružt</i> (u)	reared up?

<sup>&</sup>lt;sup>20</sup> Р. Х. Додыхудоев. Материалы по исторической фонетике шугнанского языка. Душанбе. 1962.

kana- 'dig'	$\check{c}$ $\ddot{u}$ nt ( $\ddot{f u}$ )	digs
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Thus, of ten Shughni vowels, the only one which never appears as a reflex of \*a is  $\bar{e}$ . Regarding the other languages of the group, each of them individually give a no less complex picture of historical correspondences. However, the existence of clear relations of vowels among the Shughni-Rushani languages (§13, point 1) undoubtedly testifies to the fact that there are certain patterns to the progression of historical changes, which simply need to be uncovered. Indeed, as the following discussion will show, the changes of the vowels in the Shughni-Rushani group were always strictly conditioned, and the number of deviations or irregularities is very few.

**§24.** The vowel phonemes in the modern languages of the Shughni-Rushani group are the following:<sup>21</sup>

#### Shughni (and Bajuwi dialect):

Long:  $\bar{\iota}$ ,  $\bar{e}$ ,  $\bar{\varepsilon}$ ,  $\bar{a}$ ,  $\bar{o}$ ,  $\vec{u}$ ,  $\bar{u}$ Short: a, u, i

#### Rushani (and Khufi dialect):

Long:  $\bar{i}$ ,  $\bar{e}$ ,  $\bar{a}$ ,  $\bar{o}$ ,  $\hat{u}$ ,  $\bar{u}$ Short: a, u, i, o (in Kh., additionally  $\alpha$ )

#### Bartangi (and Roshorvi dialect):

Long:  $\bar{i}$ ,  $\bar{e}$ ,  $\bar{o}$ ,  $\bar{a}$ ,  $\bar{o}$ ,  $\bar{u}$ Short: a, u, i

Short *i* and *u* in all three languages have a wide range of pronunciation in height: for *i* from [i] to  $[\epsilon]$  (in Shughni), and for *u* from [u] to [o].

Rushani and Khufi o and Khufi a stand out for their long duration in comparison with the other short vowels. Khufi a is the diphthong [jæ].

Bartangi  $\ddot{o}$  is a front vowel.

Sarikoli, which has lost the opposition between long and short vowels, has the following vowel phonemes:

#### Sarikoli:

 $<sup>^{21}</sup>$  For a more detailed characterization of these vowel systems, see OPUA II.

Simple vowels: *i, e, a, o u ы* Diphthongs: *ɛy, ɛw* 

The vowel  $\omega$  is a central unrounded vowel. There is a second central vowel  $\partial$  noted in sources on the language, but it is difficult to call this vowel a phoneme. Apparently, this is vowel is an allophone of  $\omega$  or a in front of fricatives:  $m\partial \check{\chi}\check{\jmath}$  (has) died';  $\check{c}\partial\check{s}\check{c}$  'barley';  $r\partial\check{s}$  'dung; manure'; etc. The combinations  $\varepsilon y$  and  $\varepsilon w$  are considered to be diphthongs based upon the fact that their first element is starkly different in quality than any other vowel phoneme in the language and appears only in these combinations.<sup>22</sup>

**§25.** Later sound developments which have not been included in the historical correspondences, are the following:

1. The narrowing (raising) of Shughni long vowels  $\bar{e}$ ,  $\hat{u}$ ,  $\bar{e}$ ,  $\bar{o}$  before nasals:  $\bar{e} > \bar{i} - \check{x}\bar{i}n$  'blue' <  $\check{x}\bar{e}n$  (Av.  $ax\bar{s}a\bar{e}na$ -); cf.  $sip\bar{e}d$  'white' (Av.  $spa\bar{e}ta$ -);

2.  $\vec{u} > \bar{u} - \gamma \bar{u}nj$  'hair (pl.)' < \* $\gamma \vec{u}nj$  (Av. gaona-); cf.  $\gamma \vec{u}\gamma$  'ear' (Av. gaoša-).

Both of these developments occurred relatively early, and at the present time both  $\bar{e}$  and  $\dot{\vec{u}}$  (of a different origin) are used commonly before nasals.  $\bar{e} > \bar{e}$ :  $div\bar{e}n$ - 'blow' < \* $div\bar{e}n$  (caus. stem) – cf. the causative stem  $fir\bar{e}p$ - 'deliver'.

Apparently, in the Bajuwi dialect  $\bar{e}$  cannot be used before nasals even in the modern language, and in Shughni it is found only in contractions which have occurred very late:  $t\bar{o}q\bar{e}m$  ( $t\bar{o}qi$ -yum)  $zo\bar{x}t$  compared to Bajuwi  $toq\bar{t}m$  ( $t\bar{o}qi$ -yum)  $zo\bar{x}t$  'I got the tybeteika".

 $\bar{o} > u$ :  $c\bar{u}nd < c\bar{o}nd$  'how much';  $n\bar{u}m < n\bar{o}m$ . This is an active phonological process, as can be seen from recent borrowings: rayun 'from Tajik or Russian rayon 'region'. The pronunciation of  $\bar{o}$  before nasals is only found in the speech of educated people and only in borrowed words.

2. The contraction of the diphthongs  $\bar{a}w$ , aw, and ay in Shughni when they are before a consonant word-medially:

 $\bar{a}w, aw > u$ : wun 'wool' – cf. Ru., Bt. wawn; sund 'goes' – Ru., Bt. sawd; nubat from Tj. nawbat 'turn (in an order)'.

*ay* > *ē*: *rimēd* 'orders; commands' – Ru. *rimayd*; *mēdůn* '(city) square' from Tj. *maydon*; *qēčí* from Tj. *qayčí* 'scissors'.

<sup>&</sup>lt;sup>22</sup> These data represent the main Sarikoli dialect – the Tashkurgan dialect – and are represented as such in all the publications of T.N. Pakhalina, as well as in all the texts recorded by her which she has given to me for my usage. However, judging by the data, the dictionaries, which list variants of words based on dialects, in another dialect – that of Burungsol – the phoneme bi is the rounded vowel u, and the diphthongs are pronounced as ay and aw.

Both types of contractions are still active processes in the language; however, in the newest borrowings the contraction may not occur: *raykům* '(USSR) district committee'; *bayt* from Tj. *bayt* 'line of poetry'; *qům//qawm* 'relative' from Tj. *qawm*; *tůfɛq//tawfīq* 'assistance; aid' from Tj. *tawfiq*.

3. In Shughni, the shift of long  $\bar{i}$  to short *i* in word-final position:  $ti//t\bar{i}r$  (postposition meaning 'on (top of)';  $-di//-d\bar{i}r$  (comparative suffi);  $qati//qat\bar{i}r$  (postposition meaning 'with'). Final  $\bar{e}$  can become *i* in Rushani:  $t\bar{e}//ti < t\bar{e}z$  'go!';  $parji < parj\bar{e}v$  'take!'.

4. In Sarikoli, the contamination of the phoneme  $\omega$  with *i*:  $\partial \omega st//\partial ist$  'hand';  $pa\partial \omega ng//pa\partial ing$  'threshold; doorstep'.

5. In Bartangi, the lengthening of *a* to  $\bar{a}$  in front of *w* (<\* $\check{s}$ ): Bt. *afāw*; Ru. *afaw*; Sh. *afaǧ* 'day after tomorrow'; Bt. *virāw*; Ru. *viraw*; Sh. *viraǧ* 'break; shatter (intr.)'.

Later changes in consonants are the following:

6. The transition of *dz* to *z*, most often when before a consonant, but also in other cases: Sh., Ru., Bt. *pīzd*, Srk. *pizd* 'cooks' – cf. Sh. *pīdzum*; Ru., Bt. *pēdzum*; Srk. *pédzam* 'I cook'; Sh. *rūz*, Ru. *rūz*; Bt. *rūzn*; Srk. *rezn* 'window' (< Av. *raočana*-); Sh. *az*, *as*; Ru. *az*; Bt. *az*, *as*; Srk. *az*; but Bt. *adzēd//azēd*; *adzūd//azūd* 'from here'; Ru. *zarḗdz*; Bt. *zarḗz* 'partridge'; among others.

7. In post-consonanantal position *s* becomes *c*: Sh. *wižafc*; Ru. *wižafs-//wižafc-*; Bt. *wižafs-*; Sr. *wižefs-* 'to stand'; Sh. *pēxc-*; Bt., Ru. *pāws-*; Sr. *pars-* 'ask'; among others.

8. The contamination of the consonants  $v - \delta$  and  $f - \theta$ : Sh. *vidīrm//ðidīrm*; Ru. *vidírm* 'broom'; Bt. *čāf//čā* $\theta$  'jackdaw'; *žirf//žir* $\theta$ : Bt. *žir* $\theta$ ; Sh. *žirf* 'slick'.

9. A tendency toward the devoicing of *d* after sonorants, especially in Rushani and Shughni: Ru. *virt*, Sh. *vīrt* 'brings'; Ru. *xirt*, Sh  $x\bar{i}rt$  'eats'; Sh., Ru.  $q\bar{i}wt$  'calls' – cf. Kh. *vīrd*, *xīrd*, *qīwd*; Bt. *vērd*, *xērd*, *qīwd*; among others.

## Historical correspondences of vowels

## Reflex of Proto-Iranian \*a

**§26.** The numerous comparisons made have shown that the basic phonetic factors which influenced the development of short \*a were the following:

\_\_\_\_\_p. 25\_\_\_\_\_

1. Stress (stressed and unstressed positions);

2. Umlaut (*i*-umlaut and *a*-umlaut positions, which oppose the neutral position: *i*-umlaut is the position before a reconstructed \*i or \*y in the following syllable, or before a palatal consonant; *a*-umlaut is the position before  $*\bar{a}$  in the following syllable. Neutral position consists of all other positions; that is, in stems which ended in a consonant or in the vowels -\*a or \*-u (which had probably already disappeared by the Proto-Iranian period);

3. Features of the syllable in question (syllables closed by one consonant or open syllables, and closed by two consonants);

4. Influence of surrounding consonants;

5. Word-initial and word-final position.

The influence of these factors resulted in the following fundamental types of correspondences of Proto-Iranian \*a in the languages of the Shughni-Rushani group:

#### Stressed position

#### **Neutral position**

In neutral position we have three main variants of correspondences: (i) in syllables closed with one syllable; (ii) in syllables closed with two final consonants; 3) in closed syllables with two final consonants, and before v, r.

§27. In closed syllables with one final consonant, Proto-Iranian a corresponds to the following:

Shughni	Rushani	Bartangi	Sarikoli	Avestan	Gloss
pīð	poð	pöð	peð	pada-; pad-	footprint; track
pīs	pos	pös	pes	pasav-	sheep
čīd	čod	čöd	čed	kata-	house
xīr	xor	xör	xer	hvar-	sun
xīxĭ	xož	xöx	xež	Skt. <i>śvaśru-</i>	mother-in-law
х <i>ī</i> ў	х́оў	хöj	х́еј	*uxšaka-;	bull; ox
				Av. uxšan-	
xīĶ	xo <i></i> y	xöğ	xeg	x <sup>v</sup> arəz (išta)	sweet
ðīs	ðos	ðus <sup>23</sup>	ðes	dasa-	ten
divi <sup>24</sup>	divó	divör	divér	dvar-	door
tīr	tor	tör	ter	tarō-, tarə	top
zīd	zod	zöd	zed	jata-	killed
na <i></i> jītd	nawžód	nawžöd	naržéd	Av. gata-	passed

In Rushani, with the loss of final r in postpositions or word-forming suffixes – i.e., in syllables with somewhat weakened stress, we get short *i* in the place of short *o*:

Shughni	Rushani	Bartangi	Sarikoli	Avestan	Gloss
tīr	ti	tör	ter	tarə	pspn. 'on; over'
-andīr	-andí	-indér <sup>25</sup>	-indér	antar	pspn. 'inside'
-di	-di	-dör	-der	-tara	cmprtv. suffix

When in front of Iranian \*š (whose reflexes are Sh. ý; Ru., Bt. w; Srk. l), in Shughni we have a back vowel ( $\bar{u}$  or  $\bar{o}$ ) in the place of  $\bar{i}$ ; in Rushani we have long u in the place of short o; and in Bartangi and Sarikoli *ö* and *e*, respectively, are preserved:

Shughni	Rushani	Bartangi	Sarikoli	Avestan	Gloss
$x \bar{o} \check{y}^{26}$	$x\ddot{u}w$	xöw	xel	xšvaš-	six
čū <i></i> ¥	čūw	čöw	čel	*kaša- <sup>27</sup>	multicolored

<sup>&</sup>lt;sup>23</sup> A later irregularity, possibly from influence of Rushani *dos*.
<sup>24</sup> See §25, pt. 3.

<sup>&</sup>lt;sup>25</sup> Unrounding due to influence from initial *i*-? <sup>26</sup> Widening (lowering) due to the influence of *x*.

<sup>&</sup>lt;sup>27</sup> Yz. kaw; Mnj. kaš.

**§28.** In closed syllables with two final consonants, in Rushani and Bartangi we get the same vowels as in syllables closed with one consonant, but in Shughni and Sarikoli we get the vowels  $\bar{u}$  and  $\omega$ , respectively:

Shughni	Rushani	Bartangi	Sarikoli	Avestan	Gloss
vūst	vost	vöst	vыst	basta-	connected
čūxt	čožt	čöxt	čы <i>х</i> t	*kašta-; Av.	looked;
				√kas-	watched
rinū́žt	rinóxt	ranöxt	ranыxt	našta-	forgot
ðūst	ðost	ðöst	ðыst	OP dasta-;	hand <sup>28</sup>
				Av. zasta-	
čūšč	čošč	čöšč	Čыšč	*kaska- <sup>29</sup>	barley
ricúst	racóst	_	raсыst	*(u)s-rasta-; * $\sqrt{rad^{30}}$	fled
pirūst	paróst	paröst	—	*pati-rasta;	took care of;
				Skt. √ <i>rad</i> -	figured out
_	wiróxt	wirōxt	_	Av. <i>rašta-</i> ; √ <i>raz-</i>	built

Sh. ū// Ru. o	// Bt. <i>ö</i> // Srk. ы
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In Shughni, there are two cases in which we find short *u* instead of long  $\bar{u}$  before  $\dot{x}$  (cf. also Ru. *rawuxt*):

Shughni	Rushani	Bartangi	Sarikoli	Avestan	Gloss
riwúžt	rawúxt	rawö̇́xt	rawыхt	vašta; √vaz	flew off
arrúžt	wiróxt	wirōxt	—	Sh.:	Sh.: to rear
				*fra-rašta;	up?; Ru., Bt.
				Ru.; Bt.	built
				*avi-rašta;	
				Av. $\sqrt{raz}$	

**§29.** In syllables closed with two consonants, and before v and r, in all languages except Sarikoli the result is a high back vowel. In Sarikoli, we get *i* in place of  $\omega$  (Khufi here is different in that a short u is found in this position instead of long  $\bar{u}$ , which we find in Rushani proper):

Sh. *ū* //Kh. *ū* // Ru. *u* // Bt. *ū* // Srk. *e*, *i*, ы

<sup>&</sup>lt;sup>28</sup> Regarding the fact that we have  $\delta$  instead of *z*, see the explanation in EVP under the word  $l\bar{a}s$ . This is also a possible later contamination between forms (and not a direct borrowing).

<sup>&</sup>lt;sup>29</sup> Yz. *kusk* 

<sup>&</sup>lt;sup>30</sup> The root \**rad* is reconstructed through the following correspondences: Yz. *rað*-; *růst*; Wkh. *rəð*-; *rən*. Cf. IIFL II: 224, 537. The affricate *c* in the middle of the world is a result of the metathesis of the prefix (see §25; pt. 7).

Shughni	Khufi	Rushani	Bartangi	Sarikoli	Avestan	Gloss
sitū́vd	sitū́vd	sitúvd <sup>31</sup>	sitū́vd	—	tapta-	roasted (intr.)
ancúvd	incúvd	incúvd	incúvd	incivd <sup>32</sup>	* <i>drapta</i> ; √drap; cf. Av. <i>drafša-</i>	sewed
anjū́vd	injū́vd	injúvd	injúvd	-	* $\sqrt{kap}$ ; PIE $\sqrt{kap}$ ; Pers. <i>časpīdan</i>	grabbed
wirűvd	wirűvd	wirúvd	wirűvd	warivd <sup>33</sup>	* <i>rapta</i> ; cf. Av. $\sqrt{rap}$ and $\sqrt{ram}$ ; PIE <i>rém-bh</i>	stood
niðū́vd	niðū́vd	niðúvd <sup>34</sup>	niðū́vd	niðévd	Av. √ <i>dap</i> ; ptcpl. <i>dapta</i>	stuck; adhered (intr.)
xūrn	xūrn	xurn	xūrn	xern	* $x^{v}arana$ -35	crow
čūrð	-	čurð	čūrð	čerð	*karda; <sup>36</sup> cf. Av. skarəna; PIE *kerd	crooked; curved
xūðm	xūðm	xuðm	xūðm	хыðт	x <sup>v</sup> afna	sleep

In the final word (Sh.  $x\bar{u}\delta m$ ),  $\delta < v$  (\* $x^vavna$ ; see §25, pt. 8). With respect to the transition of \*a into  $\omega$  in Sarikoli here, it is possible that there was some influence exerted by the labial element of  $x^v$ . In Sarikoli, we regularly get  $\omega$  before v and r word-initially:

Shughni	Khufi	Rushani	Bartangi	Sarikoli	Avestan	Gloss
wūvd	(w)ūvd	$(w)\bar{u}vd^{37}$	ūvd	ыvd	hapta-	seven
yūrž	yūrž	yurž	yūrž	yыrž	arša-	bear

A similar result is observed when \*a is before  $*\check{y}$ , which became y:

Shughni	Khufi	Rushani	Bartangi	Sarikoli	Avestan	Gloss
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<sup>&</sup>lt;sup>31</sup> This is the pronunciation of the older generation. In modern times this form is replaced with the feminine form of the past stem  $sit\bar{a}vd$ .

<sup>&</sup>lt;sup>32</sup> Possibly, *i* together with *e* under the influence of the infinitive stem?

<sup>&</sup>lt;sup>33</sup> Possibly, *i* together with *e* under the influence of the infinitive stem?

<sup>&</sup>lt;sup>34</sup> This is the pronunciation of the older generation. In modern times this form is replaced with the feminine form of the past stem  $ni\delta\bar{a}vd$ .

<sup>&</sup>lt;sup>35</sup> NTS I: 76.

<sup>&</sup>lt;sup>36</sup> Wkh. kard.

<sup>&</sup>lt;sup>37</sup> Apparently we have long  $\bar{u}$  in place of short u because it has been lengthened in word-final position.

tūyd	tūyd	tuyd	tūyd	tыyd	*ta <i></i> yॅda-;	left
					Av. √ <i>tak</i> -	
ağūyd	awū́yd	awúyd	awū́yd	ажы́уд	√ <i>šay</i> - (?);	lay
					cf. Av. <i>ā</i> -	
					šay_	

## §30. Special cases of correspondences.

1. In pre-uvular position in Shughni, we always get  $\bar{e}$ ; in the same position in Sarikoli we get *e*. In Rushani and Bartangi there is no effect:

Shughni	Rushani	Bartangi	Sarikoli	Older form	Gloss
pēxt	poxt	pöxt	pext	*paxta-	cooked
kēx-; kēxt	kox-; koxt	köx-; köxt	kex-; kext		cough
čēxt	čoxt	čöxt	_		crooked; curved
nēx	nox	nöx	nox	*naxu- (?)	plank bed at a
					house

2. In cases where one of the consonants of a syllable (closed by two syllables) is lost, we have differing results, depending in part on the time period in which the consonant was lost, and in part on the quality of the consonant.

a. Here we often find long  $\bar{u}$  in all languages // Sr.  $\omega$ :

Shughni	Rushani	Bartangi	Sarikoli	Older form	Gloss
wūs	wūs	wūs	WыS	Skt. vamsa	beam
pūm	pūm	pūm	_	Av. pašna-; Skt.	down
				pakṣman-	(feathers)
čūn	čūn	čūn	čыn	Av. karəna-	deaf
šūð	šūð	šūð	šыð	* <i>xaðn(a)-</i> ; Av.	prickle; thorn
				$\sqrt{xad}$	_

b. The loss of a root *t* in past-tense stems gives differing results: in Sarikoli we see the same result as in syllables closed with two consonants, and in the remaining languages we see the same result as in syllables closed with one consonant:

Shughni	Rushani	Bartangi	Sarikoli	Older form	Gloss
nažfīd	nawfód	nawföd	nalfыd	* <i>nir-atta</i> ; Av.	11 /
				<i>Npat</i> -	fell out

<sup>38</sup> Yz. xəðnag

sifid sifód siföd	_	*us-patta	rose; went up
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This may point toward differing time periods at which t was lost.<sup>39</sup>

The Rushani and Bartangi forms can be treated as a result of \*a being in a position before two consonants (cf. §28).

c. The loss of *r* often occurs via its vocalization: r > w. As a result of this, we get the diphthong of *w* combined with the preceding vowel, which could then combine into  $\bar{u}$ . Such is the path of change for *r* when before \**t*: Sh.  $\tilde{cud}$ ; Ru., Bt.  $\tilde{cug}$ ; Srk.  $\tilde{cewg}$  (Av. *karta*). The loss of *r* also occurred in the word for 'year' (Av. *sarəd*), not leaving any trace; the correspondences here are just like those in syllables which end in one consonant: Sh. asid; Ru. asoid; Bt. asoid; Srk. sed 'this year'.

d. It must be kept in mind that a vowel before  $r + \text{consonant can continue } *_r \text{ rather than} *_a$  (for example, Sh.  $v\bar{u}d$  'brought' cannot be derived from \**barta*, but rather from \**brta*, Av. *barəta*). Thus, it is best to look back at the history of Iranian \**a* before *r* when examining \*<sub>r</sub>.

This reflex of \*a before \*y and \*w is more appropriate to consider when examining these sonorants.

#### In the *i*-umlaut position

In the *i*-umlaut position, similar to the preceding, there are different results in different positions: (i) in syllables closed with one consonant and (ii) in syllables closed with two consonants. The Khufi dialect is often different from Rushani proper.

**§31.** In closed syllables with one final consonant, we have the following correspondences:

Shughni	Khufi	Rushani	Bartangi	Sarikoli	Older form	Gloss
žīr	<i>ī</i> ær	žēr	žēr	žer	Av. ga <sup>i</sup> ri-	stone

Sh.  $\bar{i}$  // Kh.  $\alpha$  // Ru.  $\bar{e}$  // Bt.  $\bar{e}$  // Srk. e

<sup>&</sup>lt;sup>39</sup> Cf. the *t* which has been preserved in the verb 'to come' (Av. Vyat): Sh. present stem *yatt*-; Sh., Ru. infinitive *yat(t)* $\bar{o}w$ . The preservation of the voiceless *t* points toward the recent loss of *t* in Bartangi and Sarikoli: Bt. present stem *yat*-; Srk. *yot*. \**t* before *t* did not turn into *s*, unlike \**d*.

wīz	wæz	wēz	wēz	wez	Av. vazya-	load
nīr	nær	nēr	nēr	ner	Av. na <sup>i</sup> rya-	male
mīð	$mar{e}\delta^{40}$	mēð	mēð	_	Av. ma <sup>i</sup> ðya-	waist
rizī́n	rizén	rizến	razḗn	razén	*fra-zanyā; <sup>41</sup>	daughter
					Av. √ <i>zan</i> -	
θīr	aθǽr	aθḗr	aθḗr	θér	*(a) $\theta$ arya-; <sup>42</sup>	ash
					Av. ātrya-	

**§32.** With the grammatical meaning found in inflection, this correspondence can be found in the following cases:

1. In some present stems which continue the stem in -\*(a)ya (without the lengthening of the root vowel) with a transitive or active sense:<sup>43</sup>

Shughni	Khufi	Rushani	Bartangi	Sarikoli	Older form	Gloss
pīdz-	pædz-	pēdz-	pēdz-	pedz-	*pač(a)ya-;	cook
					Av. $\sqrt{pak}$ -	
zīn-	zæn-	[zān-	zān-	<i>zon-</i> ] <sup>44</sup>	* <i>j</i> an(a)ya-;	kill;
					Av. √gan-	murder
parjītv-	[ <i>parjắv-</i> ] <sup>45</sup>	parjí- <sup>46</sup>	parjév-	—	*par-	take away;
					jav(a)ya-;	remove
					*√kap	
<i>ti</i> - <sup>47</sup>	<i>ti</i> - <sup>48</sup>	ti- <sup>49</sup> , tē-	tē-	tez-	*tač(a)ya-;	leave
					Av. √ <i>tak</i> -	

2. In infinitive stems with a root-final -n or -m (in many verbs the infinitive was formed not from the participle in -ta, but from the deverbal noun in -ti, from where the *i*-umlaut position arose)<sup>50</sup>:

Shughni	Khufi	Rushani	Bartangi	Sarikoli	Older form	Gloss
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<sup>&</sup>lt;sup>40</sup> This is apparently a Rushani borrowing.

<sup>&</sup>lt;sup>41</sup> NTS I, 66.

<sup>&</sup>lt;sup>42</sup> See EVP, 11.

<sup>&</sup>lt;sup>43</sup> By the reconstructed period, the stems ending in *-aya* had already been contaminated with those ending in *-ya*, which often had an intransitive meaning. For this reason, the suffix *-s* was often added to reflect an intransitive meaning.

<sup>&</sup>lt;sup>44</sup> Here we have either (i) a later analogy with the universal type of stem with root  $\bar{a}$  (because there is not an opposing verb with an intransitive meaning) or (ii) the reflex of a double conjugation of the verb in question: with the stem in -(a)ya and with the stem in -a.

<sup>&</sup>lt;sup>45</sup> Analogy with the voice-neutral verb of this same root: *injāv*- 'grab'.

<sup>&</sup>lt;sup>46</sup> See. §25, pt. 3.

<sup>&</sup>lt;sup>47</sup> See. §25, pt. 3.

<sup>&</sup>lt;sup>48</sup> See. §25, pt. 3.

<sup>&</sup>lt;sup>49</sup> See. §25, pt. 3.

<sup>&</sup>lt;sup>50</sup> The possibility of analyzing Shughni-Rushani infinitives in this way was noted by Morgenstierne (NTS I, 37).

na <i>ĭĭī</i> d	nawžćed	nawžḗd	nawžḗd	naržéd	*nir-jata-;	pass
					Av. √gam-	
zīd	zæd	zēd	zēd	zed	Av. inf. <i>jaiti</i> ;	kill; murder
					√gan-	
bizī́d	bizǽd	bizēd	bizēd	_	6677	drive/hammer
						into

3. In the feminine form of the following suffix: masc. -\**aka*; fem. \**ači*.<sup>51</sup> The masculine form of this suffix, which forms agent nouns or the instrument of an action in the modern Shughni-Rushani languages, appears as Sh. -ij, Ru. -ój; *Bt*. $-\ddot{o}j$  (§ 5, pt. 3); that is, it has the vowel correspondences of neutral position. The feminine form gives Sh. -idz; Kh.  $-\dot{c}dz$ ; Ru.  $-\bar{e}dz$ ; Bt.  $-\dot{e}dz$ ; Sr.  $-\dot{e}dz$ . This suffix is only actively (productively?) used in Bartangi; in the rest of the languages of the group it appears only as part of fixed forms:

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Shughni	Khufi	Rushani	Bartangi	Sarikoli	Origin	Gloss
zarīdz	zarædz	zarḗdz	zarḗdz	zarédz	*zarač(i);	partridge
					Psht. zərka;	
					Oss. zar-	
					'sing'	
<i>x</i> abī́dz	<i>x</i> ab <i>œ</i> dz	<i>x</i> ab <i>é</i> dz	<i>x</i> ab <i>é</i> dz	_	PSS $\check{x}\bar{e}b$ -;	twig;
					$\check{x}\bar{\imath}b$ - 'to	switch
					beat'	
wižī́dz	wižćedz	<i>x</i> ēdz	wižḗdz	_	PSS: wiži-;	key
					wixay-	
					'open'	

**§33.** In closed syllables with two final consonants, *i*-umlaut is found almost exclusively in verbs and indicates the following for a series of verbs: (i) infinitive stem (deverbal nouns ending in \*ti); (ii) feminine perfect stem (participle with the suffix  $*-(a)\check{c}i$ ; (iii)  $3^{rd}$  person singular present (with the personal ending \*-ti) and sometimes present- tense stems (stems ending in \*-(a)ya).

It is natural that grammatical meaning brings with it all kinds of changes in historical correspondences due to leveling by analogy. For this reason the role of surrounding consonants here is somewhat obscure in comparison with neutral position. Thus, in Bartangi in front of all consonants we only get  $\bar{e}$ , and its high variant  $\bar{i}$  is never found (cf.  $\bar{u}$  for neutral position; §29). It's possible that this is a result of later unification. The Khufi dialect, which has undergone intense influence from both Rushani and Shughni, gives a variegated picture of the usage of the vowels  $\alpha$ ,  $\bar{e}$ , and  $\bar{i}$ , sometimes i, in which a tendency is nonetheless observed in which the

<sup>&</sup>lt;sup>51</sup> Cf. Morgenstierne's Iranian feminines in -či (Norman Brown Volume, New Haven, 1962, 160-165)

leveling toward  $\bar{i}$  is preferred. Only Rushani clearly preserves the differentiation before narrowing consonants (giving *i*), and before other consonants (giving  $\bar{e}$ ). Consonants of the narrowing type include *v*, *r*, and *n*, the latter of which is not found in neutral position. In Shughni and Sarikoli, analogous with the neutral position, only high variants are found everywhere (Sh.  $\bar{i}$ , Sr. *i*), excluding positions before uvulars, where Shughni gives  $\bar{e}$  and Sarikoli gives *e*.

Thus, the general type of correspondences in closed syllables with two final consonants can be summarized in the following schema, where vowels in parentheses indicate isolated cases of correspondence:

Sh.  $\bar{i}(\bar{\varepsilon})$  // Kh.  $\alpha, \bar{e}, \bar{i}, (i)$  // Ru.  $\bar{e}, i$  // Bt.  $\bar{e}$  // Srk. i, (e)

Illustrative examples are given below:

**§34.** In infinitival stems:

Shughni	Khufi	Rushani	Bartangi	Sarikoli	Origin	Gloss
ancīvd	incīvd	incívd	incēvd	incívd	*√drap-	sew
anjīvd	injīvd	injívd	injēvd	_	*√kap-	grab
niðīvd	niðīvd	niðívd	niðēvd	naðévd	*√ <i>dap</i> -	stick; adhere (tr.)
wirīvd	wirívd	wirívd	wirēvd	warívd	$*\sqrt{ra(m)b}$ -	stand up
rīvd	rīvd	rivd	rēvd	rivd	*√ <i>rab-</i> ; PIE * <i>lab-</i>	suck
šīnt	šīnt	šint	šēnt	šind	*√ <i>xand</i> -	laugh
čīnt	čint	čint	$[\check{c}ant]^{52}$	_	Av. √ <i>kan</i> -	dig
wīrvd	wirvd	wirvd	wērvd	wirvd	* $\sqrt{varb}$ - with metathesis of PIE * <i>bher</i> - $v^{53}$	boil (intr.)

When preceding v, n, r

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#### When preceding other consonants

Shughni	Khufi	Rushani	Bartangi	Sarikoli	Origin	Gloss
wīft	wīft	wēft	wēft	wift	√waf	weave

<sup>&</sup>lt;sup>52</sup> New (back) formation from the present-tense stem

<sup>&</sup>lt;sup>53</sup> NTS I: 74.

<i>x</i> ičīft	<i>xičīft</i>	<i>x</i> ičēft	<i>x</i> ičēft	čift	$\sqrt{(s)kaf}$ ;	pop; burst
					cf. Prs.	(intr.)
					kafīdan	
sipīft	sipæft	sipēft	sipēft	sipift	—	suck <sup>54</sup>
firīpt	firæpt	firēpt	firēpt	fiript	Av. √ <i>ap</i> -	arrive;
						reach
čī <i></i> xt	čī <i></i> xt	čēxt	čēxt	či <i>žt</i>	Av. √ <i>kas</i> -	look;
						watch
rinīxt	rinēxt	rinēxt	ranēxt	rani <i>ž</i> t	Av. $\sqrt{nas}$ -	forget
vīst	vēst	vēst	vēst	vist	Av. $\sqrt{band}$	connect
pirīst	parēst	parēst	parēst	parist	*√ <i>rad-</i> ;	break;
					Skt. rad-	burst; tear
						(intr.)
pēxt	pæxt	pēxt	pēxt	pext	Av. $\sqrt{pak}$ -	cook
						(tr./intr.)

In Shughni, in the same verbs where we get short u in neutral position (§28), we get a corresponding short i:

Shughni	Khufi	Rushani	Bartangi	Sarikoli	Gloss
riwižt	rawixt	rawixt	rawēxt	rawi <i>žt</i>	fly off
arri <i>ž</i> t	wirēxt	wirēxt	wirēxt	-	Sh. 'rise'; Ru.,
					Bt. 'build'

The very same deviation that we see in the verb *rawixt* for Shughni, as can be seen, is also found in Rushani (along with the Khufi dialect). It is possible that this is the result of an earlier analogy with forms from roots ending in *-rt*, *-rd* of the following types: past tense stem *raxixt*; infinitive *raxixt* 'fall in; collapse' (from the root  $\sqrt{kart}$ -; see §88 for more on this).

With the loss of the root -i we also have results which are analogous to neutral positions (§30, pts. 2, 6). The correspondences which arise here can be analyzed for Sarikoli only as a result of the change of \*a before two consonants, and for the remaining languages two analyses are possible:

Shughni	Khufi	Rushani	Bartangi	Sarikoli	Gloss
nažfīd	nawfīd	nawfēd	nawfēd	nalfid	drop out; fall
					out
sifīd	sifæd	sifēd	sifēd	_	rise; go up

The transformation of root r in the infinitive is also analogous to its transformation in past stems (§30, pt. 2c); but it went through sonorantization with y. In Sarikoli we have the diphthong  $\varepsilon y$ , and in the remaining languages it becomes long  $\overline{i}$  (Bt.  $\overline{e}$ ): Sh.  $\overline{c}\overline{i}d$ ; Bt.  $\overline{c}\varepsilon g$ ; Srk.  $\overline{c}\varepsilon yg$  'do' (<\**karti*), among other stems with r.

<sup>&</sup>lt;sup>54</sup> Cf. Yz. *spaj*; Ish. *spoj*. Establishing the relation here of Wakhi *šap* is hindered by Mnj. *š* in *šuv*.

**§35.** In perfect stems in feminine gender. Perfect stems in the feminine gender (found only for intransitive verbs) are formed from the participle together with the suffix \*-\* $\check{c}i > c$ , dz (in the masculine gender with the suffix \* $ka > \check{c}$ , j). For example:  $paxt(a)\check{c}i > \operatorname{Ru}$ .  $p\bar{e}xc$ , where \*t subsequently assimilated to the affricate c (masculine \* $paxt(a)ka > \operatorname{Ru}$ .  $pox\check{c}$ )<sup>55</sup>. In Sarikoli, where grammatical gender has been lost, there are no perfect stems in the feminine gender. For the rest of the languages of the Shughni-Rushani group we have the following basic type of correspondences (for the Khufi dialect, unlike the infinitival stems, there are generally no irregularities):

Shughni	Khufi/Rushani	Bartangi	Origin	Gloss
na <i>ž</i> jīc	nawžēc	nawžēc	√gam-	(she) passed
nažfīc	nawfēc	nawfēc	$\sqrt{pat}$ -	(she) fell out;
				dropped out
sifīc	sifēc	sifēc	$\sqrt{pat}$ -	(she) rose; went up
pirīsc	parēsc	parēsc	$\sqrt{rad}$ ; Skt rad-	(she) broke / burst
ricīst	racēst	_	*√rad-	(she) fled; ran off

Sh.  $\bar{i}$  // Ru., Kh.  $\bar{e}$  // Bt.  $\bar{e}$ 

When before *v*, we regularly get short *i* for Rushani, and when before *x*, we regularly get  $\overline{e}$  in Shughni:

Shughni	Khufi/Rushani	Bartangi	Origin	Gloss
wirīvdz	wirívdz	wirēvdz	√rab-	(she) stood up
pēxc	pēxc	pēxc	√pak-	(she) cooked

**§36.** In 3<sup>rd</sup> person singular verb forms in the present tense.

1. Here we are looking at verbs which have long  $\bar{a}$  in their stem and which have the front vowel  $\bar{i}$  in their third-person singular present stem. This has come about via the influence of the old third-person-singular personal ending \*-*ti* (of the type \**barati* > \**var*(*a*)*ti* > Sh. *vīrt* 'brings', where the present stem in question, *vār*-, is used in the other person-number combinations. This type of irregularity is noted almost exclusively before *r*, *v*, and *n*, giving the following type of regular correspondences (cf. §34):

Sh. ī // Ru., Kh. ī, i // Bt. ē // Srk. i

Shughni	Khufi	Rushani	Bartangi	Sarikoli	Origin	Gloss
xīrt	xīrd	xirt	xērd	xird	$\sqrt{x^{\nu}ar}$ -	eats

<sup>55</sup> Perfect stems in the masculine gender therefore have the vowel reflexes as in the past stems.

vīrt	vīrd	virt	vērt	vird	√bar-	brings
zidīrt	zidīrt	zidírt	zidērt	zidírd	√tar-	sweeps
nižpīrt	—	—	nixpērd	nažpízd <sup>56</sup>	√spar-	steps on
sifint	sifint	sifint	sifēnt	—	$\sqrt{pat}$ -(?);	rises; goes up
					cf. Skt.	
					phan-	
anjīvd	injīvd	injívd	injēvd	_	√kap-	grabs
ancīvd	incīvd	incívd	incēvd	incívd	√drap	sews
ðīd	ðīt	ðiðt	ðēt	ðit	$\sqrt{da^{57}}$	gives

However, umlaut is not observed for all verbs. The palatalizing effect of the personal ending *-ti*, being somewhat distanced from the vowel acted upon (*\*bar-a-ti*) gave perhaps less of an effect than the infinitival suffix *-\*ti*, which was added directly to the root (*\*bar-ti*). Thus, umlaut was carried out only in verbs with stems ending in a (palatalizeable?) consonant. (Palatalizeable?) consonants in ancient languages, besides *\*k*, and *\*g*, were *\*r*, *\*t(θ)*, *\*d(ð)*, giving in some languages common examples of a transition into *y* and *l*, and, apparently to a lesser extent, *p*, *b*, and *n*.<sup>58</sup> When these consonants were present, (the entire end of the verbal form?) became palatalized, which also created the conditions for the realization of umlaut: *barat<sup>ii</sup>*? Sh.-Ru. *\*var<sup>i</sup>(i)-t<sup>ii</sup> > vīrd*, but *\*vazati >* Sh.-Ru. *\*waz(a)t<sup>i</sup> > wāzd* 'swims'. In fact, umlaut for the third-person singular is attested only before these consonants. In stems that end in *-r*, it is observed without any exceptions. Simplex stems ending in *-t*, *-d*, besides *ðāð*, are not attested,<sup>59</sup> but stems ending in *-v* (< *\*p*, *\*b*) and *-n* vary (see cases with out umlaut in §45).

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Another phonetic factor which could hamper the realization of umlaut was the presence of two stem-final consonants, which effectively increased the distance over which  $*t^{i}i$  would have to give an effect. Thus, in cases like  $*warv(a)t^{i}i$  (>  $w\bar{a}rvd$  'boils'), the palatalizing effect was not very strong.

As for the lack of umlaut in the remaining person-number combinations for the reconstructed conjugations and primary endings, this is completely natural, as there were no positions of i-umlaut in any of the remaining persons/numbers. On the contrary, the position of  $\bar{a}$ -umlaut was created, since the thematic vowel (or, more precisely, the vowel ending) -\**a*-, \* $\bar{a}$  was not reduced here and was steadfastly preserved (\**barāmi* > *vā́ram* > later *vārum* 'I bring'). The lack of palatizeable consonants in the endings (- $\bar{a}$ -*mi*, *a*-*hi*,  $\bar{a}$ -*mahi*, *a*-*nti*)<sup>60</sup>, for its part, caused the

<sup>&</sup>lt;sup>56</sup> Contamination with the verb *naxtīzd* 'goes' (?).

<sup>&</sup>lt;sup>57</sup> Present-tense stem  $\delta \bar{a} \delta$ -; Av. stem dad-.

<sup>&</sup>lt;sup>58</sup> The palatalization of *r*, *t*,  $\theta$ , *d*,  $\delta$ , *p*, *b*, and *n* is well recorded in Avestan (cf. *ma<sup>i</sup>* $\delta$ *ya*, *na<sup>i</sup>rya*, *bara<sup>i</sup>ti*, but *barāmi*, etc.). For *p*, *b*, *n* it is less regular (see NTS XII: 55-56).

<sup>&</sup>lt;sup>59</sup> The *a* in  $\sqrt{yat}$  (modern stem *yad* 'come') has a special provenance as a component of the combination *ya*. <sup>60</sup> In this position it is possible that there was only a small degree of palatalization for *-n-*; cf. Av. *barənti* 'they bring' and not *barə<sup>i</sup>nti*.

quick loss of final -*i* in the endings, which early on turned into a vague overtone without the support of preceding palatalized articulation (\*- $ami > -*am^9 > -am$ ).

Shughni	Khufi	Rushani	Bartangi	Sarikoli	Gloss
pīzd	pīzd	pizd	pēzd	pizd	cooks
zīnt	zīnt	zint	zēnt	zint	kills
tīzd	tīzd	tizd	tēzd	tizd	goes
parjīvd	parjīvd	parjivd	parjēvd	-	takes away

2. The exact same type of correspondences is given in the  $3^{rd}$  singular by umlauting stems ending in \*-*aya*, except that these entail an *i*-umlaut in all person-number combinations:

Here, besides the already listed narrowing (i.e. vowel raising) consonants v, n, r, and  $\delta$ , we can also add z (dz) <  $*\dot{c}$  (but not original z). This further demonstrates that palatalizeable consonants are to be added to the list of narrowing consonants which exert influence on the reflex of \*a before two consonants.

§37. In present stems ending in -\*(a)ya. Here we are looking almost exclusively at intransitive verbs, the stems of which take an additional marker of transitivity *-s*. As such, in all attested examples we have only roots ending in -\*d (> Sh.  $\delta$ ) and -\*t (> Sh. d). The combination of these consonants with the following *-s* results in  $\theta$ . So, as a result, we end up with the position of \*a before one consonant, and not before two consonants (*ham-pad-s-(a)-ya* > Ru. *imbēθ* 'to fall in; collapse'). However, the type of correspondences in these cases, which are characteristic for positions in which \*a precedes two consonants, demonstrates that the umlaut took place here before the combining of the consonants into  $\theta$ . The correspondences here are analogous to the correspondences in infinitive stems: in Rushani *i* regularly appears before *n*, but irregularities are common for the Khufi dialect:

Shughni	Khufi	Rushani	Bartangi	Sarikoli	Origin	Gloss
vīnd	vind	vind	vēnd	vind	$\sqrt{band}$ -; Av.	connect
					bandaya-	
pidvīnd	_	padvind	padvēnd	_	√band	mend
pidvīθ	_	padvēθ	$padv \bar{e} \theta$	-	"" stem: * <i>pat</i> -	merge
					vand-sya	
nažfīθ	nawfīθ	nawfēθ	nawfēθ	-	√pat-	drop out;
						fall out
pirīθ	$par\overline{\imath} heta$	parēθ	parēθ	—	√rad-	burst; tear
ricīθ	racēθ-	racēθ-	-	raceθ-	√rad-	run away;
						flee

Sh. ī // Kh. ē, ī, i // Ru. ē, i // Bt. ē // Srk. i

ambīθ-	_	imbēθ-	_	ыmbis- <sup>61</sup>	$\sqrt{pad}$ ; Av. <i>pa</i> <sup>i</sup> ðya-	collapse
sixīθ	_	sixēθ	_	_	*\ <i>xad-</i> (?)	come off

**§38.** Very few ancient Iranian nouns or adjectives ending in two consonants are attested. And for this reason there are only a few examples of the *i*-umlaut position in nouns or adjectives:

Shughni	Khufi	Rushani	Bartangi	Sarikoli	Origin	Gloss
zīrd	zīrd	zīrd	zīrd	zird	Av. za <sup>i</sup> rita-	yellow
pīndz	pīndz	pīndz	pīndz	pindz	Av. panča-	five
zīmb	—	zimb	zēmb	—	Skt.	edge; bank
					jambhya-	
					'incisor teeth'	
vī <i></i> ydz	—	$v\bar{a}wz^{62}$	vēwz	_	Av. barəziš-	headboard

Here, only in the final examples do we have correspondences which match those of verbs. In the first two examples we get  $\bar{i}$  everywhere, which is almost never found in Rushani or Bartangi in verbs. It is possible that this is a later leveling by analogy with widely used words in Shughni.

It is notwearthy that in the word 'five', the position of the umlaut guaranteed  $*\check{c}$ , the articulation of which was palatal ( $\check{c}$ ).

# In the *a*-umlaut position

**§39.** The *a*-umlaut almost always has a grammatical meaning, and can signal the following: (i) nouns and deverbal nominal formations in the feminine gender with stems ending in  $-\bar{a}$ ; (ii) present-tense verbal stems which continue a conjugation in  $-a - (-\bar{a})$ .

The reflex of \*a in all *a*-umlaut positions in all languages and all phonetic conditions is fundamentally the same:

Only in Shughni in closed syllables with two final consonants does the narrowing of  $\bar{a}$  to  $\bar{o}$  take place (excluding positions before uvulars, where  $\bar{a}$  is preserved).

1) In nouns on deverbal nominal formations in the feminine gender.<sup>63</sup>

<sup>&</sup>lt;sup>61</sup> Later contamination with the past stem ( $\omega mb\omega st$ ). The causative form  $\omega mba\theta on$  'bring down; cause to collapse' points to the presence of  $\theta$  in the present stem.

<sup>&</sup>lt;sup>62</sup> Probably due to the later leveling to aw. There are seemingly no examples of short *i* before *w* in Rushani.

<sup>&</sup>lt;sup>63</sup> Since Sarikoli has lost all grammatical gender, it is not addressed in this section, except for in §41.

**§40.** In nouns which inflect for gender, the feminine gender has  $\bar{a}$ -umlaut vocalization, while masculine gender has the vocalization of neutral position:

Ru., Bt. $s\bar{a}r$ Ru. $sor$ ; Bt. $s\bar{o}r$ 'donkey'Sh., Ru., Bt. $x\bar{a}\check{y}$ Sh. $x\bar{\imath}\check{y}$ ; Ru. $xo\check{y}$ ; Bt. $x\bar{o}\check{y}$ 'sweet'Sh., Ru., Bt. $c\bar{a}\check{x}$ Sh. $c\bar{\imath}\check{x}$ ; Ru. $co\check{x}$ ; Bt. $c\bar{o}\check{x}$ 'bitter'Sh. $xid\bar{a}r$ Sh. $xid\bar{\imath}r$ 'older', where $-d\bar{\imath}r$ is the comparative suffixing the compar	X

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Sh., Ru., Bt. katagāl	Sh. katagīl; Ru. katagol; Bt. katagöl 'big-headed person'
Sh. čā¥, Ru., Bt. čāw	Sh. čūў; Ru. čūў; Ru. čūw; Bt. čöw 'multicolored'
Sh., Ru. <i>šipāk</i>	Ru. <i>šipīk</i> ; Ru. <i>šipok</i> 'flat'
Sh., Ru., Bt. čāxt	Sh. čēxt; Ru. čoxt; Bt. čoxt 'stooped; bent'
Sh., Ru., Bt. xanāxš <sup>64</sup>	Sh. xanēx; Ru. xanox; Bt. xanöx 'goose?'

In Shughni, in closed syllables with two final consonants (but not before uvulars), we get  $\bar{o}$ :

Sh. <i>rōšt</i> , Ru., Bt. <i>rāšt</i> ; Sk. <i>rošt</i> <sup>65</sup>	Sh. rūšt; Ru. rošt; Bt. röšt; Sk. rыšt 'red
Sh. $v \bar{o} \check{y} dz^{66}$	Sh. <i>vūýdz</i> 'long'

**§41.** Nouns in the feminine gender with  $\bar{a}$ -vocalization, of course, can all be derived from the old stem in the feminine gender, which ended in \*- $\bar{a}$ : Sh.  $n\bar{a}n$  'mother'; Ru.  $n\bar{a}n$  'old woman; grandmother'; Sh., Ru., Bt.  $y\bar{a}c$ ; Sr. yoc 'girl'; Sh.  $y\bar{a}j$ ; Ru.  $y\bar{a}z$ ; Sr. yog 'jackdaw'; Sh., Ru.  $bi\delta\bar{a}n$ ; Sr.  $bi\delta on$  'saddle'; Sh., Ru., Bt.  $x\bar{a}s$  'beans'; Ru.  $f\bar{a}rd$ , Kh.  $f\bar{a}r\delta$  'infertile (of a woman)'.

The gender distinction in the Shughni-Rushani group generally falls along the lines of collective vs. non-collective nouns. Thus, nouns with a collective meaning, even if they are not associated in the modern languages with the biological feminine gender, can nonetheless continue the old feminine form, and can also be derived from the plural form or to different instances of the reflex of final  $-\bar{a}$  (for instance, from the suffix -ah). Such examples we can find in words like Sh., Ru., Bt.  $\bar{s}\bar{a}f$  'saliva' ( $<*kaf\bar{a}$ ); Sh., Ru., Bt.  $\bar{x}\bar{a}k$ ; Sr.  $\bar{x}ok$  'frost' ( $<*sra(s)k\bar{a}$ ). In the plural, Sh., Ru., Bt.  $virad\bar{a}r$  'brothers', we have the contiunation of the old plural form in the nominative case  $*br\bar{a}tar\bar{a}$  ( $<*br\bar{a}tarah$ ).

<sup>&</sup>lt;sup>64</sup> Metathesis from *x̃anāx*; cf. Yz. *x̃anax*.

<sup>&</sup>lt;sup>65</sup> This is a rare instance of the preservation of gender in Sarikoli.

<sup>&</sup>lt;sup>66</sup> In Rushani and Bartangi wūz is a later contraction from vāwz (Av. baraz-).

**§42.** In deverbal adjectives in the feminine gender the old middle participle in \*-*ana* (masc.) and \**anā* (feminine) is continued. Accordingly, the feminine suffix has  $\bar{a}$  (- $\bar{a}n$ ) vocalization, and the masculine suffix has vocalization of neutral position (Sh. - $\bar{i}n$ ; Ru. -on; Bt. - $\ddot{o}n$ ). In Shughni these forms have been practically lost and are found only rarely; in Sarikoli they are not attested at all; in Rushani and Bartangi they are fairly widely used.

Feminine	Masculine
Sh., Ru., Bt. ðaðān	Sh. ðaðīn, Ru. ðaðon ; Bt. ðaðön 'pugnacious'
Sh., Ru., Bt. naǧān	Sh. nayīn, Ru. nayon 'one who loves to travel'
Sh., Ru., Bt. wayān	Sh. wayīn; Ru. wayon; Bt. wayön 'loud; clamorous'
Ru., Bt. nawān	Ru. nawon; Bt. nawön 'whining'
Ru., Bt. xarān	Ru. xaron; Bt. xarön 'gluttonous'
Ru., Bt. <i>žafsān</i>	Ru. <i>žafson</i> ; Bt. ažafsön 'sleepy'

**§43.** In past-tense stems in feminine, which continue old participles ending in  $-t\bar{a}$  (masc. -ta), we also get the  $\bar{a}$ -umlaut vocalization in the feminine, and neutral vocalization in the masculine.

Feminine	Masculine
Sh., <i>na¥jād</i> ; Ru., Bt. <i>nawžād</i>	Sh. naǧjīd; Ru. nawžod; Bt. nawžöd 'pass'
Sh., <i>nažfād</i> ; Ru., Bt. <i>nawfād</i>	Sh. naǎfīd; Ru. nawfod; Bt. nawföd 'fall out'
Sh., Ru., Bt. <i>sifād</i>	Sh. sifīd; Ru. sifod; Bt. siföd 'rise'

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In closed syllables with two final consonants, in Shughni, as in other cases, we get  $\bar{o}$ :

Feminine	Masculine
Sh. wirōvd, Ru., Bt. wirāvd Sh. sitōvd; Ru., Bt. sitāvd Sh. niðōvd; Ru., Bt. niðāvd Sh. tōyd; Ru. tāyd <sup>67</sup> Sh. parōst; Ru., Bt. parāst Sh. ricōst; Ru. racāst	Sh. wirūvd; Ru. wirúvd; Bt. wirūvd 'stood' Sh. sitūvd; Ru. sitúvd; Bt. sitūvd 'fried (intr.)' Sh. niðūvd; Ru. niðuvd; Bt. niðūvd 'stuck (intr.)' Sh. tūyd; Ru tuyd; Bt. tūyd 'left' Sh. parūst; Ru. parost; Bt. paröst 'tore; burst' Sh. ricūst; Ru. racost 'ran off; fled'
Before Uvular	
Sh. <i>pāxt</i> ; Ru., Bt. <i>pāxt</i>	Sh. <i>pɛxt</i> ; Ru. <i>poxt</i> ; Bt. <i>poxt</i> 'cooked'

<sup>&</sup>lt;sup>67</sup> In this verb, and also in the two following ones, we get  $\bar{o}$  in the Khufi dialect:  $t\bar{o}yd$ ,  $par\bar{o}st$ ,  $rac\bar{o}st$ . These are likely borrowings from Shughni.

**§44.** In past-tense stems and perfect stems in the plural.

Plural forms of perfect stems (in the past tense), just like perfect stems with feminine forms, are found only for intransitive verbs. The plural stems of the past tense go back to the nominative plural participles with the ending  $-*\bar{a}$ , and therefore their forms in the modern languages fully match those of the feminine gender (Sh.  $t\bar{o}yd$ - $\bar{a}m$ ; Ru.  $t\bar{a}yd$ -am 'we left'; etc.).<sup>68</sup>

Perfect stems in the plural differ from past stems only with respect to their final consonant. These stems go back to the plural form of participles, which took the suffix  $-k\bar{a}$  (e.g.  $paxt(a)k\bar{a} > p\bar{a}x\check{c}$ ). Since perfect stems in the feminine gender were formed with the suffix  $*-\check{c}i$ , in perfect stems all three possible vocalizations are present (*a*-umlaut in the plural; *i*-umlaut in the feminine; and neutral vocalization in the masculine).

Plural	Feminine	Masculine	Gloss			
Sh. <i>parōšč</i> ; Ru., Bt.	Sh. <i>parīsc</i> ; Ru., Bt.	Sh. <i>parūsč</i> ; Ru.	come apart?			
parāšč	parēsc	<i>parošč</i> , Bt. <i>parö</i> šč				
	Bef	ore v				
Sh. <i>wirōvj</i> ; Ru., Bt.	Sh. wirīvdz; Ru.	Sh. <i>wirūvj</i> ; Ru.	stand up			
wirāvĭ	wirivdz; Bt. wirēvdz	wiruvj; Bt. wirūvj				
	Before uvulars					
Ru. <i>pāxč</i> ; Ru., Bt.	Sh. <i>pɛ̄xc</i> ; Ru., Bt.	Sh . <i>pɛ̄xt</i> ; Ru. <i>poxt</i> ;	cook			
pāxč	pēxc	Bt. <i>pöxt</i>				

In Shughni in perfect stems in the plural, the there is no raising of  $\bar{a}$  to  $\bar{o}$ .

Plural	Feminine	Masculine	Gloss
Sh. naýjāðj; Ru., Bt.	Sh. naўīc ; Ru., Bt.	na <u>ýjī</u> j; Ru. nawžoj;	pass (< ptrcpl *gata)
nawžāj	nawžēc	Bt. nawžöj	
Sh. nažfāðj ; Ru., Bt.	Sh. nažfīc ; Ru., Bt.	Sh. nažfīj ; Ru.	fall out (< prtcpl.
nawfāj	nawfēc	nawfoj ; Bt. nawföj	*pat(t)a)
Sh. sifāðj; Ru, Bt.	Sh. sific; Ru. sifec	Sh. sifīj; Ru. sifoj; Bt.	rise; go up
sifāj		siföj	

This may indicate the relatively late loss of \*-*a*- before the suffix (\* $na\check{y}\check{j}\check{a}\check{\delta}(a)\check{j}$ ).

2) In present-tense verb stems.

**§45.** The common root vowel  $\bar{a}$  // Sr. *o* from \**a* in present-tense stems implies a conjugation with -*a*, which has displaced, in the majority of cases, the conjugation ending in -(a)ya and has

<sup>&</sup>lt;sup>68</sup> See Gr.: 314.

given modern verbal endings with the vowel -a- (§3, pt. 1).<sup>69</sup> This *a* is a continuation of both long  $*\bar{a}$  (in the endings  $-\bar{a}mi$ ,  $-*\bar{a}mahi$  with possible contamination with the  $-\bar{a}$ - of the conjunctive for the remaining persons), as well as short \*a. Both of these vowels in unstressed morphemes have given one and the same result: neutral short, but not reduced *a* (see §61).

Shughni	Rushani	Bartangi	Sarikoli	Gloss
vār-	vār-	vār-	vor-	bring
xār-	xār-	xār-	xor-	eat
tār-	tār-	tār-	—	clean up; clean out
zidār-	zidār-	zidār-	zыdor-	sweep
rāv-	rāv	rāv-	rov	suck
anjāv-	injāv-	injāv-	_	grab
ancāv-	incāv-	incāv-	inciv- <sup>70</sup>	sew
ðāð-	ðāð-	ðāð-	ðoð-	give
sifān-	sifan-	sifān-	_	rise
čān-	čān-	čān-	čon-	dig
šānd-	šānd-	šānd-	šond-	laugh
wāz-	wāz-	wāz-	_	swim
riwāz-	rawāz-	rawāz-	rawoz-	fly up
tāž-	tāž-	tāž-	tož-	pull <sup>71</sup>
wāf-	wāf-	wāf-	wof-	weave
хіčāf-	х́іčāf-	хіčāf-	čof-	crack (intr.)
sipāf-	sipāf-	sipāf-	_	suck
wirāfs-	wirāfs-	wirāfs-	warofs-	stand up
wārv-	<i>warv</i> - <sup>72</sup>	wārv-	worv-	boil
firāp-	firāp-	firāp-	fыrops-	arrive; reach

#### Stems with ā-vocalization

In Shughni, in closed syllables with two final consonants – i.e. third-person singular forms – as elsewhere, we get  $\bar{o}$  (excluding verbs with *i*-umlaut, listed in §36): Sh.  $r\bar{o}vd$ ; Ru., Bt.  $r\bar{a}vd$ ; Sr. *rovd* 'sucks'; Sh. *riwozd*; Ru., Bt. *rawazd*; Sr. *rawozd* 'fly up'; Sh.  $\check{x}ic\bar{o}ft$ ; Ru., Bt.  $\check{x}ic\bar{a}ft$ ; Sr. *coft* 'cracks'; Sh. *firopt*; Ru., Bt. *firapt*; Sr. *firopst* 'arrives; reaches'; Sh.  $\check{sunt}^{73}$ ; Ru., Bt.  $\check{sant}$ ; Sr. *šond* 'laughs'; among others.

<sup>&</sup>lt;sup>69</sup> The conjugation in -(a)ya is reflected in the Shughni and Sarikoli endings of the second- and third-person plural (Sh.  $-\bar{e}t$ ,  $-\bar{e}n$ ; Sr. -it, -in), and also in the Shughni and Rushani second-person singular ending (-*i*). The conjugation in -a- has given a zero-ending in the second-person singular in Bartangi and Sarikoli.

 $<sup>^{70}</sup>$  As a result of the leveling of the paradigm by analogy with the third-person (*incivd*) and the stems of the infinitive and the past tense (*incivd*).

<sup>&</sup>lt;sup>71</sup> The root is not clear, but it may be PIE \**tengh*-; Av.  $\theta anj$ ; for the remaining verbs the root has been indicated in the preceding paragraphs.

<sup>&</sup>lt;sup>72</sup> This is likely the result of a later contraction (with the conservation of  $\bar{a}$  in the third-singular (*wārvd*) or in other forms (*sifād* is the feminine past stem)).

<sup>&</sup>lt;sup>73</sup> See §25, pt. 1, which says that  $\bar{o}$  raises to  $u^{\hat{v}}$  before nasals.

**§46.** Some verbs whose root vowel can be traced back to \**a*, have short *a* in the place of long  $\bar{a}$ . These verbs are the following: Sh., Ru., Bt. *niðafs*-; Sr. *niðefs*- 'stick' ( $\sqrt{dap}$ -); Sh., Ru., Bt. *ziban*- 'jump' ( $\sqrt{pat}(?)^{74}$ , cf. *sifān*- 'rise'); Sh., Ru., Bt. *sitafs*- 'fry (intr.)' <  $\sqrt{tap}$ -; Sh. *anjāfs*- ( $\sqrt{kap}$ ) 'undertake; start' (cf. *anjāv*- 'grab'). It is noteworthy that Sarikoli, in the attested cases of these words (which, unfortunately, are only two), does not have *o*, but rather *e* or *a*. This same correspondence is observed in Sarikoli for other stems with short *a*, which go back to different sources, for instance to *r* or to the null grade of other sonorants. Thus, for Shughni *žikar*- (look for), the corresponding Sarikoli form is *žыker*- (cf. Persian *šikār*-; Oss. *skar-yn*); and for Sh., Ru., Bt. *wižafs*- 'return', we get Sarikoli *wažefs//wažafs*- (PIE \**gei-bh*; cf. Shughni *žēb* 'spin'). It is possible that in some of the examples above, especially in stems which contain a sonorant, *a* comes from a reduced vowel (cf. the nasalized form of PIE \* $\sqrt{dhebh}$ , *dhembh*, which appears in the causative stem *niðēmb*- 'stick (tr.)', from whence perhaps \**dmb*). Of course, we cannot exclude the possibility of the later contraction of *ā*, which, in all likelihood, we have in Sh., Ru., Bt. *sitafs*- and Sh. *anjāfs*-.

Irregularities in vocalization are found in the following verb: Sh. *čis*-; Ru. *čas*-; Bt. *čās*-; Sr. *čos*-'watch' (Av. stem *kasa*-). Here, for the Shughni and Rushani forms we undoubtedly have a later contraction, as shown by the Bartangi and Sarikoli forms, as well as by the third-person singular form in Shughni, where  $\bar{a}$  (> $\bar{o}$ ) is preserved (Sh. *čost* 'watches'). The transition to *i* in Shughni took place under the influence of  $\check{c}$  (<\* $\check{k}$ ).

In all languages we have short *i* in the following verb: Sh. *andiz*-; Ru., Bt., Sk. *indiz*- 'get up' (\**ham-tača*- or \**ham-tač(a)ya*;  $\sqrt{tak}$ ). Although the frontness of the vowel is clear (from the position of *i*-umlaut, which can be made with one  $\acute{c}$ ), its shortness is unclear.

# In unstressed position

**§47.** In unstressed morphemes, which have arisen due to inflection, word formation, and compounding in the Proto-Iranian period or a bit earlier, \*-a in all languages appears as short a.

In word formation: Sh., Ru., Bt. *maðor*; Sr. *maður* 'noon' (*mīð*, *mēð* 'waist'); Sh. *xabor*; Sr. *xabur* "place to stay overnight' (Sh. *axīb*; Sr. *xeb* 'day before yesterday'); Ru. *abðost*; Bt. *abðost*; gloves' (*api-dasta*); Sh. *asīd*; Ru. *asoð*; Bt. *asöð* 'this year' (\**a-sard*, or possibly \**ā-sard*).

In formations with prepositions and prefixes: Sh., Bt. *padēd*; Ru. *padad* '(to) here' (\**pati-(y)ad*); Sh. *pat(t)* $\bar{\epsilon}w$ ; Ru. *patēw*; Bt. *patāw*; Sr. *pat* $\epsilon w$  'throw out' (\**pati* and \* $\sqrt{taw}$ ); Sh., Ru. *par-ðāð*; Bt. *para-ðāð*; Sr. *para-ðo* 'sell'.<sup>75</sup>

<sup>&</sup>lt;sup>74</sup> Ziban with the prefix \*hača; sifān with the prefix \*us-.

<sup>&</sup>lt;sup>75</sup> The prepositions *par* (*\*para*), *tar* (*\*tara*), *dar* (*\*antar*), since they are unstressed, exhibit the same type of reflection of *\*a* (cf. *\*tara* and *\*antar* in the role of postposition – i.e. in stressed position – as in Sh. *-tīr* and *-andīr*). The vowel in the preposition Sh. *pi*; Ru., Bt., Sr. *pa* (*\*pati*) could have transitioned into *i* afterwards, in the unstressed word-final position (*\*pa*).

Plural forms of nouns: Sh., Ru., Bt. *čadēn* 'houses' (sg. Sh. *čīd*; Av. *kata-*); Sh., Ru. *žajēn* 'bulls' (sg. Sh. *žīj*; \**uxšaka*; Av. *uxšan-*).

Reduplicated (augmentative) suffix in the comparative: Sh., Ru. -*dardi* (\**tar-tár*; vocalization of the non-reduplicated suffix: Sh. *dīr*; Ru. *di*; Bt. *dör*; Sr. *der*).

Deverbal nouns of action in *-idz*: Ru., Bt. *xaridz* 'food' (pres. stem *xār-*,  $*\sqrt{x^oar-}$ ); Bt. *čaridz* 'plowing' (pres. stem *čēr*;  $*\sqrt{kar}$ ); Ru., Bt. *incavidz* 'sewing; needlework'; (pres. stem *incāv*,  $*\sqrt{drap-}$ ).

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Deverbal participial constructions: Ru.  $\delta a \delta \delta i$ ; Bt.  $\delta a \delta \delta i$ , 'fighter' (pres. stem  $\delta a \delta$ ; Av. stem dad-); Ru.  $sand\delta i$ ; Bt.  $sand\delta i$ , 'giggly' (pres. stem sand-; \* $\sqrt{xand}$ -); Ru. xac-varůč; Bt. xac-varõč 'water bearer' (pres. stem var-, \* $\sqrt{bar}$ ); Ru. padzůč; Bt. padzoč 'baker' (pres. stem  $p\overline{e}dz$ , \* $\sqrt{pak}$ ); Bt.  $san\delta j$  'intending to take up' (pres. stem caus.  $s\overline{e}n$ , \* $\sqrt{san}$ ); Bt.  $vand\delta j$  'string; lace (to tie)' (pres. stem  $v\overline{e}nd$ -, \* $\sqrt{band}$ ).

The causative stem with the following suffix: Sh., Ru. -*én*; Bt. -*ón*; Sr. -*ón* (e.g. Sh., Ru. *šandén*; Bt. *šandôn*; Sr. *šandón*; Sr. *šandón* 'to make (someone) laugh' ; Sh. *warvēn* ; Bt. *warvôn* ; Sr. *warvón* (present stem Sh., Bt. *wārv*- ; Sr. *worv*-) ; Sh. *ricaθēn* ; Sr. *racaθon*- 'to drive off' (present stem Sh. *ricíθ*-,  $\sqrt{rad}$ -) ; Sr. *vandón* – caus. of *vind* 'connect' ( $\sqrt{band}$ -).

At the present time, there is an ongoing process of levelling by anology with the modern word stem. For instance: Sh., Ru., Bt.  $c\bar{a}d\bar{e}n$  'houses' has the parallel forms  $c\bar{\iota}d\bar{e}n$  (Sh.);  $cod\bar{e}n$  (Ru.);  $c\bar{o}d\bar{e}n$  (Bt.). In Roshorvi and Sarikoli only the forms based on the modern stems are attested: Rv.  $c\bar{o}d\bar{\iota}f$ ; Sr. cedef). Further example: Ru.  $padzuce//p\bar{e}dzuce$  'baker'. This leveling is particularly common in the Shughni language:  $\partial\bar{a}\partial\bar{\imath}j$  'fighter';  $xac-v\bar{a}r\bar{\imath}j$  'water bearer'; etc. Bartangi is the language which exhibits the most preservation of older forms.

**§48.** In the first syllables of old Iranian disyllabic words or old formations – i.e. in unstressed syllables which were insignificant or had already lost their etymological connection by the Proto-Iranian period, \*a ends up as short *a* or *i*.

The *i* reflex is more common in the Shughni language, while the *a* reflex is more common for the other languages, particularly Sarikoli.

Shughni	Rushani	Bartangi	Sarikoli	Origin	Gloss
nibōs	nabus	nabōs	nabús	Av. napāt-	grandson
čibu <sup>†</sup> d	<i>īibūd</i>	čabūd	čabéwd	Skt. <i>kapōta-</i>	dove
miðēn	maðēn	_	maðón	Av. ma <sup>i</sup> ðyāna-	mid-
žindam	žindam	žindam	žandam	Av. gantuma-	wheat
čidům	čidōm	čidōm	čidúm	Av. katāma-	which

ðandůn	ðindōn	ðindōn	ðandún	Av. dantān-	tooth
xidōrj	xadūrj	xadōrj	xadúrj	*xvatāraka- <sup>76</sup>	mill
rizīn	rizēn	razēn	razén	*fra-zanya-	daughter
miyūnd	mayūn	mayūn	_	*Av. haṃa-	similar
				gauna-	

To this list we can add the reflexes of \**a* in prefixes and prepositions in prefixal verbs of an early formation. For instance: Sh. *riwāz*; Ru, Bt. *rawāz*; Sr. *rawóz* 'fly up' (\**fra-waza-*); Sh. *rinēs-*; Ru. *rinēs*; Bt. *ranēs*; Sr. *ranós* 'forget' (\**fra-nās(a)ya*); Sh. *piðáfs*; Sr. *paðáfs* 'stick (intr.)' (\**pati-dafsa*); Sh. *pirī* $\theta$ ; Ru., Bt. *parē* $\theta$  'tear; burst' (<\**pati-rads(a)ya*).

#### In word-final and word-initial positions

**§49.** Stressed \**a* in absolute word-initial position has short \**a* as its reflex in all languages. As such, stresed *a* (in Sarikoli also *o*, which is a later development) usually develops either the sonorant *y* or *w* before it: Ru. *az* 'I'; Kh., Rv., Srk *waz*; Sh. *wuz* (from the later assimilation of *a* to *u*); Bt.  $\bar{a}z$  (with the later expansion of *a*); Kh. *yaw* 'that (dem.)' (\**ava*-); Sh., Ru., Bt. *yast*; Sr. *yost* 'there is' (\**asti*). The resulting combination *ya* can change further: Sh. *y* $\bar{e}d$ -*ard* (< *yad*-*ard*); Bt. *y* $\bar{e}nd\bar{e}r$  (*yad*-*ind* $\bar{e}r$ ) 'there'.<sup>77</sup> We get similar results with the verb 'come', where initial *y* is original: Sh., Ru., *yad*-; *yat*; Bt. *y* $\bar{e}d$ ; *yat*; Sr. *yoð*-; *yot*. In the middle of a word, a contraction or another transformation of the combination *ya* takes place in all languages. Cf. the same verb with the prefix \*-*and* (<*andar*?): Sh.  $d\bar{e}\delta$ -;  $d\bar{e}d$ ; Ru. *ind* $\bar{i}\delta$ -; *ind* $\bar{i}\delta$ ; Sr. *di* $\delta$ -; *deyd* 'enter'.

In closed syllables with two final consonants, in neutral position before narrowing consonants stressed initial \**a* has a high back vowel as its reflex: Sh., Ru., Bt. (*w*) $\bar{u}vd$ ; Sr.  $\omega vd$  'seven' (<\**hapta*); Sh., Bt.  $y\bar{u}r\dot{x}$ ; Ru.  $yur\dot{x}$ ; Sr.  $y\omega r\dot{x}$  (<\**arša*-).

**§50.** Unstressed word-intial \**a* usually has *a* as its reflex. We can add in here a few examples which were partially examined in §§47, 48. As additional examples we can bring in cases of words with older formation: Sh. *afáỹ*; Ru. *afáw*; Sr. *fal* 'the day after tomorrow' (*<\*afy-uša < \*api-uša*);<sup>78</sup> Sh., Ru., Bt. *abốz* 'send away'<sup>79</sup> (*<\*apa-āz*); cf. also Sh. *ar-rấz* 'rear up' (*fra-raz-*) with metathesis of the prefixal *a* to the beginning of the word and its preservation, and the *i* in this prefix in other words: *riwấz* 'fly up'; *rinấs* 'forget'; and others.

When before nasals, initial unstressed a has similar reflexes as the type examined in 48 - i.e it has irregularly *a* and *i*, but with the opposite distribution of these irregularities in the languages. That is, for Shughni, *a* is the more common reflex in these cases, while for the remaining

<sup>&</sup>lt;sup>76</sup> NTS I: 75.

<sup>&</sup>lt;sup>77</sup> Cf. Ru. *ád-ari*; Sr. non-compounded *od* 'there'.

<sup>&</sup>lt;sup>78</sup> NTS I: 45.

<sup>&</sup>lt;sup>79</sup> Also, 'to swallow'?

languages *i* is the common reflex (for Sarikoli also  $\omega$ ): cf. Sh. *ancīvd*; Ru. *incívd*; Bt. *incēvd*; Sr. *incivd* 'sew'; Sh. *ambīθ*; Ru. *imbēθ*; Sr.  $\omega$ *mbis* 'collapse'; Sh. *andīr*; Ru. *-andi*; Bt. *-indēr*; Sr. *indér* (locative preposition).<sup>80</sup> In the Bajuwi dialect, unlike in Shughni proper, we get *i* (*incīvd* 'sew'; *indūyd* 'got up'; etc.), a fact which, together with Rushani *a* in *-andi* (locative preposition), points to the later phonological division into *a* and *i* of the original vowel here.<sup>81</sup>

We get a similar irregularity between *a*–*i* in closed syllables with two final consonants, as in the following postposition: Sh. *-ard*, *-rad*; Baj. *-ird*; *-rid*; Ru., Bt. *-ri*; Sr. *-ri*, *-ir* (*<-ird*, *-rid*); Av. *arəða*).

**§51.** In word-final position, short \*a has been dropped everywhere, with the exception of a few monosyllabic function words: Sh., Ru., Bt., Sr. *na* (negating particle); Sh., Ru., Bt., Sr *ca* (complementizer); and likely also pronominal particles: Sh., Ru. *imá*, *idá* 'there; that'. Final \*a in other function words (prepositions) has been preserved only via compounding, and since it was unstressed is reflected by *a* or *i*, as previously discussed.

Initial *a* in prepositions (prefixes) was also lost sometimes, for instance: pref. wi < \*avi; vi < \*abi, where, however, there was a possible stage of \*uwi, \*ubi. Cf. the consistent loss of \*u: Sh.  $ab\delta\bar{a}st$ ; Ru.  $ab\delta\bar{o}st$ ; Bt.  $ab\delta\bar{o}st$  'glove' (<\*api-dasta) and Sh., Ru., Bt.  $bi\delta\bar{a}n$  'saddle' ( $<*upa-dan\bar{a}$ ?). Naturally, with the loss of both initial and final vowels, only bisyllabic prepositions with an initial consonant have been preserved (tar < \*tara; par < \*para; dar <\*andar;  $az < *(h)a\check{c}a^{82}$ ; pa, pi < pati).

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# **Reflex of Proto-Iranian** \*ā

§52. The basic phonetic factors which affected the differing reflexes of  $*\bar{a}$  were the following:

1) Stress (stressed and unstressed position);

2) Umlaut (*i*-umlaut and neutral position);

Neutral position here involves not only stems ending in \*-*a*, \*-*u*, and in consonants, but also stems ending in long \*- $\bar{a}$ , which give identical results.

The type of syllable and neighboring consonants did not have a significant impact on the quality of  $*-\bar{a}$ .

<sup>&</sup>lt;sup>80</sup> Cf. Sh. ðandun with Ru., Bt. ðindon 'teeth' (from §48).

<sup>&</sup>lt;sup>81</sup> Before nasals in word-medial position we get *u* as the reflex of \**a*: Ru., Bt. *mu(n)*; Sh. *mu*; Sr. *mы* (Av. *manā*) 'me'; Sh., Ru., Bt. *vārum*, but Sr. *vóram* 'I bring'.

<sup>&</sup>lt;sup>82</sup> In the preposition az, initial a was maintained through the contamination with the Tajiki preposition az.

# In stressed position

# In neutral position

**§53.** The basic correspondences are the following:

Shughni	Rushani	Bartangi	Sarikoli	Origin	Gloss
ðōrg	ðūrk	ðōrg	—	Av. dāru-	piece of
_		_			wood
vōrj	vůrj	vōrj	vurj	*bāraka,	(male) horse
				√bar-	
nibōs	naburs	nabōs	nabús	Av. napāt-	grandson
yōc	уůc	yōc	уис	Av. <i>ātar-</i> ;	fire
				ātr-; aθr-	
cavōr	cavůr	cavōr	cavúr	Av. čaθwār-	four
čōr	čůr	čōr	čur	Old Pers.	man
				kāra- <sup>83</sup>	
$par{o} heta$	$p ec{u}  heta$	$par{o} heta$	pu heta	$\sqrt{pat}$ -; Oss.	bullet
				<i>fāt</i> ; Yagh.	
				pōt, pōs	
pōð	puืð	[pēð	$p e \delta$ ] <sup>84</sup>	Av. <i>pād-</i> ,	leg
				pāða-	
ðōd	ðu <sup>ื</sup> d	ðōd	ðud	Av. $\sqrt{d\bar{a}}$ -	gave
zinōd	zinū̇̀d	zinōd	zinud	Av. √snā	wash
rimōd	rimū̇̀d	ramōd	ramud	Av. √ <i>mā-</i>	ordered;
					commanded

Sh.  $\bar{o}$  // Ru.  $\ddot{\vec{u}}$  // Bt.  $\bar{o}$  // Sr. u

**§54.** In Rushani in some words we get  $\bar{o}$  instead of  $\mathring{u}$ :

Shughni	Rushani	Bartangi	Sarikoli	Origin	Gloss
virōd	virōd	virōd	virud	Av. brātar-	brother
_	mōd	—	mud	Av. mātar-	mother
pōc	pōc	pōc	—	Av. <i>pāθra</i> -	protection
pirō	pirō	pirō	рыгид	*parā-ta <sup>85</sup>	before
biyōr	biyōr	biyōr	biyur	*upa-ayāra <sup>86</sup> ,	yesterday
				Av. ayār-	

 <sup>&</sup>lt;sup>83</sup> NTS 1: 51.
 <sup>84</sup> Av. *pa<sup>i</sup>ðyā*-.<sup>7</sup>
 <sup>85</sup> IIFL II: 535.
 <sup>86</sup> NTS I: 49.

wōxĭ	wōxĭ	wōž	wuž	Av. vāstra-	hay
$z\ddot{un}n^{87}$	zōn	zōn	zun	Skt. <i>jānu-</i>	lap (anat.)
ðandun	ðindōn	ðindōn	ðandún	Av. dantan-	tooth
čidum	čidōm	čidōm	čidúm	Av. katāma-	which
ðun	ðōn	ðōn	ðun	Skt. dhānā	fried seeds
wizū́n	wizōn	wizōn	wizón	Av. stem zān-	PRS of
					'know'

The phonetic conditions which impede the raising of  $\bar{o}$  to  $\vec{u}$  in these cases in Rushani are not sufficiently clear.

The position before nasals which, apparently, did not allow the raising of  $*\bar{a}$  stands out quite clearly.<sup>88</sup> This points toward the most open of its variants, because in more closed variants nasals exhibit not a lowering, but rather a raising effect (cf. the transition of Shughni  $\bar{o}$  to  $\vec{u}$ ).

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For the remaining cases, it may be possible to posit the influence of the following -\* $\bar{a}$ . For words like  $m\bar{o}d$ ,  $vir\bar{o}d$ ,  $pir\bar{o}$ ,  $p\bar{o}r$ , etc., final \*- $\bar{a}$  can fully be reconstructed. It is indicative that in non-causative present-tense stems – i.e. continuing the conjugation in -a-, in Rushani we get only  $\bar{o}$  and not  $\vec{u}$ . However, such stems are very few and their etymology is not always clear: Sh., Ru., Bt.  $w\bar{o}\dot{x}$ , Sr.  $wu\dot{x}$  'hay'; Sh., Ru., Bt.  $\dot{z}\bar{o}z$ -: Sr.  $\dot{z}uz$  'run' (\* $g\bar{a}z$ ; Yz. yaz; Ish. ybz; Mnj.  $y\bar{a}z$ ); Sh., Ru., Bt.  $ab\bar{o}z$ ; Sr. buz 'send'; Sh. 'swallow' ( $\sqrt{a}z$ ); Sh., Ru.,  $y\bar{o}s$ -; Bt.  $ay\bar{o}s$ -; Sr. yus- 'take (away)' (Av. stem  $y\bar{a}sa$ ); Sh., Ru., Bt.  $n\bar{o}\ddot{y}$  'turn; wander'. But the most significant in this relationship is the differentiation of gender in past-tense stems in Rushani – masculine gender has  $\dot{u}$ ; feminine gender has  $\bar{o}$ , of the type: Ru.  $\partial u\dot{u}d$  'to get to; to find oneself (in a place) (masc.)' <\* $d\bar{a}ta$ - ( $\sqrt{d}\bar{a}$ ) and  $\partial \bar{o}d$  'to get to; to find oneself (in a place) (fem.)' <\* $d\bar{a}ta\bar{a}$ . Other attested examples: Ru.  $\dot{x}uvd$ 'fell asleep (masc.)'; fem.  $\dot{x}\bar{o}vd$  ( $\sqrt{x^vap}$ );  $\dot{x}i\dot{c}u\dot{u}d$  'froze'; fem.  $\dot{x}ic\bar{o}d$  (Yz.  $\dot{s}ay$ -;  $\dot{s}ed$ ). Here we must also add the past-tense stem of the verb meaning 'give birth', which has inherited the feminine form: Ru.  $z\bar{o}d$ . In Shughni and Bartangi, where \* $\bar{a}$  has  $\bar{o}$  as its reflex everywhere, there is no distinction of gender in these verbs: Sh.  $\partial \bar{o}d$  'to get to; find oneself (in a place)'; etc..<sup>89</sup>

In the past-tense stems of transitive verbs, which do not distinguish gender, in Rushani (with a strong vocalization) we get only  $\vec{u}$ : Ru.  $z\vec{u}\check{x}t$ ; Sh.  $z\bar{o}\check{x}t$ ; Sr.  $zu\check{x}t$  'took' (Av.  $\sqrt{haz}$ ; stem zaz-); Ru.  $ab\vec{u}\check{x}t$ ; Sh., Bt.  $ab\bar{o}\check{x}t$ ; Sr.  $bu\check{x}t$  'sent'; Sh. 'swallowed' (Av.  $\sqrt{az}$ ); Ru.  $bir\vec{u}\check{x}t$ ; Sh., Bt.  $bir\bar{o}\check{x}t$ ; Sr.

<sup>&</sup>lt;sup>87</sup>  $z\hat{u}n$  comes from the later raising of  $\bar{o} > \hat{u}$  in Shughni (see §25, pt. 1).

<sup>&</sup>lt;sup>88</sup> Cf. sporadic *o* before *u* before nasals in Sarikoli: *wizón* 'know'; *mom* 'grandmother; old woman' (Bt. *mōm*; Sh. *mům*; in Rushani this word does not exist).

<sup>&</sup>lt;sup>89</sup> In Bartangi, in addition to the masculine stem  $a\bar{x}\bar{o}vd$  'fell asleep', we also have the feminine form  $a\bar{x}\bar{a}vd$ , but it is clearly formed by analogy with stems with a short \**a* (*wirāvd*, *niðāvd*; etc.; see §43).

*bыru*х́t 'drank' (from the same root  $\sqrt{az}$ , but with a double prefix?<sup>90</sup>); Ru. *ziwu*śt; Sh., Bt. *ziwo*st; Sr. *zыwúst* 'pull out' (Av.  $\sqrt{vad}$ -).

#### In *i*-umlaut position

**§55.** In Bartangi the *i*-umlaut position rarely results in any change for  $*\bar{a}$ : in the majority of cases we get  $\bar{o}$  here, as in neutral position. One exception is the infinitival stem, where  $*\bar{a}$  results in  $\bar{e}$  more or less regularly. In Sarikoli the result of *i*-umlaut is the vowel *o* (in neutral position u).<sup>91</sup> Thus, the reflex of long  $-*\bar{a}$  in the *i*-umlaut position and the reflex of -\*a in the *a*-umlaut position in the Sarikoli language is the same. It follows that with respect to their quality in these positions the phonemes  $*\bar{a}$  and \*a were close to one another in Sarikoli and were distinguished primarily in length. Thus, with the loss of distinction in length they became the same vowel. In Shughni and Rushani we have the regular reflex of  $*-\bar{a}$  as front vowels: Sh.  $\bar{\varepsilon}$ , Ru.  $\bar{e}$ . The general type of correspondence is the following:

Sh. 
$$\bar{\varepsilon}$$
 // Ru.  $\bar{e}$  // Bt.  $\bar{o}$  ( $\bar{e}$ ) // Sr.  $o$ 

Shughni	Rushani	Bartangi	Sarikoli	Origin	Gloss
nabēs	nabēs	nabōs	[nabús] <sup>92</sup>	Av. napāt;	granddaughter
				fem. naptī	
pērnák	Kh. pērnák	pōrnák	—	Skt. pārsni-;	heel
				Av. pāšni-;	
tēr	tēr	tōr	tor	Av. tąθrya-	black
mēst	mēst	mōst	most	* <i>māsti</i> ; Skt.	moon
				mās-; Av. māh-	
<i>x</i> it <i>ērdz</i>	<i>x</i> it <i>ērdz</i>	<i>x</i> itōrdz	[ <i>x̄itúrj</i> ] <sup>93</sup>	* <i>stār-či</i> (f.);	star
				Av. <i>stār</i> - (m.)	
wēð	wēð	wōð	woð	*wāði; Av.	canal
				wa <sup>i</sup> ði-	

**§56.** In nouns:

There are three cases in Bartangi in which we get  $\bar{e}$  rather than  $\bar{o}$ :

<sup>&</sup>lt;sup>90</sup> Its derivation from \**upa-raēz* (NTS I: 49) seems rather unlikely, as the diphthong \**ai* could not have given  $\bar{o}$  nor  $\overset{\circ}{u}$  in the past-tense stem, nor  $\bar{e}$ ,  $\bar{e}$ , or  $\bar{o}$  in the present-tense stem (pres. tense causative stem Sh. *birēz*-; Ru. *birēz*-; Bt. *birōz*-; Sr. *biróz*-). Cf. Sh. *abōx̃t* 'swallowed'.

<sup>&</sup>lt;sup>91</sup> The shift of all heights of vowels in Sarikoli is a later phenomenon.

<sup>&</sup>lt;sup>92</sup> This is the masculine form; the feminine forms have been lost in Sarikoli. In Bartangi, the masculine and feminine forms are the same in this case.

<sup>&</sup>lt;sup>93</sup> This is the masculine form, which can be seen through the -*j* rather than -*dz* (<\**stār-ka*); cf. Bartangi synonymous pair (?): *xitōrdz* and *xitōrj*.

Shughni	Rushani	Bartangi	Sarikoli	Origin	Gloss
vērdz	vērdz	vērdz	vordz	*vā́r(a)č́i (f.);	mare
				*vār(a)ka	
				(stallion)	
čēd	čēg	čēg	čog	* <i>kātri</i> <sup>94</sup> ; Av.	knife
				karəta	
ðēd	ðēd	ðēd	-	* <i>dāti</i> ; inf.	war
				from $\sqrt{da^{95}}$	

§57. In causative verb stems. Verbs which continue old stems ending in *-aya* with a long root vowel (e.g. Av. *tāčaya-*) are very common in the languages of the Shughni-Rushani group. They have transitive, sometimes causative meanings, and they appear to have the following vocalization: Sh.  $\bar{\varepsilon}$ ; Ru.  $\bar{e}$ ; Bt.  $\bar{o}$ ; Sr. o.

Shughni	Rushani	Bartangi	Sarikoli	Origin	Gloss
ziwēð-	ziwēð-	ziwōð-	ziwóð-	Av. $\sqrt{vad}$ -;	take out; pull
				stem vāðaya-	out
firēp-	firēp-	firōp-	[frapón] <sup>96</sup>	Av. √ <i>ap</i> -	deliver
ðēr-	ðēr-	ðōr-	ðor-	Av. √ <i>dar</i> ; stem <i>daraya</i> , <i>dārya</i> -	have
sitēb-	sitēb-	sitōb-	_	Av. √ <i>tap;</i> stem <i>tāpaya-</i>	roast; fry
tēz-	tēz	tōz	[ <i>tazón</i> ] <sup>97</sup>	Av. √ <i>tak-</i> ; stem <i>tāčaya-</i>	pump; (breastfeed?)
čēr-	čēr-	-	čor-	Av. √ <i>kar-</i> ; stem <i>kāraya-</i>	plow
sēr-	sēr	sōr-	—	PIE *√ <i>ker</i>	follow
tēb-	tēb-	tōb-	tob-	PIE *√ <i>temp</i> ; Pers. <i>tāftan</i>	twist
nižēb-	nižēb-	nižōb-	—	Av. $\sqrt{x^{\nu}ap}$ -	lull to sleep
zēz-	zēz-	zōz-	ZOZ	Av. stem zaz	take
divēn- <sup>98</sup>	divēn-	divōn-	дычоп-	Av. √ <i>dvan-</i> ; stem <i>dvaµaya-</i>	blow (intr.?)
sēn-	sēn-	sōn-	_	* $\sqrt{san^{99}}$	raise
nažfēn-	nawfēn-	nawfōn-	nalfon-	$\sqrt{pat(?)}$	pull out

<sup>&</sup>lt;sup>94</sup> NTS I: 50; cf. Oss. kārd; Pers. kārd.
<sup>95</sup> Cf. inf. *ðēd(ōw)* from the verb *ðāð-*; *ðōd*.
<sup>96</sup> This is a causative form with a later formation, from the causative suffix: Sr. -ón; Sh., Ru. -én; Bt. -ón.

<sup>&</sup>lt;sup>97</sup> See fn. 96.

<sup>&</sup>lt;sup>98</sup> Here, and for the three forms below, we have the later transition of Shughni  $\bar{\varepsilon} > \bar{e}$  before nasals; see §25.

<sup>99</sup> Wakhi san; Ish. san; Yagh. san 'rise; go up; Yz. san 'raise'; Yagh. sayn; Sogd. syn 'raise'.

**§58.** In infinitive stems in Bartangi we get  $\bar{e}$  in the majority of cases, but cases with  $\bar{o}$  are not rare. It's hard to say which of these vowels is secondary:  $\bar{e}$  here could have appeared as a result of leveling by analogy with infinitive stems ending in  $\bar{e}$  (§34), and  $\bar{o}$  could have appeared as a result of new stem formations from modern present-tense stems of the regular-verb type, which is extremely common in Bartangi (cf., for instance, Bt.  $c\bar{a}n$ - (pres. stem);  $c\bar{a}nt$ - (infinitive) 'dig'; a.o.).

Shughni Rushani Bartangi Sarikoli Gloss ziwēst ziwēst ziwēst ziwóst take out zēxt zēxt zo*žt* take zēxt biro*x*t drink birēxt birēxt birēxt bēxt abēxt abēxt send \_ zinēd zinēd zinēd zыпоd wash rimēd order; command rimēd ramēd ðēd ðēd ðēd ðod give х̀ēvd х́ēvd *x*ēvd \_ sleep blow (intr.?) divēnt divēnt divēnt sēnt sēnt sōnt \_ raise pull out nažfēnt nawfēnt nawfōnt \_ firēpt firēpt firōpt [frapónt] deliver follow sērt sērt sōrt \_ twist tēpt tēpt tōpt \_

In the other languages of the group we get the same vowels as indicated in the preceding paragraph:

In all cases, when we have an  $\bar{o}$  in the infinitive stem in Bartangi, the same  $\bar{o}$  is found in the past stem, which again points toward the later leveling of infinitive stems based on the vowel in the present stem (e.g.  $s\bar{o}n$ - (prs.);  $s\bar{o}nt$  (pst.);  $s\bar{o}nt(\bar{o}w)$  (inf.) 'raise'. But cf.  $ziw\bar{o}\delta$ -;  $ziw\bar{o}st$ ;  $ziw\bar{e}st$  'take out'; or  $zin\bar{i}$ -;  $zin\bar{o}d$ ;  $zin\bar{e}d$  'wash' ( $\sqrt{sna}$ -). Thus, we should consider the  $\bar{e}$ -vocalization in Bartangi as a result of the *i*-umlaut.

**§59.** In perfect stems in the feminine. Intransitive verbs with a long  $*\bar{a}$  in the participle are very rare. However, whenever we find in such a verb the ability to distinguish gender, the vocalization is always the same as in the infinitive: Sh.  $\bar{e}$ ; Ru.  $\bar{e}$ ; Bt.  $\bar{e}$ .

Shughni	Rushani	Bartangi	Gloss
<i>x</i> Ēvdz	<i>x</i> ēvdz	ax̄ēfc	fell asleep (f.)
zēc	zēc	zēc	gave birth (f.)
ðēc	ðēc	ðēc	end up (f.)
<i>x</i> ic <i>ē</i> c	<i>x</i> ic <i>ē</i> c	<i>xicēc</i>	froze (f.)

**§60.** In the third-person singular in the present tense. With regard to umlaut in the third-person singular in stems with a root  $\bar{o}$ , such stems, as has already been noted, are very rare:  $z\bar{o}z$ -; Sr. zuz-'run';  $w\bar{o}x$ -; Sr. wux 'fall';  $n\bar{o}y$ - 'wander; roam'; (a) $b\bar{o}z$ -; Sr. buz- 'send away'; (a) $y\bar{o}s$ -; Sr. yus-'take (away)';  $x\bar{o}fs$ - (Bt.  $ax\dot{a}fs$ -); Sr. xufs- 'sleep'. In all three of these verbs, in all languages except Sarikoli, in the third-preson singular we find a vocalization analagous to the *i*-umlaut: Sh.  $b\bar{e}zd$ ; Ru.  $ab\bar{e}zd$ ; Sr. buzd 'send away'; Sh.  $y\bar{e}st$ ; Ru.  $y\bar{e}st$ ;  $ay\bar{e}st$ ; Sr. yust 'take away'; Sh.  $x\check{e}fst$ ; Ru.  $x\bar{e}fst$ ; Bt.  $ax\bar{e}fst$ ; Sr. xufst 'sleep'. In two of these verbs – 'send away' and 'take away' – this vocalization may be the result of the contraction of  $-*y\bar{a}$  ( $*y\bar{a}s$ - and  $*-upa(y)\bar{a}z$ -) in a closed syllable with two final consonants. The third verb gives a totally variegated picture for presenttense stems with irregularities in weak and strong vocalization (cf. Bt.  $ax\dot{a}fs$ -; Ru. third-singular  $x\bar{o}fst$  (cf. Sh.  $x\bar{e}fst$  and Bt.  $ax\bar{e}fst$ ). Thus, it has hard to draw conclusions about the umlaut in the third-person singular.

#### In unstressed position

**§61.** Unstressed  $*\bar{a}$  in word-medial and word-initial position in all languages results in a short a: Ru., Bt. viradār 'brothers' (cf. virōd 'brother'); Ru. nabasjōn 'grandchildren' (cf. nabůs 'grandson'); Sr. čaréyn 'men' (cf. čur 'man'); Ru., Bt. arðōn 'hearth' (\*ātr-dāna-); Ru. wažjēc 'hayloft' (cf. wōž 'hay'); the verbal prefix a- is from  $*\bar{a}$ : Sh. abōz- 'swallow'; Ru. avúg 'PRS of 'find''; Bt. ažáfs 'sleep'; and participial formations from stems with long  $*\bar{a}$ : Ru., Bt. žayidz 'reading (ger.)'; Sr. žayón is the causative stem of žuy- 'read'; Ru. žazůj; Bt. žazốj 'runner', stem žōz-; Ru. nažēn 'rotate (tr.)' is the causative of the stem nōž-.

Since short \**a* in similar conditions gave the same result, in some cases it is difficult to pinpoint the original vowel. For instance: Ru. *padviyůj*; Bt. *padviyóč* 'barefoot' can be derived either with strong or medial vocalization of the root (Av. *pād*, *pad*-; cf. Sh. *pōðviyōč*). Similar predicaments are found with verbal endings (-*um*, -*am*, -*at*, -*an*), which could continue both long \*-*ā*- and short \*-*a*-.

As was the case with short \**a* (§47), there is currently an ongoing process of the leveling of root vowels by anology with the stem vowel, which is particularly characteristic for Shughni. For instance: Sh. *virōdār* 'brothers'; *nabōsyṓn* 'grandchildren'; *wōxjfc* 'hayloft'; *x̄ōyídz* 'reading'; etc.

#### In word-final and word-initial position

**§62.** In word-final position, unstressed  $*\bar{a}$  has been lost everywhere. Final  $*\bar{a}$ , which could carry stress in some function words, has been preserved in the form of Sh., Ru., Bt.  $\bar{a}$ ; Sr. o; for instance: Sh., Ru., Bt.  $m\bar{a}$ ; Sr. mo (Av.  $m\bar{a}$ ) – preverbal negation particle; Sh., Ru.,  $at\bar{a}$ , at (Av. uta; Old Pers.  $ut\bar{a}$ ) – coordinating conjunction.<sup>100</sup>

<sup>&</sup>lt;sup>100</sup> In Bartangi and Sarikoli we have only *at*.

In word-initial position, both stressed and unstressed  $*\bar{a}$ , as was already discussed, develops in the same way as in word-medial position, with the difference that stressed  $*\bar{a}$  word-initially develops a *y* before it, as in Sh., Bt.  $y\bar{o}c$ ; Ru.  $y\ddot{u}c$ ; Sr. *yuc* 'fire'; cf. unstressed Ru., Bt.  $ar\delta\delta n$  'hearth'.

## Reflex of Proto-Iranian \**i*, *ī*; \**u*, *ū*

In languages of the Shughni-Rushani group there are no known traces of the differentiation between long and short \*i,  $\bar{i}$  and \*u,  $\bar{u}$ . However, we must make judgments about this primarily through the reflex of \*u,  $\bar{u}$ , as attested cases of the reflext of \*i,  $\bar{i}$  are extremely few.

#### Reflex of Proto-Iranian \**i*, *ī*

#### In stressed position

**§63.** In closed syllables with one final consonant, \**i*, *ī* has the short vowel *i* as its reflex everywhere; for instance: Ru., Bt. *pid* 'father' (< Av. *pita*); Sh. *žinij*'; Ru., Bt. *žinij*' 'snow' (< Av. *snig-*); with metathesis: Sh., Ru., Bt., Sr. *sitír* '(female animal)' (Av. *strī-*); Sh., Ru., Bt., Sr. *ziv* 'language; tongue' (Av. *hizvā-*). A few more examples come from verbs in which the reflex of \**i* is found in the infinitival and past-tense stems (which are syncretic), of an old formation from the stem with the sonorant *y* in weak vocalization (of the following type: Av.  $\sqrt{vaēd-}$ , ptpl. *vista*;  $\sqrt{raēk}$ , infv. *rixti*: Sh. *widzid*; Sr. *vidzid* 'choose'<sup>101</sup>; Av.  $\sqrt{kay-}$ ; Sh., Ru., Bt., Sr. *paðid*, *piðid* 'catch fire' (< PIE  $\sqrt{dei}$ , *deia* 'shine' (?); cf. Skt. *didēti* 'shines', *dīpyate* 'blaze; burn'); Sh., Ru., Bt. *wižid* 'open; unlock',<sup>102</sup> Av.  $\sqrt{sray}$ , ptpl. *srita* 'to link; to lean against' (not attested in Sarikoli); Ru., Bt. *nid*; Sr. inf. *nid*, past stem *nud* 'churn butter' \* $\sqrt{nay}$ , Skt. *návanītam* 'fresh butter', Saka *nīyakā* 'butter'; Sh., Ru., Bt. *cid*; Sr. inf. *cid*, past stem *cud* 'squeeze'; PIE  $\sqrt{der}$  with (spread/expansion?) *d(e)rī*; *derēi* or *der-eu*, *dru*. The *u* found in Sarikoli is likely the result of leveling of past stems through analogy with stems of the *u*-type, which are much more common (*vud* 'was'; a.o.). For the latter verb there is an accepted variant with \**u* (cf. Pers. *daravīdan*); in this example the Sh., Ru., Bt. past-stem *cid* is a contaminated form.

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When before \**š*, which turns into Sh. *š*, Ru., Bt. *w*, Sr. *l*, \**i* results in \**a* everwhere: Sh. *sipáš*; Ru. *sipáw*; Bt. *sipáw* (with later lengthening); Sr. *sipál* 'louse'; Av. *spiš*-.

<sup>&</sup>lt;sup>101</sup> The meaning of this verb in Sarikoli (*vidzin-*; *vidzid* with a different prefix?) is not sufficiently clear.

<sup>&</sup>lt;sup>102</sup> \**ava-sray* 'un-lock'. It hardly come sclose to Av. *hay*//-*šay*, since \**š* intervocalically should have become Sh.  $\check{y}$ , Ru., Bt. *w*. Cf. Yzg.  $\check{x}ad$  'utility ladder' <\**srita*.

**§64.** In closed syllables with two final consonants, in Sarikoli we get *e* (before *v*) or *a* (before  $\check{x}$  and *n* (?)) instead of *i*, and in the remaining languages we get *i*, which when before *v* and *n* (?) in Shughni and Bartangi, and also in the Khufi dialect, lengthens to  $\bar{i}$ ; for instance: Sh., Ru., Bt. *pi* $\check{x}t$ ; Sr. *pa* $\check{x}t$  'mulberry porridge; flour'; cf. Skt. *pi* $\check{s}ta$  'flour', Av. *pi* $\check{s}ant$  'crushing, shattering' (PIE  $\sqrt{peis}$ ); Sh., Bt. , Kh. *wižīvd*; Sr. *waževd* 'return'; Sh.  $\check{z}\bar{i}vd$ , Sr.  $\check{z}evd$  'spin; twist' (PIE  $\sqrt{gei-bh}$ ); Sh., Kh.  $\check{xivd}$ ; Ru.  $\check{xivd}$ ; Sr.  $\check{x}evd$  'beat; bruise' (PIE  $\sqrt{kseip}$ ; Skt. k $\check{s}ipati$ ); Sh., Bt., Kh. *wint*; Ru. *wunt*,<sup>103</sup> Sr. *wand* 'sees' (Av. stem *vaēna-*); Sh. *mi* $\check{x}t$ ; Sr. *ma* $\check{x}t$  'urinates' (Av.  $\sqrt{ma\bar{e}z}$ ); Sh., Ru., Bt. *divi* $\check{x}t^{104}$  'show' (Av.  $\sqrt{da\bar{e}s}$ ) – not attested in Sarikoli.

In the majority of cases, past stems which come from roots which contain a diphthong, are later formations from present stems and thus continue the dipthong \**ai* and not \**i* (cf., for example. Ru.  $z\bar{i}pt$  from the present stem  $z\bar{i}b$ - 'spin'; Bt.  $x\bar{i}pt$  from the present stem  $x\bar{i}b$ - 'beat'; Sh. *parwēzd* from the present stem *parwēz*- 'sift'; etc.). For this reason, the Sarikoli examples given above are not reliable enough, since the transformation of diphthongs in Sarikoli give analagous results (§72). However, the presence of *a* in Sr. *paxt* 'flour' – i.e. in a word with a clearly old formation<sup>105</sup> – forces us to take Sarikoli the correspondences into consideration. In favor of the continuation of old forms in Sarikoli *ževd* 'spin', *ževd* 'beat'; *maxt* 'urinate' point toward the old transformation of consonants (\**b*, *p* > *v*; cf. Bt. newly formed  $x\bar{i}pt$ ;  $z\bar{i}pt$ ).

To this type of construction, we can apparently add Sh., Bt.  $\dot{x}\bar{u}vd$ ; Ru.  $\dot{x}uvd$ ; Sr.  $\dot{x}evd$  'milk', where Sarikoli gives *e*, as we would expect, but in the remaining languages *i*,  $\bar{i}$  have undergone rounding under the influence of the preceding rounded consonant (<\* $x^{vi}pta$ ; Av.  $x\dot{s}vipta$ -).<sup>106</sup>

#### In unstressed position

**§65.** Regarding the reflex of \*i,  $\bar{i}$  in unstressed position, we can make judgments through prefixes in which we usually get *a* in Sarikoli (only when together with palatal consonants do we get *i*), and in the remaining languages we get *i* (only before  $*\bar{s}>\bar{y}$ , *w* and  $*r>\bar{y}$ , *w* do we get *a*). For instance: Sh., Ru., Bt. *niðáfs*; Sr. *naðefs* 'stick (intr.)' (Av. *nī*); Sh., Ru., Bt. *wižafs*; Sr. *wažafs* 'return' (Av. *avi*); Sh. *vidőj*; Ru. *vidűj* 'irrigation'; Sh. *vidēdz* 'to water'; Sr. *vidzin* 'provide' (?) (Av. *niš*-, *niž*; Skt. *niṣ*-, *nir*-: Sh. *nažfi* $\theta$ ; Ru., Bt. *nawfé* $\theta$  'drop out; fall out'; Sr. *nalfón* 'pull out'; Sh. *nažjīs*; Ru., Bt. *nawžís*; Sr. *narjés* 'pass'; but Sh., Ru., Bt. *nižciramb*- 'pinch; pluck', where the influence of  $*\check{c} > c$  is seen.

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<sup>&</sup>lt;sup>103</sup> Later rounding of *i* under the influence of *w*.

<sup>&</sup>lt;sup>104</sup> With metathesis of the prefixal and root syllables.

<sup>&</sup>lt;sup>105</sup> However, Morgenstierne considers this word to be borrowed from Persian (NTS I: 65), which is unlikely.

<sup>&</sup>lt;sup>106</sup> The *i* in Sr. *wist* 'twenty' is possibly linked to influence from Persian *bist* (cf. the borrowed form  $b\bar{i}st$  in the other languages of the Shughni-Rushani group).

A similar picture of the irregularities of *i*–*a* (in Sr. also *e*), depending on the influence of surrounding consonants, is observed in present-tense verbal stems, in which we can reconstruct with quite a bit of certainty a short *i* which was apparently unstressed: Sh. *wiz*-; Ru. *waz*- 'fit; contain'; Sr. *wez* (influence of *w* in Rushani);<sup>107</sup> Sh., Bt. *widzin*-; Sr. *vidzin*- 'clear; separate'; Av.  $\sqrt{kay}$ -, stem *činav*-, *čin*- (influence of palatal \* $\check{c} > dz$ ).

It is possible that we should add here the verb: Sh. *viraỹ*-; Ru., Bt. *viraw*- 'break (intr.)' < \**briš* (PIE *bhrēi*-, *bhrī*-s; Av.  $\sqrt{bray}$ ; or possible, Proto-Iranian \* $\sqrt{rais}$ ; Av.  $\sqrt{raes}$  with a prefix?; cf. Av. stem *irišya*-). However, there is no certainty here regarding the initial weak vocalization of the stem (Sr. pres. stem  $v(\omega)r\varepsilon y\tilde{y}$ ).

## Reflex of Proto-Iranian \*u, ū

#### In stressed position

As was the case with a, we can identify three phonetic positions which influence the reflex of u,  $\bar{u}$  in stressed position: (i) neutral position; (ii) *i*-umlaut position; and (iii) *a*-umlaut position.

#### In neutral position

§66. 1. In neutral position before a single consonant,  $u, \bar{u}$  has as its reflex the following:

Sh., Ru., Bt. Sarikoli		Origin	Gloss
рис	рыс	рыс Аv. ридга-	
ðum	ðыт	Av. duma-	tail
<i>nur</i> , Bt. <i>nūr</i> <sup>108</sup>	пыг	Av. nūrəm	today
ðud	ðыd	Skt. dhūma-; Pers. dūd	smoke
xisur; Bt. xasur	хаѕыг	Av. <i>x<sup>v</sup>asura</i> -	(woman's) father-in-
			law
kud	кыd	* <i>kuta</i> - <sup>109</sup>	dog

Sh., Ru., Bt. u // Sr. ы	Sh.,	Ru	Bt.	u //	Sr.	ы
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The same results are found in past-tense stems of verbs, whose roots contain the sonorant *w*:

<sup>&</sup>lt;sup>107</sup> Present-tense stems with a short *i* in the modern languages are largely unstressed (Sh. *wizi* 'you (will) fit'; *kini* 'you (will) do') and receive stress only in some of their usages. For *wiz-*, cf. Yzg. *waž*; *wayd*; Ish. *wuc*; *wucbd*; Mnj. *wuj*; *wuyd*; Wkh. *wic*; *wicbid*; but cf. also Av. *vaēz-*, stem *viza-*.

<sup>&</sup>lt;sup>108</sup> This is from the later lengthing of *a* to  $\bar{a}$ , which is common in Bartangi (cf. Bt.  $\bar{a}z$ , Ru. az 'I'; Bt.  $t\bar{u}$ ; Sh., Ru. tu 'you'; Bt.  $af\bar{a}w$ ; Ru.  $af\bar{a}w$  'day after tomorrow'; etc.).

<sup>&</sup>lt;sup>109</sup> Cf. Yzg. k<sup>o</sup>od; Ish. kьd; Oss. k<sup>o</sup>ydz; Ygh. kud; Sgd. 'kwty.

sut	Sыt	Av. $\sqrt{syav}$ -, $sav$ -; pcpl.	go; leave
		šuta-	
vud	vыd	Av. √bav-; pcpl. būta-	be
х́иd	х <i>ы</i> d	Av. √srav-; pcpl. srūta-	hear
pud	рыд	Av. $\sqrt{pav}$ -	rot
wizúd	wazы́d	PIE $\sqrt{\hat{g}heu}$ 'disappear;	go out; die (e.g. fire)
		· (?)	
sirúd	s(ы)rы́d	PIE *reu; Skt. rav, ru-	dismantle ; pull apart
θud	$ heta$ ы $d^{110}$	?	burn (intr.)
Sh. <i>firúd</i>	[ <i>parúd</i> ] <sup>111</sup>	Av. \frav-	rinse
Sh. <i>pižúd</i>	[рыхи́d] <sup>112</sup>	PIE *ks-eu to * $\sqrt{kes}$ -	shear sheep

When before  $*\check{s}$ , just like with \*i,  $\bar{i}$ , we get *a* everywhere as the reflex of \*u,  $\bar{u}$ : Sh. *afaỹ*; Ru., Bt. *afaw*; Sr. *fal* 'day after tomorrow' (*apy-uša-*). See also the present stem: Sh. *kay-*; Ru., Bt. *kaw* 'slaughter' (Av. *kuša-*).

2. There is a deviation in Sarikoli in stems with two final consonants: in the perfect stem almost in all the examples of verbs given here we have e instead of bi: Sr. seðj, veðj, žeðj, peðj, wazeðj, but  $\theta_{bl} \delta_{j}$  and  $s_{(bl)} r_{bl} j$  (in the final too with the loss of d). In the same formations of perfect stems in Sarikoli *u* is preserved, but with vowel lengthening in the Bajuwi dialect: Sh.  $su\delta j$ , Baj.  $s\bar{u}\delta j$ ; Sh. vuðj, Baj. vūðj; etc. (in Rushani and Bartangi d is lost: vuj, suj; etc.). Non-perfect past stems with two final consonants are rare. In the position before \*š: Sh., Ru., Bt. niyuxt 'listen'; Av.  $\sqrt{gaos}$ ; pcpl. gušta- (in Sarikoli this verb is not attested); Sh., Ru., Bt. kužt; Sr. kažt 'slaughter'; Av.  $\sqrt{kaos}$ . Verbs of this type have either been contaminated with roots with the sonorant y, or or they have given the same result as such roots. Compare: Sh. present-tense stem viray-; Ru., Bt. viraw-; Sr. vir $\varepsilon v \check{y}$ -; past stem Sh. vir $u \check{x}t$ ; Sr. vir $a \check{x}t$  (\* $\sqrt{brais}$ ) 'break (intr.)'; as well as Shughni present stem kaý-; Ru., Bt. kaw-; Sr. keyý-; past stem Sh., Ru., Bt. kužt; Sr. kažt  $(*\sqrt{kaus})$  'slaughter'. Past-tense stems from roots ending in \*k, \*g (> present stems \*c, j > dz), as in Sh. pinúvd; Ru., Bt. panáwd; Sr. paméwg (PIE \meug-, meuk-; Av. participle paiti-šmuxta) represent a later transormation as a result of the change of \*y, y' in the group \*yd (-\*muyda), which, in turning into y in Shughni, motivated the regular lengthening of u into  $\bar{u}$ , and turning to into w in the other languages, motivated the the regular change of \*u into a before w. Examples of this type of stem include the following: Sh.  $\partial \bar{u}yd$ ; Ru.  $\partial \bar{a}wd$ ; Sr.  $\partial \varepsilon wd$  'milk'<sup>113</sup> (PIE √*dheugh-*); Sh. *wirúvd*; Ry. *wiráwd*; Sr. *rɛwd* 'unstitch; tear at the seams (tr.)' (cf. Av. *uruxtav-*). In one case in Shughni, we see the reflex of u before v (< p), where we also see its lengthening into  $\bar{u}$ : Sh.  $r\bar{u}vd$  'clear away snow' – pres. stem  $r\bar{u}b$ -; cf. Taj.  $r\bar{u}b$ - 'sweep'.<sup>114</sup>

<sup>&</sup>lt;sup>110</sup> Present stem: Sh.  $\theta \bar{a}w$ -; Ru., Bt.  $\theta \bar{i}w$ -; Sr.  $\theta \varepsilon w$ -; Ish. saw-; sbd; Wkh.  $\theta aw$ -;  $\theta \partial t$ . We cannot derive this from \*tap (\*p never results in w). Cf. example 8 in §80.

<sup>&</sup>lt;sup>111</sup> Secondary formation from the causative present-tense stem, as is common for all languages (cf. Sh.  $pi\dot{x}ud//pi\dot{x}ewd$ ;  $sirud//sir\bar{e}wd$ ; in Rushani and Bartangi only: Ru.  $pi\dot{x}\bar{e}wd$ ; Bt.  $pi\dot{x}awd$ ; etc.) with the loss of w in Sarikoli? (Sr. \*parowd > \*paruwd > parud).

<sup>&</sup>lt;sup>112</sup> Same as fn. 111.

<sup>&</sup>lt;sup>113</sup> In Bartangi we have back formation with the present stem:  $\partial \bar{u}z$ -;  $\partial \bar{u}zd$ .

<sup>&</sup>lt;sup>114</sup> In Sarikoli this verb is not attested; in Rushani and Bartangi we see (back-) formation: Ru., Bt. rūb-; rūpt.

There is also a noun which ends with two consonants and can be derived from a root with \**u*: Sh. *wixūų̃ỹ*; Bt., Ru. *wixūų̃(with the influence of r*<sup>115</sup>); Sr. *wažérj* 'comb' (PIE \**ksu-ro* from  $\sqrt{kes}$ , *ks-eu* 'to comb'; cf. Skt. *kşura-*), where the position before in Sarikoli gives *e*, but in Shughni and Baratangi, we have lengthening to  $\bar{u}$ . It is possible that we could also add here the following word: Sh., Bt. *rūrv*; Ru. *rurv* 'of a light-red color', if we derive it from \**ruð-ra* > \**ruvr* or *rurð* >  $r\bar{u}rv^{116}$  (PIE  $\sqrt{reudh}$ ; Av. *raoiðita* 'reddish'). When before *m*, in Sarikoli we get *a*, and in the remaining languages we get *u* without lengthening to  $\bar{u}$ : Sh., Bt. *xumb* 'heap; pile'; Sr. *xamb* 'pit for grain' (PIE \**kumbh*, from \* $\sqrt{keu}$ -; *keuə*; cf. Skt. *kumba-* 'nodule; growth; mass').<sup>117</sup>

As a result, a fairly clear picture can be identified for the position before two consonants: 1) before raising (palatalizing) consonants v, r, and to a lesser extend  $\delta * u$  has resulted in: Sh., Kh.  $\bar{u}$  // Ru. u // Bt.  $\bar{u}$ ; Sr. e; 2) before other consonants: Sh., Ru., Bt. u // Sr. a.

#### In *i*-umlaut position

**§67.** 1. In closed syllables with a single final consonant, \*u,  $\bar{u}$  have *i* as their reflex everywhere: Sh. *wixín*; Bt., Sr. *waxín* 'blood'; Av. *vohuni*; Sh., Ru., Bt., Sr. *sidz* 'needle'; Skt. *sūči*- (Av. *sūkā*-).

In nouns which differentiate gender, a root *i* marks feminine gender, having come about through the influence of the old feminine ending \*-*i*. The masculine form of these nouns has *u*: Sh., Ru., Bt. *kid* (\**kuti*) 'female dog'; masc. *kud* (\**kuta*-); Sh., Ru., Bt. -*bic*; masc. -*buc* 'young of an animal'; Sh., Bt.  $dzil^{118}$ ; masc. dzul 'small'.

In verbs, *i* from \**u*,  $\bar{u}$  appears in infinitive stems and in perfect stems in the feminine. Infinitive: Sh., Ru., Bt., Sr. *vid* 'be'; Sh., Ru., Bt., Sr. *xid* 'to hear'; 'Sh., Ru., Bt., Sr. *pid* 'rot'; Sh., Ru., Bt. *wizid*; Sr. *wazid* 'to go out (of a light, fire)'; Sh., Ru., Bt. *sirid*; Sr. *s(ы)rid* 'to separate; divide'; Sh., Ru., Bt., Sr.  $\theta id$  'burn'. Perfect stems in the feminine: Sh., Ru., Bt. *sic* 'became/went'; *vic* 'was'; *pic* 'rotted'; *wizic* 'gone out (of fire, light)';  $\theta ic$  'burned (down/out)'.

2. In closed syllables with two final consonants there is almost no data, but with the few existing examples it is possible to posit that the same changes have occurred, as with \*i.

Before v in Shughni and Bartangi, and in the Khufi dialect, we have the lengthening of *i* to  $\bar{i}$ , and in Sarikoli we get *e*: Sh., Kh., Bt.  $s\bar{i}vd$ ; Ru. sivd; Sr. sevd 'shoulder'; Av. supti-; Sh. infinitive  $r\bar{i}vd$  'sweep snow' (stems  $r\bar{u}b$ -:  $r\bar{u}vd$ ).<sup>119</sup> In infinitives from roots ending in \*- $\bar{s}$ , we get Sh., Ru.,

<sup>&</sup>lt;sup>115</sup> The loss of *r* in Bartangi, as well as its replacement with  $\check{y}$  in Shughni and the addition of the prefix *wi*-, have all occurred as a result of its contamination with the verb with the same root: Sh. *wixay*-: *wixuxt* 'comb' ()PIE \**ks-eu* + *s*).

<sup>&</sup>lt;sup>116</sup> On irregularities with  $\partial/v$ , see §25, pt. 8.

<sup>&</sup>lt;sup>117</sup> It is unlikely that this word is borrowed (cf. NTS I: 76). Persian *xumb* has the meaning 'vessel; jug'; cf. Skt. *kumbha* with the meaning 'vessel'.

<sup>&</sup>lt;sup>118</sup> CP: It seems that I have heard *dzal* rather than *dzil*.

<sup>&</sup>lt;sup>119</sup> In Rushani and Bartangi, the infinitive is formed through the modern past stem: *rūptōw*.

Bt. *i*; Sr. *a*: Sh., Ru., Bt. *kixt*; Sr. *kaxt* 'slaughter'<sup>120</sup>; Sh. *wixixt* 'comb one's hair'; Sh., Ru., Bt. *niyixt* 'listen'. The expansion of *i* into Sh, Bt.  $\bar{i}$  // Ru. *i* // Sr. *e* is observed also for the thirdsingular in positions before palatalizing consonants: Sh. *pinīzd*; Bt., Kh. *panīzd*; Ru. *panizd*; Sr. *pamezd* 'dress oneself' (cf. Skt. *mucáti*); Sh., Kh., Bt. *xīnt*; Ru. *xint*; Sr. *xent* 'listens' (Av. stem *srunav-*).

In Shughni, the same type of expansion takes place with stems ending in  $-*\check{s}:k\bar{i}\check{y}d$  'slaughters' (Av. stem  $ku\check{s}a$ -);  $wi\check{x}\bar{i}\check{y}d$  'combs one's hair' (stem  $*x\check{s}u\check{s}a$ -). Apparently, Shughni  $\check{y}$  from  $*\check{s}$  could become palatalized ( $*ku\check{y}(\partial)d'i$ ). In Bartangi and Rushani we have in these cases the combinations aw,  $\bar{a}w$ : Ru. kawd; Bt.  $k\bar{a}wd$  'slaughters'; Bt.  $wi\check{x}awd$  'combs one's hair'. Here, there was clearly no umlaut (non-palatalizating w) and \*i < \*u regularly resulted in a before w. The reason for the development of a in this vowel in Sarikoli ( $ka\check{y}d$  'slaughters' is unclear, because in all roots with a final  $*\check{s}$ , as was already pointed out, Sarikoli has developed  $\varepsilon y$ , and hence a here might constitute a contraction of  $\varepsilon y$ , rather than the true reflex of \*u.

In Shughni, the word  $fir \hat{\epsilon} \check{\gamma} dz$  'flea' (PIE *plou-*, *blou-*; Skt. *pluši-*; Psht. *wroža*), the vowel  $\bar{\epsilon}$  is a result not of primary umlaut, but of secondary umlaut. Here, there were two stages of change:  $pluši > fri\check{\gamma} > fra\check{\gamma}$  (which is identical to Psht. *wroža*; cf. Sh. *spaš* from *spiš*). Subsequently, *fraš* took the suffix \*-*či*, apparently, with the simultaneous lengthening of the root vowel \**frāšči*, and the latter form would have regularly resulted in *firēšdz*.

#### In *a*-umlaut position

**§68.** Iranian  $u, \bar{u}$  everywhere results in short *a*. The position of *a*-umlaut primarily is found with old feminine forms ending in  $\bar{a}$ , both in nouns and in participles (past stems).

1. In nouns with feminine gender: Sh., Ru., Bt., Sr. *vaz* 'goat' (*\*būzā*), Av. *būza* 'billy goat'); Sh. *zináy*; Ru. *zináw*; Bt. *zináw*; Sr. *zыnál* 'daughter-in-law'; Skt. *snuṣā*; Sh., Ru., Bt. *žindám*; Sk. *žandám* (*\*gantumā*) 'wheat'; Av. *gantuma-*; Sh., Ru., Bt. *sitán*; Sr. *sыtán* (*\*stūnā*) 'column'; Av. *stūnā*; Sh., Ru., Bt., Sr. *can* (*\*drunā*) 'gun; bow; slingshot'; Skt. *druṇa*. In nouns which change for gender, *a* is a marker of feminine gender, with masculine gender marked with *u*: Sh., Ru., Bt. *čaž* 'chicken (f.)'; *čuž* 'rooster'; Sh., Ru., Bt. *šat*; masc. *šut* 'lame; limping'; Sh., Ru., *kar* (f.); *kur* (m.) 'crop-eared?'; Sh., Ru., Bt. *karc* (f.); *kurc* (m.) 'concave; deep'.<sup>121</sup>

2. In past stems, the *a*-umlaut position is also reflected in plural forms ending in \*- $\bar{a}$ . Thus, modern plural past-tense stems and modern feminine past-tense stems are syncretic: Sh., Ru., Bt. *sat*, *sad* 'went (f.)'; Sh., Bt. *vad* 'was (f.)'; Sh., Ru., Bt. *pad* 'rotted'; Sh., Ru., Bt. *wizád* 'went out (of fire, light)'; Sh., Ru., Bt.  $\theta ad$  'burnt'. Since in perfect stems, the feminine gender was formed with the suffix -\* $\check{c}i$  (*i*-umlaut position, see

<sup>&</sup>lt;sup>120</sup> CP: A consultant gives the Shughni 3sg form  $k\bar{i}\dot{y}d$ .

<sup>&</sup>lt;sup>121</sup> A further two words which seem to show this vocalization are  $\check{x}ac$  (f.) 'water' and  $\check{x}uc$  (m.) 'broth; infusion; potion'. These words can be derived from a root which contains \**u*, perhaps to  $x\check{s}udr\bar{a}$ - and \* $x\check{s}udra$ - (cf. Av.  $x\check{s}u\check{d}ra$ - 'liquid; moisture').

§35), *a*-vocalization for them is only found in plural forms: Sh. *saðj*; Ru., Bt. *saj* 'left (pl.)'; Sh. *vaðj*; Bt. *vaj* 'were (pl.)'; Sh. *paðj*; Ru., Bt. *paj* 'rotted (pl.)'; *wizáðj*; Ru., Bt. *wizáj* 'went out (of fire, light) (pl.)'; Sh. *θaðj*; Ru., Bt. *θaj* 'burnt (up/out)'.

Thus, similar to short \*a (see §44), in perfect stems, we get all three types of reflexes of \*u: neutral-position vocalization (masc.); *i*-umlaut vocalization (f.); and *a*-umlaut vocalization (pl.). For instance: Ru., Bt. *suj* (m.); *sic* (f.); *saj* (pl.).

3. Instances of original \*- $\bar{a}$  with other origins: Sh., Ru., Bt., Sr. *at, atā* (coordinating conjunction); Old Persian *utā*; Av. *uta*; Sh., Ru., Bt. Sr.  $\delta ar$  'far' (Av.  $d\bar{u}r\bar{a}t$ ); Sh., Ru., Bt., Sr.  $\gamma a\theta$  (<\* $g\bar{u}\theta\bar{a}$ ); Av.  $g\bar{u}\theta a$ -.

#### In unstressed position

**§69.** In unstressed position, \*u,  $\bar{u}$  is analogous with \*i,  $\bar{i}$ , resulting in *a* or *i*, and also *e* in Sarikoli. Irregularities in these short vowels depend both on the language in question (for Shughni, *i* is more common), as well as on the influence of surrounding consonants (when adjacent to palatal  $*\check{c}$  we get *i*, and also *e* in Sarikoli; before *y* we get the combination *ay*, Sr.  $\varepsilon y$ ).

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In present-tense stems, which can be derived from the weak vocalization of \**w* and are thus unstressed. In stems ending in -*ya* (such as Av. *puya* 'rot'; *buya* 'beat'); Ru. *pay*, Sr. *pɛy*; in Shughni and Bartangi with the later contraction of *ay* to *i* (Sh.) and  $\bar{i}$  (Bt.): Sh. *pi*-; Bt.  $p\bar{i}$ - (rot); Sh. *vi* (<*vay*) 'be'.<sup>122</sup> We may possible be able to add the following verb here: Ru. *cay*-; Sr. *cɛy*; Sh. *ci*; Bt. *cī* 'fry; cook' (\**druya*-), if it can be derived not from -\**y*, but from -\**w* (dessiminator?) (PIE \**d*(*e*)*reu*).<sup>123</sup> In other stems: Sh. *xin*-; Ru., Bt., Sr. *xan*- 'hear'; Av. stem *srūnav*-; Sh. *pinidz*; Ru., Bt. *panidz*; Sr. *pamedz* 'dress oneself; Skt. *mucáti* (PIE \* $\sqrt{meuk}$ -); Sh. *kaý*-; Ru., Bt. *kaw*- 'slaughter',<sup>124</sup> Av. stem *kuša*-.

In compounds with inflection: *yijīd*; Ru. *yajód* 'stable; cowshed' (<\*gu-kata-<sup>125</sup>); Sh. viznēč 'goats'l Bt. vaznīč 'kids (baby goats)'.

Unstressed *a* from \**u* in the plural forms of nouns are common in all languages (Sh., Ru., Bt. *pacén* 'sons'l Sh., Ru., Bt. *kadén* 'dogs'); however, in all likelihood, its stability is similar to that of plural forms from roots with \**a* (cf. *čadén* 'houses'; *žajén* 'bulls; oxen').

<sup>&</sup>lt;sup>122</sup> In the other languages the stems – Ru., Bt. *vaw*-; Sr. *vew*- come from another stem of the same verb (cf. Av. *bava*-).

<sup>&</sup>lt;sup>123</sup> In addition to Persian *darav*, see also Wkh. *dыrəw* (but Ish. *dьray*; Mnj. *drīy*).

<sup>&</sup>lt;sup>124</sup> Sr.  $k \epsilon y \check{y}$ - contains the unclear development of  $\epsilon y$ .

<sup>&</sup>lt;sup>125</sup> NTS I: 55.

# Reflex of Proto-Iranian diphthongs \*ai; \*au

# In stressed position

In Sarikoli diphthongs are preserved; in the other languages we get long vowels in their place.

**§70.** For the diphthong \**ai*, we get the following correspondences:

Sh. *ē* // Ru. *ī* // Bt. *ī* // Sr. εy

# In nouns & adjectives

Shughni	Rushani	Bartangi	Sarikoli	Origin	Gloss
sipēd	sipīd	sipīd	sырεуd	Av. spaēta-	white
xēð	xīð	xīð	xeyð	Av. x <sup>v</sup> aēða-	mud/dirt; sweat
ðēw	ðīw	ðīw	ðeyw	Av. daēva-	demon
$\check{x}\bar{\imath}n^{126}$	х <i>ī</i> п	х́īп	х́εуп	Av. ašaēna-	blue
xēz	xīz	xīz	xeyz	Pers. xēz 'stand up'	direct ; right
mēθ	$m\overline{\imath} heta$	mīθ	таθ	<b>*</b> <i>maēθa</i> - <sup>127</sup>	day
yēd	yīd	yīd	_	Av. haētu-	bridge

#### In present-tense verb stems

Shughni	Rushani	Bartangi	Sarikoli	Origin	Gloss
mēz-	mīz-	mīz-	meyz-	Av. stem maēza-	urinate
žēb-	žīb-	žīb-	žɛyb-	PIE $\sqrt{geibh}$ -	spin
х́ēb-	<i></i> х́īb-	х <del>́</del> īb-	<i>х́</i> εуb-	PIE $\sqrt{kseip}$ -	beat
parwēdz-	parwīdz-	parwīdz-	parwey-	Av. stem vaēja-	sift
divēs	divīs	divīs	—	show	Av. stem daēsa-
wēð	wīð	wið	weyð	Av. $\sqrt{va\bar{e}d}$ ; caus.	let go; launch
				stem vaēðaya-	

<sup>&</sup>lt;sup>126</sup> Raising before n.
<sup>127</sup> Yz. miθ; Mnj. miž; Ygn. met. Cf. NTS 1: 61; see also IIFL II: 299. On Sarikoli maθ, see §72.

**§71.** The dipthong *au* has the following correspondences:

Sh.  $\hat{u}$  // Ru.  $\bar{u}$  // Bt.  $\bar{u}$  // Sr.  $\varepsilon w$ 

# In nouns & adjectives

Shughni	Rushani	Bartangi	Sarikoli	Origin	Gloss
γΰੈ <i>ϔ</i>	$y \bar{o} w^{128}$	үū	yewl	Av. gaoša-	ear
čibūd	čibūd	čabūd	čabewd	Skt. kapóta-	dove
sitūr	sitūr	sitūr	sыtewr	Av. staora-	(type of cattle)
<i>ğūnj</i> <sup>129</sup>	<i></i> yī ū n j	<i></i> yīūnj	—	Av. gaona-	hair (pl.)
<i>x</i> ūn <sup>130</sup>	х́ūn	х <del>́</del> и́п	х́єwn	Av. sraoni-	buttocks; ass

#### In present-tense verb stems

Shughni	Rushani	Bartangi	Sarikoli	Origin	Gloss
ðudz-	ðūz-	ðūz-	ðɛwdz-	PIE * <i>dheugh-</i> ; Skt.	milk
				dógdhi	
niyūੈy̆-	niǧū́(w)	กเ่yนึ่	_	Av. stem gaoša-	listen
wirudz-	wirūdz-	wirūdz-	rewz-	PIE * <i>reu-k</i> ; or	unstitch; tear at
				leug- <sup>131</sup>	the seams (tr.)
ru̇́b-	rūb-	rūb-	_	Persian <i>rūb-</i> ; Skt.	sweep/shovel
				rōp-	snow

§72. In Sarikoli, in closed syllables with two final consonants, the diphthongs  $\varepsilon w$  and  $\varepsilon y$ contract to a or e, depending on the influence of surrounding consonants:

Shughni	Rushani	Bartangi	Sarikoli	Origin	Gloss
rūz	rūz	rūzn	rezn	Av. raočana,	window
				raočina-	
rů́pc	rūpc	rūpc	rapc	*raupas-; Skt.	fox
	_	_	_	lōpāsa-	

<sup>&</sup>lt;sup>128</sup> Lowering with the influence of y and w. <sup>129</sup> Later raising (see §25, pt. 1). <sup>130</sup> Same as fn. 129.

<sup>&</sup>lt;sup>131</sup> Cf. Skt. *rujáti*; Av. *uruxtay*.

A similar shortening of diphthongs can be found also in past-tense stems with secondary (=back?) formations (from present-tense stems). Here, for example, we can include the verb: Sr. *wažɛyb: wažapt (wažɛypt)*; cf. the old past-tense stem in the verbs with the same root: Sr. *wažafs-: waževd* 'return' and *žɛyb: ževd* 'spin', which continues the old participle (\**gibta-*).<sup>132</sup>

We can assume that for Sarikoli, the *a* in  $ma\theta$  'day' can be explained through the addition of some suffix to this word in the past. For instance, it could be the following:  $*mey\theta in - mey\theta in - mey in - mey$ 

Shortening before two consonants is observed for Sarikoli  $\varepsilon y$ ,  $\varepsilon w$  of any origin, and not just for those which can be derived from the Proto-Iranian diphthongs. Thus, in the perfect stems fromed from past stems of the type: Sr.  $\check{c}\varepsilon wg$  'done',  $v\varepsilon wg$  'brought', where  $\varepsilon w$  is the result of the sonorantization of r (\*varta or \*vərta-; \*karta), we get Sr.  $\check{c}\partial\check{y}\check{j}$ ,  $v\partial\check{y}\check{j}$ , respectively. The vocalic element here which has come out of the diphthong inherits, with the help of the fricative  $\check{y}$ , its articulatory obscurity, as well as its phonological indefiniteness (cf. the vocalic element  $\varepsilon$  of the diphthong). In perfect stems formed from past stems: Sr. reyd (Ru. rayd) 'stayed', where y has arisen from  $\check{y}$  (cf. Yz. rayd; Av.  $\sqrt{ra}k$ ), we get Sr.  $re\check{d}\check{j} < ray\check{d}\check{j}$  (Ru.  $ray\check{j}$ ). In the present-tense third-singular form of this verb, in the position before -s (intransitive suffix) – i.e. when before a non-palatalizeable consonant – we get a: Sr. rast 'stays' (< rayst; Ru., Bt. rayst). The past stem: Sr.  $b\varepsilon yd$  'disappear', where  $\varepsilon y$  can be derived from \*ay (\*apa-ay-ta or \*apa-ita; Av.  $\sqrt{ay}$ ; ppl. ita, we get the perfect stem  $be\check{d}\check{j}$ , but in the present-tense third-singular form, before the suffix -s, we get a: Sr. bast 'disappears'.<sup>133</sup>

§73. When before \*- $\check{s}$ , for which there is only a single example. \*ai has a different reflex in each language: Sh.  $ma\check{\chi}$ ; Ru.  $m\bar{e}w$ ; Bt.  $m\bar{a}w$ ; Sh.  $m\varepsilon wl$  'sheep'; Av.  $ma\bar{e}\check{s}i$  (fem.);  $ma\bar{e}\check{s}a$ - (masc.).

In Sarikoli the diphthong is preserved, but has been moved back under the unflence of  $*\check{y}$  (> l). In Rushani the effect of  $*\check{y}/w$  was minimal, and the diphthong has undergone the usual change into a long front vowel, but a more open vowel ( $\bar{e}$  rather than  $\bar{i}$ ). In Shughni and Bartangi, the final element of the diphthong has been lowered through the influence of  $\check{y}$  and, in doing so, coincided with the initial element of the diphthong, and thus the result was  $\bar{a}$  (cf. the transition of i into a before  $*\check{s}: sipa\check{y}, sipaw < *spi\check{s}$ ). The influence of final \*i (Av.  $ma\bar{e}\check{s}i$ -), which was assumed to have taken place by Gathieu<sup>134</sup>, is not visible anywhere here. Apparently, the final \*i had already been lost before the change of the diphthong, after which  $*mai\check{y}$ - came to be used only in the meaning 'sheep (f.)' (cf. the suffixal formation for the word 'ram': Ru.  $maw\check{o}\check{j}$ ; Sh.  $mi\check{y}\check{i}\check{j}$ . It is even possible that upon being fixed in the meaning 'sheep (f.)', the word  $*mai\check{y}$  came to take the more common and, apparently, longer preserved feminine ending  $-*\bar{a}$ , which also exerted a lowering effect on the root vowel.

<sup>&</sup>lt;sup>132</sup> Cf. the old transition of p/b > v and the modern b > p; cf. the similar formation of stems in Bartangi: Bt. *wižafs*: *wiživd* 'return' and *wižib*- (< *wižaib*-): *wižipt* 'turn (tr.)'.

<sup>&</sup>lt;sup>133</sup> The word: Sh.  $p\hat{u}st$ , Ru.; Bt.  $p\bar{u}st$ ; Sr. past 'skin; hide; pelt', in all likelihood, has been borrowed or somehow contaminated (cf. Tj.  $p\hat{u}st$ ; Pers.  $p\bar{u}st$ ). Sarikoli *past* has a diphthong-like sound of  $\hat{u}$  or  $\bar{o}$  from the borrowed source (cf. the diphthong-like sound of Tajiki  $\hat{u}$  in several dialects). The etymology of this word is not clear. We cannot verify the presence of a diphthong in the Avestan word *pasta*-.

<sup>&</sup>lt;sup>134</sup> Yazg: 242-243.

In any case, it is clear that the position before  $-*\check{s}$  caused some kind of change in almost any vowel which found itself there.

## In unstressed position

**§74.** As far as we can tell from the available examples, the dipthong \**ai* in unstressed wordmedial position has as its reflex *a* or *i*: Sh.  $\check{x}ab\bar{t}dz$ ; Kh.  $\check{x}ab\dot{c}dz$ ; Ru., Bt.  $\check{x}ab\bar{e}dz$ ; Sr.  $\check{x}eyb$  'twig; stick' (<\* $\check{x}aib$ - $\check{a}\dot{c}i$ ; see §32, pt. 3; present stems: Sh.  $\check{x}\bar{e}b$ -; Ru., Bt.  $\check{x}\bar{i}b$ - 'beat'); Sh.  $mi\check{y}\check{t}\check{j}$ ; Ru., Bt.  $mawo\check{j}$  'ram' (< $mai\check{s}$ - $\acute{a}ka$ ); Sh.  $min\check{e}\check{c}$ ; Ru.  $mawn\bar{c}$  'sheep's; ovine'.

For unstressed word-initial positon there is a lack of reliable examples. However, we can possibly look to the following: Sh., Ru., Bt.  $y\bar{i}w$ ; Sr. iw 'one' from \* $aw\dot{a}ka$ - (Av.  $a\bar{e}va$ -) with primary stress on the suffix (cf. Yzg. wug; Persian yak), which gave \* $iw\dot{a}g$ . The shifting of stress onto the root later caused the lengthening of i to  $\bar{i}$  and subsequently the regular development of y would have occurred, along with the total loss of the suffix.<sup>135</sup>

As an example of unstressed *au*, we can likely take the following word: Sh. *yijīd*; Ru. *yajōd* 'stable; cowpen'; for which we can get the pre-Shughni original form \**gau-káta*.

# Reflex of clusters \*ay, āy; \*aw, āw

# Clusters \*ay, āy

**§75.** Word-medially, the reflex of Proto-Iranian \**ay* is found in present-tense verb stems ending in \*-*ya*, from roots ending in \*- $\bar{a}$  (Av. type *daya*,  $\sqrt{d\bar{a}}$ ). The primary result in these cases was common for all languages of the group: *ay* or  $\varepsilon y$  (*ay*), which in Shughni and Bartangi was subsequently shortened in open syllables to Sh. *i*, Bt.  $\bar{i}$ , and in closed syllables (i.e. third-person singular forms), Shughni  $\bar{e}$  and Bartangi  $\bar{i}$ . In Rushani and Sarikoli, the cluster has been preserved: *ay* for Rushani and  $\varepsilon y$  for Sarikoli. Thus, the modern correspondences for the languages are the following:

Sh.	i,	ē //	Ru.	ay //	Bt.	ī //	Sr.	εу
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	Shughni	Rushani	Bartangi	Sarikoli	Origin	Gloss
STEM	ziní-	zináy-	zint-	<i>zыnɛy-</i>	Av. stem	wash
					snaya-; √snā-	
3sg	zinḗd	zináyd	zinīd	zыnéyd		

<sup>&</sup>lt;sup>135</sup> The following word: Sh., Ru., Sr.  $i\check{s}$  'cold' is not well derived from a form containing the diphthong (Av.  $a\bar{e}xa$ -). The shift of the vowel is better suited for weak vocalization (\**ixa*-).

STEM	rimí-	rimáy-	rimī́-	ramey-	Av. stem	order;
					maya-; √mā-	command
3sg	rimḗd	rimáyd	rimī́d	raméyd		
Stem	ði-	ðay-	ðī-	ðey-	Av. stem <i>daya-</i> ; √ <i>dā-</i>	to fall; drop; hit (intr.)
3sg	ðēd	ðayd	ðīd	ðɛyd		

The same results are given by stems ending in -\*ya from roots with sonorants *y*, *w*, *n* in their weak vocalization:

	Shughni	Rushani	Bartangi	Sarikoli	Origin	Gloss
Stem	wiž-	wixay-	wižī-	[ <i>n</i> ɛy-]	Av. stem sraya, √sray; *naya, √*nay	open; Sr. 'churn butter'
3sg	wižḗd	wižáyd	wižīd	[nɛyd]		
STEM	zi-	zay-	zī-	zey-	Av. stem <i>zaya</i> - ( <i><z< i="">n,-<i>ya</i>); √<i>zan</i>-</z<></i>	give birth
3sg	zēd	zayd	zīd	zɛyd		
STEM	pi-	pay-	pī-	реу-	Av. stem <i>puya</i> , $\sqrt{pav}$ -	rot
3sg	pēd	payd	pīd	pɛyd		

Based on the Avestan stems *snaya*- ( $\sqrt{sna}$ -), *sraya*- ( $\sqrt{sray}$ -, *sri*-), and *zaya*- ( $\sqrt{zan}$ -, *zn*-), it might be possible to consider that *ay* did not come from a different origin in these stems. However, cf. Av. *puya*- ( $\sqrt{pav}$ ) with the preservation of *u*-vocalization.

In absolute word-final position, the reflex \**ay* is *ay* or *āy* // Sr. *oy*: Sh. *aráy*, *aráy*; Ru. *aráy*; Bt. *aráy*; Sr. *aróy* 'three'; Av. *θray*-; Sh., Ru. *čāy*; Sr. *čoy* 'who', <sup>136</sup> Av. *kay*-; Sh., Ru., Bt. *pāy*; Sr. *poy* 'sour milk'; Av. *payah*-; Sh. *jiráy*; Ru. *žiráy*; Bt. *žiráy* '(type of clay)' – cf. Yz. *yərúy*; Mnj. *yərəy*; PIE \**glei*.

**§76.** The cluster  $*\bar{a}y$  in present-tense stems from roots ending in \*-(a)i with strong vocaliation of the root appears everywhere as  $\bar{o}y //$  Sr. uy: Sh., Ru., Bt.  $p\bar{o}y$ -; Sr. puy- 'graze livestock'; Av. stem  $p\bar{a}ya$ -; Sh., Ru.  $nim\dot{o}y$ ; Sr.  $num\dot{u}y$  'appear; be seen',  $^{137}\sqrt{m\bar{a}(i)}$ -. When before a consonant, the cluster  $\bar{o}y //$  Sr. uy is never changed at all: Sh., Ru., Bt.  $p\bar{o}yd$ ; Sr. puyd 'grazes (tr.)'. In the *i*-umlaut position (in nominal formations ending in \*-ti),  $*\bar{a}$  gives the corresponding umlaut endings: Sh.  $p\varepsilon yd$ ; Ru., Bt.  $p\bar{e}yd$ ; Sr. poyd 'graze (inf. stem)'. Thus,  $*\bar{a}$  in the cluster  $*\bar{a}y$  was no different from  $*\bar{a}$  in other positions.

There are no examples of  $*\bar{a}y$  in word-final position.

<sup>&</sup>lt;sup>136</sup> In Bartangi, the direct form of the interrogative pronoun has been supplanted by the oblique form  $\tilde{c}\bar{i}$ .

<sup>&</sup>lt;sup>137</sup> In Bartangi this very appears with weak vocalization: *nimī*- (*nimay*).

It is difficult to come to conclusions about the reflex of Proto-Iranian  $*\bar{a}y$  before a consonant. There are no sufficiently reliable examples attested for this position. However, we might be able to posit the following here: Shughni  $x\bar{o}p \ \delta \bar{e} d \delta w$  'beat (intr.); chop' and  $x\bar{o}bj\bar{e}d$  'sabre'; Sr.  $xupc\delta g$ 'table knife' likely have a common origin with  $x\bar{e}p \ \delta \bar{e} d \delta w$  'beat; strike; drum';  $x\bar{e}p \delta \bar{o}rg$  'mallet' (cf. the following verb: Sh.  $x\bar{e}b$ -:  $x\bar{i}vd$  'beat; strike';  $xab\bar{i}dz$  'twig; switch'; PIE  $\sqrt{*kseip}$ ). If this is indeed the case, then the word  $x\bar{o}p$  van be derived only from the strong vocalization of the root  $-*xs\bar{a}ip$ - with the loss of the *i*-element before a consonant. We can see a similar transformation of  $*\bar{a}i$  (long diphthong) in the following words: Sh.  $x\bar{o}\delta$ ; Ru.  $xu\delta$  'yard; farmstead'; and Sh.  $x\bar{e}\delta$ ; Ru.  $x\bar{e}\delta$ ; Bt.  $x\bar{o}\delta$  'summer herding for livestock', if we derive them from formations with the stem  $*(x)\bar{s}ay$  (cf. Av.  $\sqrt{s}ay$ - 'inhabit';  $s\bar{o}i\theta ra$ - and  $s\bar{o}i\theta rya$ - 'abode'). We might also be able to add the word  $m\bar{o}\theta$  'staff; stick'  $<m\bar{a}ita$ ; PIE  $m\bar{e}it$ - from  $\sqrt{mei}$ - (see NTS I: 60).

## Clusters \*aw, āw

**§77.** In present-tense stems from roots which end in the sonorant \*w, we get differing variants in different languages: Sh.  $\bar{a}w$ ; Ru. aw,  $\bar{a}w$ ; Bt. aw,  $\bar{a}w$ ; Sr.  $\varepsilon w$  and, as an exception, o. For instance: Sh., Ru.,  $s\bar{a}w$ -; Bt. saw,  $s\bar{a}w$ ; Sr. so 'go/become' (Av.  $\sqrt{s}yav$ -, sav-); Sh., Ru., Bt.  $n\bar{a}w$ -; Sr.  $n\varepsilon w$ - 'cry' (PIE  $*\sqrt{neu}$ ; Skt.  $n\dot{a}vati$ ,  $n\bar{a}vti$ ); Ru., Bt. vaw-; Sr.  $v\varepsilon w$ - (Av. stem bava-). It is difficult to draw conclusions regarding the correspondence between aw and  $\bar{a}w$  in these cases. It is possible that  $\bar{a}w$  comes from the later lengthening of aw (<\*aw). But it is possible that aw,  $\bar{a}w$  reflect the earlier contamination of \*aw and  $*\bar{a}w$ . For instance, we get short aw everywhere with vaw 'be' (<bava-) and almost everywhere we get long  $\bar{a}$  in  $n\bar{a}w$  ( $<*n\bar{a}va$ -). In this case we must assume that in Shughni the form  $\bar{a}w$  prevailed, while in Rushani the form aw ( $\varepsilon w$ ) prevailed. Rushani and Bartangi exhibit both forms.

When before a consonant (i.e. in third-person singular forms), *aw* undergoes contraction only in Shughni. Cf. Sh. *nůd*; Ru., Bt. *nāwd*; Sr. *nɛwd* 'cries'.

**§78.** Undoubtedly, the strong vocalization of  $(*\bar{a}w)$  appears in causative stems ending in -\**aya*-. In Shughni and Rushani, we get here the usual transition of  $*\bar{a}$  in *i*-umlaut position (see §57: Sh. *firḗw*-, Ru. *firḗw*- 'rinse' (Av. stem *frāvaya*-). In Bartangi, where  $*\bar{a}$  did not undergo umlaut, and in Sarikoli, where  $*\bar{a}$  in umlaut position became *o*, we would expect the following forms: Bt. *firṓw*-, Sr. *firow*-. However, we get instead Bt. *firāw*-, *firáw*, and Sr. *pirɛw*-. Consequently, in Bartangi in Sarikoli  $*\bar{a}$  before *w* could not result in closed *o*-like variants (cf. Sr. *so* (<\**sāw*) 'go', possible only with the loss of *w*).

Other examples of causative stems ending in \*-aya- are the following:

Shughni	Rushani	Bartangi	Sarikoli	Origin	Gloss
pižŧw-	pižḗw-	pižáw-	рых́е́พ-		shear sheep
sirŧw-	sirḗw-	siráw-	siréw-		separate

pattēw-	patḗw-	patáw-	patéw-	*dav-  or  *tav- 138	throw
parðźw-	parð <i>ḗw-</i>	parðáw-	parðéw-	$\sqrt{dav^{139}}$	mimic; grimace

**§79.** Intransitive stems corresponding to causative stems have *i*-vocalization in Bartangi and Rushani. Pairs of causative-intransitive stems in Sarikoli are distinguished with the causative stem containing the suffix *-on*, a new formation. Examples:

-p.	55-

	Shughni	Rushani	Bartangi	Sarikoli	Gloss
TRANS.	$\theta \bar{\varepsilon} w$ -	$\theta \bar{e} w$ -	θāw-, θaw-	θawón-	burn (tr.)
INTRANS.	$ heta ar{a} w$ -	$\theta \bar{\imath} w$ -	$\theta \bar{\iota} w$ -	<i>θε</i> w-	burn (intr.)
TRANS.	wizēw-	wizēw-	wizāw-, wizáw-	wazawón-	extinguish; put out (a fire)
INTRANS.	wizāw-	wizīw-	wizīw-	wazew-	go out (fire)
TRANS.	pišēw-	pišēw	pišāw-, pisáw-	_	entertain; get rid of a bad mood – $*\sqrt{sav}$ (?) <sup>140</sup>
INTRANS.	pišāw-	pišīw-	pišīw-	рыѕеж-	get distracted; disperse (intr.); Sr. 'to clear up (of weather)'

Rushani and Bartangi  $\bar{i}$  appears here as a special reflex of \*a in the *i*-umlaut position:  $*wiz\dot{a}wya- > wiz\bar{i}w$ . In Shughni this form was displaced by the universal type of intransitive stem with  $-\bar{a}w$  vocalization (which opposed the causative stem with  $-\bar{e}w$ ; cf.  $s\bar{a}w$ - 'go'l patt $\bar{e}w$ 'throw'; etc.); *i*-vocalization could not have guarantee a meaning of intransitivity in Shughni, as it was syncretic with transitive umlauted stems ending in -\*aya (cf. Sh.  $p\bar{i}dz->*pa\check{e}aya-$  'cook', but Ru., Bt.  $p\bar{e}dz$ -; §32, pt. 1). In Rushani, similar to Shughni, transitive stems are easily recognized through their vocalization ( $s\bar{a}w$ - 'go';  $\theta\bar{i}w$ - 'burn (intr.)'; but  $pat\bar{e}w$ - 'throw';  $\theta\bar{e}w$ -'burn (tr.)').

In Bartangi, on the other hand, causative forms merged with stems ending in -aw,  $-\bar{a}w$ , and thus the  $\bar{i}$ -vocalization remained the only way to distinguish causative/non-causative pairs of verbs. As such, this type of vocalization not only became entrenched in Bartangi, but also evolved (cf. Bt. *sirāw*- 'distinguish (tr.)' and *sirīw*- 'distinguish oneself'; *firāw* 'rinse (tr.)' and *firīw*- 'be rinsed (?)'; a.o.

<sup>&</sup>lt;sup>138</sup> Cf. Av. dav 'move aside; remove' and 'tav 'push back; push out'

<sup>&</sup>lt;sup>139</sup> Possibly from this root, or possibly from another *dav* 'speak' (Av. *dav*-). Cf. Khufi *warðaw*; Sr. *warðεw* 'talk rubbish'.

<sup>&</sup>lt;sup>140</sup> Cf. Av. √*sav*- 'come to the aid/rescue; benefit'; cf. also PIE \**keu* 'clear; light'.

In Sarikoli, vocalization regularly became syncretic in all stems: not only did causative conjugations in -(a)ya (\* $fr\bar{a}v(a)ya$ -> $p\omega r\bar{a}w$ -> $p\omega r\bar{e}w$ - 'rinse') come to match conjugations in -a-, but so did intransitive conjugations in -ya (\*wizawya > \*wazew > wazew- 'go out (fire)'). Thus, in order to distinguish pairs of causative-intransitive verbs, a new, additional means came into use – the causative suffix -on: wazawon 'to put out (e.g. fire)'.

**§80.** In word-final position, in Bartangi and Sarikoli, the combinations \*aw and  $*\bar{a}w$  are not distinguished, as they have turned into aw in Bartangi, and into  $\varepsilon w$  in Sarikoli. In Rushani and Shughni they appear as aw and  $\bar{o}w$  (in Rushani also sometimes uw). Final uw should be assumed to come from word-final  $*\bar{a}w$ .

Shughni	Rushani	Bartangi	Sarikoli	Origin	Gloss
naw	naw	naw	[ <i>пы</i> ў] <sup>141</sup>	Av. nava-	new
_	<i>x</i> aw	<i>x</i> aw	žеw	Av. srū-, sravant-	horn
[ðu]	ðaw	ðaw	ðew	Av. dva-	two
nōw	nōw	naw	new	Skt. nāu- 'boat'	trench; trough
pōw	puw	paw	_	$\sqrt{pav}$	rotten center of a
					tree
žōw	žōw	žaw	žew	Av. gav-	cow
$\theta \bar{o} w$	$\theta \hat{u} w$	θaw	_	$*\sqrt{\theta aw}$ -142	brand (burned
					into something)
cōw	_	caw	_	*√draw-	harvest

In the word for 'nine' (Av. *nava*-), we find a different reflex of \**aw* in each language: Sh. *nōw*; Ru. *nāw*; Bt. *naw*, *nāw*; Sr. *new*.<sup>143</sup> Apparently, these variants are the result of later lengthening of \**aw* (cf. the different ways of eliminating homonyms: Sr. *nɛw* 'trench', *new* 'nine'; *nыj* 'new'; Ru. *nōw* 'trench; trough'; *nāw* 'nine'; *naw* 'new').

In one word we get the umlaut position: Sh., Ru., Bt. *cīw* 'hair (individual)' < \**drawya*-' cf. Yzg. *diraw* 'hair (pl.)'.

<sup>&</sup>lt;sup>141</sup> From \**naw(a)ka*; cf. Yz. *nug*.

<sup>&</sup>lt;sup>142</sup> Cf. Khwarezmian θāw- (I. Gershevitch. A Grammar of Manichean Sogdian. Oxford. 1964. §574).

<sup>&</sup>lt;sup>143</sup> The only case of *e* before *w*?

## Reflex of clusters \*r. \*ar

#### When stressed

#### With the preservation of r

**§81.** Iranian *r* becomes a vowel (originally a short vowel) + *r*. The quality of this vowel, as with other vowels, depends on its position: 1) in neutral position; 2) in *i*-umlaut position' 3) in *a*-umlaut position. Its usage is limited to a single phonetic position: before *r* in a closed syllable with two final consonants (since \**r* normally arose before consonants). Closed syllables with two final consonants, as established in the preceding sections, constitutes neutral position for the majority of vowels, particularly *r* and *v*. In this position, the reflex of short vowels is generally the same: \**a* and \**u* have the same reflex in neutral position (Sh., Kh., Bt.  $\bar{u}$ ; Ru. *u*; Sr. *e*,  $\omega$ ); *a*, *u*, and *i* have the same reflex in *i*-umlaut position (Sh., Kh., Bt. *i*; Ru. *i*). Vowels which have arisen via *r* correspond in the same way, as can be seen with the following data.

	Shughni	Khufi	Rushani	Bartangi	Sarikoli	Origin	Gloss
~~>	wūrj	wūrj	wurj	wūrj	-	Av. vəhrka-; Skt. vrka-	wolf
<i>r</i> ( <i>ar</i> ?) >	wūrğ	wūrǧ	wur <i></i> yĭ	wūrǧ	—	Psht. <i>wuža</i> ; Mnj. <i>wurž</i> <sup>144</sup>	wool threads
<i>r</i> ( <i>ar</i> ?) >	yūrž	yūrž	yurž	yūrž	уыгх	Av. arša-; Skt. r⁄kṣa-	bear
ar >	čūrð	_	čurð	čūrð	čerð	* <i>kard</i> ; Wkh. <i>kard</i> ; PIE <i>(s)ker-</i> <i>dh</i>	crooked; curved; bent
ar >	xūrn	xūrn	xurn	xūrn	xern	*x <sup>v</sup> arna < *suar(a)-na; Yz. x <sup>o</sup> rn	crow
<i>a</i> >	ūvd	ūvd	ūvd	ūvd	ыvd <sup>145</sup>	Av. hapta	seven
<i>a</i> >	anjūvd	injūvd	injúvd	injūvd	_	*√kap-	grabbed
<i>u</i> >	wižū <i>ž</i> j	wižūj	wižūj	wižūj	wažérj	Skt. <i>ksura-</i>	comb (n.)

**§82.** In neutral position:

In these examples, the reflex of r is seen only either in absolute word-initial position or before w. There are no reliable examples of r word-medially. The etymology of the word *kurc* (Sh., Ru., Bt.) *kurc* 'concave; sunken', where there is no lengthening of u before r, is unclear. It is possible that it is related to Avestan *kərəsa* 'thin', Skt. *krşa* (see also Mnj. *kər*; Ish. *kъr* 'pothole; ravine).

<sup>&</sup>lt;sup>144</sup> Cf. EVP: 95; NTS 1: 39; IIFL II: 84.

<sup>&</sup>lt;sup>145</sup> Both Sarikoli  $\omega$  and Rushani  $\bar{u}$  can be explained, apparently, by their position at the beginning of the word.

## **§83.** In *i*-umlaut position:

	Shughni	Khufi	Rushani	Bartangi	Sarikoli	Origin	Gloss
( <i>ar</i> ?) >	wīrn	wīrn	wirn	wīrn	wern	Av. <i>waršnay</i> , <sup>146</sup> Skt. <i>vŗṣṇay</i>	ram
(ar?) >	pirx	pirž	pirž	pirž	_	Av. <i>paršuya-</i> ; cf. Skt. <i>prsat</i> 'drops; spray'	frost
° (ar?) >	virž	virž	virž	virž	_	Av. <i>barəša-</i> 'mane'	horsehair
<i>r</i> >	mīrt	mīrd	mirt	mīrd	merd	Av. miryate (< mŗyate)	dies
<i>к</i> >	<i>xik</i> îrt	_	_	_	<i>xikérd</i>	* <i>us-k</i> $r(y)ati$ (or skryati; PIE * $\sqrt{(s)ker}$ 'move; budge (oneself)'; cf. Skt. kiráti	looks for
ar (r?) >	čīrm	čīrm	čirm	čīrm	čerm	Skt. krmī-; Av. kərəma-	worm
ar >	zīrd	zīrd	zīrd	zīrd	zird	Av. za <sup>i</sup> rita	yellow
<i>ar</i> >	vīrd	vīrd	virt	vērd	vird	Av. bara <sup>i</sup> ti	brings
<i>a</i> >	anjīvd	injīvd	injivd	injēvd	-	<i>*ham-kapti</i> (inf.); <i>*</i> √ <i>kap-</i>	grab
<i>i</i> >	<i>x</i> īvd	х́īvd	<i>x̃ivd</i>	[xīpt]	<i>x</i> evd	* $k sip-ti$ (inf.); * $k sip-$ ta (ptcpl) ; * $\sqrt{k saip}-$	to beat; beat (pst)
<i>u</i> >	sīvd	sīvd	sivd	sīvd	_	Av. supti-	shoulder

The shortness of *i* in the words *pirx* and *virx* does not seem to have any relation to the characteristics of the development of \*r (cf.  $\bar{i}$  from r in  $w\bar{i}rn$ ,  $m\bar{i}rd$ ,  $\check{x}ik\bar{i}rt$ ). Apparently, the lengthening of short vowels took place before *r* only in the groups *rn*, *rm*, *rð*, *rd*, *rj*, but did not take place in  $r\check{x}$ , *rs*, *rc*, where *r* was devoiced).<sup>147</sup>

For Bartangi and Sarikoli, in individual cases we can distinguish the vocalization of \*r and \*ar by their reflexes. The vocalization of \*r apparently does not result in Bt.  $\bar{e}$ , Sr. i in the position of *i*-umlaut (cf. Bt. *vērd*, Sr. *vird* 'brings', but Bt. *mīrd*, Sr. *merd* 'dies'.

<sup>&</sup>lt;sup>146</sup> On the transition in Avestan of r to ar before  $\check{s}$ , see NTS XII, 1940, p. 54.

<sup>&</sup>lt;sup>147</sup> The fact that  $\bar{u}$  is long in the word  $y\bar{u}r\check{x}$  (§82) 'bear' can be explained by its position at the beginning of the word. Cf. the lengthening of u in Ru.  $\bar{u}vd$  'seven', a phenomenon which is totally uncharacteristic of short vowels in the middle of a word.

In some cases \*r or \*ar-vocalization can be recognized by the fate of a preceding k, x, or y. Before \*ar, as before any \*a (and also before  $*\bar{a}$ , \*i, diphthong \*ai), palatalized to  $\check{c}$ ,  $\check{s}$ , and  $\check{z}$ , respectively. However, when before \*r (and also before \*u, diphthong \*au), they remained hard: cf. Sh.  $\check{x}ik\bar{i}rt$  'looks for; stirs' and Sh.  $bi\check{x}\check{c}\bar{i}rt$  'removes' from the same stem as with \*ar-vocalization. Thus, it would appear that the vowel element of r was primarily a non-front vowel (\*ar, \*br).

Consequently, we can assume that in the word  $\check{c}\bar{i}rm$  'worm', the vocalization was not \*krmi-, but rather \*karmi (cf. the possible lengthening in the vocalization of the following: Skt. krti, Av. karəta; pre-Shughni \*kārti 'knife'), if only here there was not a very early umlaut transition of \*br into \*ir. Compare the umlaut position in the third-singular and in infinitives, which does not cause the transition of k into  $\check{c}$ : Sh.  $\check{x}ik\bar{i}rt$  'looks for',  $\check{x}ik\bar{i}d$ - 'look for (inf.)'.

**§84.** In *a*-umlaut position there are not sufficient examples of the reflex of  $*_r$  or  $*_ar$  in nouns and adjectives.

In verbs we have only a few stems which end in \**rt*, \**rd*, for which we get short *a* in all languages (e.g. *tarð*- 'tear (intr.)'). Although *a* is found here in a position before two consonants, since the syllabification in the conjugated form lices between the two consonants (*tar-ðum*), this phonetic position is not entirely adequate for the previous cases. The attested examples are the following: Sh., Ru., Bt. *tarð* 'tear'; Sr. *tarð* 'discord; skirmish', PIE \* $\sqrt{ter-d}$ ; Skt. *trd*, *tard* 'split (intr.); cut, cleave' (*trnátti*, caus. *tardayati*); Sh., Bt. *parwarθ* 'turn around; curl up; roll down'; PIE \* $\sqrt{ver-t}$ ; Av. stem *varəta-*; Skt. *vartati*; Sh. *nixarθ*; Ru., Bt. *raxarθ* 'fall in; collapse'; \* $\sqrt{kart-?}$ ; Av. *karət*, Skt. *krntati*, *kartati*; Sh., Ru., Bt. *šarð* 'defecate'; Yz. *xůrð* is likely connected to PIE \* $\sqrt{ker}$ , *ker* 'gray; dirty; muddy; impure in color'; with the spread of *-d*, likely 'to smear; to stain'.

For the stem  $\check{s}ar\check{\partial}$ , we can reconstruct \*ar-vocalization, because \*x (Yz.  $x\mathring{u}r\check{\partial}$ -) was palatalized to  $\check{s}$ . For the stem: Sh.  $nixar\theta$ -; Ru., Bt.  $raxar\theta$ -, on the other hand, the preservation of hard x points toward r-vocalization. The results in each cases are identical. For the stems  $tar\check{\partial}$ -,  $parwar\theta$ -, consequently, it is impossible to identify the original vocalization.

At the present time, all stems ending in  $-r\delta$ ,  $r\theta$  are stressed. It is possible that this is a result of the later leveling by analogy with stems that continue \**ar* vocalization. The shortness of *a* in \**ar*-vocalization (*šarð*-) is not clear: it could be the result of its phonetic position before \**rt*, \**rd* or the result of leveling by analogy with \**r*-vocalization. Compare the obligatory lengthening of \**a* > *ā* before a single consonant: *zidár*- 'sweep'; *tār*- 'clear away' (\* $\sqrt{tar}$ ), *xār*- 'eat' \* $\sqrt{x^var}$ -; etc.

In the third singular, in the stems in question (and also in all stems which end in two consonants), the *i*-umlaut position does not have an effect on the vowel. Only in Shughni in two verbs do we see a deviation, which, apparently, can be attributed to analogy:  $\bar{s}\bar{r}r\partial d$  (by analogy with  $x\bar{r}r$ ,  $v\bar{r}r$ , etc.), and  $nix\bar{\delta}r\theta t$  (by analogy with  $rac\bar{\delta}\theta t$ ,  $ni\partial\bar{\delta}vd$ ; etc.).

With strong vocalization of the root  $(*\bar{a}r)$ ,  $*\bar{a}$  always transitions like any other  $*\bar{a}$  in the corresponding position. In neutral position: Sh., Ru., Bt.  $z\bar{o}r\delta$ , Sr.  $zor\delta$  'heart' <  $*z\bar{a}rd$  (cf. Skt.  $h_{r}d$ - and Av.  $z\bar{o}r\bar{o}d$ -); in *i*-umlaut position: Sh.  $p\bar{e}rnak$ ; Bt.  $p\bar{o}rnak$  'heel'; Skt.  $p\bar{a}rsni$ -.

## With other transformations of \**r*

**§85.** Before the consonants \*t, \*z, \*s, \*n which close a syllable, and also in the combinations  $*r\partial$ , \*rt before *t* (and before other consonants?) \*r in any grade of vocalization has undergone various changes. These changes of *r* have, in turn, exerted influence on the preceding vowel.

Before a t which closes a syllable, r in all languages has become fully sonorantized. In neutral position and in *a*-umlaut position, the sonorantization of r occurred via w; in the *i*-umlaut position, it occurred via y.

In strong vocalization (\* $\bar{a}r$ ), the sonorant element arising from *r* was subsequently lost, and \* $\bar{a}$  has its usual reflexes: Sh.  $c\bar{c}d$ ; Ru., Bt.  $c\bar{c}g$ ; Sr. cog 'knife' < \* $c\bar{a}ydi < k\bar{a}rti$ . In this case, the *y*-element can be easily derived through the Bartangi umlauted form  $c\bar{c}g$ , whereas in other cases Bartangi \* $\bar{a}$  did not undergo influence of *i*-umlaut (see §56).

The vocalization of *ar* and the vocalization of *r* gave identical results. Initially, this result was the diphthong combinations of the type  $\sigma w$  and ey, which in Sarikoli were preserved in the form of  $\varepsilon w$  and  $\varepsilon y$  and in the remaining languages became the following monopthongs:  $*\sigma w >$ Sh., Ru., Bt.  $\bar{u}$ ; \*ey >Sh., Ru.,  $\bar{i}$ , Bt.  $\bar{e}$ .

Sound	Pos.	Shughni	Rushani	Bartangi	Sarikoli	Origin	Gloss
<i>r</i> >	NEUT	<i>x</i> ikūd	_	_	хыке́wg	*skŗta-	searched
r >	I-UML	<i>x</i> ikīd	_	_	<i>xikéyg</i>	*skrti-	search (inf.)
ar>	NEUT	čūd	čūg	čūg	čewg	*karta; Av. karta-, kərəta	did
ar>	I-UML	čīd	čīg	čēg	čɛyg	*karti	do (inf.)
<i>ar</i> >	NEUT	bi <i>x</i> čū́d	-	bižčū́g	-	*skarta	drew; scooped
<i>ar</i> >	I-UML	bi <i>žč</i> ĺd	_	bižčếg	_	*skarti	draw; scoop (inf.)

It does not appear possible to identify the original vocalization for the remaining attested examples, because the vowel is preceded by consonants which are neutral with respect to palatalization.

Pos.	Shughni	Rushani	Bartangi	Sarikoli	Origin	Gloss
NEUT	vūd	vūg	vūg	vewg	Av. bərəta-	brought
I-UML	vīd	vīg	vēg	veyg	*bərti, *barti	bring (inf.)
NEUT	mūd	mūg	mūg	mewg	Av. mərəta-	died
I-UML	mīd	mīg	mēg	meyg	*mərti, *marti	die (inf.)

NEUT	zidūd	zidūg	zidūg	zыdɛwg	√ <i>tar</i> -	swept
I-UML	zidīd	zidīg	zidēg	zыdig (?)	√tar-	sweep (inf.)
NEUT	xūd	xūg	xūg	хыд <sup>148</sup>	$\sqrt{x^{\nu}ar}$ -	ate
I-UML	xīd	xīg	xēg	xig	*x <sup>v</sup> arti	eat (inf.)
NEUT	pūd	pūg	pūg	pewg	Av. pərətu-	ford

**§86.** Before z and s, the changes in r took place later: in different languages differently and not in all. In Sarikoli, r has apparently been preserved, although there are not enough examples to be certain. In Shughni, r before z and s has spirantized to  $\check{y}$  and  $\check{x}$ , respectively, and in Bartangi and Rushani in has sonorantized to w. The vowel in question changes in Shughni, as in cases where r is preserved; in Rushani and Bartangi we get a diphthong of a vowel + w. In neutral position this dipthong becomes  $\bar{u}$  in both languages (from original \*owz). In *i*-umlaut position in Bartangi we get  $\bar{e}$ , as in cases when r is preserved; in Rushani w has taken its opening effect on the umlauted vowel, and as such we get the combinations  $\bar{a}w$  and aw. The same result ( $\bar{a}w$ , aw), but with the lengthening obligatory ( $\bar{a}w$ ) occurs in a-umlaut position in Bartangi.

Position	Shughni	Rushani	Bartangi	Sarikoli	Origin	Gloss
NEUT	vū <i></i> yžz	vūz	vūz	—	Av. bərəza-	long
I-UML	vī <i></i> ydz	vāwz	vēwz	_	barəzi-	pillow
A-UML	$[ma \check{y} dz \mathring{u} n \check{j}]^{149}$	mawz,	māwz	[marzónĭ]	cf. Av.	hungry
		māwz			mərəzāna-	
A-UML	$[p\bar{e}\check{x}c-]$	paws, pāws	pāws-	pars-	Av. stem	ask (pres.
					pərəsa-	stem)

In the following example we apparently have the reflex of  $*\bar{a}r$ -vocalization:

I-UML	veýdzn	vāwzn	vōwzn	_	*bārzni-	birch

Shughni  $p\bar{e}\dot{x}c$ - involves a conjugation in -(a)ya. The vowel  $\bar{e}$  instead of  $\bar{i}$  (Sr.  $v\bar{i}\dot{y}dz$ ) is explained, probably, by the opening effect of the voiceless  $\dot{x}$ .

**§87.** Before *n* in all languages *r* sonorantized into *w* in neutral position and in *a*-umlaut position. For the *i*-umlaut position there are no examples. In neutral position the arising diphthong combination (-\* $\sigma wn$ ) became Sh., Ru., Bt.  $\bar{u}$ , Sr.  $\omega$ . In *a*-umlaut position, the dipthong combinations (*aw*,  $\bar{a}w$ ) became contracted into  $\tilde{u}$  in Shughni. In Sarikoli we get *o* in their place, which, perhaps, is the result not of contraction, but rather of the loss of *w* in the combination \*- $\sigma^w n < -*arn\bar{a}$ . In Rushani and Bartangi the dipthong has been preserved: Ru., *aw*; Khufi and Bartangi  $\bar{\sigma}w$ .

<sup>&</sup>lt;sup>148</sup> The deviation of this verb in Sarikoli is explained by the influence of the preceding labial element (\* $x^v$ arta), which has caused closed dipthong combinations of the type: \*xuwd, \*xuid. x from  $x^v < \text{PIE } su$  is always a hard consonant and does not undergo palatalization in any position.

<sup>&</sup>lt;sup>149</sup> The Shughni and Rushani forms give an unstressed position.

Position	Shughni	Khufi	Rushani	Bartangi	Sarikoli	Origin	Gloss
NEUT (*ar-	čūn	čūn	čūn	čūn	<i>čып</i>	Av. karəna-	deaf
voc.)							
A-UML	w <sup>n</sup> n	wōwn	wāwn	wōwn	won	*varnā	wool
						(fem.); Av.	
						varəna-; Skt.	
						ūŗņā-	
A-UML	mūn	mōwn	māwn	mōwn	mon	from * <i>marnā</i>	apple
						(fem.); cf.	
						Yz. mawn;	
						Wkh. <i>тыг</i> ;	
						Ish. mend;	
						Mnj. amińģa	

Shughni  $m\bar{u}n$  instead of the expected  $m\bar{u}n$  is unclear. It is possible that here we are seeing the narrowing effect of two nasals together?

In *i*-umlaut position we have an example of the reflex of strong vocalization of  $*\bar{a}r$  (in the causative stem ending in -(a)ya-), where, as in other cases, we get the usual reflex of  $*\bar{a}$  with the loss of the sonorant element: Sh., Ru. *sipēn*; Bt. *sipōn* 'pour' from  $*us-p\bar{a}rn(a)ya$ -; Av.  $\sqrt{par}$ , stem *paran*-.

**§88.** The combination \*rt, \*rd before \*t resulted in  $\dot{x}$ . In this position, the vowel which resulted from \*r (or \*ar?) never lengthened and always appears as a short vowel: 1) Sh., Ru., Bt. u, in neutral position; 2) Sh., Ru., Bt. a in a-umlaut position; and 3) Sh., Ru., Bt. i in i-umlaut position. We can see this in past-tense stems and infinitive stems from roots with a final \*rt or \*rd, the present-tense stems of which were looked at in §84.

Past-stem (m.)	Past-stem (f.)	Infinitive	Origin	Gloss
NEUT. POS.	A-UML	I-UML		
tužt	ta <i></i> žt	tižt	*√ <i>tard</i> -	fight; scuffle
parwu <i>x</i> t <sup>150</sup>	parwaxt	parwixt	*√vart-	turn over; turn around
Sh. nixužt	nixažt	nixižt	*√ <i>kart-</i> (?)	collapse; fall to the ground
Ru., Bt. raxužt	raxa <i>ž</i> t	raxi <i>žt</i>	••	••
šužt	—	šižt	*√ <i>xard</i> -	defecate

<sup>&</sup>lt;sup>150</sup> Bartangi has the parallel form *parwöxt*, which has resulted from analogy with the verb *rawöxt* 'flew up' ( $\sqrt{raz}$ ). See the opposite way of analogy in Shughni and Rushani: Sh. *riwúxt*, Ru. *rawuxt*, instead of Sh. *riwúxt*, Ru. *rawoxt* (see §34).

In Sarikoli the past stem of only a single verb is attested: Sr.  $z \omega d \dot{a} \dot{x} t$ ; Ru., Bt.  $z i d u \dot{x} t$  'come apart; detonate' (from the same root \*tard with the prefix \* $ha \dot{c} a$ ). But this one verb already gives us a full picture of the reflexes in Sarikoli of other short vowels (\*u, \*i, but not \*a) befoe  $\dot{x}$  of any origin. Compare Sr.  $ka \dot{x} t$  (past and infinitive stem) 'slaughter' <\* $ku \dot{s} ta$ - and \* $ku \dot{s} ti$ -; Sr.  $vra \dot{x} t$  (past an infinitive stem) 'break; shatter (tr./intr/)' <\*brista and \*bristi.

The vocalization of the apparently similar verb *rarð: ružt* 'dig out; blow up' can be traced back to short \**u* (PIE \* $\sqrt{reu-dh}$  'uproot', Av. *raoðya-* 'cultivate land'). The past-tense stem is secondary: it has either been formed from the present-tense stem, or it has been formed via analogy with the type of past-tense stems in question. The present-tense stem continues either the original stem with reduplication, or the original stem with the prefix \**fra:* \**ra-ruð-* > *rarð*.

**§89.** There are cases of the loss of r which still cannot be satisfactorily explained. In some cases r is lost before certain consonants before which it is preserved in other cases. Here, the vowel ends up as if in a syllable with a single final consonant: Sh. *astid*, Ru. *astid*, Ru. *astid*, Sr. *astid* 'this year'; Av. *sarəd* 'year' (cf. *zörð* 'heart'; Av. *zərəd*-, with the preservation of r). Apparently we are dealing here with an early loss of r (in the Proto-Shughni period), which gave rise to the syllable with a single final consonant. It is still not clear, however, whether this is an isolated case of the loss of r or whether there was some phonetic process at play. Compare also another case in which the etymology of r is not clear when before  $\delta$  (could it be epenthetic?): Sh., Ru. *zimāð*; Bt. *zimārð* 'land'. Compare also the possible appearance of r before j: Sh., Bt. *šarvidāj*, Ku. *šarvidāj*, *šarvidārj* 'mountain stream'.

Another case of the loss of r with analagous results in vocalization is seen in the following word: Sh.  $k\bar{t}x$ , Ru. kox, Bt.  $k\bar{o}x$  'furrow', if this word is derived from \*karša (Av. karša- 'furrow'). The fact that k did not palatalize to  $\check{c}$  points toward final r-vocalization. And this would mean that the \*a reconstructed in this word is secondary and has arisen through the loss of r in a period when the palatalization of k had not occurred. What still remains unclear here is the loss of rbefore \* $\check{s}$ : there are no similar attested cases for this (cf.  $vir\check{x}$  'horsehair',  $pir\check{x}$  'frost';  $yur\check{x}$  'bear', all of which have the r preserved).

The verb 'grind; mill' (\* $\sqrt{ar}$ -) gives differing results in different languages: Sh.  $y\bar{a}n$ -:  $y\bar{u}d$ ; Sr. yon-: ybig; Ru.  $y\bar{t}\dot{x}$ -:  $y\bar{t}\dot{x}t$ ; Bt.  $y\bar{e}\dot{x}$ -:  $y\bar{e}\dot{x}t$ . If the Shughni and Sarikoli forms are taken to be regular (pres. stem from \* $arna > \bar{a}wna$ - with the loss of the sonorant element w, and past stem from \*arta; cf. §85),<sup>151</sup> then it is unclear why we have  $\dot{x}$  in the past stems in Bartangi and Rushani (the present stem here is secondary, formed from the past stem). In order to account for this  $\dot{x}$ , we must apparently reconstruct for Rushani and Bartangi a past-tense stem with the original form \*arnti,<sup>152</sup> which would have given  $artti > Ru. y\bar{t}\dot{x}t$ , Bt.  $y\bar{e}\dot{x}t$ . We see a similar formation, albeit with the voiced variant, in the Shughni and Sarikoli third-person singular form: Sh.  $y\bar{t}\dot{y}d$ , Sr.  $yi\dot{y}d$ 

<sup>&</sup>lt;sup>151</sup> The present-tense stem \*arna is well established through the forms: Yz. yawn-: yůg; Ish. yurn-: yurd.

<sup>&</sup>lt;sup>152</sup> The deverbal noun form ending in *-ti* could have been the original form not only for the infinitive, but also for the past-tense stem (see \$170). In addition, it is common in the present day for the infinitival stems and past stems to undergo leveling based on one another.

'mills; grinds' < \*yardd < \*arn(a)ti. Compare a similar transformation : \*rnt >  $\check{x}t$  in  $ki\check{x}t$  'does' in the following paragraph.

## In unstressed position

**§90.** The reflex of *r* is found in some unstressed present-tense stems, with *r* usually being lost or undergoing different changes, and the vowel element transitions in Sarikoli to *a* or *e*, and in the remaining languages to *i* or *a*. The attested stems are the following: Sh., Ru., Bt. *kin*, Sr. *kan*-'do'; Av. stem *kərənav*-; Skt. *kŗnóti*; Sh. *xikar*-; Sr. *xiker*- 'search' (PIE \* $\sqrt{s}$ )*ker*-; cf. Skt. *kiráti*); Sh. *mar*-; Ru., Bt., Sr. *mir*- (in Sar., possinly *mer*-?) 'die'; Av. stem *mirya*; Sh. *xin*-; Ru., Bt., Sr. *xan*- 'listen' <\**srəna*- <\**srnav*-; Av. stem *surunav*-; Skt. *sŗnoti*; Sh., Ru., Bt. *cif*-; Sr. *caf*- 'steal'; Av. stem *trəfya*-, Skt. *tŗp*. In the two previous verbs the consonantal element \**r* merges with the preceding consonant (sr > x, tr > c, and the vowel develops in final position. When in a closed syllable with two final consonants, in third-person singular present forms, the vowel from \**r* gives regular umlaut variants with lenghtening before *r* and *n*, and preserved shortness before xand *f*: Sh., Bt. *xīnt*- 'listens'; Sh., Bt. *mīrd* 'does'; Sh. *xikīrt* 'searches'; Sh., Ru., Bt. *kixt* 'does'; *cift* 'steals'. In Sarikoli, in the position before *r* we get *e*, and when before x, *f*, and *n* we get *a*, which, apparently, is regular for the development of any short vowel (\**r*, \**i*, \**u*) in closed syllables with two final consonants: cf. Sr. *xikert* 'searches'; *merd*; *xant* 'listens'; *kaxt* 'does'; *caft* 'steals'; and *kaxt* ( $\sqrt{kus}$ -) 'stab; kill'; *vraxt* ( $\sqrt{bris}$ ) 'broke'.

The consonant  $\check{x}$  in Sh., Ru., Bt.  $ki\check{x}t$ , Sr.  $ka\check{x}t$  is explained, apparently, just as it is in Ru.  $yi\check{x}t$ , Bt.  $yii\check{x}t$  'mill' – i.e. with the combination \**rnt*: \* $k \partial run(\partial)ti > kirtti > ki\check{x}t$ . The fact that we get both the unvoiced variant and the voiced variant (cf. Sh.  $yi\check{y}d$ ; Sr.  $yi\check{y}d$ ; §89) is explained though the influence of the reduced and likely partially devoiced \* $\partial$  (as it is neighboring k).

In nouns, as far as we can tell through the available examples, the unstressed vowel from \**r* has as its reflex in Shughni, Rushani, and Bartangi *i* (and *a*?), and in Sarikoli, it seems, only *a*: Sh. *wixkirīj*; Sr. *waxkaréj* 'fire poker (item)' (from the verb *xikar-*); Sh., Ru., Bt. *wirdzin* 'she-wolf'; Skt. *vgkī*.

## Reflex of Proto-Iranian \**a* from the sonorants \**m*, \**n*

**§91.** With respect to Iranian \**r* arising from null grade \**n* and \**m*, there are a few doubts: is its reflex always the same as the reflex of original \**a*? The vowel in the present stem: Ru, Bt. *nawžīs*-, Sh. *nayjīs*-, Sr. *narjes* 'pass'; Av. stem *jasa*- (<\**gm*-*sa*-) cannot be well derived from \**a*, which should have given the following: Sh. *nayjās*-; Ru., Bt., *nawžās*-; Sr. *nawjos*-. However, we could also posit the palatalizing influence of *j*, similar to the influence of *c* in the present stem: Sh. *čis*-; Ru. *čas*-, Bt. *čās*-, Sr. *čos*- 'look' with a vowel which can be derived from original \**a* (Av. stem *kasa*-; PIE  $\sqrt{kuek}$ ). However, if *j* were soft here (*j*), when it occurred before a front vowel, then it should have become z/dz (cf. Sh. *zīn*-, Ru., Bt. *zān*-, Sr. *zan*- 'kill'; Av. stem *jan*- from the neutral vocalization of \**n*; the Shughni variant is derived from the causative conjugation). It turns out, therefore, that *j*, since it was preserved, must have been before a non-front vowel (e.g. \**jasa*-).

The proposed palatalization of \**j* into z/dz before \**a* (did not) actually happen in this verb, but rather in the causative stem, with the neutral vocalization of \**m* (\**am*). Pre-Shughni \**jama*- (Av. stem *jam*-; Yz. *a-žam*) turned into: Sh. *naýdzim*-, Ru., Bt. *nawzimb*-, Sr. *narzamb*- 'to pass (tr.)'. The final *b* here is a later addition which occurred because of analogy with causative stems from roots with final \**p/b* (*niðēmb*-, *wirēmb*-, etc.). Short *i* here is the result of the effect of palatal \**j*, \*dz' > dz/z.<sup>153</sup>

However, etymologically clear examples of a vowel continuing \*m or \*n are extremely rare. The present-tense stem: Ru., *zay*-; Av. *zaya*- (<\*znya-) gives merely a chance of constituting a vowel (*a*, but not  $\bar{a}$ ), and its complete syncretism with the reflex of short \*i, \*u in similar stems (cf. Ru. *pay*- 'rot'; Av. *puya*-; Ru. *wixay*-; Av. *sraya*-,  $\sqrt{sri}$ ). It is not possible to identify what the original articulation of this vowel was – front or back, or possibly, low central ( $\partial, \check{a}$ ).

Yet, it seems that we must pay attention now to the abundance oc words in the Shughni-Rushani group with non-palatalized k, more rarely y and x before  $a(\bar{a}) + n$ , m. It is not clear where this  $a(\bar{a})$  came from. To consider all such cases as borrowings is hardly possible. I inlclude here only some of these: Sh.  $k\bar{a}nd$ , Sr. kond 'part; half' (cf. Av. skanda- 'fragment'); Sh. pikin-: pikid; Ru., Bt. pakin-: pakid 'tear off; pull out'; Ru.  $k\bar{b}$ -: kivd; Bt.  $k\bar{b}$ -:  $k\bar{c}pt$  'cut off' (all three words possibly have a relation to  $\sqrt{kan}$ ; cf. PIE  $\sqrt{ken}$  with different (disseminators?), including -d and -b; cf. also PIE  $\sqrt{(s)ken-d}$  'chop up; chop off', and other possible etymologies); Ru., paryand-: paryost; Kh., Bt. paryand:  $pary\bar{u}st$  'bear; beat up'; Sh.  $wi\bar{x}kamb$ -:  $wi\bar{x}k\bar{u}vd$ ; Ru.,  $\bar{x}ikamb$ -:  $\bar{x}ik\bar{u}vd$  'pluck?; pull hair/wool' (cf. Av. skamb- 'peck; gouge a hole in'); Ru., Kh.  $k\bar{a}mb$  'little'; Av kamna (<\*kamb-na); a.o.

## Proto-Shughi Vowel System

The fundamental historical vowel correspondences laid out in the preceding sections allows us to now reconstruct the phonemic structure for the Proto-Shughni language. The graphemes to be used here are largely chosen by convention. The phonetic characteristics are shown through the articulatory schema in six levels of height. The phonological reflection of this is given in square brackets.

## Phoneme [ö] < Ir. \*a

**§92.** The basic variant of this phoneme was a front vowel, though positionally it was also a back vowel, and was phonologically neutral with respect to the feature of roundedness. With respect to height, this vowel had two main variants: a more open variant (fourth step in height and lower  $-\ddot{o}$ , e,  $\varepsilon$ ) and a closed variant (fifth step in height and higher  $-\ddot{o}$ ,  $\sigma$ ,  $\ddot{u}$ , u). The open variant was characeristic for syllables ending in a single consonant (e.g. Bt.  $\check{cod}$ , Ru.  $\check{cod}$ , Sr.  $\check{ced}$  'house'; cf. Sh.  $n\bar{\varepsilon}x$  'plank bed'. The higher (more closed) variant was characteristic for syllables ending in two consonants, before v, r, n,  $\delta$ , y (<\* $\check{c}$ ) (cf. the reflex of this variant in Sh.  $sit\bar{u}vd$ ; Ru. situvd,

<sup>&</sup>lt;sup>153</sup> In addition to Sh. *čis*-, where *i* has arisen through the influence of  $*\check{c}/k$ , see also Sh., Sr. *andidz*-, Ru., Bt. *indiz*-'get up' (\**ham-tača*); Sh., Ru., Bt., Sr. *pis*- 'cook (intr.)' (<\**paksa*).

Bt. *sitūvd* 'fried; roasted (intr.)'. Before uvulars, the phoneme [ö] did not raise and thus always remained the more open variant (cf. Sh.  $p\bar{e}xt$ ; Ru. *poxt*; Bt. *pöxt*; Sr. *pext* 'cooked (intr.)'). In the remaining cases – i.e. in words which ended in two consonants but not before one of the aforementioned consonsants – [ö] raised to an intermediate variant ( $\rho, \nu, \bar{\nu}$ ), which subsequently in some languages merged phonologically with the higher variant, which itself split, and in other languages stayed within the phoneme [ö]: compare Sh.  $c\bar{u}xt$ ; Sr. cbixt with Bt.  $c\bar{o}xt$ ; Ru. coxt'watched'. For the high variant in neutral position, articulation in the back of the mouth, as well as roundedness, gradually became fixed, which gave rise to the conditions for its merger with the phoneme [u]. This merger subsequently took place in the majority of languages, giving identical reflexes of the phonemes [ö] and [u] in closed syllables with two final consonants, before  $\nu, r, n$  $\delta, y$  (<\*k, c): cf. Sh.  $c\bar{u}r\delta$ , Ru.  $cur\delta$ ; Bt.  $c\bar{u}r\delta < cor\delta$  'curved'; and Sh. wixutivi; Bt., Ru. wixui'comb' <[wixurj]; Sh. ruvd < [ruvd] 'swept (snow)'; and Sh. situvd < [sətövd] 'fried; roasted (intr.)'; Sh. tuvd < [tovid] 'left'; and Sh. pinuvid < [padmuvid] 'put on; wore (clothes)'.

In *i*-umlaut position we get only front unrounded variants. Their changes in height are generally analogous to those of neutral position: in syllables ending in a single consonant we get a more open sound (cf. Kh. *žær*; Ru., Bt. *žēr*; Sr. *žer* 'stone'), and in syllables with two final consonants, especially before *r*, *v*, *n* and *y*, *z* (<\**č*) we get a more closed variant (cf. Kh., Ru. *zīrd*; Sr. *zird* 'yellow'). For the front closed variant, the conditions were created for its merger with the phoneme [i]. This process was subsequently fully carried out in Shughni and Rushani, where we get identical reflexes for the phonemes [ö] and [i] in this position: cf. Sh. *ancīvd*; Kh. *incīvd*; Ru. *incīvd* 'sew' < [*ancövd(i)*]; and Sh., Kh. *wižīvd*; Ru. *wižívd* 'return' < [*wəživd(i)*]. In Bartangi [ö] merged with [i] only in certain words (e.g. Bt. *pīndz* < [*pöndz*] 'five' and Bt. *wīnt* [<*wint*] 'saw'. In the majority of cases, all umlauted variants of [ö] in Bartangi merged, giving a single result – *ē*, while the reflex of \**i* is *ī* (cf. Bt. *incḗvd* 'sew', but *wižīvd* 'return'). In Sarikoli, the process of phonetic convergence of [ö] with [i] and [u] in this position was put on hold because of the merger of [i] and [u] in this position, which merged into short *a*, which subsequently became (phonologically) *e* or *a* (Sr. *incívd* 'sew' [*<and waxerj* 'return' [*<waživd*]; and *waxerj* 'comb' [*<waživd*].

There is reason to belive that the front (*i*-umlaut) varieties of [ö] whre more open (higher) than their corresponding variants of neutral position. For one modern phonetic position, we can reconstruct the following relations among the series of neutral and umlaut positions:

In closed syllables with one final consonant:

-With umlaut: the variant æ (cf. Kh. žær 'stone);

-In neutral position: the variant ö (cf. Kh. čod 'house).

In closed syllables with two final consonants, before *r*, *v*, *n*, *y* (\* $\dot{k}/\check{c}$ ):

-With umlaut: the variant e (cf. Bt. incevity 'sew'; sent 'laugh');

-In neutral position: the variant *u* (cf. Bt. *incūvd* 'sewed').

In closed syllables witht wo final consonants, not before the aforementioned consonants:

-With umlaut: the variant  $\varepsilon$  (cf. Khufi irregularities in the following phonological distribution of this variant with  $\alpha$  and with  $\bar{e}$ : Kh. *sip\alpha ft* 'suck'; *fir\alpha pt* 'arrive'; *rin\bar{e}xt* 'forget'; *vēst* 'connect');

–In neutral position: the variant  $\ddot{\varphi}$ ,  $\rho$  (cf. the phonological distribution of this variant by language: Sh. *rinux̃t*; Bt. *ranox̃t* 'forgot').

An indication of the greater openness of the umlaut variants is also the alternation u//a from [ö] before  $y (\langle *k/c \rangle)$ . Compare Ru. *tuyd*; Bt. *tūyd* 'left' (neutral position) and Ru. *tayd*; Bt. *tayd* 'leave (inf.)' (*i*-umlaut position).

Thus, the variations in height of the phoneme [ö] in neutral position and in *i*-umlaut position with their general parallelism, were shifted relative to one another on the known grade.

The reason for this might have been the fact that in *i*-umlaut position, the vowel ending of the word was preserved longer than in neutral position. Iranian stems with endings in -\*a and -\*u already did not have a vowel ending by the Proto-Shughni period, which we can be seen through the identical reflex of \*a, both in stems ending in -\*a and -\*u, as well as in stems ending in a consonant (e.g. Bt. *xör-* 'sun'; Av. *hvar-*; Bt. *čöd* 'house'; Av. *kata-*; Bt. *pös* 'sheep' Av. *pasu-*). On the other hand, another reflex of \*a in *i*-umlaut position suggests that the stem endings -\*i, -\*ya were preserved longer, being supported in the majority of cases by their grammatical meaning (relational nouns ending in \*-ya, deverbal nouns ending in \*-ti, personal ending in -\*tu, causative conjugation in -\*(a)ya; and some others). Thus, if from the outset neutral position implied a closed syllable position, then the *i*-umlaut position meant either an open syllable position, or the position of a closed syllable with a single final consonant, where the vowel accordingly sounded more open (cf. the syllabification of \*čöd 'house', but  $*w\acute{a}-zi$  'load; cargo';  $*an-j\check{y}vd$  'grabbed', but  $*an-j\acute{e}v-di$  'grab (inf.)'.

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It is difficult to say when the loss of final -\*i (or -\*ya) began: in all likelihood, it was different for different grammatical forms. In particular, the *i*-umlaut position in causative stems was preserved beyond the division of the Proto-Shughni stage into individual languages,<sup>154</sup> at which time the final *-i* in words like  $*w\dot{e}zi$  'load; cargo', since it did not carry any special grammatical weight, could not have been preserved for very long.

In words and forms in which the final -*i* was lost ), the umlaut (i.e. front unrounded) variant of [ö] continued to be preserved, as it was supported by the similar sound of [ö] in still-preserved umlaut positions. Although the conditions were already in place for the phonologization of the umlaut variants and thereby for the split of [ö] into two phonemes, this split had not yet occurred during the Proto-Shughni period. We can tell this by the fact that there a differing phonological interpretations of the umlaut variants of [ö] in individual languages. In some languages (Rushani and Bartangi), these variants did indeed split off from the phoneme [ö], the rounding of which became obligatory (cf. Kh.  $\check{z}ar$ ; Ru., Bt.  $\check{z}\bar{e}r$  'stone' with Ru.  $\check{cod}$ ; Bt.  $\check{cod}$  'house). In other languages (Shughni and Sarikoli), on the other hand, they remained within the realm of the phoneme [ö], unifying their articulation, i.e. making the vowel front and unrounded (cf. Sh.  $\check{z}\bar{i}r$ ; Sr.  $\check{z}er$  'stone'; Sh.  $\check{c}\bar{id}$ ; Sr.  $\check{c}ed$  'house'). However, in doing so, the high variants of neutral

<sup>&</sup>lt;sup>154</sup> Cf. the reflex of the causative conjugation in personal endings by language (ex. 41, §45).

position (before two consonants) were excluded from the realm of the phoneme [ö]: cf. Sh.  $c\bar{u}\dot{x}t$ ; Sr.  $\dot{c}b\dot{t}\dot{x}t$ ; but Bt.  $\dot{c}\bar{o}\dot{x}t$ ; Ru.  $\dot{c}o\dot{x}t$  'watched'.

The narrowing (raising) of the phoneme [ $\ddot{o}$ ] in Shughni to  $\bar{i}$  (<\* $\bar{e}$ ) is a relatively late development. It was connected, in all likelihood, to the contraction of the diphthong [ei] to  $\bar{e}$  and do the fact that Shughni distinguishes three long front vowels:  $\bar{e}$  (<\* $\bar{a}$ ),  $\bar{e}$  (<\*ai),  $\bar{i}$  (<\*a).

**§93.** With regard to the feature of length, it is not possible to consider [ $\ddot{o}$ ] a short vowel. In the majority of cases it has as its reflex long vowels. Only in Rushani (and in the Khufi dialect) do we see its reflex as short *o*: *čod* 'house'; *ðos* 'ten'; *xor* 'sun'; etc. Nonetheless, this *o* is longer in duration than the other short vowels of the language (*a*, *u*, *i*) and occupies an intermediate position between short and long vowels (OΦИЯ II: 111-114). The same is true for Khufi short *æ*, which continues the umlaut variant of [ $\ddot{o}$ ]. In Rushani, the Khufi vowel *æ* corresponds to long *ē*, which appears in the place of *æ*, possibly, due to influence from Bartangi.

It is difficult to say whether [ $\ddot{o}$ ] became shortened in closed syllables with two final consonants, where it would have merged with short [ $\dot{i}$ ] or [u] or if, on the other hand, short vowels have lengthened somewhat in this position. Judging by the fact that in the majority of cases in the modern languages we get long vowels here ( $\bar{u}$  or  $\bar{i}$ ), that here the merging of [ $\ddot{o}$ ] with short vowels took place via the lengthening of short vowels. The changes in the length of short vowels in the modern languages also speak to this. In modern languages, not only do short vowels not shorten when in a closed syllable with two final consonants, but they actually lengthen somewhat ( $O\Phi HA$  II: 115-116).

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**§94.** Thus, the general nature of [ $\ddot{o}$ ] can be given in the following way. This vowel was nonshort and had a stable duration which opposed that not only of short vowels, but also of long vowels. With regard to its quality, it had a wide range with three series of variants: 1)  $\not{e} - \dot{e}$  in the *i*-umlaut position; 2)  $\ddot{o} - \dot{e}$  in neutral position in closed syllables with a single final consonant; and 3)  $\ddot{o} - \dot{o}$  in neutral position in closed syllables with two final consonants.

Regarding its origin, the phoneme [ $\ddot{o}$ ] continued Iranian stressed short \**a* in stems which ended in \*-*i*, \*-*a*, and \*-*u*, or in a consonant. In stressed stems ending in -\* $\bar{a}$ , and in unstressed positions, the variants of Iranian \**a* were already phonologically distinct from the phoneme [ $\ddot{o}$ ] by the time of the Proto-Shughni period; on this see §96.

# Phoneme $/\ddot{o}/ < \text{Ir. } *\bar{a}$

**§95.** The phoneme  $|\ddot{o}|$  constitutes the long counterpart to  $|\ddot{o}|$  and had more or less the same types of changes: in *i*-umlaut positions, it was an unrounded front vowel (Sh.  $t\bar{\epsilon}r$ ; Ru.  $t\bar{\epsilon}r$  'black'); in

neutral position it was a rounded vowel which was advanced forward in the mouth (Sh., Ru., Bt. *virōd* 'brother'). Despite their general similarities in quality, there were also substantial discrepancies with regard to their articulatory range.

Long  $/\ddot{o}/$  did not have very closed (high) variants. The results of  $/\ddot{o}/$ , both in closed syllables with a single final consonant, and in syllables closed with two final consonants, was identical (Sh., Bt. *viród*; *vorj* 'steed'). The limit of its openness (lowness), on the other hand, was larger, and reached the variants  $\bar{a}$ ,  $\ddot{a}$ . The following facts support this.

In Sarikoli, the *i*-umlaut variant of  $|\ddot{o}|$  becomes *o* (cf. Sr. *tor* 'black'). But the Sarikoli *o* is also a later contraction of the Proto-Iranian phoneme  $[\bar{a}]$  (cf. Sh., Ru., Bt. *vār*-; Sr. *vor*- 'PRS of the verb 'bring'' and other examples in §45. In order for the phoneme  $[\bar{a}]$  to have the same reflex as the phoneme  $|\ddot{o}|$ , the latter must have had a very open sound in its *i*-umlaut variant – something on the order of  $\bar{a}$ — $\bar{a}$ . It was perhaps precisely because of its openness that the *i*-umlaut variant of  $|\ddot{o}|$  that this variant in Bartangi stopped being a front vowel and became phonetically unified with the neutral-position variant (\* $t\bar{a}$ - $ri > t\bar{a}r > t\bar{o}r$  'black'). It is not a coincidence, apparently, that in Bartangi the preservation of front variants in the *i*-umlaut position is found in nousn only in the most extreme narrowing (raising) positions – i.e. in closed syllables with two final consonants before *r* (Bt. *vērdz* 'mare', but *vōrj* 'steed').<sup>155</sup>

Those variants of the phoneme [ $\ddot{o}$ ] which arose in *a*-umlaut position did not subsequently separate from it phonologically (cf. the same result in the following words: Sh.  $z\hat{u}n$ -; Ru., Bt.  $z\bar{o}n$ ; Sr. zun – stem of the verb 'know' <\* $z\bar{a}na$ -, with the conjugation in -*a*-, and Sh.  $z\hat{u}n$ ; Ru., Bt.  $z\bar{o}n$ ; Sr. zun 'lap' <\* $z\bar{a}nu$ -). Hence, the variant of / $\ddot{o}$ / in *a*-umlaut position must have been open, likely not much more open than the sound of a on the second step of height (cf. / $\ddot{o}$ / which resulted in [ $\bar{a}$ ] im this position; cf. also the transition in Bartangi of the *i*-umlaut open variant [ $\bar{a}$ ] to a back vowel via its merger with the open *a*-umlaut variant  $\bar{a}$ , a). It is also possible that Rushani  $\bar{o}$  has resulted from the reflex of the *a*-umlaut variant of / $\ddot{o}$ / with the later raising of / $\ddot{o}$ / to u in neutral position.

Because in all languages, without exception, the variants of  $/\ddot{o}/$  in neutral position and the *a*umlaut position have become back rounded vowels (Sh., Bt.  $\bar{o}$ ; Ru. u,  $\bar{o}$ l Sr. *u*), we can assume that in the Proto-Shughni period these variants had the typical sound of rounded (and probably non-front) vowels. However, we can't say that these variants had separated phonologically from the *i*-umlaut variants by the time of the Proto-Shughni period. This division took place later, as the fate of the *i*-umlaut variants with respect to their phonological ties is different in different languages. In Shughni, they developed into the independent phoneme  $\bar{c}$ ; in Rushani they merged with the phoneme  $\bar{e}$  (<[ei]); in Sarikoli they merged with the phoneme  $\bar{a}$ , which subsequently became *o*. The fact that this is not a case of the phonological redistribution by language of what was a common phoneme for all of them (for instance, the hypotherical phoneme /\* $\bar{c}$ /, which later merged in Sarikoli with / $\bar{a}$ /, but in Rushani, with the new phoneme / $\bar{e}$ /) is shown by Bartangi. Bartangi gives us a picture of the merger of the *i*-umlaut variants of / $\bar{o}$ / with its non-umlaut variants – which were rounded and non-front (i.e. modern Bartangi  $\bar{o}$ ). But such a merger of markedly distinct sounds could have been carried out without violating the phonological

<sup>&</sup>lt;sup>155</sup> The preservation of front vowels in *i*-umlaut verbal forms (infinitive and feminine participle, see §58, 59) was aided by analogy with these same forms in roots with \*a (see §34, 35).

connection of both groups of variants. At the same time, this merger indicates that rounding, though customary for the variants of  $/\ddot{o}/$  in neutral position, nonetheless did not yet have independent phonological significance during the time of the Proto-Shughni period.

Thus, the general range of the phoneme  $/\ddot{o}/$  can be characterized in the following way:

In neutral position – variant  $[\bar{\mathfrak{d}}]$  with typical rounding; In *i*-umlaut position – variant  $[\bar{\mathfrak{e}}]$  (in closed syllables); variant  $[\bar{\mathfrak{k}}]$ — $[\bar{\mathfrak{a}}]$  (in open syllables) In *a*-umlaut position – variant  $[\bar{\mathfrak{d}}]$ 

Historically, the phoneme  $|\hat{\sigma}|$  continued the Iranian long vowel  $*\bar{a}$  in stressed position in all types of stems.

## Phonemes /ā/ and /a/

**§96.** The phonemes  $\bar{a}$  and  $\bar{a}$ , historically speaking, are new formaitons which arose primarily from the *a*-umlaut variants of Iranian \**a* (>  $\bar{a}$ ) and \**u*,  $\bar{u}$  (> *a*). There is no evidence which points to these variants belonging within the sphere of the phonemes  $\bar{o}$  or  $\bar{u}$  in the Proto-Shughni period. In all languages, without exception, they have identical reflexes with an identical phonological interpretation, which points to their genesis as phonemes with a defined range of pronunciation already in the Proto-Shughni period. In all languages short /*a*/ comes to be short *a* (Sh., Ru., Bt., Sr. *vaz* 'goat' < \**buzā*-), and long  $\bar{a}$ / comes out to be long  $\bar{a}$  (Ru., Bt.  $\bar{s}\bar{a}r$  'female donkey'; Sh., Ru., Bt. *biðán* 'saddle' \**api-danā*-). Only in Sarikoli do we get a change in the quality of this vowel. This change occurred because of the loss of the feature of length of the phoneme / $\bar{a}$ /, and subsequently, in order to preserve its opposition to short *a*, this phoneme changed into *o* (Sf. *buðón* 'saddle', but *vaz* 'goat'). This process created the subsequent shift in back vowels: Sr. \**o* (<[ $\ddot{o}$ ]) > *u*; Sr. \**u* (<[u]) > *u* (a central vowel?).

It is never observed that the phoneme  $|\bar{a}|$  ever merges with any of the variants of the phoneme  $[\ddot{o}]$  in any of the languages of the group. However, there are regular cases of the common reflexes of  $|\bar{a}|$  with one of the variants of the phoneme  $|\ddot{o}|$ . Sarikoli gives a picture of the merger of  $|\bar{a}|$  with the *i*-umlaut variant of the phoneme  $|\ddot{o}|$  (Sr. *vor* 'bring!' in which  $o > |\bar{a}|$ , and *tor* 'black', in which  $o < |\bar{o}|$ . In the remaining languages we observe the merger of  $|\bar{a}|$  and  $|\bar{o}|$  in closed syllables with two final consonants. In Shughni the transition of  $|\bar{a}|$  into  $\bar{o}$  in this position occurs before all consonants except uvulars (cf. Sh.  $\dot{x}ic\dot{o}ft$ ; Ru., Bt.  $\dot{x}ic\dot{a}ft$  'to crack (intr.)'; Sh., Ru., Bt.  $xic\dot{a}fan$  'they crack (intr.)'; among other examples. §40, 43); in Bartangi the merger occurs before *n* (Bt. *pond*, but Ru. *pand* 'road'). The similar merger of the phoneme  $\bar{a}$  with vowels which continue  $|\bar{o}|$  points towerd a greater phonetic similarity between the phonemes  $|\bar{a}|$  and  $|\bar{o}|$ , than between the phonemes  $|\bar{a}|$  and  $|\bar{o}|$  and further suggests the phonological independence of  $|\bar{a}|$  from the phoneme  $|\bar{o}|$ .

The phonologization of the *a*-umlaut variant of Iranian \**a* into the phoneme  $\bar{a}$  was facilitated by its opposition to short /*a*/, which arose in the some phonetic position from \**u*: cf. /šá-ra/ 'female donkey' from \**xarā* and /vá-za/ 'goat' from \**buzā*-. This opposition led to the subsequent

lengthening of the neutral (with respect to length) a (from \*a) and therefore to to the creation of the new pair of phonemes  $\overline{a}$  and  $\overline{a}$ .

The phonologization of the sounds [ $\bar{a}$ ] and [a] into the phonemes / $\bar{a}$ / and /a/ led the open, unstressed variants of Iranian \*a and \* $\bar{a}$  (phonetically [a] and [a]), which were not long, to become phonologically associated with the phoneme /a/, which was close to them in sound, and they were gradually incorporated into the realm of this phoneme (cf. Sh, Ru., Bt. *čadēn* 'houses', where a comes from Iranian \*a; Sh., Ru., Bt. *viradār* 'brothers', where a comes from Iranian \* $\bar{a}$ ; and Sh., Ru., Bt. *vaz* 'goat', where a comes from Iranian \*u). Therefore, the range of short /a/ expanded to unstressed positions, and this phoneme appears in all modern languages of the group without any substantial changes. Besides these variants of Iranian \*u, \*a, \* $\bar{a}$ , another phoneme which came into the realm of the phoneme /a/ during the Proto-Shughni period was the stressed open variant of /i/ before \* $\check{s}$  (>  $\check{y}$ , w, l) (e.g. Sh. *sipá\check{y}*; Ru. *sipáw*; Bt. *sipáw*; Sr. *sыpál* 'louse'; Av. *spiš*-).

Regarding the phoneme  $\bar{a}$ , its usage was limited to stressed position only. This state of affairs is for the most part preserved to the present day: the opposition of  $a-\bar{a}$  in the modern languages is primarily relevant only for strong stressed syllables. The transition of root  $\bar{a}$  in word formation into unstressed position (or even weakened stressed position) for the most part is accompanied by its shortening into a. Compare, for instance, Ru.  $\bar{x}\bar{a}b$  'night' with  $\bar{x}ab\dot{a}y$ 'darkness'; Sh.  $q\bar{a}rz$  'debt; duty' with qarzi (// $q\bar{a}rzi$ ) 'that which is due'; Ru.  $x\bar{a}t$  'letter (two senses)', but  $dasx\dot{a}t$  'signature'; and many other examples (see  $\bar{b}$ ДШ: §§74-79; ШРТ: §5).

The phonetic nature of  $\bar{a}$  and  $\bar{a}$ , judging by their identical reflexes in all languages, was quite close, if not identical, to their modern nature – that is, long and short low unrounded vowels, which are close in quality to Russian *a* between hard consonants. Short *a* can positionally have an open, more front sound [a].

## Phonemes /i/ and /u/

**§97.** The phonemes /i/ and /u/ continued Iranian \*i,  $\bar{i}$ , and u,  $\bar{u}$ . However, the *a*-umlaut variant of the phoneme /u/ had already split and merged with the phoneme /a/, as was discussed in §96.

The *i*-umlaut variant of the phonene /u/ had also already split and merged with the phoneme /i/ (cf. the same reflexes in all languages: Sh., Ru., Bt., Sr. *vid* 'be' <\**buti*; see other examples in §67). Thus, the phoneme /u/ continued Iranian \*u,  $\bar{u}$  only in neutral position, and the phoneme /i/, besides continuing Iranian \*i,  $\bar{i}$ , also partially continued Iranian \*u.

The phonemens /i/ and /u/ were distinguished only in stressed position. They opposed one another in a series of formations: /i/ was a front vowel, while /u/ was a back vowel, which we can tell by their modern articulation, which is of the same type in all languages of the group (Sh., Ru., Bt., Sr. *ziv* 'language'; *vid* 'be; and Sh., Ru., Bt. *puc*; Sr. *puc* 'son'). The vowel /u/ was undoubtedly a rounded vowel typically, but perhaps not obligatorily, because Sarikoli gives the

unrounded vowel  $\omega$  as the reflex of /u/. However, in another dialect of the Sarikoli language,<sup>156</sup> in the place of  $\omega$  we get rounded u, so  $\omega$  could be the result of later unrounding of the originally rounded vowel. Indeed, this process was supported on phonetic grounds (i.e. the transition of *o* to *u*). Nonetheless, in an earlier, pre-Shughni period, the rounding of \**u* was likely not phonological. Otherwise, \**u* could have hardly given unrounded *i*-umlaut and *a*-umlaut

Nonetheless, we can posit that precisely with the opposition of the pair \*i—\*u did the significance of roundedness as a phonological feature come about. If the rounding of \*u was originally optional, but was a natural phonetic consequence of the articulation of back vowels, then rounding with \*i never arose, and thus the foundation for opposition of these two vowels was already laid. The vowel \*i was the only sturdy front vowel, as \*u was a sturdy back vowel. Cf. the phonological (indifference) with regard to frontness/backness and rounding of the phonemes  $/\ddot{o}/$  and  $/\ddot{o}/$  (<Ir. \*a and  $*\bar{a}$ ), which opposed one another not only in quality, but also in duration.

Regarding their height, the main variants of /i/ and /u/ were quite open vowels and were articulated between the third and fifth steps of height – that is, the variant e for /i/ and the variant o for /u/. This can be seen both through the modern variants of these phonemes (Sh., Ru., Bt. *ved* 'be'; *poc* 'son'), as well as through their open vowel reflexes in closed syllables with two final consonants in Sarikoli (see above).

**§98.** As was already discussed, ( $\S$ 92), in closed syllables with two final consonants, phonetic convergence took place, followed by the merger of some instances of the phoneme /ö/ and the phonemes /i/ and /u/, thanks to the narrowing (raising) of the phoneme /ö/ in this position (variants o, v, u for neutral position; variants e, e for *i*-umlaut position). The results of this convergence vary by language, but the gist is the same in all languages of the group, with the exception of Sarikoli, the majority of cases. The convergence of /ö/ with /i/ or with /u/ leads to its merger with these vowels in positions before consonants which cause the narrowing of vowels (v, r, n, etc.). Only the later phonological interpretation varies by language. Compare (in neutral position): Sh. anjūvd, Bt. injūvd, Ru. injūvd; Ru. injūvd 'grabbed', where Sh., Bt. ū and Ru. u comes from /ö/; and also Sh.  $r\bar{u}vd$  'cleared snow', where  $\bar{u}$  is from /u/; (in *i*-umlaut position): Sh. anjívd; Ru. injívd 'grab', where Sh. ī, Ru. i are from /ö/, and Sh. wižívd, Ru. wižívd 'return', where Sh.  $\bar{i}$ , Ru. i are from /i/. In cases where the merger of /ö/ with /u/ and /i/ did not occur (before the other consonants, and in Bartangi before all consonants in *i*-umlaut position), distinguishing between these consonants was achieved either by the widening (lowering) of the narrowed (raised) variant of /ö/ to its basic variant (as occurred in Bartangi and Rushani), or by the lengthening of  $|\ddot{o}|$  to  $\bar{u}$ ,  $\bar{i}$  (as occurred in Shughni), while the shortness of  $|\dot{i}|$  and |u| was preserved. Compare, for instance, Sh. čūxt; Ru. čoxt; Bt. čoxt 'watched', where Sh., ū, Ru., o, and Bt.  $\bar{o}$  are all from / $\bar{o}$ /; Sh., Ru., Bt. *kuxt* 'slaughtered', where *u* is from /u/; (for *i*-umlaut): Sh., čīxt; Ru., Bt. čēxt 'watch', where Shughni ī, Ru., Bt. ē are all from /ö/, and finally Sh., Ru., Bt. *virixt*, where *i* is from /i/. In all cases, as we can see, the phonological changes did not have to do with i/v or u/v (excluding their lengthening before v and r in Shughni and Bartangi.

<sup>&</sup>lt;sup>156</sup> See example 3, §24.

For Sarikoli we get another picture. Here, with the transition of  $|\ddot{o}|$  into *bi* or *i* (Sr. *čbixt* 'watched'; *čixt* 'watch (inf.)'), the merger or  $|\ddot{o}|$  with |i| and |u| did not occur. On the contrary, in closed syllables with two final consonants, a merger occurred between the phonemes |i| and |u| in Sarikoli, which gave the same result in this position: before narrowing consonants (*r*, *v*,  $\check{o}$ , etc.) we get *e*, and before the remaining (?) consonants<sup>157</sup> we get *a*. Compare the following (before narrowing consonants): Sr. *seðj* 'went'; *waxérj* 'comb', where *e* is from |u|; and *waževd* 'returned'; *xevd* 'beat (pst)', where *e* is from *i*; (before  $\check{x}$ ): Sr. *paxt* 'flour'; *maxt* 'urinated'; where *a* is from |i|; and *kaxt* 'slaughtered', where *a* is from *u*. This merger of |i| and |u| occurred, in all likelihood, via a level of neutral variants of the type [3], [ $\Im$ ], which could have been facilitated by the unrounding of |u| which happened in Sarikoli. The fact that the phonemes |i| and |u| transitioned into *e* and *a* points toward their greater openness.

Since in neutral position before *r*, and likely also before *v*, the phoneme / $\ddot{o}$ / in Sarikoli turned into *e* (see §29), there are three phonemes which coincide in this position:  $/\ddot{o}/$ , /i/, and /u/. Compare Sr. *čerð* 'curved', where *e* is from  $/\ddot{o}/$ , *waxérj*, where *e* is from /u/, and *wern* 'ram', where *e* is from /i/ < Ir. \**r* in *i*-umlaut position.

Cases in which we observe the merger of /i/ with /u/, observed in the other languages (e.g. Sh., Ru., Bt. *virux̃t* < \**virix̃t* 'broke'), could be the result of analogy and not have any relation to a phonological process. These cases are attested only in past stems before  $\check{x} < *\check{s}$ , so here we could be dealing with the leveling of pronunciation of past stems through analogy with present stems, where /i/ and /u/ before  $*\check{s}$  (>  $\check{y}$ , *w*, *l*) regularly coincide (cf. Sh. *kaǧ*-, Ru. *kaw*-, Bt. *kāw*- 'slaughter livestock', where *a* is from /u/ –past stem *kux̃t*; and Shughni *viraǧ*-, Ru. *viraw*-, Bt. *virāw*- 'break', where *a* is from /i/ – past stem *virux̃t*). In the remaining cases *i* before  $\check{x}$  is preserved: Sh., Ru., Bt. *pix̃t* 'flour'; Sh., Ru., Bt. *divix̃t* 'showed'.

We get a similar reflex to that of Iranian  $u, \bar{u}$  for the vowel which developed before r: in neutral position we get Sh., Bt.  $\bar{u}$ , Ru.  $u^{158}$  (Sh.,  $w\bar{u}rj$ ; Ru. wurj 'wolf'); in *i*-umlaut position we get Sh., Bt.  $\bar{i}$ , Ru. i, Sr. e (Sh.  $m\bar{i}rt$ , Bt.  $m\bar{i}rd$ , Ru. mirt, Sr. merd 'dies'); in *a*-umlaut position we get Sh., Ru., Bt., Sr. a (see the verbal stems in §84 of the type: Sh.  $nixar\theta$ , Ru., Bt.,  $raxar\theta$  'collapse').

**§99.** The duration of the phonemes /i/ and /u/ changed somewhat depending on phonetic position. They were the most extended in closed syllables with two final consonants, particularly

<sup>&</sup>lt;sup>157</sup> We have enough examples only for the position before  $\check{x}$ . But compare similar results with the shortening of dipthongs: Sr. *rapc* 'fox'; *past* 'skin; pelt'; *maθ* 'day'; but *rezn* 'window', were *z* is from the narrowing palatal consonant\* $\check{c}$ . The consonant *n* in this case apparently falls within the category of lowering consonants: cf. Srk. *wand* 'saw' (from /wind/) or from Sr. *weynd* (?).

<sup>&</sup>lt;sup>158</sup> In Sarikoli we would expect e, but there are no reliable examples. In the word  $y_{bl}r\check{x}$  'bear', bl could have been preserved as a result of lengthening in initial position after y, or, on the other hand, this could be a case where it wasn't \*-y-vocalization in this word, but rather ar-vocalization.

before *r*, *v*, and other narrowing (raising) consonants. Here, they approached the duration of  $/\ddot{o}/$ , and with their similarity in quality their merger occurred. In closes syllables with a single final consonant, /i/ lengthened somewhat when next to palatal consonants, and was simultaneously more closed (higher) in this position, which, subsequently, with the appearance of the phoneme  $\bar{i}$ , facilitated the breaking off of this lengthened variant of /i/ from the short phoneme and its joining the realm of the long phoneme  $\bar{i}$ : cf. Sh. *žinij* 'snow'; Ru., *žinij* 'snow' (Av. *snig-*).

### Phoneme /ə/

**§100.** In unstressed position, the phonemes /i/ and /u/ in the Proto-Shughni period were not distinct phonemes and were both reduced to the central vowel [ə]. This can be seen through the fact that they have the same reflex in all languages. They sometimes become *i* and sometimes become *a* (in Sarikoli also *e*), which also points toward the former qualitative indefiniteness of the reflex vowel. Which vowel they become depends both on the language in question (for Shughni we tend to get *i*, for Sarikoli we tend to get *a*), as well as on their phonetic position. In particular, before \*-š we get *a* everywhere, and before palatals we always get *i*. In Sarikoli it seems we only get *e* when stress moves onto the vowel (for example, in verb stems). Compare the following (for \**u*): Sh. *yijîd*, Ru. *yajód* 'stable'; Sh. *wiznéč*, Ru. *wazníč* 'goats'; Sh. *pinidzum*, Ru. *panidzum*, Sr. *pamédzam* 'I wear'; (for \**i*): Sh. *nažfi*; Ru., Bt. *nawfé* 'be pulled out; fall out', Sr. *nalfón* 'pull out'; Sh., Ru., Bt. (from the influence of \**č* > \**c*): *ničciramb* 'pinch'; Sh. *wizum*; Ru. *wazum*; Sr. *wézam* 'I interfere'.

We get the same reflex for Iranian \**a* in ancient Iranian unstressed syllables, as well as for unstressed *r*: Sh. *nibós*; Ru. *nabůs*; Bt. *nabós*; Sr. *nabús* 'grandson'; Sh., Ru., Bt. *kinum*; Sr. *kanam* 'I do'. (For more examples of this kind, see §§48, 65, 69, 90).

Thus, reduced  $\partial$  brought together the unstressed variants of three vowels: \**i*, \**u*, and to some degree \**a*. But this already signified its phonologization with the violaton of its previous links to the phonemes \**a*, \**i*, and \**u*, and even more so that unstressed morphemes had almost no stressed variants that they alternated with which could support these links. Even the root vowel in present stems didn't always get phonological clarification in stressed forms, where their phonological transition appeared (cf. the different transitions of the vowel in past stems: Sh. *pinūyd*, Ru., Bt. *panawd*, Sr. *pamɛwg* 'wore; put on (clothes)' < \**patimuyda*).

**§101.** In unstressed syllables,  $\partial$  opposed the phoneme /a/, which arose from the unstressed variants of / $\ddot{o}$ / and / $\ddot{o}$ / and which had a clearly non-reduced articulation (cf. its reflexes: Sh., Ru., Bt. *čadēn* 'houses'; Sr. *čarɛyn* 'men'; for other examples see §47, 61).

Thus, we can fully consider reduced, unstressed  $\partial$  to be a phoneme, even if it was used only in unstressed position.

However, there are some reasons to believe that it was used also in stressed positions. Thus, the imperative form of verbs for the second-person singular already lacked an ending by the Proto-Shughni period (e.g. /čān/ 'dig!' from \**kana*). The same can be said for the third-person singular conjugation in the present tense, where the thematic vowel of the stem was also lost or in any case was unstressed (/čān(ə)t(i)/). For unstressed stems with the vowel /ə/, this signified its transition into unstressed position: /kənám/ 'I do'; /kə́n/ 'do!'; /kəxt(i)/ 'does'. The fact that when in unstressed position, /ə/ did not transition immediately (i.e. still within the Proto-Shughni period) into one of the stressed short vowels (/i/ or /a/), shows its reflex in the modern languages, in common with unstressed /ə/, i.e. with the same variations by language in that it transitions sometimes into *a*, and sometimes into *i* (Sr. also *e*). Compare, for instance, Sh. *wiz*, Ru. *waz* 'fit!'; Sh. *wizd*, Ru. *wazd*, Sr. *wezd* 'fits'; Sh., Ru., Bt. *kin*; Sr. *kan* 'do!'; Sh., Ru., Bt. *kixt*; Sr. *kaxt* 'does'.

Indirect evidence of the use of |a| in stressed position also comes from cases of irregularities with  $|\bar{a}| (< \text{Ir. } *a)$ , in which it transitions into *i* or *a* in present-tense stems. For instance: Sh. *čis*-; Ru. *čās*-; Sr. *čos*- 'watch' (from \**kasa*-); Sh. *andiz*-; Ru., Bt., Sr. *indiz*- 'get up' (from \**ham-tača*-). Similar irregularities took place through the influence of palatal consonants, which caused the raising of stressed *a* into *a*.

Finally, there are a number of function words and particles with irregularities in *i*—*a*, which at the beginning were unstressed or weakly stressed, but which already in the Proto-Shughni period gained their (phonological) independence. Here, for instance, we can include the demonstrative pronouns which are derivied from enclitic forms: cf. Sh. *dam*, Ru. *dum*, Bt. *dim*, Rv. *dam*. Sr. *dem* – feminine oblique (medial grade) form, with the same vocalization for the proximal grade. Some particles also have a pronominal origin: Sh., Ru., Bt. *mis*, Sr. *mas* 'also, too'; Sh. *dis*, Ru., Bt. *das* 'so, in this way'. We find similar irregularities in words of adverbial-prepositional origin: Sh. *pis*, Ru., Bt., Sr. *pas* – preposition meaning 'for, after' (Av. *pas-ča*); Sh. *pi*, Ru., Bt., Sr. *pas* – directional preposition (<\**pati*); Sh., Ru. *vij*, Bt. *vaj*, Sr. *vač* 'out; outside'. In all of these cases we are likely dealing with Proto-Shughni /ə/. The vowel /ə/ is derived also for Sh. *naýjīs-*, Ru., Bt. *nawžis-*, Sr. *narjes-* – pres. stem of the verb 'pass' (see §91).

Nonetheless, these examples do indicate the sporadic or limited nature of the appearance of stressed /ə/. This phoneme subsequently came to be associated with short phonemes, which were similar to it in quality,<sup>159</sup> rather than entering into the system of stressed phonemes itself. It was this phoneme which was able to serve as a step for the merger of /i/ and /u/ in closed syllables with two final consonants. But even here /ə/ subsequently – with the loss of the distinction of length in Sarikoli – transitioned into the realm of the phoneme *e*, which was close to it in quality, and before  $\dot{x}$  and other opening (lowering) consonants it turned into *a* (cf. Sr. *seðj* </suðj/ 'gone'; *weðj* </widj/ 'fit'; *kaxt* </kuxt/ 'slaughtered'; *paxt* /pixt/ 'flour'). Everywhere for these transitions there is a necessary stage with  $\partial : s\partial \partial j$ ,  $w\partial \partial j$ ;  $k\partial xt$ ,  $p\partial xt$ .<sup>160</sup> As was already mentioned, only stressed  $\partial$  only becomes *a* in relatively few contaminations with epenthetic *ы* (Sr. *pbixéw* 'shear sheep' – instead of *paxéw*, *ybijéd* 'stable' – instead of *yajéd*; among others).

<sup>&</sup>lt;sup>159</sup> The possibility of the pgonological similarity of /a/ to *i* (Sh. *nibos*) provides further evidence for the rather open nature of /i/.

<sup>&</sup>lt;sup>160</sup> Cf. modern Sarikoli /ə/ before fricatives (cəšč 'barley'; čəžj 'done'), which is phonologically undefined (?).

Epenthetic *i* (Sh., Ru., Bt.), and epenthetic  $\omega$ , *i* (Sr.), which have come about between to initial consonants, should be considered a later development. If the epenthetic vowel had developed during the Proto-Shughni period, then its reflex would have split the fate of /ə/. Meanwhile, it always appears only as closed (high) phonemes (Sh., Ru., Bt. *i*; Sr.  $\omega$ , *i*), which came to be defined in unstressed position quite a bit later. Cf. Sh., Ru., Bt. *sitán*; Sr. *sután* 'column'; and numerous other examples. Still in modern times, the epenthetic sound for some combinations of consonants (for instance, when the second consonant is *r*), is difficult to perceive. So, for instance, the sound of *virōd* // *v*<sup>o</sup>*rōd* is more often perceived as sounding like *vrōd*, rather than *virōd* 'brother'. This is particulary true for Sarikoli, where nearly any epenthetic  $\omega$  is optional: Sr. *s*( $\omega$ )*tćwr* 'cattle'; *z*( $\omega$ )*néy*-: *z*( $\omega$ )*núd* 'to wash'; among others.

## Diphthongs /əi/ and /ou/

**§102.** Dipthongs which continue Iranian \**ai* and \**au* are historically phonetic variations of medial vocalization of the sonorants \**y* and \**v*, which arose in positions before a consonant. In positions before a vowel or word-finally we get corresponding \**ay*, \**aw* (cf. Av. *sravah*- 'glory' and *sraoša*- 'obedience'). Of course, the phonological link between these phonetic variants could hardly be preserved until the Shughni period. The combination *ay* was lost word-medially early on with the null vocalization of the sonorant in the position before *y*, as was the case with \**a* before *y*. Compare the following present stems: Ru.  $\delta ay$ - 'hit < \**daya*- ( $\sqrt{da}$ -); Ru. *wixay*- 'unlock' <\**ava-sriya* or \**ava-sraya* ( $\sqrt{sray}$ ); *pay* 'rot' < \**puya*- ( $\sqrt{pav}$ -); *zay*- 'give birth'; *znya*-( $\sqrt{zan}$ -).

However, the fixing of the dipthongs (\*ai, \*au) and the clusters (\*ay, \*aw) in different phonetic conditions continued to be preserved. This makes it difficult to compare their results, as such a comparison requires identical phonetic positions. Nonetheless, there are cases where the clusters \*ay and \*aw, albeit in a a later time, end up in a position before a consonant. And in these cases they give results different from those of the diphthongs: the diphthongs are contracted into lng vowels, while the clusters \*ay and \*ay are preserved.<sup>161</sup>

Such a result is observed in the third-person singular in the present tense, where the combinations \*ay, \*aw end up before a consonant after the loss of the original vowel of the stem. Compare, for instance: Ru.  $\delta ayd$  'hits',  $zin\dot{a}yd$  'washes',  $wi\dot{x}\dot{a}yd$  'opens'; vawd 'is'; sawd 'goes'; etc (cf. the results of the diphthongs: Ru.  $sp\bar{i}d$  'white';  $r\bar{u}z$  'window'. However, in Shughni and Bartangi the combination ay also contracts into a long vowel: (Sh.  $zin\dot{e}d$ , Bt.  $zin\dot{i}d$  'washes), but this is a later development which is still observed in the modern era, especially for Shughni (§25, pt. 2). In addition, in Bartangi such a contraction only occurred for \*ay; the combination \*aw has been preserved (with the possible expansion to  $\bar{a}w$ : cf. Ru., Bt. vawd 'is';  $n\bar{a}wd$  'cries'; sawd,  $s\bar{a}wd$  'goes' (but Sh.  $su\dot{u}d$  'goes',  $nu\dot{u}d$  'cries').

Another case in which \*ay is in a position before a consonant, of even earlier provenance and undoubtedly relevant for the Proto-Shughni period, is when we get this combination before the

<sup>&</sup>lt;sup>161</sup> Sarikoli occupies a special position in preserving the diphthongs – see above.

intransitive suffix -*s* in present-tense stems. Here different phonetic conditions arise: oin the third-person singular we get a closed syllable with two final consonants, and in the remaining person-number combinations we get an open syllable, which was likely unstressed. Consequently, we get different results, but again different from the dipthong \**ai*. The cluster \**ay* here either results in a short vowel or is preserved. For instance: Sh. *piðisēn*, Bt. *paðisan*; Ru. *paðaysan* '(they) catch fire'; Sh. *piðist*, Bt. *paðist*, Ru. *paðayst* 'catches fire'.

We get similar results in this position from \**ay* with a secondary origin, arising from the short vocalization plus the palatal  $\chi$  (Ir. \* $\check{c}$ ) – i.e. from a clister of the type -\* $i\chi$ -s, -\* $a\chi$ -s > -\**ays*. Compare, for instance, Sh. *risum*, Sr. *risam*, Bt. *rasum*, Ru. *raysum* 'I stay'; Sh. *rist*, Bt. *rast*, *rayst*, Ru. *rayst* 'stays' ( $\sqrt{rik}$ -, *rič*- with weak vocalization).<sup>162</sup> We can also add here the following stem: Sh., Ru., Bt. *pisum*, Sr. *pisam* 'I'm boiling'; Sh. Ru., Bt. *pist*, Sr. *past* 'cooks/boils' ( $\sqrt{pak}$ -, *pač*-s). All of this would have been similar to the transition of /i/ or /ə/ in the corresponding positions, if not for Rushani (and sometimes Bartangi) preserving the *ay*, which points toward an original (Proto-Shughni) \**ay* in these cases. The more or less regular preservation of \**ay* in Rushani was likely conditioned by an early transition of stress onto the stem.

**§103.** We can see from the data that the diphthongs \*ai and \*au and the clusters \*ay and \*aw had different phonetic natures in the Proto-Shughni period, differing from one another first and foremost in their duration. The clusters \*ay and \*aw have either shortened into a short vowel or have been preserved in the form of ay and aw, again initially with a short vowel, which is easily seen with the data from the Rushani language. Cases in which \*ay is shortened and results in either i-a (which is analagous to the reflex of /a/, allows us to reconstruct a sound of ay for \*ay, as well as an analogous sound aw for \*aw.

The transformation of the diphthongs  $*a\underline{i}$  and  $*a\underline{u}$  into long high vowels (Sh.  $\underline{u}$ , Ru., Bt.  $\overline{u}$ ) points, first of all, toward the significant and equal duration of their components and, secondly, to their relatively closed (high) articulation. This allows us to reconstruct the sounds  $e\underline{i}$  or  $o\underline{u}$  for them.

In unstressed position the diphthongs  $e_i$  and  $o_u$  were not used and transitioned into their corresponding short vowels, which have as their reflexes in the modern languages the same a-i (§74), which point toward the Proto-Shughni /ə/.

The cluster  $\partial y$ , which early on came to be used before a consonant in stems with the suffix -*s*, which were in all likelihood unstressed, thereby came to coincide with the unstressed variant of the diphthong /ei/. Spreading to stressed positions in imperative forms or in thie third person singular (cf. Ru. *paðays* 'ignite!', *ðayd* 'gives'; *vawd* 'is', etc.), the clusters  $\partial y$  and  $\partial w$ , being short, entered into phonological opposition with the 'strong' or full dipthongs /ei/ and /ou/. However, their strenghtening into phonemes (short dipthongs) never occurred. Their usage in stressed position before a consonant was too limited, and, similar to the phoneme / $\partial$ /, they came

<sup>&</sup>lt;sup>162</sup> In the infinitive (and the past stem) of this verb \**ay* ended up in a position identical to the first type –i.e. in a closed stressed syllable with one final consonant (\* $ri\dot{y}d > *rayd$ ), which also gave the corresponding results: Ru. *rayd*, Bt.  $r\bar{r}d$ , Sh.  $r\bar{e}d$ .

to have differing phonological treatment in the future (they turned into long  $\bar{e}$  in Shughni, long  $\bar{i}$  in Bartangi, and were preserved as clusters with possible later lengthening: Ru. *ay*, *aw*; Bt. *aw*,  $\bar{a}w$ , sometimes also *ay*; and they merged with the diphthongs /ei/ and /ou/ in all positions in Sarikoli).

**§104.** Sarikoli gives special results. Here, the diphthongs /ei/ and /ou/ are preserved in the form of  $\varepsilon y$  and  $\varepsilon w$  (*sp\varepsyd* 'white', *y\varepsylewevel* 'ear'; etc.),<sup>163</sup> and they fully coincide with the clusters *ay* and *aw* ( $\delta \varepsilon yd$  'hits', *r\varepsylewevel* 'stayed'; *v\varepsilowevel* 'is'; *x\varepsilowevel* 'horn'). Here we can also include diphthongs of a later origin, as well as borrowed words:  $\varepsilon \varepsilon wg$  'done' (<*kard*); *p\varepsilovevel* < Tj. *paydo* 'evident'; etc.

This merger of the diphthongs /ei/ and /ou/ with the clusters  $\partial y$  and  $\partial w$  was caused by the loss of the distinction of vowel length in Sarikoli. The primary opposing feature between dipthongs and clusters was, as was already discussed, duration. The preservation of dipthongs itself to a significant extent facilitated the loss of the distinction of vowel length in Sarikoli. In the other languages the diphthongs became long vowels fairly early on (Sh.  $\bar{e}$ ,  $\ddot{u}$ ; Ru., Bt.  $\bar{i}$ ,  $\bar{u}$ ), giving the start to the development of new oppositions in length. In Sarikoli, however, this did not occur, and the process of neutralization of vowel length, which had begun in the Proto-Shughni period, came to completion, causing significant shifts in vowel quality.

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In cases where dipthongs and the clusters \**ay* and \**aw* have as their reflexes *i* and *a* in the other languages of the group, in Sarikoli we get the exact same result (Sr. *pisam* 'I boil'; *past* 'it boils, cooks').

**§105.** Cases in which the reflex of diphthongs is a short vowel in fact coincide with the reflex of the null vocalization of sonorants (\**i*, \**u*). And only through the characteristics of word-formation or inflection can we posit the shortening of a diphthong for a particular case, arther than the continuation of ancient null vocalization. So, for instance, the word Sh. *miyīj*, Ru. *mawój* 'ram' can hardly be considered an ancient word. Judging by the suffix, and also by the absence of this word in other languages, it can be identified as either a Shughni word alone, or as a direct inheritance from Pre-Shughni – i.e. as a formation from /meiɣ/ + stressed suffix /-öj/, and it is not a continuation of any ancient formation of \**mišaka*-.

<sup>&</sup>lt;sup>163</sup> There are no reasons here to posit the secondary demonophthongization of  $\bar{i}$  and  $\bar{u}$  (cf. Gr. 296). The long vowels  $\bar{i}$  and  $\bar{u}$  are a later phenomenon in the languages of the Shughni-Rushani group and are not attested in either Proto-Shughni or in Sarikoli. The transition of  $\bar{i}$  and  $\bar{u}$  ( $\bar{e}$ ,  $\hat{u}$ ) in borrowed words into Sarikoli  $\varepsilon y$  and  $\varepsilon w$  ( $d\varepsilon yg$  'cauldron' indicates either that they had a diphthong-like pronunciation at the time when they were borrowed (cf., for example, the modern diphthong pronunciation of Tajiki  $\bar{e}$ ,  $\hat{u}$  in northern dialects), or that the transition of  $\bar{i}$  and  $\bar{u}$ , the duration of which was perceived by the Sarikols, into  $\varepsilon y$  and  $\varepsilon w$ , was the only way for these long vowels not to lose their opposition in duration. Compare, also, the transition of borrowed  $\bar{u}$  in Yazghulami to ow (§139).

It is possible that this coincidence of the reflexes of diphthongs and the null vocalization of sonorants as short vowels is completely regular. Theoretically, it is possible to analyze the null grade of sonorants as a variant of short diphthongs with  $\partial$ -vocalization (\* $\partial i$ , \* $\partial u$ , \* $\partial r$ , \* $\partial r$ , \* $\partial r$ , \* $\partial m$ ), which oppose the vocalization of \*ai, \* $\bar{a}i$ , etc. In a position before a consonant, the loss of one of the elements of these weak diphthongs is completely natural, as is the loss of the weakened *i*- or *u*-elements in strong vocalization (\* $\bar{a}i$ , \* $\bar{a}u$  > \* $\bar{a}$ ). It is also natural to have the preservation of both elements in middle vocalization (\* $a\underline{i}$ ,  $a\underline{u}$ ), where both elements are sufficiently strong and equal in significance. Such an assumption would clearly explain the results of the null-grade of sonorants before vowels, where we simply have the preservation of the cluster \* $\partial y$ , \* $\partial w$ , etc., with the later phonological treatment of \* $\partial$  respective to each language. It is easy to explain, with this assumption, the transformation of full diphthongs (\* $a\underline{i}$ , \* $a\underline{w}$ ) into short vowels in unstressed position, where they naturally shortened into the weak diphthongs  $\partial i$ ,  $\partial u$  with the later loss of one of these elements.

Of course, in many cases the transition of short (or weak) diphthongs into the corresponding short vowels<sup>164</sup> occurred as early as in the Proto-Shughni period or before. However, this did not necessarily result in the obligatory liquidation of the short dipthongs, which could arise again and again, in particular, with the transition of the middle vocalization of sonorants into weak phonetic positions.

# Fundamental characteristics of the Proto-Shughni vowel system

**§106.** In stressed position the Proto-Shughni vowel system distinguished six simple vowels at three grades of length and two diphthongs:

**Long:** *ö*, *ā*, dipthongs *ei*, *ou* **Mid:** *ö* **Short:** *a*, *u*, *i* 

In unstressed position only two vowels appeared: short a and reduced  $\partial$ .

Stressed vowels opposed one another both in length and in quality. Thus, the pair  $/\ddot{o}/$ —/ $\ddot{o}/$  were already significantly different in quality.  $/\ddot{o}/$  was more open (from the lowest level of height up to the fourth level), with a fixed back, rounded variant in neutral position.

/ö/ was more closed (from the second level of height to the top level) and had a predominantly front articulation. However, in phonological relations, qualitative features were only weakly distinguished. Height and rounding did not have an independent phonological meaning, and only appeared in the role of accompanying distinguishing features. The feature of frontness/backness had an independent meaning only when opposing the pair /i/—/u/. The

<sup>&</sup>lt;sup>164</sup> And in the case of the contraction of both elements of the diphthong (rather than the loss of one of them), we also get long vowels (cf. Av. *būta*, *srūta*, etc).

fundamental distinguishing feature was therefore duration, with three grades of length being distinguished: strong, mid, and weak.

However, this scheme was in place only for native Iranian vowels. The pair  $\bar{a}/-\bar{a}/a$  –which formed later – brought fundamentally new relations into this system. Arising from open variants of Iranian \**a*, \**u*, the phonemes  $\bar{a}/a$  and  $\bar{a}/a$  were, from the very beginning, vowels with a a narrow range of quality and which opposed the other vowels of the system in height (they were low); in frontness (they were central) and in the lack of roundedness. The appearance of this pair pf phonemes facilitated the quick phonologization of qualitative features, which progressed in the following way.

**§107.** The fact that they now had to be distinguished from the pair  $/\bar{a}/-/a/$  meant that the phonemes  $/\ddot{o}/$  and /u/ had to narrow in their range of height, as their open variants (approximately the two lowest grades of height), separated from them. At the same time, the mass appearance of closed syllables with two final consonants (after the loss of final -\**a*, and later also -\**i*) facilitated the habitual narrowing (raising) or  $/\ddot{o}/$  up to the top level of height into *i*- and *u*-like variants.

However, distinguishing the pair  $\bar{a}/-a/$  did not affect the range of the phoneme  $\bar{b}/a$ , the open variants of which (i.e. *a*-umlaut variants) remained in its sphere. Closed syllables with two final consonants did not have an effect on the quality of long  $\bar{b}/a$ , and thus the conditions which would have been needed to raise  $\bar{b}/a$  did not arise. As a result, the two highest rungs of height became attached to the phoneme  $\bar{b}/a$ , and the two lowest became attached to the phoneme  $\bar{b}/a$ . Therefore, the range in which these phonemes overlapped in height became limited to mid-grades of height (i.e. variants  $\varepsilon$ , *e*,  $\bar{o}$ , *o*, *o*).

But here began, in some cases, their qualitative distinction in frontness/backness and in rounding. Back rounded variants in neutral position came to be fixed to the phoneme  $/\overline{0}/$ . This stage, which was described in §106, we find until the end of the Proto-Shughni period. The qualitative similarity of the phonemes  $/\overline{0}/$  and  $/\overline{0}/$  continued to be preserved fairly well only in *i*-umlaut position, where both phonemes were front unrounded vowels, and, hence, their opposition continued to be almost exclusively in duration (the variants of  $/\overline{0}/$  in this position:  $\overline{a}$ ,  $\overline{c}$ ,  $\overline{c}$ ; the variants of  $/\overline{0}/$  in this position:  $\alpha$ ,  $\varepsilon$ , e).

Being intermediate with respect to its duration, the phoneme  $|\ddot{o}|$  was also opposed to short |u| and |i|. The qualitative distinction of  $|\ddot{o}|$  with these phonemes was able to take place through the merger of its high variants (*i*-like and *u*-like) with the short phonemes, which in did take place later on. The more open variants of  $|\ddot{o}|$  were well opposed to the phoneme |u|, as these were front variants (*e*,  $\ddot{o}$ ). However, they were poorly opposed to the open variants of the phoneme |i|. This is especially true for the *i*-umlaut variants of  $|\ddot{o}|$ , which could not be rounded. Hence, in this case, opposition through duration remained relevant in *i*-umlaut position. The neutralization of duration in *i*-umlaut position must have led either to the merger of the phonemes  $|\ddot{o}|$ ,  $|\ddot{o}|$ , |i|, or to their being distinguished by height, which, in some variants took place subsequently in individual languages.

**§108.** Therefore, we see that at the beginning of the separation of the languages of the Shughni-Rushani group, the Proto-Shughni vowel system was in a restructuring phase, which has also led to the variety of results we see in the modern languages of the group. The subsequent path of changes depended on each individual language, each of which decided their own fate with respect to the shape of this restructuring.

So, for instance, the later weakening of the durational opposition of the phonemes  $/\overline{o}/$  and  $/\overline{o}/$  could occur either through the lengthening of  $/\overline{o}/$  or through the shortening of  $/\overline{o}/$ . The first route – i.e. the lengthening of  $/\overline{o}/$  to  $/\overline{o}/$  led to the new reinforcement of the feature of vowel length, but to a different kind of system, namely one based on two grades rather than three, with the developed qualitative opposition of vowels belonging to the class of long vowels (arising from the phonemes  $/\overline{o}, /\overline{o}/$ , and  $/\overline{a}/$ ) and within the group of short vowels (continuing the phonemes /a/, /u/, and /i/). In doing so, only long vowels would undergo a significant qualitative transformation, with the likely creation of new phonemes. This route was taken by Shughni and Bartangi.

The second route – i.e. the shortening of  $/\ddot{o}/$  – ultimately led to the complete decay of length, which necessarily affected both the phonological development, as well as the qualitative range of all vowels. The pair  $/\bar{a}/-/a/$  came into a special position in this case, as there were no conditions which would have led to the loss of length here. This was the only pair of vowels which were not distinguished, or only slightly distinguished, by quality, and which had a narrow range of pronunciations. And there were two possibilities for the fate of this pair under conditions in which length was tending to decay. It could preserve the opposition in length for a long time. But as vowel length would become a vestigial phenomenon, with the passage of time it would lose its significance, which would lead to the merger of the two phonemes. A second possible scenario involves the earlier qualitative separation of the two phonemes occurring at the same time as the general restructuring of the vowel system – i.e the earlier involvement of the pair  $/\bar{a}/-/a/$  in the process of the loss of vowel length. In Sarikoli this second route was taken: here, the phonemes  $/\bar{a}/$  and /a/ became qualitatively split, as  $/\bar{a}/$  transitioned to *o* (which, in turn, caused further displacement in the language's back vowels).

Finally, a third route of change for the vowel system was possible, namely the maintaining of three grades of length. In this case, reforms in the vowel system were limited by the phonologization of the variants  $/\ddot{o}/$  and  $/\ddot{o}/$ . This route was taken by Rushani.

**§109.** The factor which set in place a specific route for each language was the fate of the diphthongs /ei/ and /ou/. The transition of these diphthongs into long vowels meant that a language would take the first route. The new long phonemes (Sh.  $\bar{e}$ , u, Bt.  $\bar{i}$ ,  $\bar{u}$ ) together with the steadfast long  $\bar{a}$ , strengthened the phonological feature of length. And since by this time / $\bar{o}$ / and / $\bar{o}$ / had already come very close in length, / $\bar{o}$ / naturally came into the group of long vowels.

The Rushani vocalism constitutes a variant of this route, but with an earlier transition of the diphthongs. Here, the new long vowels  $\bar{i}$  and  $\bar{u}$  arose from the diphthongs at a time when  $/\ddot{o}/$  and  $/\ddot{o}/$  still were not sufficiently close in duration. As a result, Rushani  $/\ddot{o}/$  did not enter into the new

group of long vowels. Appearing in the modern language as the phonemes o and  $\alpha$ ,<sup>165</sup> this phoneme subsequently came to resemble the group of short vowels (a, u, i) with respect to its duration.

In Sarikoli, the transition of the diphthongs into long vowels did not occur, and because of this the process of the shortening of  $/\ddot{o}/$  and subsequently  $/\bar{a}/$  was not stopped.

The transition of diphthongs into long vowels (Sh.  $\bar{e}$ ,  $\ddot{u}$ ; Ru., Bt.  $\bar{i}$ ,  $\bar{u}$ ) at the same time facilitated the definitive phonologization of features of frontness/backness and rounding, as the new phonemes opposed one another by these features. The phonologization of rounding and frontness/backness, for its part, led to the phonological distinction between front unrounded and back rounded variants of  $/\ddot{o}/$  and  $/\ddot{o}/$ , which subsequently happened anyway in all languages of the group. In Sarikoli, the definitive phonologization of these features were the result of the loss of vowel length, which created the need for a clear opposition of vowels by means of quality.

Thus, all routes of change for the Proto-Shughni vowel system ultimately led to the creation of clear qualitative phonological features and to the appearance of phonemes with a narrow qualitative range.

**§110.** All vowels now appeared in their new stable quality even in unstressed position: new cases of word formation almost never result in vowel alternations (cf., for instance, Sh.  $x\bar{i}f$  'foam';  $x\bar{i}fak$  'skin forming on (warm) milk'). An exception is long  $\bar{a}$ , which was still not fully strengthened in unstressed position, and which often shortened to short *a* here (see IIIPF: 369). It is clear that in such a position, unstressed  $\partial$ , which did not develop a usage in stressed position, was unable to continue its existence as an independent phonemic unit and came to be associated with the short phonemes which were closest to it – sometimes *i* and sometimes *a* (in Sarikoli also *e*).

# Yazghulami vowel system

**§111.** The vowel phonemes in the modern Yazghulami language are the following:

Long:  $\bar{a}$ Neutral: *i*, *e*, *a*, *o*  $\mathring{u}$ , *u* Short or reduced:  $\vartheta$ 

Short or reduced  $\vartheta$  is a central vowel with a wide range of pronunciation. It opposes all other vowels with respect to its shortness and its ability to reduce in unstressed position. Neutral vowels do not shorten considerably in unstressed position and always preserve their quality.

<sup>&</sup>lt;sup>165</sup> Rushani  $\bar{e}$  in the place of Khufi  $\alpha$  is a later development which occurred possibly through influence from Bartangi.

Long  $\bar{a}$  is differentiated from the phoneme a by its duration, which with regard to this opposition has the sound of a short vowel. However, with respect to its absolute duration, a is similar to neutral vowels. The opposition of the phonemes  $a-\bar{a}$  is limited and not sturdy. It is found only with stress and only in closed syllables with one final consonant (and sometimes also at the end of words), with the majority cases here permitting two pronunciations ( $b\bar{a}d$  or bad 'go!'). In other cases, the duration of a depends on its phonetic position. In modern times, long  $\bar{a}$  is clearly being forced out of the language.

One characteristic of the Yazghulami language which sharply distinguishes it from the Shughni-Rushani group is the transition of stress onto the final syllable of a word in many cases. Compare, for instance, the conjugation of the Yz. verb *varin*, Sh. *vårum* 'I bring'; the formation of the perfect stem Yz. *šədág*; Sh. *suðj* (< *súdəg*); etc. As a result, in many cases when we compare the facts, we do not find identical phonetic position.

The following later or modern phonetic processes should be taken into account:

1. The irregularities of the phonemes  $\hat{u}$ , o (which are interchanged especially before nasals – e.g.  $m\hat{u}n$  // mon 'me').

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2) The irregularities of the phonemes  $\dot{u}$  and u (which may be interchanged syllable-finally and in closed syllables with two final consonants – e.g.  $c\dot{u}//cu$  'hair';  $x\dot{u}\delta m//xu\delta m$  'sleep'.

## Historical correspondences of vowels

For Yazghulami, we can generally point to the same phonetic factors which influence vowels as those which influenced vowels in the Shughni-Rushani group: namely, stress, umlaut position, syllable structure, and the influence of neighboring consonants. With this in mind, and also for the ease of comparing Yazghulami data, the Yazghulami facts are laid out in the same succession and examined with respect to the same phonetic positions as with the Shughni-Rushani group.

## Reflex of Proto-Iranian \*a

### In stressed position

### In neutral position

**§112.** In closed syllables with one final consonant, we regularly get Yazghulami  $\hat{u}$ , which corresponds thus to Sh.  $\bar{\iota}$  // Ru. o // Bt.  $\bar{o}$  // Sr. e (§27). Hence, the Yazghulami result is very similar to that of Rushani (Rushani o is just somewhat more open). Examples: Yz.  $p\hat{u}\delta$  'track; footprint';  $p\hat{u}s$  'sheep (pl.)';  $k\hat{u}d$  'house';  $x\partial v\hat{u}r$  'sun';  $x\hat{u}\check{x}$  'mother-in-law';  $\delta\hat{u}s$  'ten';  $d\partial v\hat{u}r$  'door';  $t\hat{u}r$  'top';  $x\hat{u}r$  'donkey';  $-d\hat{u}r$  (comparative suffix);  $\check{z}\hat{u}d$  'killed'.

In positions before Iranian \* $\mathring{s}$  (later w), we get the combination aw, which in the context of a preceding rounded sound became  $\mathring{u}$ , u:  $\mathring{k}aw$  'multicolored';  $\check{x}\mathring{u}$ ,  $\check{x}u$  'six' (\* $x\check{s}wa\check{s}$ ).

**§113.** In closed syllables with two final consonants, the picture of historical correspondences has become a bit obscured with respect to the irregularities of u, o, u (see §111). However, the presence of syllables with durable pronunciation allows us to uncover for Yazghulami more or less the same pattern in the transition of \*a is is seen for Bartangi and Rushani, namely that before narrowing (raising) consonants \*a merges with \*u (which appears in Rushani as o), and before other consonants it is preserved – that is, it transitions, like it does in closed syllables with one final consonant, into u.

Before *s*,  $\check{x}$ , and other neutral consonants the following type of correspondences can be identified: Yz.  $\mathring{u}$  // Ru. *o* // Bt.  $\ddot{o}$  // Sh.  $\bar{u}$  // Sr.  $\omega$  (§28). Examples: Yz.  $v\mathring{u}st$  'tied';  $k\mathring{u}\check{x}t$  'watched'; *an* $\mathring{u}\check{x}t$  'forgot';  $\check{x}aw\mathring{u}\check{x}t$  'flew up';  $\check{o}\mathring{u}st$  'hand'; *warc* $\mathring{u}st$  'came untied' (\* $\sqrt{rad}$ );  $p\mathring{u}x^o$  'cooked';  $\check{c}\check{u}xt$  'bent, crooked'.

Before *v* and other narrowing (raising) consonants we get the following correspondences: Yz. *o* // Ru. *u* // Bt.  $\bar{u}$  // Sh.  $\bar{u}$  // Sr. *e*,  $\omega$  (§29). Examples: Yz. *bəðóvd* 'closed (one's) eyes'; *ənjóvd* 'took'; *cəróvd* 'pinched'; *əndóyd* 'got up' (where *y* is from *ý*; cf. Sh. *andúyd*;  $\sqrt{tak}$ -, *tač*-); *bəžtóyd* 'leaked out' (of the same root); *kont* 'dug'; *x<sup>o</sup>orn* 'crow'.

The fact that \**a* becomes *o* before narrowing (raising) consonants indicates that the modern, consistently open articulation of *o* is the result of the later transformation of old Yazghulami /u/. This transformation was caused by the separation of /u/ from the new phoneme *u*, as well as from the phoneme  $\hat{u}$ , which was becoming similar to them in quality. It is natural that with the separation of three qualitatively similar phonemes that their partial contamination would occur. Later (modern?) phonetic factors were also already having an effect: for instance, the widening (lowering) effect of nasals or the narrowing (raising) effect of fricatives. Compare, for instance,  $a\check{z}omt$  'sent' (\* $\sqrt{gam}$ ); komt 'agreed' (\* $\sqrt{kam}$ ); cf. sərúst 'come apart' with the regular wərcůst 'became untied'. We can also add here: xufk 'foam'; kusk 'barley'; əmbúst 'collapsed'; ðusyibék 'spindle' (but ðůst 'hand').<sup>166</sup>

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### In i-umlaut position

**§114.** In *i*-umlaut position Iranian \**a* regularly has  $a(\bar{a})$  as its reflex, corresponding to Sh.  $\bar{i}$  // Kh.  $\alpha$  // Ru, Bt.  $\bar{e}$  // Sr. e( §31). Examples:  $y\bar{a}r$  'stone';  $w\bar{a}z$  'load'; nar 'male (animal)';  $ra\ddot{z}$  'plank bed'; Sh.  $\dot{c}i-r\bar{i}z\dot{a}k$ ; Bt.  $r\bar{e}z\dot{a}k$  'part of a plank bed');  $\ddot{z}ar\dot{a}z\ddot{z}$  'partridge;  $pa\check{j}$  – pres. stem of

<sup>&</sup>lt;sup>166</sup> It is likely that all of these cases have a second possible pronunciation with  $\dot{u}$ :  $x\dot{u}fk$  'foam'; etc., which should be checked. The process of separation of  $\dot{u}$ , u, and o, apparently, is still continuing today. Cf. common forms with double pronunciation:  $x\dot{u}\delta m/|xu\delta m|$  'sleep';  $b\dot{u}nd/|bond$  'string';  $m\dot{u}m/|mom|$  'grandma'; etc.

the verb 'cook'. In closed syllables with two final consonants, the correspondences with the Shughni-Rushani group are the following: Sh.  $\bar{i}$  // Ru. i,  $\bar{e}$  // Bt.  $\bar{e}$ , ( $\bar{i}$ ); // Sr. i (§33). Yz. zard 'yellow'; zamb 'bank; edge'; vawz 'pillow'; vart 'brings';  $x^0$ art 'eats'; among other verbs in the third-person singular (see §36, pt. 1).

Other verbal forms which in the Shughni-Rushani group are observed to have been influenced by *i*-umlaut (infinitive stems and perfect stems in the feminine) do not appear in Yazghulami.

**§115.** Only very rarely do we observe the transition of Iranian \**a* in *i*-umlaut position into front (mid/high) vowels *e*, *i*. Such a sound was preserved when palatal consonants were in a word. For instance: Yz. *penj* 'five'; *kebj* 'spoon'; (\* $\sqrt{kap}$ ); *kenj* 'clothes moth?' (\* $\sqrt{kan}$ ?), where *j* is from \**č*. It is possible that some participial formations are also relevant here: e.g. *birayéj* 'pregnant'; with the preservation of the feminine form of the suffix -\**ači* (Sh. -*idz*; Kh. -*œdz*; Ru., Bt. *édz*; §32, pt. 3) with a specific sense of the word.<sup>167</sup>

In present-tense verbal stems of the type  $w = rci\theta$ - 'come undone';  $s = ri\theta$  'come apart' (\* $\sqrt{rad}$ ), the vowel *i* is also possible the result of the influence of *i*-umlaut with conjugation in -*ya*- (cf. data from the Shughni group in §37).

The high front vowel *i* appears as the result of *i*-umlaut variants also in the combinations \*ar(\*r) before *t*. As was the case in Shughni (§85), the sonorantization of *r* took place in Yazghulami either via *w* (in neutral position) or via *y* (in *i*-umlaut position). The contraction or monophthongization of the combinations \*aw, \*ay resulted in a and *i*, respectively. The former is seen in past-tense verb stems ending in -\*ta – i.e. in neutral position: vag 'brought';  $xug(x^0ag)$  'ate'; etc.<sup>168</sup> The latter – i.e. the transition into *i* – is seen in participles formed with the secondary suffix -ág: vigág 'brought (adj.)';  $x^0igág$  'eaten (adj.)'. This suffix was added to the forms \*vig and  $*x^0ig$ , which, as can be seen, are the same as the infinitival stems of the Shughni-Rushani group. Deverbal nominal forms ending in -\*ti were therefore used in Yazghulami and in the Shughni-Rushani group in different ways. In the Shughni-Rushani group they were used in the majority of cases in infinitival stems, while in Yazghulami they came to be used in the formation of participles. Thus, there is reason to analyze root *a* in participles (e.g. žadág 'killed'; past stem žud; sadág 'rising; elevated') as the result of *i*-umlaut position.<sup>169</sup>

Cases of the preservation of high, front-vowel *i*-umlaut variants of \*a allow us to posit that modern a,  $\bar{a}$  constitute the later transformation of the fundamental sound \*a in *i*-umlaut position ( $\alpha$ ,  $\varepsilon$ ). We should also pay attention to the facct that modern Yazghulami a has a very front variant, which can be of an  $\alpha$ - or  $\alpha$ -like sound (O $\phi$ UA UU: 177; AA: 13), which distinguishes it

<sup>&</sup>lt;sup>167</sup> The modern form of this suffix in Yazghulami, continuing the masculine form (\*-*aka*) is not clear: -*ág* in the place of the expected -*úg* (*x<sup>o</sup>arág* 'hungry'). It is possible that we are dealing here with a contamination with the suffix -*ag* (from unstressed -*aka*?); cf. participial forms such as *šədág* 'gone'; etc.

<sup>&</sup>lt;sup>168</sup> Yz. *keg* 'did' (instead of *kəg*) can be explained through the influence of palatal *k* on the intermediate step \**ke*<sup>w</sup>g stage, with \**və*<sup>w</sup>g. Cf. the regular participial form *kiyá* (with a case of the full spirantization of palatal *d*' or g'). <sup>169</sup> Of course, forms ending in \*-*ta* and \*-*ti* were not fully differentiated in their functions; in both languages we can find crossover in their functions (see § 170).

from the *a* of the Shughni-Rushani group. It is possible that this is connect precisely to the inclusion of front (open) *i*-umlaut variants of \*a / $\ddot{o}$ / into the realm of Yazghulami /a/.

## In a-umlaut position

**§116.** The *a*-umlaut position is difficult to identify for Yazghulami, as the feminine forms in nouns and participles have been lost (cf.  $x\hat{u}r$  'donkey (m./f.);  $t\hat{u}yd$  'left (m./f.), and in present-tense verbs stress has been transferred to the ending, and hence the root vowel of the stem appears in unstressed position (e.g. *varán* 'they bring').

However, we can figure out the fate of Iranian \**a* in *a*-umlaut position by looking at nouns which undoubtedly belonged to the feminine gender. In these cases Yazghulami gives  $\bar{a}$  (*a*), which corresponds to Sh., Ru., Bt.  $\bar{a}$ , Sr. *o* (§39). Examples: Yz.  $x^{o}arg$  'sister';  $ya\check{c}ag$  'girl' (with the later addition of a suffix, cf. Sh.  $y\bar{a}c$ );  $n\bar{a}n$  'mother';  $k\bar{a}f$  'jackdaw (bird)';  $\check{x}\bar{a}x$  'beans';  $ba\check{d}a\bar{n}$ 'saddle'. An especially telling case of the preservation of the feminine form is found in the word  $\check{c}a\check{s}$  'wormwood' – cf. the masculine form of this word in  $\check{c}u\check{s}$  'bitter' (cf. also an analogous use of the feminine form in Bartangi: Bt.  $c\bar{a}\check{x}$  'wild onion', but  $c\bar{o}\check{x}$  'bitter' (m.),  $c\bar{a}\check{x}$  'bitter (f.)'. Consider also the compound word Yz.  $\check{c}aman\check{c}axt$  'pot with a crooked handle', but  $\check{c}uxt$  'crooked, bent'.

The plural form *vradar* 'brothers' is identical to Sh. *vradār* and is the continuation of the old nominative plural form \**brātarā* (<\**brātarah*).

Regarding present-tense stems, we should consider the transition of stress to the ending to be a later development. We can tell this by the loss of the vowel ending in the third-person singular, as has happened in the Shughni-Rushani group. Consequently, we can posit that unstressed *a* in Yazghulami verb stems was preceded by stressed  $/\bar{a}/$ . This is confirmed by the third-person singular form and the imperative form, where stress has been preserved on the stem. Compare the conjugations in the first-person, the imperative, and the third-person singular: *varín*; *vār*, *var*; *vārt* 'bring'; *kanín*; *kān*, *kan*; *kānt* 'dig'; *tarín*; *tār*, *tar*; *tārt* 'clear away'; *ancavín*; *ancāv*, *ancáv*; *ancávd*, *ancávd* 'sew'; etc.

Thus, the *i*-umlaut and *a*-umlaut variants of Iranian \*a in Yazghulami both end up as the phoneme  $\bar{a}$ , which has become contaminated in present times with the phoneme a.

## In a-umlaut position

**§117.** In unstressed position, Iranian \**a* regularly has as its reflex *a*, which, unlike the Shughni-Rushani group (§§47-48), is also true of old unstressed syllables. In unstressed syllables which have arisen in Yazghulami-Shughni territory in the formation of the words and form: Yz.  $av\delta ust$  'gloves';  $asu\delta \delta$  'this year';  $xaf\delta a$  'soapy stone' (xufk 'foam' \* $\sqrt{kaf}$ -);  $kad\delta \theta$  'houses' (kud 'house');  $was\delta \theta$  'bull calves' (wus 'bull calf');  $davar\delta \theta$  'doors' (davur 'door'); the reduplicative (strengthening) comparative suffix -dardur (-\*tar-tar); deverbal nouns of action (infinitive) ending in  $-\delta j$  (the same nouns ending in -idz in the Shughni-Rushani group:  $var\delta j$  'to bring';

 $x^{0}aráj$  'to eat'; kanáj 'to dig'; sapafáj 'to suck'; etc.; participial formations: pajék 'baker'; ancavék 'sewing; seamstress';  $x^{0}arág$  'hungry'; etc.; causative stems with the suffix -án: wazán 'bathe';  $rak^{0}án$  'breastfeed' ( $r\bar{a}k^{0}$  'suck'); etc. In later formations, as with the Shughni group, the root vowel, having ended up in unstressed positions, does not change: cf. kůdák 'cottage'; xůžij'sweetness'.

In earlier unstressed syllables: *nabés* 'grandson'; *kabád* 'dove'; *maðēn* 'middle (adj.)'; *kadém* 'which'; *x<sup>o</sup>ayérg* 'mill'; in verbal prefixes: *paðáys* 'ignite (intr.)'; *paðáfs* 'stick (intr.)'; *xawez* 'fly up'.

**§118.** In some cases Iranian \*a in unstressed syllables has as its reflex Yazghulami a. This is observed in the following phonetic positions:

1. In closed syllables, especially before n, m, r, v. See Yz. andáž 'get up'; ambis- 'fall; collapse (prefix \*ham); -andá – postposition; zambá 'limit; edge; bank' (cf. zāmb with the same meaning); vandin 'I tie' (cf. vand 'tie up!'); vastág 'tied up (ptpl)' (cf. vůst 'tied up (past)'); xandin 'I laugh' (cf. xand 'laugh!'); kantág 'dug up (ptpl.)' (cf. kanin 'I dig'); kont 'dug (past)'); ancavdág 'sewn (ptpl)' (cf. ancavin 'I sew'; ancóvd 'sewed'); avdsůð 'seven-year(-old)' (cf. uvd 'seven'); xoðnág 'prickle; thorn' (cf. Sh. šūð). But note also that a is preserved in many cases: avðúst 'gloves'; avðén 'bridle'; waftág 'woven (ptpl)'; sapaftág 'sucking (adj.)'; tartág 'swept (adj.)'. However, it is possible that participles with the preservation fo a are later formations and already follow the model of regular verbs from present-tense stems (cf. pres. stem tar-; past stem tard; participle tardá(g); waf- waft – waftág; sapaf- - sapaftág; note also another type, where the past stem continues the old participle: ancáv- – ancóvd – ancavdág).

There are no clearly later transitions of a to  $\partial$  in this phonetic position. Consider, for instance, later Tajik borrowings: *ambår* 'pincers; pliers'; *ambår* 'barn'; *bandi* 'captive; prisoner'; *čandúm* 'which'; *dastá* 'signature'; *gandá* 'bad'; *garmí* 'warmth'; and many others (cf.  $\partial$  in earlier borrowings with the transition of Tajiki  $\bar{o}$  into e, or with different markers of early borrowing: *darmén* 'medicine'; *dastér* 'turban'; *daspán* 'wrap?; swaddle?'; *garðév* 'vortex; whirlpool'; *čangél* 'claw; talon'; *garðán* 'neck'; etc).

2. In open syllables,  $\partial$  instead of *a* is characteristic for second syllables from stressed position (in polyllabic words). For instance: Yz. *moðanénj* 'middle (child?)' – cf. *maðén* 'middle (adj.)'; *poðofsín* 'I stick (tr.)' – cf. *paðáfst* 'sticks'; *poðisán* 'they ignite (intr.)' – cf. *paðáyst* 'it catches fire'; *xamadág* 'commanding (adj.)' – cf. *xaméd* 'commanded (past)'. Here we also see cases of the preservation of *a*, but it is possible that they are the result of the formation of words based on the modern type: *kabadáθ* 'doves'; *nabesáθ* 'grandchildren', where we can tell this is a later formation by the preservation of *e*.

As with the previous position, there are no clearly later transitions of a into a. Cf. the following later borrowings: *darawšák* 'hook for embroidery'; *daričá* 'frame for a smoke

vent; small door'; *barakát* 'blessing'; *bačamárd* 'fine fellow; daredevil'; *kamarbán* 'belt; girdle'; *magazín* 'store'; etc.

3. We regularly get  $\partial$  in the place of a in closed syllables second from stressed position. For instance: Yz.  $r\partial sta\partial dm$  'red-tail (name of a bird – cf. rust 'red)';  $k\partial rga\partial dm$  'henhouse beneath a plankbed' – cf. karg' 'hen';  $r\partial vnagig$  'sick; ill' – cf. ruvn 'pain'; cf. also the full and short participles of verbs: Yz.  $w\partial ftagin$  vs. waftdg 'weave';  $s\partial p\partial ftagin$  vs.  $s\partial paftdg$ 'suck';  $t\partial rdagin$  vs. tarddg 'clear out'. Modern transitions of a into  $\partial$ , as was this case in other positions, are also not seen here. Consider the following borrowings; caxmoxdk'zipper'; mardikor 'laborer, worker'; parvardigor! – interjection 'O God!'; sargardondy'vagrancy'; kalxozci 'collective farmer';  $kart\partial skd$  'potato'; margarin 'margarine'; etc.

## In word-initial and word-final position

**§119.** In word-initial position, as in the Shughni-Rushani group, stressed \**a* transitions into *a* and is accompanied by the possible development of *y*: Yz. *az*,  $\bar{a}z$  'I'; *yast* 'there is' (\**asti*). In closed syllables with two final consonants, in neutral position \**a* has as its reflex the high back vowels *u*,  $\hat{u}$  (see §113): Yz. *uvd* 'seven'; *yůrž* 'bear'. Unstressed \**a* in word-initial open syllables always transitions into *a*, and in closed word-initial unstressed syllables it predominantly becomes *a* as well, but before nasals and when followed by two syllable-final consonants it becomes *z*: Yz. *afáw* 'the day after tomorrow'; *avðén* 'bridle'; but *andáž* 'get up!'; *avdsúd* 'seven-years-(old)'. In particles, prepositions, and other function words, initial \**a* could be lost: verbal prefix *wa*- (\**awi*), *ž*- (prefix \**hača*); etc.

In word-final position a was lost when unstressed, but stressed a in particles and function words was preserved in the form of *a*: *na* 'negation particle'; *na* 'preposition indicating outlet'; *andá* 'postposition of time (*antar*); *-ja* 'enclitic coordinating conjunction' (*-*\**č*a).

**§120.** The data in the preceding paragraphs indicate that Iranian \*a in Yazghulami is reflected almost the same as it is in the Shughni-Rushani group. The exception is found with the *i*-umlaut position, where Yazghulami in the majority of cases has *a* instead of a,  $\bar{e}$ , *i*,  $\bar{i}$  of the Shughni-Rushani group.

The question remains open regarding the vocalization of some verbal stems, which in the Shughni-Rushani group have *a* instead of  $\bar{a}$  (§46), and in Yazghulami *ə* or *i* instead of *a* in unstressed syllables and sometimes also in stressed syllables: Yz. *zəbánt* 'jumps', but *zəbinin* 'I jump'; *zəbadág* 'jumping (ptpl)'; *ənjáv-* – pres. stem of the verb 'gather'; etc. There could be various reasons for this. In particular, cases of the type *paðáfst* 'sticks (intr.)' vs. *pəðəfsin* 'I stick' for Yazghulami might be explained through the position of \**a* in a closed unstressed syllable. Cases of irregularities of the type *zəbán* 'jump!' vs. *zəbinin* 'I jump' might be explained through the influence of preceding *i*; etc. But the fact that we get similar facts in Shughni indicates that we are possibly not dealing with phonetic reasons here.

We should also pay attention to verbal stems with *i*-vocalization, which correspond in some cases to Iranian \*a. For example, *tifs* 'heat/glow (intr.)'; *sin* (with different prefixes) 'rise'; etc. On these forms see §137.

## Reflex of Proto-Iranian \*ā

### In stressed position

#### In neutral position

**§121.** In neutral position, Iranian  $*\bar{a}$  has as its reflex in Yazghulami the front vowel *e*, unlike the Shughni-Rushani group, where it has as its reflex back vowels (Sh., Bt.  $\bar{o}$ , Ru.  $\bar{o}$ ,  $\hat{u}$ ; Sr. u -§53); Yz.  $\delta erk$  'tree'l *nabés* 'grandson'; *vred* 'brother'; *ded* 'father' (Sh.  $d\bar{o}d$  'uncle'); *yew* 'bull; ox'; *yec* 'fire'; *peθ* 'bullet'; *peð* 'leg'; *per* 'passage; crossing'; *p(∂)réd* '(in) front'; *biyér* 'yesterday'; *wex* 'grass'; *kadém* 'which'; *yer* 'coal' (Ru. *nižůr*); etc. Here we can also add past-tense stems of verbs with strong vocalization: Yz.  $\delta ed$  'gave'; *zənéd* 'washed'; *xaméd* 'ordered'; *bəréxt* 'drank'; *zext* 'took'; *wext* 'swan'; etc.

An exception is the position before nasals, where  $*\bar{a}$  has as its reflex  $\partial$ : Yz.  $z\partial n$  'lap';  $b\partial \dot{x}t\partial n$  'bucket' (Sh.  $bi\dot{x}tun)$ ;  $b\partial w\partial n$  'cave; hole' (Bt.  $baw\delta n$ );  $w\partial rb\partial n$  'fur coat' (Sr. warbun);  $n\partial m$  'name'. Apparently, in this position (in closed syllables), Yazghulami does not have front variants of  $*\bar{a}$  (cf. how  $*\bar{a}$  is reflected before nasals in Rushani, §54).

In the word mum, mom 'grandmother' (Sh. mummum, Bt. mommu) it is likely that we are dealing with the later rounding of  $\partial$  between two bilabials. In the word *ben* 'beard' (Sh. bummum, Ru., Bt. bommum), *e* may be the result of the contraction of *-aya-* (\**upa(h)ana-*; IIFL II: 417).

In the suffix of containment (-\* $d\bar{a}na$ ), in the place of  $\partial$  we get  $\bar{a}$ : Yz. kargaaan 'hen coop'; waxtan 'hayloft' (cf. Ru., Bt.  $-\delta\bar{o}n$ :  $ar\delta\bar{o}n$  'hearth'; Bt. waxtan 'hayloft'. Could it be that we should posit an *a*-umlaut position here, which would allow us to derive these words from the feminine forms ending in -\* $\bar{a}$ ? Nonetheless, there are not yet any other, more reliable examples of *a*-umlaut position. In Yazghulami, verbal stems with strong vocalization continuing conjugations -*a*-, as in other cases, are unstressed, and it is thus hard to judge what factors had an influence on the vowel – i.e. whether it was the *a*-umlaut position or the unstressed, open syllable position. These verbs are the following: *yazán* 'they run'; *yasán* 'they bring'; *wazán* 'they swim'; *vazanán* 'they know'. In addition to the correspondences of  $\bar{o}$  of the Shughni-Rushani group, root \* $\bar{a}$  in these stems is also recognized by the strong vocalization of past stems (*yext*, *ayéd*, *wext*). But most indicative is the vocalization of the stressed forms of these verbs – third-person singular and imperative, where we get *e*, which is the regular result of \* $\bar{a}$  in neutral position, although in the present times there is a clear tendency toward the leveling of vocalization through *a* in all persons. Cf. Yz. *yez* 'run!', *yezd* 'runs'; *yest* 'brings' (but *yas*) 'bring!'; wez 'swim!' (but wazd 'swims').<sup>170</sup> In the verb 'to know' – i.e. in a position before n – as predicted we do not get e: vazán 'know!'; vazand 'knows'; vazánt 'found out'. Here, a in the place of a might be explained through leveling by analogy with the *a*-vocalization of the other persons. We also see strong vocalization in the verb  $\check{x}^{0}an: x^{0}ant$  'read; pronounce; study' (cf. Taj. xondan), where we also do not see e before n in even a single form.

### In i-umlaut position

§122. In *i*-umlaut position Iranian  $*\bar{a}$  has as its reflex in Yazghulami, as with short \*a, the vowel ā, a (cf. Sh. ē, Ru. ē; Bt. ē, ō; Sr. o; §55). Yz.: nabās 'granddaughter'; mast 'moon'; wað 'canal';  $k\bar{a}g$  'sword';  $w\bar{a}b$  'sheaf (bundle of grain or straw)' – cf. Sh.  $w\bar{e}b$ ;  $ya\theta$  'nest' – cf. Sh.  $v\bar{e}\theta$ ;  $\dot{x}a\dot{\partial}$  'corral for livestock' – cf. Sh.  $\dot{x}\bar{e}\dot{\partial}$ . Here we can also add a number of verbal causative stems ending in -\*ava- (for the Shughni-Rushani group, see §57), which do not alter the *a*-vocalization in different preson: kar 'plow'; sar 'follow'; səpán 'fill' - cf. the intransitive form səpin 'fill'; san '(cause to) grow'; zaz 'take'; bəráz 'drink'; etc. Thus, earlier causative stems (of the type  $*k\bar{a}raya$ -) outwardly came to have the same form as the universal stems ending with -a- (of the type \*bara-) in Yazghulami: cf. Yz. kar 'plow', kart 'plows', karín 'I plow'; var 'bring!', vart 'brings'; *varín* 'I bring'. However, distinguishing them amongst each other (aside from comparing the data of other languages) can in some cases only be done indirectly. Thus, past stems of causative verbs are often secondary formations formed from their present stems on the basis of regular verbs: Yz. kar-: kart 'plow'; sar-: sart 'follow'; səpán-: səpánt 'fill (tr.)'; san-: sant '(cause to) grow'; parðar-: parðárd 'hold (a child's) head'; etc. Compare: var-: vag 'bring'; žan-: žůd 'kill'; etc, where the past stem continues the old participle. For the a of causative verbs, therefore, their characteristic greater steadfastness in unstressed closed syllables is seen even before nasals: Yz. sopantág 'filling (ptpl)'; santág 'growing (ptpl)'; cf. xondág 'laughing (ptpl)'; kəntág 'diggin (ptpl)'.

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**§123.** In particularly favorable phonetic conditions for the preservation of the high back articulation, notably under the influence of the palatal consonant  $*\dot{c}$ , Iranian  $*\bar{a}$  in Yazghulami, as with short \*a, becomes the front vowel e in *i*-umlaut position: Yz. *verj* 'horse (f.)' – comprable to Sh.  $v\bar{e}rdz$  ( $*b\bar{a}r(a)e\bar{i}$ ). Apparently, in closed syllables with two final consonants, under the influence of the palatal consonant, Yazghulami reguarly gave the high front variant for \*a and  $*\bar{a}$  (for data on \*a, see §115). Also attested is the feminine form of the participial suffix -  $\acute{e}c$ , which is preserved in the word  $\delta a \delta \acute{e}c$  'pregnant' (of a female animal). The masculine form of this suffix -ek points toward its strong vocalization (- $*\bar{a}$ ; cf. Ru.  $-\mathring{u}c$ ; Bt.  $-\bar{o}c$ ; §5, pt. 2).

### In unstressed position

<sup>&</sup>lt;sup>170</sup> In the 40- or 50-year-old materials of I. I. Zarubin we still get the form *wezd* for the third-person singular form meaning 'swims'.

**§124.** Here, Iranian  $*\bar{a}$ , as was the case in the Shughni-Rushani group, results in *a* everywhere: Yz. *vradar* 'brothers'; *vradíg* 'friend' (*vred* 'brother'); *dadáθ* 'fathers' (*ded* 'father'); *xətarág* 'star' (Bt. *xitōrj*); *ðanág* 'grain'; (Bt. *ðōn*); *yawák* 'beef (rel. adj.)' (*yew* 'bull'); *varág* 'stud; stallion' (Bt. *vōrj*). In closed syllables: Yz. *waxtán* 'hayloft' (*wex* 'hay'); *čarsůð* 'four-year(-old)' (*čer* 'four'); *səxaxláv* 'bank; edge' (*xex* 'water; river'); *varjájg* 'horsemeat'. The transition of unstressed \*ā into *ə* seems to be observed only in closed syllables before nasals and *r*, or in a syllable two away from stress, and even here this transition is irregular: cf. *kəmtág* 'agreeing' but *santág* 'raising; growing'; *vəzantagín // vəzəntagin* 'knowing'; *ðərkín* 'wooden'; *ðədagín* 'giving'. In positions before *n*, *ə* may be both the result of the early contamination of \*ā with \*a, as well as a relic of the regular transition of \*ā before nasals (see §121).

In later formations, a stem vowel which comes to be in unstressed position does not change: *wexajánj* 'man and wife; spouses'; *nabesáθ* 'grandchildren'; *peðadév* 'barefoot'; and in borrowed words: *sexák* '(small) stick; baton' (cf. *sex* 'shank; rod'); *sežambá* 'Tuesday'; a.o.

# Reflex of Proto-Iranian \*i, ī; \*u, ū

Just like the Shughni-Rushani group, Yazghulami does not show distinctions between Iranian short and long \*i,  $\bar{i}$  or \*u,  $\bar{u}$ .

## Reflex of \*i, ī

### In stressed position

**§125.** Judging by the few examples we have, Iranian \*i,  $\bar{i}$  in all phonetic positions becomes *a*: Yz. wast 'twenty' (Av.  $w\bar{i}sa'ti$ ); minba $\check{x}t$  – porridge made from dried apples' (cf. Skt. pista); zənay 'snow' (Av. snig-); tayd 'sharp' (\*tiyda); ayd 'frozen' (\* $\sqrt{aex}$ , ix; cf. Sh. iš 'cold'); səpaw 'louse' (Av. spiš-).<sup>171</sup> However, in all cases it would be possible to analyze this is as the lowering effect of the following consonants (cf. *a* in Shughni before \* $\check{s}$ : Sh.  $sip\acute{a}\check{y}$  'louse'; cf. also *a* in Sarikoli in a closed syllable with two final consonants: Sr.  $pa\check{x}t$  'flour', §64; y and w, being uvular and bilabial, respectively, can also exert lowering influence).

Nonetheless, past-tense stems from roots with the sonorant \*y give the exact same result in conditions where there is no lowering factor: Yz. paðád 'caught fire' (Ru. paðíd);  $\check{x}^{\circ}ad$  'opened' (Ru. wi $\check{x}id$ );  $\check{x}ad$  'step ladder' (the participle \*srita is from the same root \*sray); cad 'squeezed; mowed' (Ru. cid); awád 'laid; placed' (pres. stem away- $\sqrt{s}ay$ ).

<sup>&</sup>lt;sup>171</sup> The word *zin* 'winter', which doesn't have a cognate (parallel) in the Shughni-Rushani group – is an unreliable example of the reflex of Iranian \**i*. It may be the reflex not of \**i*, but rather of another (reduced) vowel. Cf. Av. nominative zya, genitive zamo; Psht. *žamai*.

**§126.** For past-tense stems ending in two consonants, we have examples of cases before the lowering consonant  $\dot{x}$  and before  $\gamma$  (<\* $k/\dot{c}$ ): *miz-: max̃t* 'urinate' (\* $\sqrt{maiz}$ ); *raxs-: rayd* 'stay' ( $\sqrt{raik}$ ); *waž-: wayd* 'fit'. Past-tense stems of causative verbs of this type are secondary and have strong vocalization: *wið-: wiðd* 'launch' ( $\sqrt{vaid}$ );  $\gamma ib-: \gamma ibt$  'spin';  $\gamma^0 ib-: \gamma^0 ibt$  'turn (tr.)' ( $\sqrt{gaib}$ ), but  $\gamma^0 afs-: \gamma^0 ovd$  'turn around; return (intr.)'; etc.

In stressed forms of present-tense verbs (imperative form, third-person singular), we also get *a*:  $\gamma^{o}afs!$ ,  $\gamma^{o}afst$  'turn around; return (intr.)' (\* $\sqrt{gaib}$ ); waž!, wažd 'fit'; vraw!, vrawd 'break (intr.)'. Here we can also include stressed forms from stems in -\**ay* if we analyze these as the result of null rather than middle vocalization: *cay!*, *cayd* 'squeeze; mow';  $\check{x}^{o}ay!$ ,  $\check{x}^{o}ayd$  'open'; *nay!*, *nayd* 'churn butter'; *away!*, *awáyd* 'put; lay'; *paðáys!*, *paðáyst* 'ignite (intr.)'.

**§127.** In some words we see *o* as the reflex of \**i*:  $y^o ovd$  rather than  $y^o avd$  'returned; turned around' (cf. Sh. *wižīvd*);  $\check{x}^o ovd$  rather than  $\check{x}^o avd$  'milk' (Av. *xšvipta*); *pərwoyd* instead of *pərwayd* 'filter' (\* $\sqrt{vaig}$ ). In all of these cases we are dealing with the influence of the preceding labial, together with the raising effect of the following \**v* and \* $\check{y}$ . As a result, \**i* in these cases became /\**u*/. In the Shughni-Rushani group we get the same result in analogous conditions (i.e. the transition of \**i* into *u*): cf. Sh., Bt.  $\check{xuvd}$ ; Ru.  $\check{xuvd}$  'milk'.<sup>172</sup>

#### In unstressed position

**§128.** Unstressed \**i* in Yazghulami resulted in *a*: Yz. *nayás: nayůd* 'grab'; *nayú-: nayóžt* 'listen' (prefix \**nī-, ni-*); *vaján-: vajád* 'overcome' (prefix *abi-*); *zavég* 'language' (Sh., Ru., Bt. ziv). In present-tense verb stems: *yafsín* 'I return'; *wažín* 'I fit'; *raxsín* 'I stay'; *cayín* 'I squeeze'; *nayín* 'I churn butter'; *ž°ayín* 'I open'. In participles: *y°avdág* 'returning'; *waydág* 'fitting'; *cadág* 'squeezing'; *ž°adág* 'open'; *paðadág* 'igniting'.<sup>173</sup> Other examples: *cadasíð* 'three-year(-old)' (*θrita-sardya*).

The verb *paðays-: paðad* 'ignite' in unstressed present-tense forms has an *i: paðisín*. The *i* here is secondary and has arisen through the contraction of *ay* before a consonant (see §135, pt. 2).

When before w (<\* $\check{s}$ ), for which there is only a single example, we get *a*: *vrawin* 'I collapse'. Irregularities in which we get an *i* (*vriwin*) have arisen via analogy with intransitive stems from roots in \*w, which have *i*-vocalization (*waziw* 'to go out (of fire)'; see § 137).

### Reflex of \*u, $\bar{u}$

#### In stressed position

<sup>&</sup>lt;sup>172</sup> In the verb *vraw-: vrožt* 'break (intr.)' (\* $\sqrt{brais}$ ), we apparently have a very early contamination of \**i* and \**u* (cf. Sh., Ru., Bt. *viružt*).

<sup>&</sup>lt;sup>173</sup> The verb *nay*- 'churn butter' has strong vocalization in its past stem and participle – *nay*-: *ned*: *nadág*, by analogy with verbs with a root-final  $\bar{a}$  (*zənay*-: *zəned*: *zənadág* 'wash',  $\sqrt{sn\bar{a}}$ -).

**§129.** In neutral position, Iranian \**u*,  $\bar{u}$  becomes the vowel *o*: Yz. *poc* 'son'; *dom* 'tail'; *dod* 'smoke';  $x^{o}asor$  'father-in-law'; *doyd* 'daughter';  $k^{o}od$  'dog'. In past-tense stems from roots with the sonorant \**w*: *šod* 'went'; *pod* 'rotted'; *žod* 'heard'; *wazod* 'died out (of fire)';  $k^{o}ožt$  'slaughtered; killed'; *waróyd*, *waróxt* 'ripped open (intr.)' ( $\sqrt{rauk}$ -); *namot* 'fall out; come out' ( $\sqrt{mauk}$ -).

In *i*-umlaut position, Iranian \**u*,  $\bar{u}$  apparently regularly becomes *a*, although reliable examples are quite few: Yz.  $\check{x}^{o}an$  'blood' (Sh. *wixín*, Av. *vohūni*);  $y^{o}a\check{x}t$  'finger' (\**angušti*-; cf. Sh. *angišti*; NTS I: 46). The past-tense verb stem of the verb 'to be' – *vad* – apparently continues the formation in \*-*ti* rather than the formation in \*-*ta* (cf. Ru. *vid*, Sh., Bt. *vud*). In fact, in these cases Yazghulami *a* continues the old Yazghulami /*i*/, to which only very rarely can we trace *i*umlaut variants of Iranian \**u* (see § 97). For this reason it is impossible to determine the original vowel in words with unclear etymology, such as Yz. *safč*, Sh., Ru., Bt. *sifc*, Sr. *safc* 'beads', where we can tell the *i*-umlaut position by the suffix \*-*či*.

In *a*-umlaut position, as in the Shughni-Rushani group, \**u*,  $\bar{u}$  results in *a*: Yz. *vaz* 'goat'; *zənáw* 'daughter-in-law';  $s(\partial)t\dot{a}w$  'column'; *canák* 'instrument for beating wool' (with the later addition of the suffix; cf. Sh., Ru., Bt. *can* 'bow; gun';  $\partial ar$  'far' (\* $d\bar{u}r\bar{a}t$ ); *vražt* 'flour' (where the feminine form of the participle is preserved – cf. the past-tense stem *vrožt* 'break (intr.)'; *at* – conjunction 'and' (\* $ut\bar{a}$ ); *pap* 'ball'; *pāb* 'dandelion' (cf. Sh. *pup*; fem. *pap* 'spherical').

**§130.** In some cases we get the shift of \*u to  $\vartheta$ : Yz.  $n\vartheta r$  'today' (Av.  $n\bar{u}r\vartheta m$ );  $p\vartheta tk$  'rotten wood?';  $k\vartheta \check{c}$  'female dog' ( $*kut-\check{c}i$ ). The phonetic conditions here are not fully clear, but in all three cases we have the position of the vowel in a closed syllable with two final consonants and not before a fricative. The etymology of the word  $\check{c}\vartheta\check{x}$  'rooster' is not clear (cf. Sh  $\check{c}u\check{x}$  'rooster';  $\check{c}a\check{x}$  ''hen').

Word-initially, \**u* apparently in all cases became *a*, with the development of an initial *w*, including neutral position. If we can assume an original *a*-umlaut form for the word *wask* 'high (up)' (cf. Av. *uskāt*), then there is no basis for reconstructing an *a*- or *i*-umlaut position for the word *waxk* 'dry' (Av. *huška*-).

### In unstressed position

**§131.** Here, \**u*, like \**i*, has as its reflex everywhere  $\partial$ : Yz.  $k\partial da\partial$  'dogs';  $v\partial znakin$  'goat's (rel. adj.)';  $\gamma \partial g \dot{u} d$  'stable';  $w\partial \dot{x}kav\dot{u}r$  'cracked old vessel, suitable only for carrying dry objects';  $\partial \partial y dar$  'daughters' (pl. form of  $\partial oyd$ );  $\partial \partial dig$  'trash burnt for smoke';  $r\partial xnij$  'whiteness';  $\gamma \partial r\partial mb\dot{a}$  'mulberry porridge' (cf. Sh.  $\gamma iramb\dot{a}$ ; PIE  $\sqrt{ghreu-bh}$ ). In participles:  $\dot{s}\partial d\dot{a}g$  'gone';  $w\partial z\partial d\dot{a}g$  'sucking';  $\dot{x}\partial d\dot{a}g$  'hearing';  $w\partial r\partial yd\dot{a}g$  'unstitching (intr.)';  $p\partial d\dot{a}g$  'rotting';  $k^{\partial}\partial \dot{x}t\dot{a}g$  'killing;

slaughtering'; *nəməxtág* 'leaving; exiting'. In unstressed present-tense forms: *nəməxsín* 'I go'; *wərəxsán* 'they tear (intr.)';<sup>174</sup> *kəwín* 'I kill, slaughter'.

# Reflex of Proto-Iranian \*i, ī; \*u, ū

### Diphthong \*ai

**§132.** Generally, the diphthong \**ai* became *i*: Yz səpid 'white';  $\check{x}^{0}i\check{\partial}$  'sweat'; *wiðg* 'grapevine' (Av. *vae<sup>i</sup>ti*); *mið* 'day';  $\check{y}iw$  'hunt' (Sh.  $\check{y}\bar{e}w$ , Sr.  $\check{y}eyw$ ). In verbs (the past stem of causatives is usually secondary and has the vowel pattern of present stems): *miz-:maxt* 'urinate'; *yib-: yibt* 'spin';  $y^{0}ib-: y^{0}ibt$  'return (tr.)'; *win-: wint* 'see'; *wið-: wiðd* 'launch'.

In some cases we observe deviations from this, but since these examples are sporadic, it is difficult to judge whether there is a pattern to them or not.

Before the uvular y we get e instead of i:  $\dot{k}awm \dot{e}y$  'cloud' (Av.  $ma\bar{e}ya$ -), which is completely natural given the widening (lowering) effect of y.

When before \**š* we get *a*: *maw* 'sheep' (cf. similar results in Shughni and Bartangi; §73). The distinction in modern Yazghulami between *maw* 'sheep' and  $m\hat{u}(w)$  'ram' could be the result of the relatively late forms *maw* < \**mawā* and  $m\hat{u} < maw$ .

In the verb *parwáj: parwóyd* 'sift' in the past-tense stem instead of *i* we get *a*. Here we can see the later analogy with verbs from roots with the diphthong \**au* (cf. *waráj: waróyd* 'unstitch (tr.), especially since the vocalization of the past-tense stems of these verbs also coincided (see §127). The later development of *a* is also supported by the fact that we get the optional preservation of *i*: *parwajín* // *parwijín* 'I unstitch'.

**§133.** There are no reliable examples for the reflex of unstressed \**ai*. If we consider the word *maydób* 'haze' to be an old formation, although its second part is not clear,<sup>175</sup> then it is possible to say that unstressed \**ai* transitioned into reduced *a* (cf. the preservation of modern *e* in analogous phonetic positions: *dexčá* 'kettle; pot'; *deqqát* 'attention'; etc.). In syllables which became unstressed later *i* from \**ai* is preserved: *yibín* 'I spin'; *yibék* – a device in spinning; *yiptág* 'spinning'; etc.

<sup>&</sup>lt;sup>174</sup> The stressed forms of these two verbs of the same type are different: *wəraxst* (third-person present) and *wəraxs* (imperative), but *nəmoxst* and *nəmoxs*. This can hardly be treated as the result of neutral position. Rather, we are dealing here with leveling by analogy with the past-tense stem – *nəmóxs-: nəmóxt*, but *wəráxs-: wəróyd*. But cf. the vocalization of the verb *šoxs-; šoxt* 'to get used to' ( $\sqrt{uk}$ ).

<sup>&</sup>lt;sup>175</sup> Could it be *maydub*? Then we could certainly derive it from \**maiya-tapa*.

#### Diphthong \*au

**§134.** The diphthong \**au* regularly became contracted into  $\vartheta$ : Yz.  $s(\vartheta)t\vartheta r$  'small cattle and goats'; *kab\u00e9d* 'dove'; *r\u00e9pc* 'fox'; *k\u00e9p* 'stone' (cf. Av. *kaofa-*); *r\u00e9j\u00f6* 'window in the roof'; *y\u00e9v\u00f6n*' 'ear' (with the later shift of stress – cf. Bt. *r\u00fczm*, *y\u00fc*(*w*); *nimr\u00e9v* – whisk broom for the hearth (cf. Sh. *r\u00fcb-: r\u00fcvd* 'clear snow'); *w\u00e9r\u00e9j-* – pres. stem of the verb 'unstitch; tear at the seams' (cf. Sh. *wir\u00ecdz-*).

When before w (<\* $\check{s}$ ) the diphthong \*au has as its reflex  $u: n \partial y u(w)$ - pres. stem of the verb 'listen'. However, this is the result of the later rounding of  $\partial$  before w in a closed syllable, which we can tell through comparison with  $\partial$  in other forms:  $n \partial y \dot{u} w$  'listen!', but  $n \partial y \partial w in$  'I listen'.

We may also propose  $\partial$  as a result of old unstressed \**au*. However, examples of a clearly old formation are sparse:  $\gamma \partial g \dot{u} \dot{d}$  'stable' (cf. Sh.  $\gamma i j \dot{i} d$ ; §74).

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# Reflex of Proto-Iranian clusters \*ay, āy; \*aw, āw

Reflex of \*ay, \*āy

**§135.** 1. When between vowels we find the same case of the reflex of \**ay* as in Shughni – in present-tense stems in -\**ya* from a root with an ending in \* $\bar{a}$ :  $\delta ay$ - 'fall; drop' (§75).<sup>177</sup> The same result is given in a corresponding way by stems from roots ending in the consonant *y*:  $\check{x}^{o}ay$  'open'; *cay*- 'squeeze; etc. The vocalization *ay* is thus observed only in stressed forms, and in unstressed positions we get *ay*:  $\delta ayin$ ;  $\check{x}^{o}ayin$ ; *cayin*; etc.<sup>178</sup>

2. When before consonants the cluster \**ay* is observed only in the same cases where we see it in the Shughni-Rushani group: in the third-person singular and in the addition of the intransitive suffix -*s* to a stem. Here, the cluster \**ay* is preserved as it is in Rushani:  $\partial ayd$  'falls; drops';  $\check{x}^{o}ayd$  'opens';  $pa\partial \check{a}yst$  'ignites'. However, in the latter case – i.e. when before a consonant – in unstressed forms –  $\partial y$  becomes *i*:  $\partial \partial y \acute{a}n$  'they fall, drop' but  $pa\partial is\acute{a}n$  'they ignite'.

<sup>&</sup>lt;sup>176</sup> This seems to be the only irregularity where we get v from \* $\check{s}$  instead of w, likely still during the stage in which it was \* $\check{y}$ .

<sup>&</sup>lt;sup>177</sup> Transitive verbs  $\dot{x}am\dot{a}y$  'command';  $z\partial n\dot{a}y$  'wash' developed the lengthening of the vowel of the same type as in causatives (cf. §136).

<sup>&</sup>lt;sup>178</sup> An example for a stem from a root ending in the sonorant w is given only by the functional verb 'be', in which, as a result of its frequency of usage, its conjugated forms have undergone contraction: vin < vayin - 1sg; vit < vayit - 2sg; van < vayán - 3pl; vam < vayám - 1pl; vay < vayay - 2sg. This verb does not have a form for the third-person singular and replaces it instead with another defective verb *mit* 'become', which is also a contracted form from \**mayt* (past stem *mad*). For the imperative mood we get *vaxs*, which is apparently a case of the devoicing of y (vaxs) with its later transition into x (cf. the same kind of step for *raxs* <\**raks* 'stay'). The devoicing of y in the word *vaxs* 'be!' is explained by the loss of this form from the paradigm of conjugation (the suffix -s from other person-number forms is absent) and by the analogy with imperative forms of the type *raxs* 'stay!', *waraxs* 'pass!; go!'.

Clusters *ay* of secondary formation – where *y* arose from palatalized consonants – result in *i* in all cases: *ambist* 'falls in, collapses'; *ambisán* 'fall in, collapse (3pl)' (\**hampad'-s-ya*), or *pist* 'asks', *pisín* 'I ask' (\**paŕs-ya* or \**pəŕs-ya*). Here we should reconstruct a sound of the type *ey* or *ey*, as \**a* in *i*-umlaut conditions before paltalizeable consonants became a narrow (high) front vowel. An analogous process is onserved also in the Shughni-Rushani group, in which *y* arose from  $k/\check{c}$  and from *r* before *t*: Sh. *rist*, Ru. *rayst*, Bt. *rayst*, *rast* 'stays' < *rik*-*s-ya* \*Yz. *raxs* with the early solidification of  $k/\check{y}$ ); Sh.  $v\bar{i}d$ ; Ru.  $v\bar{i}g$ ; Bt.  $v\bar{e}g$ ; Sr. veyg 'to bring'; Yz. *vigá*. Stems in *-ds* (*-ts*) in Yazghulami do not always result in the spirantization of \**d*' to *y*, which likely depended on the time in which the suffix *-s* was added. In earlier cases the clusters \**ds*, *ts* resulted in  $\theta$ , as in the Shughni-Rushani group: Yz. *səriθ*; Sh. *parī* $\theta$ ; Ru., Bt. *parē* $\theta$  (\**rads-ya*) 'break; burst'/ Here, Yz. *i* is the result of \**a* in *i*-umlaut position before a palatalizeable consonant.

3. In word-final position, the cluster \**ay* became uy, *uy*: Yz. cuy 'three'; *yəruy* 'clay'; *xuy* 'head of the house; oldest'; (\* $x^{0}ay$ , cf. Ru. *xaydi* 'oldest'); xuy 'best' (cf. Ac. *srayah*-). Cf. the differing development of \**ay* in the Shughni-Rushani group: Ru. *aráy* 'three'; *žiráy* 'clay' (§75).

When final \**ay* ended up in unstressed position before a consonant in Yazghulami, it also became \**ay*, as with the \**ay* ( $\partial y$ ) of verbal stems:  $\dot{x}idard\dot{u}r$  'the best' but  $\dot{x}\dot{u}y$  'better' (cf. *piðisán* 'they ignite'). Cf. the differing results in the languages of the Shughni-Rushani group: Sh. *xidír*, Ru. *xaydí* 'older'.

**§136.** The cluster  $*\bar{a}y$  is preserved in all phonetic positions as ay, which, when stressed, may also be pronounced  $\bar{a}y$ .

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Between vowels we find the reflex of  $*\bar{a}y$  in verbal stems with strong vocalization: Yz. pay-: payd; Sh.  $p\bar{o}y$ -:  $p\bar{e}yd$  'tend livestock'; Yz. namay-: namayd 'measure / appear'; Sh.  $nim\bar{o}y$ -:  $nim\bar{e}d$ 'to appear'. In unstressed forms ay is preserved, which also distinguishes these verbs from verbs with short vocalization (\*ay, \*ay): Yz. payin – 1sg; paydj – inf.; payan 'secondary causative of 'to graze / tend livestock'; namayin 'I measure'; namaydj 'to measure'. This strong vocalization developed further in Yazghulami, as a marker of transitive verbs, spreading onto many verbs with stems in -\*ay. This latter feature is not characteristic of the Shughni-Rushani group, where the formal distinction between transitivity and intransitivity with stems in -\*ay is achieved primarily through suffixal means. The spreading of strong vocalization onto the present stem in Yazghulami is particularly characteristic with the strong vocalization of a past stem or with a secondary past stem. Cf. verbs of a similar type in both stems and first-person singular: Yz. xamdy-: xaméd: xamedi: xamedi, zandy-: zanéd: zanayin 'wash' (Ru. rimdy-: rimdd; zindy-: zindd and not rimdy-, zindy-, which should have been the case with strong vocalization); paday: padayi: padayin 'to ignite (tr.)' – cf. the intransitive forms padays-: padad: padayis; Sh. intr. pidis-: pidid, tr. pidin-: pidid); pajáy-: pajáyd: pajayin 'to gather' (Sh. widzin-: widzid 'choose'); *bay-: bayd: bayín* 'lose' – cf. intr. *bay-: bid: biyín*, where *ay* and *i* are from -\*i(y)ay-(\*api-(y)ay-a); Sh. intr. *bēs-: bēd* with the causative from another root ( $\sqrt{nas}$ ): *binēs-: binēst*. Transitive verbs which preserve the old short vocalization in past stems also preserve it in the present stem: Yz.  $\check{x}^{o}ay$ -:  $\check{x}^{o}ad$ :  $\check{x}^{o}ay$ in 'open'; *awáy-: awád: wəyin* 'put; lay'.

We can see the reflex of  $*\bar{a}y$  in word-final position from the example  $p\bar{a}y$ , pay 'sour milk' (cf. the long vocalization in all languages of the Shughni-Rushani group: Sh., Ru., Bt.  $p\bar{a}y$ , Sr.  $p\bar{o}y$ ). There are no other reliable examples for word-final  $*\bar{a}y$ .

When before a consonant, the cluster  $\bar{a}y$  does not change at all, and is found, besides in past stems, which have already been discussed, also in third-person singular forms: *payd* 'grazes (tr.)'; *nəmayd* 'measures'; *paðayd* 'ignites (tr.)'; etc. There are no reliable examples for  $*\bar{a}y$  before (two?) consonants.

### Reflex of \*aw, \*āw

**§137.** Verb stems which end in the sonorant *w* are divided into two groups based on their vocalization: vocalization in *-aw* for transitive verbs and vocalization in *-iw* for intransitive verbs (cf. similar results in Bartangi, §79). The first type is the continuation of causative stems with strong vocalization (-\**aw*(*a*)*ya*-); the second type continues stems in -\*(*a*)*ya* with \**aw*-vocalization (-\**aw*(*a*)*ya*).

Causative stems (as in other cases, their past stems are secondary formations): Yz. fəráw-: fəráwd 'rinse'; Sh. (with the reflex of causative vocalization): firéw-: firúd; Yz. wəzáw-: wəzáwd; Sh. wizɛ́w-: wizúd 'to put out; extinguish (fire)'; Yz. nəmáw-: nəmáwd; Ru. nimḗw-: nimḗwd 'to wave; show with signs' (\* $\sqrt{m\bar{a}}$  with the spread of -w); Yz. pəšáw-: pəšéd; Sh. pixɛ̃w-: pixúd 'to shear sheep'; Yz. saw-: sed, Sh. sɛ̃w-: sɛ̃wd 'grind grains with stone'.

In Bartangi, causative verbs coincided with verbs with \**aw*-vocalization, which continued the conjugation in -*a*- -\**awa*-. They can be only be identified through an intransitive meaning: Yz. *yəráw-: yəráwd* 'cry'.<sup>179</sup> However, for intransitive verbs *aw*-vocalization is not typical, and similar examples are few.

In the unstressed forms of verbs of this type, the vocalization – as with strong vocalization – naturally does not change: *fərawin* 'I rinse'; *wəzawin* 'I put out, extinguish'; *yərawin* 'I cry'; etc.

The (formal) syncretism of the vocalization in these types of verbs in stressed forms is seen in the verb  $\underline{z}aw$ -:  $\underline{z}od$  'survive (an illness)', which likely continues the stem \* $\underline{j}iva$ - (cf. Skt.  $\underline{j}vati$ ). But it is starkly different in unstressed forms, where its weak vocalization appears:  $\underline{z}awin$  'I survive'; etc. To this group we can also add verbs with a root ending in \* $\underline{s}$  (> w), which continue short vocalization (\*u, \*i) – kaw-:  $k^0oxt$  'slaughter'; varaw: varoxt 'break; shatter'. The first verb

<sup>&</sup>lt;sup>179</sup> The reduction to a single root for the verbs  $\gamma \partial r \dot{a} w$ -:  $\gamma \partial r \dot{a} w d$  'cry' and  $\gamma \partial r \partial x d$  'bite; sting' is hardly possible. The palatalization of \*g in the verb  $\dot{z} ira\dot{y}$ - ( $\dot{z} irand$ -):  $\dot{z} iru\dot{x}t$  'bite; sting' in the Shughni-Rushani group indicates a root ending with the sonorant y and not w, while Ru.  $ti\gamma r\bar{e}w$  'weeping (n.)' indicates a root ending with the sonorant \* w.

has the regular reduction of  $\partial$  in unstressed forms:  $k\partial w in$ ,  $k\partial w ay$ ; etc. The second verb for unclear reasons has *a* in unstressed forms:  $v\partial raw in$ ,  $v\partial raw ay$ ; etc. (cf. also the unclear full vocalization of this verb in Sarikoli:  $v\partial rey \check{y}$  'break; shatter').

Intransitive stems: Yz. *wəziw-: wəzód*; Bt. *wiziw-: wizúd* 'to go out (of fire)'; *piw-: pod* 'to rot'; *pərθúd* (*pərθód*?) 'to curl (of milk)' (possibly of the same root as Bt.  $\theta \bar{i}w$ :  $\theta ud$  'burn'). Here there are also verbs with \**aw* (> *iw*) vocalization of secondary origin – *riwz-: rawzd* 'shiver; tremble' (\**rarz*; cf. Sh. *rāğz-: rīğzd*). In unstressed forms *i*-vocalization is preserved everywhere: *wəziwán* 'they go out (of fire)'; *piwán* 'they rot'.

The appearance of *i*-vocalization in this type of verb should be analyzed, apparently, as the result of *i*-umlaut. The preservation of the high *i*-umlaut variant of \**a* here was facilitated by the grammatical significance it acquired as a marker of intransitivity. This meaning became strenghtened for *i*-vocalization in Yazghulami not only for stems in the sonorant *w*, but also for stems with any ending (including those ending in *y*). Cf. Yz.  $pa\delta ir$ -:  $pa\delta u g$  'to be held' and causative  $par\delta ar$ -:  $par\delta ard$  'hold the head (of a child)'; nasin-: nasu d 'rise' with the causative nasandán-; faríp: farápt 'reach' with the causative farapán-; tifs-: tůvd 'to become hot' with the causative tafs-: tafst; etc.

As can already be seen, the clusters *aw* and *iw*, when ending up in a position before a consonant at a relatively late time period (as occurred in the third person singular and in secondarily formed past stems), do not change at all: *wəzawd* 'puts out (a fire)'; *wəziwd* 'goes out (of fire)'.

**§138.** The cluster \**aw* when in word-final position has as its reflex u(w) or u(w), normally with the loss of *w*. Of course, u in absolute word-final position tends to raise to *u*. Yz. pu 'rotten core of a tree'; cu, cu 'hair'; nu(w) 'nine'; badu 'gun' – pl.  $badawa\theta$ ; yu – a fixed word with the verbal meaning 'want; desire' (Sh.  $z\bar{z}w\bar{j}$ , Bt.  $z\bar{o}w\bar{j}$ ; zu(w) 'wheat' (Sr.  $z\varepsilon w$  'cereal';  $*yawa-(?)^{180}$ ).

The cluster  $*\bar{a}w$  has as its reflex *ew*: Yz. *yew* 'bull; ox'; *new* 'trough; trench'; *xew* 'parting (of hair)'.

As can be seen, here a and  $\bar{a}$  have reflexes like any a and  $\bar{a}$  in neutral position.

**§139.** There is also a third type of reflex for the sonorant \**w* in word-final position in Yazghulami: Yz.  $\dot{x}ow$  'horn';  $\partial ow$  'two'. Here we apparently have the continuation of weak (null) grade \**w* before a vowel: \**srəwa*-, \**dəwa* (cf. Av. *srū*-, *srvā*-, *dva*-).

<sup>&</sup>lt;sup>180</sup> In both Yazghulami and in the Shughni-Rushani group, there are no facts observed which point to the transition of Iranian initial \*y to the consonant y. Besides the word in question, we should possibly also consider the word for 'place' (Yz. -*je*, Ru. -*ji*; Bt. -*jō* in its postposition role, which speaks to its very old usage. In old compounds such as Ru. *waxjēc*l; Sh. *woxjīc* 'hayloft', this word is seemingly the source of the second component (*wax-já-či*). And so this word may not be borrowed, but rather merely contaminated with the Tajiki *jō(y)*. Initial y in the verbs (*yōs-*, *yad-*) may have had a different fate.

In connection to this, we should also consider the fact that word-final stressed  $\bar{u}$  of borrowed words became in Yazghulami the same clusters *ow*: *galów* 'throat'; *bazów* 'shouler'; *darów* 'medicine' (in later borrowings we get *u*: *čorzonú* 'a way of sitting on one's feet'). Thus, Yazghulami confirms the notion that the sounds  $\partial w$ -*u* in certain conditions could be phonologically neutral/indifferent, as they were historically different ways of realizing weak (null) vocalization depending on the phonetic position in question (see § 105). Word-final position is precisely that ambivalent phonetic position in which the sound  $\partial w$ , as well as the sound  $\partial y$ , could function both as a sequence of sounds (in a position not before a consonant), as well as a diphthong, having as a result either *ow*,  $aw^{181}$  and *ay*, or *u*, *i* with the possible lengthening to  $\bar{u}$ ,  $\bar{i}$  and association with Tajik word-final  $\bar{u}$ ,  $\bar{i}$ .

A similar transition of weak vocalization of the sonorant y in word-final position can also be seen with word-final ay, which alternates in the Shughni-Rushani group with *i*,  $\bar{i}$  and which transitions to unstressed *i* in instressed words. Cf., e.g., the abstract suffix: Yz. - $\dot{a}y$ , Ru. - $\bar{a}y$ , Sh. -i, Bt. - $\bar{i}$ , Sr. -i.

**§140.** When ending up in a position before a consonant, the cluster ow(\*uw, \*ow) became contracted in Yazghulami to *u*: nug' 'new' 'new' (< \*now-ka); xuros 'sled with runners made from horns' (< xow-ros, where the second portion is unclear). There are no reliable examples for the combinations aw, ow before consonants. The preservation of the cluster aw in verb forms (in third-singular forms and in past stems) is not very indicative, as aw here can be maintained as a result of analogy with the other forms.

### Reflex of Proto-Iranian clusters \*r, \*ar

When stressed

With the preservation of r

**§141.** In Yazghulami the loss or various other kinds of transformations of *r* before a consonant developed to an even greater extent than in the Shughni-Rushani group. For this reason there are only ver few examples of the reflex of \**r* (or *ar*) where we get the preservation of *r*. Nonetheless, we can use what little we have to paint a picture which is analogous to that of the Shughni-Rushani group: in a position where \* $\partial$  (<*r*) matches \**a*, \**i*, \**u*, it appears as a former non-front vowel.

For neutral position we have three examples in which it is possible to posit the continuation of r: warg' 'wolf'; yůrž' 'bear'; and ðury 'late' (Av. darəya). In the first case the result is analogous to the reflex of \*u in word-initial position (with the development of w: cf. wažk 'dry'; wask 'tall'). In the second case the development of y instead of w indicates that the initial vowel was a front

<sup>&</sup>lt;sup>181</sup> In all likelihood, consistently short word-final *aw* in the Shughni-Rushani group (*naw* 'new';  $\check{x}aw$  'horn';  $\check{\partial}aw$  'two) should be analyzed precisely as the continuation of weak vocalization (cf. §80).

vowel – i.e. that here there was not \*r, but rather \*ar-vocalization. In the third word the original vocalization (r, ar) cannot be determined using its reflex in Yazghulami.

In *i*-umlaut position, the vowel which resulted from  $*_r$ ,  $*_ar$  regularly develops into *a* (through a stage of  $*_i$ :  $*_{\partial r} > *_{ir} > ar$ ): Yz. *parx* 'frost' (Sh. *pirx*); Yz. *karm* (Sh. *cīrm*) 'worm'. As with any  $*_i$  before a narrowing (raising) consonant and after v (§ 127),  $*_i$  ( $<*_{\partial r}$ ) results in *o*: *vorx* 'horsehair' (Sh. *virx*). The *i*-umlaut position can be identified for Yazghulami *vorx* only through comparison with data from the Shughni-Rushani group. However, the transition of the vowel in this position to *o* points precisely to the original *r*-, rather than *ar*-vocalization, as  $*_a$  in *i*-umlaut position, it seems, never has as its reflex *o*.

There are no reliable examples for  $*_r$ , \*ar in *a*-umlaut position.

# With the various transformations of r

**§142.** Before \**t* which ends a syllable we get results which are analogous to the Shughni-Rushani group (§85). When a diphthong arose, it resulted in contraction: in the first case to  $\partial$ ; in the second to *i*. Yz. past stems:  $v\partial g$  'brought';  $m\partial g$  'died';  $p\partial m\partial g$  'expected' (from \*bra or \*barta); participles:  $vig\dot{a}g$ ,  $mig\dot{a}g$ ,  $p\partial mig\dot{a}g$  (from brti or barti with the later addition of the suffix). When after *w* or other rounded consonants in past stems instead of  $\partial$  we get  $\dot{u}$ :  $x\dot{u}g$  'ate' (\* $x^{0}arta$ );  $n\partial w\dot{u}g$  'rose (of the sun)'. The same applies to roots which developed a *y* before initial \*ar:  $y\dot{u}d$  'milled; ground';  $v\partial y\dot{u}g$  'found'. If the verbs  $n\partial wir$ -:  $n\partial w\dot{u}g$  'set (of a heavenly body)' and vir-:  $v\partial y\dot{u}g$  'find', which are from the same root (Av.  $\sqrt{ar}$  'move (intr.)', stem ar-,  $\partial r\partial$ -), then the appearance of *w* in the first of these verbs points toward weak vocalization (\* $\partial r$ ), and the development of *y* in the second points toward full vocalization (\*ar).

In one case we find u instead of  $\partial$  in a place where it is not explained by its phonetic position:  $pa\delta ir$ -:  $pa\delta ug$  'keep; remain (intr.)'. Here, it is likely that what took place was leveling via analogy with the general type of past stem for intransitive verbs with *i*-vocalization (cf. *sin*-: *sud* 'ascend; rise'; *fin-: fud* 'descend'; etc.; §137). In participles (i.e. in *i*-umlaut position, we always get only *i*:  $pa\delta ig dg$  'keeping; maintaining (intr.)'; vig dg 'finding'.

With strong vocalization  $(*\bar{a}r) *\bar{a}$ , as in other cases, has the same reflex as the typical  $*\bar{a}$  with the loss of the *y*-element: Yz.  $k\bar{a}g$  'sword' ( $*k\bar{a}rti$ ).

**§143.** Another earlier development shared with the Shughni-Rushani group is the sonorantization of *r* before *n* and *w* in neutral position and in *a*-umlaut position. In the first case, when a diphthong arose, it became contracted into u, u (?); in the second case it was preserved in the form of *aw*, as in Rushani (§87).

In neutral position: Yz. *pun*, *pun* (?) 'feather; blade' (Av. *pərəna-*); *punowa* 'abundance of water in irrigation' (Av. *pərəna-* 'full').<sup>182</sup> In *a*-umlaut position: Yz. *wawn* 'wool'; *mawn* 'apple';

<sup>&</sup>lt;sup>182</sup> The second part of the compound *punowa* is clearly Tajik.

*yawn*- pres. stem of 'mill; grind'. For the words *wawn* and *mawn a*-umlaut position is reconstructed due to the fact that they belong to the feminine gender in the Shughni-Rushani group.

Worthy of note is the fact that we get the same results for neutral position and the contraction of the weak diphthong \* $\partial w$  (Yz.  $\partial w$ ; §140). Consequently, it would be possible to posit that  $\partial w$  in mawn and elsewhere is the result of full vocalization and that \* $\partial rn$  and \* $\partial rn$  have, therefore, differing continuations. However, there are practically no corresponding examples with which we could compare the full and weak vocalization of r in equal phonetic positions. Indirect evidence allows us to propose that the reason for differing results was the difference in phonetic positions and not in the original vocalization. Cf. data from the Shughni-Rushani group, where in neutral position we get contraction with what is undoubtedly full original vocalization (Ru.  $\ddot{cun}$  'deaf' but  $m\bar{a}wn$  'apple'; §87).

For Yazghulami we also get an example with  $*_r$ ,  $*_{ar}$  before *n* in *i*-umlaut position, where the result is the usual contraction of  $\partial y$ , ay into *i*: Yz. *minbaxt* 'porridge from apples' (\**maŕnya-pixta*).

**§144.** As in the Shughni-Rushani group, the cluster \*rt, \*rd before \*t results in  $\check{x}$  (§88). However, the fate of the preceding vowel is different: it has a reflex which differs from \*u, as it becomes  $a: xa\check{x}t$  'defecate' (Sh.  $\check{s}u\check{x}t$ ). Here it is possible to see some analogy with data from the Sarikoli language: Sr.  $z \omega da\check{x}t$  'burst (intr.)'. Nonetheless, in Sarikoli the vowels \*u and \*i have the same reflex before  $\check{x}$ , but their merger with one another suggests a stage of  $*\partial$  (§101). In verbs in \*rt, \*rd this  $*\partial$  could be the original vocalization. In any case, the fact that we get a special transition of \*r, \*ar in these verbs in Yazghulami, as long as it is not satisfactorily explained, does not allow us to derive  $*\partial$  from r with \*u.

**§145.** The transformation of *r* before *z*, *s* is a later development and is attributed to the Yazghulami proper period (cf. the differing results in the Shughni-Rushani group: the preservation of *r* in Sarikoli, its spirantization into the fricatives  $\check{y}$  or  $\check{x}$  in Shughni; its sonorantization into *w* in Rushani and Bartangi; §86). Yazghulami *r* here resulted in *w*, as in Rushani and Bartangi. For the later period it is difficult to say anything about the difference between neutral and umlaut position: the transformation of *r* took place in syllables already reconstructed in the Yazghulami way. Thus, for instance, in the case of *vawz* 'pillow', the original sound of the syllable with the transformation of *r* was already not old /*vörz(i)*/ (cf. Av. *barəzi*-), but Yazghulami /varz/. The word *vawz* 'birch' is a homonym of this word and likely has strong vocalization /vārz/ (cf. Sh.  $v\bar{s}\check{y}zn$ ). For the word *vəz* 'long' (Av. *bərəza*-), we can reconstruct an older Yazghulami form *vůrz* (cf. *yůrx* < \**arša*; *ðury* < \**darga*; etc.), which gave *vůwz* ('*vouz*'), which was contaminated with the diphthong /ou/ with its later contraction to *ə*.

But in one case we can tell that there was the presence of an *i*-umlaut position even for a later period. Here, *r* became sonorantized not to *w*, but to *y*, and with the contraction of the diphthong which arose into *i*. This result is seen for present-tense verb stems which continue the conjugation in -(a)ya: Yz. *pis*- 'ask' (< *paŕs(∂)ya*-); *səxis*- 'slip and fall' (< *s∂-xaŕd*'s(∂)ya-). In

the latter example, both palatalized consonants spirantized to y. It is possible that the later sonorantization of r into y in the causative conjugation took place not only before -s, but also before other consonants: Yz. səkix 'to draw; scratch (writing)' (Av.  $\sqrt{kars}$ ), when r is before x in nouns and adjectives (vorx 'horse hair'; etc.).<sup>183</sup> In the Shughni-Rushani group the later vocalization of r into y is not observed; cf. Sh. pres. stem  $p\bar{e}xc$  'ask', which also continues the causative conjugation.

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**§146.** The latest sonorantization of *r* is that which occurred before the consonants  $\delta$ ,  $\check{y}$ ,  $\acute{k}$ . Here, with the transition of *r* into *w*, the *aw* which arose contracted into  $\mathring{u}$ , but in the speech of the older generation it is still sometimes pronounced as *aw*. Yz. *wuỹ* 'threads' (Sh. *wūrỹ*); the verb stem  $x\mathring{u}\delta$ : *xawð* 'defecate' (Sh. *šarð*). The cluster *aw* ( $\bar{a}w$ ) which arose through from strong vocalization is always preserved: Yz. *zawð*, *zāwð* 'heart' (Sh. *zōrð*). It is possible that the word *sawð*, *sāwð* 'year' had strong vocalization (cf. *asuð* 'this year').<sup>184</sup>

The vocalization of *r* before *y* in its later changes is observed when it is adjacent to palatal  $\dot{k}$ : Yz  $\dot{k}i\partial$  'bent; curved' (Sh.  $\check{cur}\partial$ );  $\check{x}^{0}i\dot{k}$ ,  $\check{x}^{0}i\dot{g}$  'comb' (Sh.  $wi\check{x}\check{u}\check{x}\check{j}$ ), from \**ur*-vocalization; Skt. *kṣura*-).

\* \* \*

An examination of the facts allows us to identify the following general characteristic with respect to the changes of r. While the sonorantization of r to y always results in the same outcome (the vowel i), its sonorantization into w has four different outcomes: i) contraction to u; ii) contraction to  $\dot{u}$ ; iv) preservation of the cluster in the form of aw. These different results can be explained in part by the differences in phonetic position (for the earlier changes of r we commonly find the contraction of the resulting diphthong and its preservation in umlaut positions), and in part by the time at which the changes of r took place (its contaction to  $\dot{u}$  is the result of later changes of r). We must assume that its contraction to u or  $\partial (pun 'feather', v\partial g 'brought')$  also depended on when r spirantized. (In particular, a resulting  $\partial$  suggests that it already shared the same sound as the diphthong \*au).

With regard to the uniformity of the transition of *i*-umlaut variants of the changes of *r* into *i*, this is explained, on the one hand, by the constancy of the phonetic position (only *i*-umlaut position in conditions which lead to the raising of the vowel – for instance vert'*i* – with a dipthong-like

<sup>&</sup>lt;sup>183</sup> However, cf. Sh.  $k\bar{t}x$  'furrow; trench' from the same root with the unclear loss of r (§89). Cf. also Yz *stəx* 'thirsty' (Ac. *taršna*-), but Sarikoli *tыr* (cf. Sh. *pērnak* from \**pāršni*).

<sup>&</sup>lt;sup>184</sup> It is unclear why there is an *i* instead of *a* in the word *cədasið* (\* $\theta$ *rita-sardya*) 'the year before last' (cf. *sawð* 'year'; *asůð* 'this year'; *cədasaðn* 'the year before last's (rel. adj.)'. Cf. also the apparently analogous formation *pəršabib* (*<pəršab-šib*). Should we posit here the later preservation of the suffix *-ya* (as in the causative *-(a)ya*), which hindered the transition of the *i*-umlaut variant of  $/\bar{o}/$  into *a*?

sound which was not more open veyd' > viyd' > vig (modern vigág 'bringing'), and on the other hand by the contraction of the diphthong \**ai* into the same high vowel *i*.<sup>185</sup>

The vocalization of \**ar* and \**r* (as well as \**ur*<sup>186</sup>) when *r* is sonorantized gives the same results and can be identified only in certain cases through indirect data (thus, the preceding palatalized *k* points to *ar*-vocalization:  $\dot{k}i\delta < kard$ - 'stooped; bent';  $\dot{k}eg (<\dot{k}\partial g) < *karta$ ). The vocalization of \**ār* in the majority of cases is easily distinguishable, as it results in the variants *ā* and *a* in *i*umlaut variants ( $k\bar{a}g$  'sword' < \* $k\bar{a}rti$ ), and in the remaining cases the cluster *āw*, *aw* ( $z\bar{a}w\delta < *z\bar{a}rd$ ; cf. Sh,  $z\bar{o}r\delta$ ).

#### In unstressed position

**§147.** The vowel element of unstressed \**r* has as its reflex, as with other short vowels (\**i*, \**u*), the reduced vowel  $\partial$ ). Examples of this are found in verb stems which continue weak vocalization – the same ones which we find in the Shughni-Rushani group (cf. §90): Yz.  $k^{\partial}anin$  'I do';  $\check{x}akarin$  'I search'; *marin* 'I die';  $\check{x}anin$  'I hear'; *cafin* 'I steal'. Here, *r* is clearly distinguished from \**ar*-vocalization, which has as its reflex *ar* (*varin* 'I bring;  $x^{\partial}arin$  'I eat'; etc.). In stressed forms (imperative forms and third-singular)  $\partial$  became *a*:  $\check{x}an!$ ,  $\check{x}ant$  'listen'; *mar!*, *mart* 'die'; *caf!*, *caft* 'steal'.

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However, when before (hard) k and in stressed forms we get  $\partial : k\partial n$ ,  $k\partial \dot{x}t$ ,  $\dot{x}\partial k\dot{\partial r}$ ,  $\dot{x}\partial k\dot{\partial r}t$ . Here, in all likelihood, we should think there was influence from a preceding labial element with a reconstructed  $k^0$  instead of k. Cf. the preservation of  $k^0$  in unstressed forms ( $k^0\partial nin$ , etc.).<sup>187</sup> The influence of the labial element could have been twofold. In reconstructed stressed forms ( $k^0\partial n$ ,  $k^0\partial \dot{x}t$ ), it could have inhibited the lowering of  $\partial$  to a. In addition, here, in a closed syllable with a sufficiently long stressed  $\partial$ , we get its diphthong-like sound (b > b), which, being associated with the diphthong \*au, became contracted into  $\partial$ . The verb  $\dot{x}\partial k\partial r$  'search' did not preserve the rounding of k (cf.  $\dot{x}\partial k\partial rin$  'I search'), but its loss could have been caused by the leveling of conjugations through analogy with the stressed forms (cf. the general reconstruction of this verb via regular-type verbs:  $\dot{x}\partial k\partial r$ : \* $\dot{x}\partial k\partial g$ : \* $\dot{x}\partial k\partial g$ ; cf. the Shughni corresponding forms:  $\dot{x}ikar$ -:  $\dot{x}ik\bar{u}d$ :  $\dot{x}ik\bar{u}d$ .

In closed unstressed syllables, where Iranian \**a* can also have as its reflex  $\partial$  (§118), t is difficult to pinpoint the original vocalization (*r* or *ar*). For instance, *warðóng* 'dodder' ( $\sqrt{vart}$ ?), *warván* 'to boil (tr.)'; etc.

<sup>&</sup>lt;sup>185</sup> For the contraction into *i* it was important that the vowel element was closed (high) and indifferent with respect to frontness/backness and rounding. Compare, for instance, the transition of the Tajik cluster uy into *i*: Yz. bi < Tj. buy 'smell'; Yz. ri < Tj. ruy 'face, with the preservation of Tajik *ay* (for instance, *nayza* 'a unit of length'; etc.). <sup>186</sup> Likely, also for \**ir*, for which there are no examples as of yet.

<sup>&</sup>lt;sup>187</sup> See §158 on the development of  $k^o$  from hard k.

# Early Yazghulami vowel system

#### Specifics of the early Yazghulami vowel system

**§148.** Having examined the historical correspondences of Yazghulami vowels, we can now turn to establishing their commonalities with the vowels of the Shughni-Rushani group. As it turns out, for the early Yazghulami period we can reconstruct the same vowel system as for the Proto-Shughni-Rushani language, with only one deviation which is rather insignificant with regard to the synchronic comparison of both reconstructed systems, but which significantly influenced the subsequent fate of the Yazghulami vowel system.

This deviation consisted of a different qualitative property of long  $/\ddot{o}/$ . While for the Shughni-Rushani group, the basic variant of  $/\ddot{o}/$  was a rounded back vowel with front variants only in *i*-umlaut positions, Yazghulami  $/\ddot{o}/$  was a (front-central?), unrounded vowel. The reconstructed variants for the Yazghulami vowel are the following.

In neutral position: front variant  $\bar{e}$ , and central variants [ $\bar{3}$ ], [ $\bar{3}$ ]. The central variants were found when before nasals (cf. *vred* 'brother', but *zən* 'lap'). It is possible that the variant [ $\bar{3}$ ] in *a*-umlaut position lowered to  $\bar{a}$ , which resulted in its later syncretism with the phoneme  $\bar{a}$  (cf. Yz. *waxtān* 'hayloft'; *vəzān* 'know!').

In *i*-umlaut position: open front, unrounded variants  $[\bar{a}]$ ,  $[\bar{a}]$ . As in Sarikoli, these variants later came to merge with the phoneme  $/\bar{a}/$ .

There is some reason to believe that the central variants  $[\bar{3}]$  and  $[\bar{3}]$  were also found when next to uvulars and fricatives. Cf. Yz.  $\check{\gamma}al$ -:  $\check{\gamma}ald$  'pull' with Ru.  $a\check{\gamma}\acute{e}l$ -:  $a\check{\gamma}\acute{e}ld$ ; Yz.  $ra\check{z}$ - 'to bring eyes closer?' vs. Ru.  $r\bar{e}z$  (Skt. caus. rajayati); Yz. cax: coxt 'milk' (likely from the PIE root \*trenk 'squeeze'; cf. Av.  $\theta raxta$ -). However, it is difficult to be sure of the strong vocalization (cf. Yz.  $an\check{j}\acute{a}v$  'gather' with Sh.  $par\check{j}v$ , which points to \*a-vocalization; §32; but Yz.  $pa\check{j}$  'cook' points to a different result for \*a-vocalization. It is possible that  $an\acute{a}s$ - 'forget' also had strong vocalization; Sh.  $rin\acute{e}s$ -, where we can posit the influence of the preceding nasal.

Rounding, being uncharacteristic for the articulation of Yazghulami / $\ddot{o}$ /, was not phonologically meaningful. This was a neutral feature of / $\ddot{o}$ /, phonologically speaking, and thus any rounded long central vowel came within the realm of the phoneme / $\ddot{o}$ /. This is clear to see through early Tajik borrowings with the transition of Tajik  $\bar{o}$  to e, as in *səwér* 'horseman'; *tagév* 'low'; *bimér* 'sick'; etc. Such an insensitivity to rounding was preserved for a rather long time, as it was a characteristic of the phoneme / $\ddot{o}$ / even after the variant  $\bar{o}$  broke off from it (which occurred, apparently, after the contraction of the diphthong \**au* to  $\bar{o}$ ). We can tell this by the fact that in the majority of cases Tajik  $\bar{o}$  becomes e – and not  $\bar{o}$  – even when before nasals: Yz. *kem* 'gum (around teeth)'; *jen* 'soul'; *dərmén* 'medicine'; etc. The transition of borrowed  $\bar{o}$  to  $\bar{o}$  before

nasals is observed only in a few cases: Yz.  $y \partial r \partial n$  'heavy'; Tj.  $gir \partial n$ ),<sup>188</sup> and also possibly in  $n \partial m$  'name';  $a z \partial n$  'noon' (?), which would point toward a very early borrowing for this words.

Thus, we can reconstruct optional rounding for the early Yazghulami phoneme /ö/.

Subsequent changes in the Yazghulami vowel system

**§149.** This characteristic of Yazghulami /ö/ which distinguished it from Proto-Shughni-Rushani has largely defined the singularity of the subsequent transformation of the Yazghulami vowel system, which led to its substantial departure from the vowel system of the Shughni-Rushani group. The fundamental aspects of this reconstruction are the following.

As long  $/\ddot{o}/$  became fixed as a front vowel, its subsequent qualitative divergence from  $/\ddot{o}/$  with the weakening of the feature of length (duration) could only be achieved via the moving of  $/\ddot{o}/$  to a back position and with its becoming rounded. Cf. the modern reflexes of these vowels:

 $\ddot{o} \rightarrow e$  $\ddot{o} \rightarrow \ddot{u}$ 

Front, unrounded variants of /ö/ were preserved only in *i*-umlaut position.

**§150.** In the process, the weakening of the feature of length took place as it did in Sarikoli – i.e. it was not held back by the early transformation of diphthongs into long vowels and ended with the complete neutralization of length for vowels of all three grades of length. Cf. their reflexes in the modern group of neutral vowels:

 $\begin{array}{l} /\ddot{o}/ \rightarrow e \\ /\ddot{o}/ \rightarrow \mathring{u} \\ /u/ \rightarrow o \\ /i/, \ /a/ \rightarrow a \end{array}$ 

We can tell that the transformation of diphthongs took place relatively late in Yazghulami, first of all, by the fact that diphthongs in later formations are identical to earlier diphthongs (cf.  $v\partial z < /v\hat{u}wz/$  'long' and  $s\partial t\partial r/stour/$  'livestock'; *pis/peys/* 'ask!' and  $s\partial pid' < /speid/$  'white', and secondly by the fact that we get  $\partial$  from /ou/. That we get  $\partial$  instead of the usual rounded vowels  $\hat{u}, \bar{u}$  can be explained only if the following circumstances were held.

With its qualitative separation from the phoneme u, which implies that its range was already well established (u - u). The initial result of the contraction of /ou/ might have been a higher vowel, like  $\omega$ , and its lowering could have taken place later, with its merger with the phoneme  $\vartheta$ .

<sup>&</sup>lt;sup>188</sup> The fact that the word  $\gamma ar an$  was borrowed is corroborated by – in addition to its Persian-type derivation – the Sarikoli word *žirun*, where it is hardly expected to find *i* and the palatalization of  $\gamma$  to *ž* (cf. Skt. *guru*-; Av. *gouru*-).

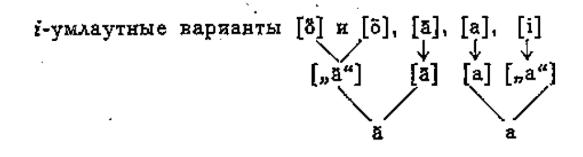
With the loss of the diphthongs /ou/, /ei/, the quality of long vowels was still up until their contraction (as occurred in Sarikoli), which implies a very strong neutral length grade. In this case, the result could have been both the immediate reduction of short diphthongs with the loss of the second element (cf. a similar result before two consonants in Sarikoli) ,as well as their contraction in the way described above.

**§151.** The reduction of the length of *e* caused a qualitative departure from the phoneme /i/ towards the most open of its variants. Thus, the phoneme /i/ became an open vowel with the possible range of  $\alpha$ -*a* (cf. its modern reflex *a*).

When the phoneme /i/ became fixed as an open sound, it became qualitatively syncretic with the *i*-umlaut variants of the phoneme / $\ddot{o}$ / (§94), which, opposing the phoneme *e*, also gained an even more open articulation (cf. its modern reflex *a*).<sup>189</sup> Thus, the *i*-umlaut variants of / $\ddot{o}$ / could be distinguished from /i/ only by their length. For this reason, the feature of length continued to remain relevant in this case: *i*-umlaut variants of / $\ddot{o}$ / did not become shortened here.

As a result, they came close in length to the *i*-umlaut variants of long  $/\ddot{o}/$  and, since they didn't differ from them in quality, naturally became syncretic with them (cf. their common reflex as modern Yz.  $\bar{a}$ :  $\gamma \bar{a}r$  'stone'; *nabā́s* 'granddaughter'). This syncretism was not inhibited by any phonological grounds. With the phonologization of rounding and frontness/backness (the opposition of e-u) between the phoneme u and its former *i*-umlaut variants, a break in phonological connections had already occurred. Also broken were the phonological links between the *i*-umlaut variants of long  $/\ddot{o}/$  and the phoneme *e*, as they came to become opposed by the phonologized feature of height, and also by length (of the type of opposition  $\bar{a}-e$ ).

**§152.** The relevance of the feature of length was preserved also in the pair a- $\bar{a}$ . It is natural that the variants  $\bar{a}$  (from  $\ddot{o}$ ,  $\ddot{o}$ ) and a (from i), being united with  $|\bar{a}|$  and |a| by the feature of length and not very different from them in quality, came to be syncretic with them. Cf. the following modern reflexes:



<sup>&</sup>lt;sup>189</sup> The high *i*-umlaut variants of  $/\ddot{o}/$ , which were inhibited from lowering by either special phonetic conditions (for instance, influence from palatals in closed syllables with two final consonants), or by their grammatical significance (intransitive verbs with conjugation in -\*(*a*)*ya*-), merged with *e* or with *i*: *penj* 'five';  $\partial$ *ir* 'be kept; remain'; etc.

The opposition of  $\bar{a}$ -*a* was therefore supported by the opposition of  $/\bar{a}/ - /a/$ , and it has been preserved to the modern time, albeit in a rather weakened manner (§111; cf. other results in Sarikoli; §108).

The separation of back vowel phonemes took place more simply. The phoneme  $u < /\ddot{o}/$  initially had a wider range from [u] to [u], which is apparent from the fact that there are a number of cases of irregularities between u and u in the modern language ( $xu \ddot{o}m // xu \ddot{o}m$  'sleep'; etc.). The qualitative deviation of the phoneme u from /u/ took place on account of the lowering of /u/ – i.e. on account of the loss of its high variants.

The qualitative separation of u and /u/ was taking place already at a time when the most resistant back (and, likely, rounded) variants of /ö/. which were characteristic for closed syllables with two final consonants, had already merged with the phoneme /u/. Cf. the reflex of /ö/ as *o* in cases such as *ancóvd* 'sewed'; etc. (§113).

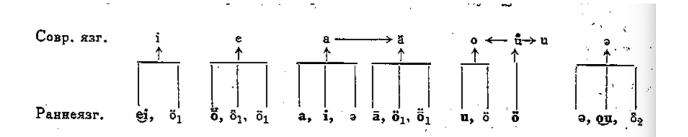
**§153.** The modern Yazghulami phoneme *u* arose later, in large part under the influence of the Tajik language. In the Yazghulami language itself the preconditions for its creation were the contraction of the cluster *ow* into *u* (*nug* < *now(a)g* 'new'). Phonologically, this *u* was initially a variant of the cluster *ow* (cf. the transition of Tajik  $\bar{u}$  into *ow* in word-final position; §139), and consequently opposed the phoneme u.<sup>190</sup> Its association with Tajik *u*, which was entering into the language more and more (*pul* 'money'; *surat* 'picture'; etc.), solidified the phonological significance of *u*. This led to the limiting of the range of height of u to only the open (lower) sound [u] (for instance, before fricatives: *xufk* 'foam'; *kusk* 'barley'; etc.). The separation of *u* and u is not fully realized even in the modern time; variants which can contain one or the other are found rather commonly (*sərůst* // *sərust* 'burst'; etc.). Thus, the sphere of usage for the phoneme *u*, initially very limited, is becoming wider on account of its partial mixing with u. However, this makes the opposition of *u*-u unstable.

**§154.** The expansion of the unstressed phoneme  $|\vartheta|$  into stressed position is also a relatively late phenomenon. It was connected with the appearance of  $\vartheta$  in stressed position from the diphthong /ou/, and also from variants of  $|\ddot{\vartheta}|$  before nasals. With the neutralization of length this stressed  $\vartheta$  was associated (w.r.t the feature of frontness/backness) with the unstressed phoneme  $|\vartheta|$  and merged with it phonologically and took on its feature of reduced vowel. The spread of  $|\vartheta|$  into stressed positions ensured its preservation within the vowel system (cf. differing results in the Shughni-Rushani group; §110). In an earlier period – i.e. before the appearance of stressed  $\vartheta$  from the diphthong /ou/ – the phoneme  $|\vartheta|$ , whenever it ended up in stressed position, turned into short *a* (§147).

The preservation of  $\partial$  determined the modern type of quantitative opposition of vowels in the Yazghulami language: neutral vowels (*i*, *e*, *a*, *o*, *u*, *u*) and the reduced vowel  $\partial$  with vestigial  $\bar{a}$  which is disappearing in the modern time.

**§155.** The correspondences of modern Yazghulami vowels to vowels of early Yazghulami can be appreciated in the following schema:

<sup>&</sup>lt;sup>190</sup> Cf., for instance, a case of direct opposition between u and  $\mathring{u}$ :  $\check{x}ur\acute{a}s$  'sld' and  $w\mathring{u}zig$  'someone from Vanj', where u represented the cluster *ow* ( $\check{x}ow$  'horn'), and  $\mathring{u}$  represented the cluster *aw* (*Wawz* 'Vanj').



Note: horizontal arrows indicate modern transitions of phonemes. Boldface indicates the fundamental source of the modern vowel.  $\ddot{o}_1$ ,  $\ddot{o}_1$  reflect the *i*-umlaut variants of  $/\ddot{o}/$  and  $/\ddot{o}/$ , respectively, and  $\ddot{o}_2$  reflects the variant of  $/\ddot{o}/$  before nasals. The phoneme *u* is a new phenomenon.

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### Proto-Shughni-Yazghulami Vowel System

**§156.** Because the Proto-Shughni-Rushani and Early Yazghulami vowel systems did not differ with respect to their phonemic inventories, we can consider this to be the reconstructed vowel system of the Proto-Shughni-Yazghulami language. Only a few aspects need to be clarified.

1. A comparison of the front articulations (variants) of the phoneme  $/\ddot{o}/$  in Yazghulami and the back rounded variants in the Proto-Shughni language allows us to reconstruct for  $/\ddot{o}/$  of the Proto-Shughni-Yazghulami period the same insensitivity to rounding and frontness/backness as for the phoneme  $/\ddot{o}/$ . Consequently, a qualitative distinction between  $/\ddot{o}/$  and  $/\ddot{o}/$  in frontness/backness or in rounding had still not taken shape in the Proto-Shughni-Yazghulami stage. Elements of their qualitative opposition to one another at this time involved only height:  $/\ddot{o}/$  had a range from the lowest to the fourth grade of height, while  $/\ddot{o}/$  had a range from the second to the highest grade (§§94-95).

2. The transformation of short /i/ and /u/ into a and o in Yazghulami indicates once again that the open sound was typical for them. However, we should assume that their range in height was not the same. Whereas the Proto-Shughni-Yazghulami /i/ in all likelihood had a range between i and a, for /u/ it could have hardly been greater than u-o, as the most open (a-umlaut) of its variants already stood in phonological opposition to it, giving rise to the phoneme a.

3. Yazghulami gives the reflexes of three grades of vocalization for word-final position *w*: strong (*ew*); full (uw) and weak (*ow*). This allows us to treat cases of the consistently short word-final *aw* in the Shughni-Rushani group (§77) as the reflex of weak-vocalization \**w*. Yazghulami *ow* alternates with *u* (*xow*: *xurós* or *darow* from Tj. *dōrū*). Traces of an analogous alternation are

found in the Shughni-Rushani group as well: Sh.  $\delta u$ , but Ru., Bt.  $\delta aw$ , Sr.  $\delta \varepsilon w$ ; Yz.  $\delta ow$  'two'; Sh., Ru. tu, Bt.  $t\bar{u}$ ; Sr.  $t\varepsilon w$ ; Yz. tow 'you'. Cf. also Yz. nug; Sr. nug with the uncomplicated Sh., Ru., Bt. naw 'new'. Apparently, the alternations between *i*, *ī*, *ay* in word-final position in the Shughni-Rushani group are also the reflex of weak-vocalization \*y.

As a result, for the Proto-Shughni-Yazghulami period we can reconstruct weak clusters [əw] and [əy]. Such was their realization before consonants in that period, but whether they functioned as weak diphthongs or whether (one or another resulted in a short vowel?) is thus far difficult to tell.<sup>191</sup>

We must assume that another continuation of weak  $/\partial y/$  is found in word-final ay in modern verb stems, such as Ru. *wixay*- 'open';  $\partial ay$ - 'end up'. With this assumption we get an explanation for both the shortness of ay (instead of  $\bar{a}y$ ) in the Shughni-Rushani group, as well as for Yazghulami ay instead of ay in unstressed forms ( $\dot{x}ayin$ ,  $\partial ayin$ ).

4. The special result of the vocalization of the cluster \*rtt > axt in Yazghulami, which differs from the reflexes of both \*a and \*u (Yz. fərxaxt, \* $\sqrt{kart}$  'slipped and fell';  $k^0 oxt$ ; \* $\sqrt{kus}$ 'slaughtered';  $kuxt * \sqrt{kas}$  'watch'; §144) gives us some reason to reconstruct weak vocalization for \*r–[ər]. We find the very same result in Sarikoli (Sr. *zыdáxt*,  $\sqrt{tard}$  'burst'), which is nonetheless accompanied here by mixing with \*u-vocalization (Sr. *kaxt* 'slaughtered').

Supplementing the above data with other analogous facts is difficult at this time. In the vast majority of cases, the vowel element of  $[\exists r]$  is not represented in its pure form, but rather in its accompaniment with r (or with its sonorantized variants). The position before r in closed syllables with two final consonants is a position of neutralization of short vowels. There are no reliable examples for stressed  $[\exists r]$  before a vowel. It is possible that such cases are, for example, Sh., Ru., Bt. *kur* (f. *kar*) 'crop-eared'; Sh., Ru., Bt. *kurc* (f. *karc*); Sr. *karc, kars* 'sunken; depression' (where the preservation of r before s indicates the lengthy preservation of the intermediate (middle?) vowel' cf. Av. *kərəsa*-).

Thus, before the appearance of new facts regarding the presence of  $\partial$  from  $*\partial r$  in the Proto-Shughni-Yazghulami period, we can only talk presumptively about the examples given above. But it is clear that if even the  $\partial$  element was already phonologized everywhere by the Proto-Shughni-Yazghulami period, then this process took place differently in different phonetic positions. In clusters of  $*\partial r$  + consonant it gave way to \*u in neutral position and \*i in *i*-umlaut position; in the remaining cases (under stress), it gave way to a. We can apparently exclude a situation where its initial general transition to \*u with the subsequent differing developments of \*u.

There are no grounds to reconstruct in the Proto-Shughni-Yazghulami period the weak vocalization of nasal sonorants (\* $\partial n$ , \* $\partial m$ ). By this period, the element  $\partial$  had already become phonologized everywhere as  $\langle a \rangle$  (for some data related to this, see §91).

<sup>&</sup>lt;sup>191</sup> If we consider Yz. *nuģ* and Sr. *nыğ*, which are completely identical in structure, to go back to the Proto-Shughni-Yazghulami period, then this would indicate that the use of the diphthong  $\partial w$  before consonants. Their differing results (Sr. gives syncretism with /u/ > bi; Yz. gives a new vowel u, clearly distinct from /u/) could have arisen after a later, independent contraction of the weak diphthong.

In connection with this, we should also add to the sources of Proto-Shughni-Yazghulami /a/ the  $\partial$ -element of the weak-vocalization sonorants \**n*, \**m*, \**r* (\* $\partial n$ , \* $\partial m$ , \* $\partial r$ ).

Thus, the element \*a, which attached to the sonorants \*y, \*w, \*r, \*n, \*m, appears at an earlier stage as the short vowel with the widest range of pronunciation, the quality of which was determined both by the quality of the following sonorant (*ey*, *ow*, *ar*, *an*, *am*), and by its phonetic position (umlaut position, the structure of the syllable, and stress). Whether this vowel initially had a usage outside of clusters with sonorants is a question which goes beyond the limits of the materials in question.

# **Consonant System**

# Yazghulami labialized consonants

**§157.** Labialized  $x^0$  and  $\check{x}^0$  continue Iranian  $*x^v$ : Yz.  $x^0ar$  'eat'; Av.  $x^vara$ -; Yz.  $x^0asor$  'father-inlaw'Av.  $x^vasura$ ; Yz.  $x^0\bar{a}b$  'lull to sleep', Av.  $\sqrt{x^vap}$ -; Yz.  $x^0orn$  'crow',  $*x^varna$ -; Yz.  $\check{x}i\check{\partial}$  'sweat'; Av.  $x^va\bar{e}\check{\partial}a$ -; Yz.  $\check{x}^0ar\check{g}$  'sister', Av.  $x^vanhar$ -, Skt.  $sv\dot{a}sar$ ; Yz.  $\check{x}^0\bar{a}n$  'read', Prs.  $xw\bar{a}ndan$ ; Av.  $x^van$ - ( $x^vanat$ -čaxra). The conditions which caused Iranian  $*x^v$  to split into  $x^0$  and  $\check{x}^0$  are not clear; howevr, it is possible that we can make a connection between  $\check{x}^0$  and positions before front vowels. Thus, for instance,  $x^0$  ( $< x^v$ ) does not seem to be found at all before *i*. Cf., in addition to  $\check{x}^0i\check{\partial}$  'sweat', the following cases in which  $\check{x}^0$  can be traced back to  $*x^v$ : Yz.  $\check{x}^0i\check{z}$ :  $\check{x}^0i\check{z}d$  'whistle';  $\check{x}^0il\check{a}n$  'pipe (instrument)' – PIE  $\sqrt{suei}$ , sueizd, sueighl?); Yz.  $\check{x}^0ast < [x^vist]$  'heat; hot ahses'; Sh. xist 'food ration?' (cf. Av.  $x^va\bar{e}dna$ -; PIE  $\sqrt{suei}$ ). Cf. also §159.

In the Shughni-Rushani group, Iranian  $*x^{\nu}$  in all cases becomes  $x: x\bar{a}r$  'eat';  $xis\dot{u}r$  'father-in-law'; Sh.  $x\bar{e}\partial$  'sweat'; etc.<sup>192</sup> However, we can tell that  $*x^{\nu}$  was present in the Shughni-Rushani group by the fact that we get differing reflexes for  $*x^{\nu}$  and \*x before front vowels. In this position,  $*x^{\nu}$ became x, while \*x became palatalized to  $\check{s}$ : Ru., Bt.  $x\bar{a}r$  'eat', but  $\check{s}\bar{a}r$  '(female) donkey' (Av.  $xar\bar{a}$ -); etc.

**§158.** In the remaining cases, the labialization of Yazghulami consonants (including some cases of  $x^o, \check{x}^o$ ) is of a difference source – i.e. an innovation? – .

1. From assimilation with an adjacent *w* (and sometimes with *v* and \**b*?): Yz.  $y^{0}afs < /wa-yafs/$ 'return (intr.)';  $y^{0}ib < /wa-yib/$  'return (tr.)', but *yib* 'spin; make yarn'; all from the same root \**gaib*, but the latter without the prefix (Sh. *wižafs* 'return (intr.)'; *wižéb-* 'return (tr.)'; *žēb* 'spin; make yarn'); Yz.  $\check{x}^{0}ay < /wa-\check{x}ay/$  'open' (Sh. *wiži-*); Yz.  $\check{x}^{0}an < /waxin/$  'blood' (Sh. *wixin*); Yz.  $\check{x}^{0}ovd < /\check{x}wivd/$  'milk' (Sh.  $\check{xuvd}$ , Av.  $x\check{svipta}$ ); Yz.  $g^{0}arag < /wa(\check{x})karag/$  'poker (for a fire)' (Sh.

<sup>&</sup>lt;sup>192</sup> An exception is Sh., Ru. *x̄ofs*, Bt. *axॅáfs* 'sleep'; Av. stem x'afsa-.

*wižkirīj*); Yz. *půx<sup>o</sup>* 'cooked' (< \**paxva*-?; Yazg. 256); Yz. *rak<sup>o</sup>*-: *rak<sup>o</sup>t* 'suckle' (*rav* + *k*?; cf. Sh. *rāv-; rīvd* 'suckle').<sup>193</sup>

2. From the hard variants of \*k, \*g ( $\gamma$ ), \*x (?) before a back vowel. Yz.  $k^0 o \dot{x} t$  (\*kušta-) 'slaughtered';  $k^0 a nin$  (\*krnav-) 'I do';  $k^0 o d$  (\*kut-) 'dog';  $k^0 o$ - (\*ku) '(to) where';  $\gamma^0 a \dot{x} t$ (\* $angu \dot{x} ti$ -) 'finger';  $na \gamma^0 \dot{a} nd$ -:  $na \gamma^0 \dot{o} st$  (\* $\sqrt{gud}$ -) 'to put on (clothing?)';  $\gamma^0 o \theta$  (\* $gu \theta a$ -) 'dung; manure';  $\gamma^0 a r f \dot{e} g$  (\*gr b a-; cf. Av.  $\gamma a r a b u \dot{s}$ -) 'kid (baby goat)';  $k^0 a r \dot{o} k$  (\*kr ka-; cf. Sh. kurk) 'mother hen'. Examples of the type  $na \gamma^0 \dot{a} nd$  and  $\gamma^0 a \dot{x} t$ , where a (< \*u) is of an early formation, indicate that the differing quality of velars before front and back vowels goes back to a very long time ago. However, the effect of back rounded vowels was preserved in Yazghulami until quite a bit later, which we can tell through borrowings: Yz.  $g^0 ol$  'flower' (< gul);  $\gamma^0 z \dot{a}$  'small box of cotton' (Tj.  $yuz\dot{a}$ );  $k^0 on j$  'corner' (Tj. kun j);  $k^0 a r \dot{a}$  'foal; colt' (Tj.  $kurr \dot{a}$ );  $g^0 a l x^0 \dot{e} r$  'dog rose (flower)' (Tj.  $gulx \dot{o} r$ );  $x^0 a \dot{o} \dot{o}(y)$  'God' (Tj. xudo);<sup>194</sup> etc. In later borrowings, this labialization fo consonants does not occur: Yz.  $karpa \ddot{c} \dot{a}$  (Tj.  $k \ddot{u} r p a \dot{c} \dot{a}$ );  $k a l \dot{o}$  'hat' (Tj.  $kul \dot{o} h$ );  $\gamma a b \dot{o} r$  'dustl; haze' (Tj.  $gub \dot{o} r$ );  $k a k r \ddot{u} \dot{z}$  'corn'; etc.

On the transition of k, g(y), x before front vowels, see §161.

**§159.** Before the high back vowels u, u, which absorb the labial component, we do not find labialized consonants:  $xu \delta m$ ,  $xu \delta m$  (\*xvafna-) 'sleep';  $xu \dot{x}$  (\*xvasru-) 'mother-in-law'; xu d (\*xvara-) '(one)self';  $xu \dot{y}$  (Av.  $xvarazi \dot{s}ta$ -) 'sweet';  $xu \dot{g}$  (\* $x^0arta$ ) 'ate'. Here we should pay attention to the fact that in all such examples old \*xv gives only x and not  $\dot{x}$ . This allows us to posit that the neighboring vowel had an effect in the splitting of \*xv into  $x^0$  and  $\dot{x}^0$  (§157).

### Different reflexes of Iranian \*č

**§160.** The discrepancy between  $\check{c}-c$  does not have to be a very early phenomenon. Iranian  $\check{c}$  was hardly only an affricate with a narrow range of articulation. On the contrary, judging by its reflexes in the modern languages, this was an affricate with a range of  $\acute{c}-\acute{c}-\acute{c}$ , depending on its phonetic position. In the Western Iranian languages it rarely became unified as a fricative/affricate, while in the Eastern Iranian languages its variance in sound was preserved longer, and in the languages of the Pamir area this variance was preserved for a very long time. We can see this not only by the fact that we get different reflexes in different languages (in Yazghulami and Munji we get  $\check{c}$ , while in the Shughni-Rushani group, Ishkashimi, and Wakhi we get c), but also by cases in which its reflex differs in the same language, where it sometimes becomes c and sometimes becomes  $\check{c}$ . Such variation is seen in Munji and Wakhi. Cf. Munji  $\check{c}^i f u r$  'four', but  $c\partial, c\partial-min$  'what, that' (Yz.  $\check{c}\partial$ ; Sh. ca; Ish. ce; Wkh.  $c\partial$ ; Av.  $\check{c}it$ ); Mnj.  $\check{c}\bar{o}m$  'eye', but  $c\partial b$ ;  $c\partial vd$  'pinch; bite/sting' (Sr. cev, cevd 'tear, pinch; gather); Wkh. cbibur 'four', but  $\check{c}\partial\bar{z}m$  'eye',  $\check{c}up$ -:  $\check{c}\partial pt$  'gather'; (cf. IIFL, 37. 450-451, 453). The varying reflexes of \* $\check{c}$  is

<sup>&</sup>lt;sup>193</sup> Cf. also Yz.  $tex^{0}$ -:  $tax^{0}t$  'burn; scorch (intr.)' ( $< t\bar{e}b + k$ ?; cf. Sh.  $si-t\bar{e}b$ -:  $si-t\bar{e}bt$  'roast; fry (tr.)'; however, the formant? k is not clear.

<sup>&</sup>lt;sup>194</sup> No other, more reliable examples for  $x^{o}$  are attested. Here we are possibly dealing with a continuation of old  $*x^{v}$  (a borrowing which took place in a period in which  $*x^{v}$  was still preserved in Tajik Persian), or alternatively with a contamination among words of these roots.

characteristic of the Khotanese language. Cf., for example, Saka *ceima* and *čimeškyi* 'eye'; *tăja* 'river'; and *tadz* 'flow'; etc.<sup>195</sup>

Irregularities in the transition of \*č are also found in Yazghulami: Yz. *cafs-: cůvd* 'drive (into); pierce' (Sr. *cev-: cevd*); Yz. *vac* 'aunt/uncle' (Sh. *vic*; Wkh. *voč*); Yz. *rafc* 'broom' (Bt. *rafc* – fem.), where the c possibly comes from the suffix -\*či.

Consequently, for the Proto-Shughni-Yazghulami language we can reconstruct the affricate c with a possible range of  $\dot{c}-\dot{c}$ , and we can do the same for Early Munji, Early Wakhi, and for the eaerly Saka languages (but for these languages the sound range  $c-\dot{c}-\dot{c}-\dot{c}$  is possibly relevant still in the stage at which we find this sound represented in texts).

# Palatalization of consonants in the Shughni-Rushani group

The remaining discrepancies in the consonant systems of Shughni-Rushani languages and Yazghulami are connected to the palatalization of a series of consonants in the Shughni-Rushani group.

**§161.** The consonants\*k \* g(y); \*x each split into to two phonemes in the Shughni-Rushani group; before front vowels they changed respectively into  $\check{c}$ ,  $\check{z}$ ,  $\check{s}$ : for \* $k \rightarrow c$ : Sh.  $\check{c}\bar{i}d$  (\*kata-) 'house';  $\check{c}\bar{u}d$  (\*karta) 'did'; but *kinum* (\*krnav-),  $k\bar{a}$  (\* $kud\bar{a}$ ) '(to) where'; for \* $g(y) \rightarrow \check{z}$ :  $\check{z}\bar{o}w$  (\* $g\bar{a}v\bar{a}$ ) 'cow';  $\check{z}\bar{i}r$  (\*gari-) 'stone'; but  $yu\dot{y}$  (\*gausa-) 'ear';  $ya\theta$  (\* $gu\theta\bar{a}$ ) 'dung; manure'; for \* $x \rightarrow \check{s}$ :  $\check{s}\bar{a}nd$ - (\*xanda-) 'laugh'; Ru., Bt.  $\check{s}\bar{a}r$  (\* $xar\bar{a}$ ) '(female) donkey'; but  $n\bar{e}x$  (\*naxu-) 'plank bed'; wixin (\*waxuni-); 'blood'; Bt. xumb 'pile; heap'; Sh.  $xumb\bar{o}x\dot{e}z$  'wave; excitement; unrest (lit. 'decline and rise')' (\*xumba-).

A comparison with the Yazghulami data reveals that an analogous phonemic split of \*k,  $*g(\gamma)$ , and \*x(?) took place in this language, but with a different result. In positions before back vowels, these consonants became labialized to  $k^0$ ,  $\gamma^0$ , and  $x^0$ , respectively, examples of which can be found in §158, pt. 2. Before front vowels they became k,  $\gamma$ , and x, respectively: Yz. kas (\*kasa-) 'watch';  $k\bar{a}g(*k\bar{a}rti-)$  'sword';  $\gamma ew(*g\bar{a}w-)$  'bull';  $\gamma ib(*gaib-)$  'spin'; xand (\*xanda-) 'laugh'; mox(\*amaxam) 'we'.

Thus, we have the following Shughni-Yazghulami correspondences:

<sup>&</sup>lt;sup>195</sup> L. G. Gerzenberg. *Khotanese Language*. Moscow. 1965. p. 67.

Шугн. гр. Язг. яз. \*k  $\land c \leftrightarrow k$  шугн. čān, язг. kan 'копать' \*k  $\land k \leftrightarrow k^{\circ}$  шугн. kužt, язг. k<sup>o</sup>ožt 'зарезал' \* $\gamma \qquad \tilde{z} \leftrightarrow \gamma$  шугн. žīr, язг. үаг 'камень' \* $\gamma \qquad \tilde{z} \leftrightarrow \gamma^{\circ}$  срк. үегv, язг. ү<sup>o</sup>эrfég 'козленок' \* $\chi \qquad \tilde{s} \leftrightarrow x$  шугн. māš, язг. тох 'мы' \* $\chi \qquad \chi \leftrightarrow (x^{\circ}?)$  шугн. пāх 'нары'

Thus, for the Proto-Shughni-Yazghulami language we can reconstruct different sets of sounds for Iranian k, g(y), and x: a softer set before front vowels and a harder set before back vowels. The softer set of sounds in the Shughni-Rushani languages became palatalized in the way described above, and in the Yazghulami language, on the other hand, they became hard (with the exception of k), while the hard variants became labialized.

It is possible that these sets of consonants were already phonologized by the Proto-Shughni-Yazghulami period. In such a scenario, in the Shughni-Rushani group, newly formed back vowels (from /ö/ and /ö/) would not have influenced the quality of the consonant. Cf. Sh. *čis-: čužt*; Ru. *čas-; čožt*; Sr. *čos-: čыžt* 'watch' (from *kas-: köžt*); Sh., Bt. *nižốr*; Ru. *nižůr* 'charcoal' (from /nəýör/), etc. In Yazghulami, the influence of the new quality of vowels was exerted on the realization of *k*. After the transition of /ö/ to a back vowel, *k* hardened when in front it: Yz. *kas-: kůžt* 'watch'; *kůd* 'house' (from *köd*); etc. This neutral variant of *k*, which arose before *ů*, *u* also from hard *k* (cf. Yz. *ku*; Sh. *ku*, < \**ku* – an incentivizing? particle), became phonologized under the influence of widespread borrowing. Cf. Yz. *kar* 'deaf'; *kamár* 'belt; girdle'; *kargá* 'smithy (where a blacksmith works)'; *kafž* 'shoes'; *kaltá* 'short'; and numerous other examples. As a result, in Yazghulami we find the triple opposition of palatal consonants *k*–*k*–*k*<sup>0</sup> (and voiced  $g-g-g^0$ ).<sup>196</sup>

**§162.** The discrepancy between Yz. yd // Sh. yd (Yz.  $t\hat{u}yd$ ; Sh.  $t\bar{u}yd$  'left'; Yz. rayd; Ru. rayd 'stayed') is linked to the same process of subsequent (softening?) of palatalized consonants in the Shughni-Rushani group and their hardening in Yazghulami. Palatalized \*y ( $\dot{y}$ ) from \* $\dot{k}/\dot{c}$  as part of \*yd was before a preceding front vowel: /töyd/ > Sh.  $t\bar{u}yd$ ; /ri $\dot{y}d$  > Ru. rayd. When in a position after a back vowel, \*y was a hard consonant and accordingly became sonorantized in the Shughni-Rushani group to w: Ru., Bt.,  $pan\dot{a}wd$ ; Sr. pamewg 'got dressed; put on (clothes)' (\*pati-muyda); Ru., Bt.  $\delta\bar{a}wd$ ; Sr.  $\delta\varepsilonwd$  'milked' (\*duyda); Ru., Bt. wirawd; Yz. waróyd 'became unstitched; tore open' (\*avi-ruyda).<sup>197</sup> Analogous changes took place with  $\dot{y}/\dot{\chi}$  (from \* $\dot{k}/\dot{c}$ ) in the clusters \* $\dot{y}s$ , \* $\dot{\chi}s$ . In the Shughni-Rushani group – via a stage of palatal articulation – these sounds became y, while in Yazghulami they became hardened to x: Ru. rays-; Yz.  $raxs < /ri\dot{y}s$ ,  $ri\chi s/$  'stay' (pres. stem); Yz.  $ba\dot{x}t\dot{o}xs < /ba\dot{x}t\ddot{o}xs'$  'flow down; drain' (pres. stem). When following

<sup>&</sup>lt;sup>196</sup> On the modern relations between  $\dot{k}$ -k and  $\dot{g}$ -g, see O $\Phi$ UA II: 194-195.

<sup>&</sup>lt;sup>197</sup> In Shughni, all of the past stems of these verbs of stems in  $\frac{k}{c}$  assimilated into the *yd* type: Sh. *pinūyd* 'got dressed; put on (clothing);  $\frac{\partial \bar{u}yd}{\partial \bar{w}d}$  'milked'; *wirūyd* 'became unstitched; tore open'. But *w* was preserved in the infinitive stem: *pinīwd*;  $\frac{\partial \bar{u}yd}{\partial \bar{w}d}$ ; *wirīwd*.

a back vowel in the Shughni-Rushani group, as in the first case, we get *w*: Ru., Bt. *wiráws*; Yz. *wəráxs* < */wəruys/* 'tear; rip (intr.)'.

An indication that in Yazghulami there was initially a stage at which the  $\dot{y}/\dot{\chi}$  (from  $*\dot{k}/\ddot{c}$ ) was the palatalized sound  $\dot{y}/\dot{\chi}$  comes from a case in which this sound was contamined with \*y in the word vaxs 'be!' < /vay + s/. Here, \*y, which became devoiced before s, sounded like  $*\dot{\chi}$  (<\* $\dot{k}/\ddot{c}$ ), which later had a different fate than \*y:  $*vays > *va\dot{\chi}s > vaxs - similar$  to  $*ra\dot{\chi}s > raxs$ .<sup>198</sup>

**§163.** The discrepancy between Yz.  $j(\tilde{z})$  // Sh. z (Sh.  $z\bar{i}n$ -; Yz. zan- 'kill'; Yz. vajan 'overcome'), in all likelihood, is due to the same subsequent tendency toward the (softening?) of palatalized consonants in the Shughni-Rushani group. Although examples of the reflex of Iranian \*j are very limited in number, they nonetheless give us reason to believe that the change of \*j to z in the Shughni-Rushani group took place only before front vowels. Cf. Sh.  $na\tilde{y}zimb$ -'to lead; cause to pass' from the stem \*jamaya- (b is a later addition) and Sh.  $na\tilde{y}j\bar{i}s$  from the stem \*gmsa- (Av. jasa-) 'pass'. But cf. Yz. zanjág 'woman'; Sh. jinjic 'doll; puppet'. Nonetheless, Sh. jinjic may be the result of assimilation from zinjic – cf. Sh. zinij from z(i)nij 'snow'.<sup>199</sup>

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In such a case, we would also reconstruct for the Proto-Shughni-Yazghulami language a different – more soft or more hard – sound for \**j* depending on its phonetic position (dz - j - j).

**§164.** The correspondence of Yz.  $\check{s}$  // Sh. s, Ir.  $\check{sy}$  (Sh.  $s\bar{a}w$ -, sut; Yz. past stem  $\check{sod}$  'go; leave') suggests the palatal articulation of  $\check{s}$  ( $\check{s} - \check{s}$ ). In Shughni, like in other cases, the soft sound developed further, giving s, while in Yazghulami it became hardened to  $\check{s}$ . Nonetheless, there are no other reliable examples for this correspondence. The attested correspondence of Yz.  $\check{s}$  // Sh. s in words with unclear etymology are the following: Sh. *sit*; Yz.  $\check{sat}$  'dust'; Sh. *mis, mas*; Yz. *maš* 'also'.<sup>200</sup>

# Grammar

### The plural of nouns

**§165.** The Sarikoli suffix  $-\acute{ef}$ , which continues the old ablative-dative case (Ac.  $a\vec{e}^i by \vec{o}$ ), is used only with nouns in an oblique position, reflecting, consequently, not only plural number, but also

<sup>&</sup>lt;sup>198</sup> The devoicing of y before a voiceless sound in a closed syllable can be observed as an ongoing phonetic process in Wakhi: Wkh.  $da\chi t$  – phonologically dayt 'beats' (OФИЯ II" 224). On the sporadic nature of the transition of \*y > x in Yazghulami, see ex. 44 in §135.

<sup>&</sup>lt;sup>199</sup> ğan, ğin 'woman' in the Shughni-Rushani group continues the original \*gnā (Av. gənā, ynā).

<sup>&</sup>lt;sup>200</sup> It is possible that *sit* is linked to PIE \*V*kei*, *ki* 'dark; gray'; Av. *syāva*- 'black'.

oblique case. In the remaining languages this suffix is preserved in an adverbial meaning: Sh.  $p\bar{o}\delta \hat{e}v$ , Ru.  $p\hat{u}\delta \hat{t}v$  'down; '; Bt.  $a\dot{x}\bar{o}b\hat{t}f$  'a few days ago; the other day' ( $a\ddot{x}\bar{o}b$  'the day before yesterday'); etc.

The spreading of this suffix to nouns in direct positions and thereby its conversion into a plural marker is also found in the Roshorvi dialect of the Bartangi language.

In the Shughni and Rushani languages the morpheme which became the plural marker is  $-\acute{e}n$ , which continues the old genitive case in  $-an\bar{a}m$  (the suffix  $-\acute{e}n$  also became widely used in Bartangi, likely via influence from Rushani). Its previous usage as a marker of oblique case was preserved in some adverbial suffixes: Ru.  $-y\acute{o}n$ ; Bt.  $-y\acute{o}n$ ; Ru., Bt.  $\check{x}aby\acute{o}n$ ; Bt.  $\check{x}abz\acute{o}n$  'at night'; etc.<sup>201</sup>

We can see from this that the plural suffixes  $-\acute{en}$  and  $-\acute{tf}$  of the Shughni-Rushani group are very much a later development, and have arisen in each language individually. Particularly indicative is the fact that we get a distinct suffix in the Bartangi-Roshorvi language, which suggest that in the Proto-Bartangi period there was still not a single plural suffix. It should be added here that both Roshorvi  $-\acute{tf}$  and Bartangi  $-\acute{en}$  are still not widely used. The fundamental way to mark plural number in these languages remains syntactic: agreement with verbs, demonstrative pronouns, combination with numerals; etc. (cf. Bt.  $wa\ddot{o}$ -an mosin vs. Ru.  $w\dot{a}\delta an mosin-\acute{en}$  'these are cars').<sup>202</sup> We can see the reflexes of various lexical means of indicating plural number, which were used in all languages before the creation in each of a universal plural suffix in a large number of suffixes of nominal and pronominal origin indicating totality and collectiveness: Sh., Ru., Bt.  $gal\bar{a}$  (Tj. gala 'group; flock'); Ru., Bt. -adas - a suffix for indefinite totality (< at das 'and so on'); the use of demonstrative pronouns in the role of collective suffix (Sh., Ru., Bt.  $Azīzbēk-wā\partial$  'Azizbek and the members of his household' or 'Azizbek and his friends'; etc.); the expression of the plurality of repetitions?; etc.

One of these suffixes acquired the meaning of universality in Sarikoli (suff.  $-x\epsilon yl$  // Sh.  $x\overline{e}l$  // Ru., Bt.  $-x\overline{i}l$ ); thereby becoming the suffix which indicates plurality for nouns in a direct syntactic position. Nonetheless, it is, like Bt.  $-\acute{e}n$ , Rv.  $-\acute{t}f$ , still not very widely used, and its previous meaning of collectivity is still found (cf. Sr.  $k\omega - y\omega g\omega lx\epsilon yl$  'those same flowers', where the demonstrative pronoun is in the singular, or  $wo\delta$  bačoxeyl levd 'the kids said', where the verb is in the singular.

**§166.** In Yazghulami, which naturally also went its own route regarding the creation of a plural marker, this marker became the suffix  $-\dot{a}\theta$ , which continues the old Iranian ?  $-^*\theta wa$ . The reflex of this morpheme is widely used in the Shughni-Rushani group in the form of unstressed  $-a\theta$ , which is used in the role of an augmentative and (general eliminating?) particle, and also as the meaning of an (adverbial formant?): Ru. *aram yīwaθ xiǎrū́y ɣinik* 'there is only one woman there';  $t\bar{o}$  maðó́ $r-a\theta$ -am cayidz čo 'we (squeezed?) all the way to noon'. For the Shughni-Yazghulami period, this suffix, which had a wide range of meanings (from a general-collective suffix to a synthesizing-eliminating suffix), should be reconstructed in the form of unstressed /-  $a\theta$ /, where *a* as an element of the suffix developed from the cluster  $-^*\theta wa$  with stems in  $-^*a$ ,  $-^*a$ 

<sup>&</sup>lt;sup>201</sup> The variability in form of this suffix (cf. also Ru. *nabasjón* 'grandchildren') is a point for future research.

 $<sup>^{202}</sup>$  For a more detailed discussion, see IIIPF: 370.

(Yazg.: 257). The transition of stress onto the suffix is a typical feature of the Yazghulami language (cf. Yz. varág but Sh. võrj; Yz. varán 'they bring' but Sh. vấrēn; etc.). The previous meanings this suffix held, which have for the most part been lost, as well as its lack of stress, are observed in fixed word forms: Yz. wugad 'all; everything' (wug 'one'); ičad 'not at all' (=Sh. áča $\theta$ ; Ru. iča $\theta$ ). In the role of a plural suffix, Yazghulami -á $\theta$  still in many cases preserves its meaning of a sort of generalization:  $\check{x}^{0}$  avdá $\theta$  kal ģantá '(all) the milk spilled'; nak ni tamokayá $\theta$ 'this is (all) my tobacco'; xima xi wandará $\theta$  van 'attach yourself here in all places?'(wandar 'here'); etc.

Remnants of the old genitive case are observed in Yazghulami in the non-productive plural suffix -én, -gén // Sh. -yun, -gun (§15, pt. 1), and remnants of the dative-ablative suffix are observed in the non-productive complex adverbial suffix -agév, -agív (possible with a preceding -\*ak?), which is (etymologically?) identical to the Shughni suffix  $-(a)j\acute{e}v$ : Yz. kəragiv 'blind(ly)'; pəðagév 'barefoot'; Sh.  $\dot{x}abaj\acute{e}v$  'at night; during the night(s)'.

**§167.** Regarding the non-productive Yazghulami plural suffix  $-\acute{ezg}$ , it is likely that it is cognate with the suffix  $-\acute{erdz}$ ,  $-\acute{orj}$  of the Shughni-Rushani group. The latter arose, in all likelihood, via a merger with the ending of a stem ending in -\*ar with a certain formant of \*k/č, which changed according to the gender of the noun. At the present time the ability to distinguish gender of the forms  $-\acute{erdz}$ ,  $-\acute{orj}$  is significantly reduced (cf. Ru.  $mod\acute{erdz}$  'mothers';  $pid\acute{erdz}$  'fathers';  $zinaw\acute{orj}$  'daughter-in-law'; the connection between this suffix and stems in -ar was lost very early on.

If we assume that the g in Yazghilami - $\dot{e}\ddot{z}g$  is a later addition, then  $-e\ddot{z}$  would give us the expected correspondence with Ru., Bt.  $-\bar{e}rdz$ , Bj.  $-\bar{e}rdz^{203}$  with the usual loss of r before fricitaves (via the following stages:  $-\bar{e}r\dot{j} > -e^y\dot{z}g > -e\dot{z}g$ ).

Continuing the feminine form, Yazghulami - $\acute{ezg}$  became fixed only with feminine nouns; however, it spread to words of various meanings and not only to words which signify a relation: Yz. *nanéžg* 'mothers';  $\check{x}^{o}an\acute{ezg}$  'cows'; *zamčéžg* 'plots of land; fields' (on the remnants of gender distinction in Yazghulami, see §173).

# Infinitives

**§168.** In the Shughni-Rushani group, in addition to infiitives in *-t*, *-d*, which are used to mean both a verb with an undefined mood, as well as a deverbal noun of action (Ru.  $tayd(\bar{o}w)$  '(to) go; going (n.)', there is also another deverbal noun which is formed from the present stem with the suffix *-idz*. With regard to meaning, it is not much different from the infinitive (cf. Ru. *cayidz sar sut* 'the harvest began' and  $b\bar{a}d$ *-i way rimůj cayidz* 'then he sent his harvest'), but it is limited in its usage and is not productive.<sup>204</sup>

<sup>&</sup>lt;sup>203</sup> In Shughni and apparently also in Sarikoli these suffixes have been lost. In Shughni only in two words to we have the suffix  $-\bar{o}rj$ : *xiyunốrj* 'sisters-in-law' and  $ab\bar{n}\bar{o}rj$ ' the wives of one man' (БДШ: 271).

<sup>&</sup>lt;sup>204</sup> An exception is the Bajuwi dialect, where forms in *-idz* can be formed from almost any verb (БДШ: 174).

The Yazghulami infinitive suffix  $-\dot{aj}$  is fully cognate with this form (cf. Yz. *cayáj*, Ru. *cayídz* '(to) harvest; harvest (n.)'. It is different only in its usage in the Yazghulami language vs. the Shughni-Rushani group, as it is limited in usage in the latter by infinitives in *-t*, *-d*.

**§169.** In the majority of cases, the Shughni-Rushani infinitives in *-t*, *-d* can be traced back to deverbal nouns ending in *-\*ti*, which can be seen from the *i*-umlaut reflex in the verb stem: cf. Sh. past-stem  $\tilde{c}\bar{u}\tilde{x}t$  but infinitive  $\tilde{c}\bar{t}\tilde{x}t$ - 'watch'.

In the Yazghulami language deverbal nouns in -\*ti have as their reflex participial forms with the suffix -ág, at least in a portion of verbs. Cf. past stem vag and participle vigág 'brought'. The vowel *i* in vigág could have appeared only in an *i*-umlaut position with the sonorantization of *r* to *y* (\*várt'i; §142). However, in verbs which did not contain an *r* in the root, it is not possible to distinguish the results of *i*-umlaut position from the results of unstressed position (cf., for instance the participle žadág with the past stem žud 'kill').

The form in -ág is predicative in usage, so the fact that it is called a 'participle' is to a significant extent conventional in nature (*můn vigág* 'I brought'). The development of a predicative usage of the deverbal noun ending in -\*ti with an (indirect/oblique construction?) is completely natural (*můn vig(ag)* was historically a noun phrase 'my bringing // that which was brought by me'. As for the subsequent addition of the suffix -ág, a similar compounding measure for infinitival stems in their predicative usage is found in the Shughni-Rushani group: Ru. *way ỹan tar mīgák* 'his wife is dying'; Kh. *yaw põnd pay tiydák* 'he will soon start walking'.

Most likely, the modern Yazghulami form in - $\dot{a}g$  combined with old formations in -\*aka from nouns ending in -\*ta (which gave in the Shughni-Rushani group the perfect stem:  $ka\dot{x}taka$ -> Sh.  $\dot{c}\bar{u}\dot{x}\dot{c}$ ) and nouns ending in -\*ti, which via analogy with formations ending in -\*aka got the same suffixal formatting (Yz.  $\dot{z}ad\dot{a}g$  is a participle or perfect stem).

**§170.** Traces of the predicative use of nouns in -\**ti* in the Shughni-Rushani group is observed in a group of past-tense stems which have *i*-umlaut vocalization and which are syncretic with the infinitive. For instance: Sh. *čān-: čīnt* 'dig'; *nāw-: nīwd* 'cry'; *sipāf-: sipīft* 'suckle'; *wārv-: wīrvd* 'boil'; *wāf-: wīft* 'weave'; *šānd-: šīnt* 'laugh'; *firāp-: firīpt* 'reach; arrive'; *tāž-: tīžd* 'pull'; *žičāf-: žičīft* 'burst'. We can hardly posit here that the past and infinitive stems are syncretic due to influence from the past stem, as the levling of stems on the basis of regular verbs takes place on the foundation of present stems (cf. Bt. *čān-: čānt: čānt(ōw)* 'dig').

But most indicative of all is the fact that in Yazghulami these very same verb stems also have *i*-umlaut vocalization (the vowel *a* with the usual neutral vocalization of the past stem in u, *u*, *o*): *səpáf: səpáft; wirv: wārvd; waf-: waft; xand-: xant; firíp-: firápt; səxáf-: səxáft.* Only one verb is an exception: Yz. *kan-: kont* 'dig' (the remaining verbs in Yazghulami are not attested).

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Such a match in verb stems is hardly coincidental, and it is therefore necessary to posit the the functions of deverbal nouns in -\*ta and -\*ti in the Proto-Shughni-Yazghulami period and earlier to a certain extent intersected with one another.

# Yazghulami prefix ža-

**§171.** R. Gauthiot considered Yazghulami  $\check{x}a$ - to be a continuation of the special Iranian prefix  $*\check{s}a$ -, on the basis of the consideration that the prefix \*fra- and an initial \*fr in general becomes far- in Yazghulami (Yz. far-xis 'slip and fall'; faraw 'rinse'); consequently, Yz.  $\check{x}a$ - is not identical to the ra-, ri- of the Shughni-Rushani group (Yazg.: 255).

But we should bear in mind that Yazghulami  $\check{x}a$ - is attested only in two verbs:  $\check{x}am\dot{a}y$  'command; order' and  $\check{x}aw\dot{e}z$  'fly (up)'. Furthermore, such a prefix is absent not only in the Shughni-Rushani group, but also in other Pamir languages, and indeed in Eastern Iranian languages in general. Balochi  $\check{s}a$ -, with which Gauthiot compares Yazghulami  $\check{x}a$ -, is apparently the regular reflex of \**fra*-. It seems then that Yazghulami  $\check{x}a$ - is some kind of exception in the reflex of \**fra*-.

A second reflex of the prefix \**fra*- is also found in the Shughni-Rushani group: the basic reflex is *ra-, ri-* and a second, less commonly found reflex is *fir- (firáp-* 'reach; arrive'). The first variant represents an original \**fra-*, while the second represents an original \**far-*. The variant \**far-* was used before a vowel and arose as a means to distinguish the prefix from the root, at a time when the prefix was still productive and detachable (cf. the easily distinguishable \**fra-may* and the flowing nature of \**frap*, the potential confusion of which was avoided via the form \**far-ap*). Cf. analogous phonetic variants for the Shughni postposition -*ard*; Bj. -*ird* before consonants, but - *rad*; Bj. -*rid* before vowels (Av. *areða*): Sh. *sabóra(d)*; Bj. *sabóri(d)* 'by/for tomorrow', but Sh.  $\check{xum}$ -*ard*; Bj.  $\check{xum}$ -*ird* 'by nightfall; by evening'.

Since a second variant of initial \**fr* appeared (\**fra-* and \**far-*), each of these variants became solidified in its own sphere of usage. The variant \**far* spread to many words in initial position, especially with the development of the epenthetic vowel (Yz. *faraw*; Sh. *firaw* 'rinse'; Sh. *firɛ́y* 'flea'), so the variant \**fra-* was preserved only before consonants. In the Shughni-Rushani group, this stage is also represented: *f* in the variant \**fra* was lost, but in the variant \**far* it was preserved (Ru. *ra-xárð* 'collapse'; *fir-áp* 'reach; arrive'; *firáw* 'rinse'). In Yazghulami the variant \**far* became the fundamental variant and almost completely crowded out \**fra-* (Yz. *far-xís* 'slip and fall'; *far-síb* 'push back, away'; *far-íp* 'reach; arrive'; *faraw* 'rinse).<sup>205</sup> Only two verbs constitute exceptions: *x̃a-máy* and *x̃a-wéz*, where we get the reflex of the variant \**fra-* with the transformation of \**fr* into *x̃.* The preservation of \**fra* here can likely be explained by the presence of the initial sonorant in both verb roots, as in these cases the combination of the verb root with the variant \**far-* would have given rise to a cluster of two sonorants.

<sup>&</sup>lt;sup>205</sup> Cf. a similar unification of the variants of the postposition Sh. *-ard*, *-ra(d)*; Bj. *ird*, *-ri(d)* in the remaining languages of the group, which have effectively taken the second variant to be the only variant (Ru., Bt. *-ri*, which is identical to Yz. *-ra*).

### Other discrepancies

**§172.** The remaining discrepancies belong to a single type: they consist of the lack of some element in one language but its presence in the other(s). Discrepancies of this type cannot serve as the basis for the genetic classification of these languages. We cannot make judgments regarding the interrelation of these languages on the basis of these facts because the lack of one or another linguistic aspect in a language can always turn out to be the result of its later loss. So, for instance, grammatical gender on nouns and adjectives is lost not only in Yazghulami, but also in the Sarikoli language of the Shughni-Rushani group. However, while Yazghulami has preserved participial formations from present stems quite well, they have been fully lost in Sarikoli and are only weakly represented in the remaining Shughni-Rushani languages (with their greatest development being found in Bartangi).

Nonetheless, it is not unreasonable to examine discrepancies of this type, because in the majority of cases a language preserves some traces of whatever features have been lost.

#### Grammatical gender on nouns and adjectives

**§173.** Traces of gender distinction in nouns and adjectives in Yazghulami are observed in the following cases.

1. In replacing nouns with pronouns in the third-singular, which distinguish gender in the oblique case (*way, day* (m.); *im, dim*; poss. *əmi, dəmi* (f.). In particular, pronouns in the feminine gender are used not only to signify people of feminine gender (*im zext* 'she took' but *way zext* 'he took'), but also for indicated some other nouns regardless of sex. Such nouns include the names of animals, birds, and insects, which are always used with pronouns in the feminine gender. For instance:  $v\acute{e}$ -af wáy-ra ažómt wů ažtór, ma *im-ja səwér na mad* 'then they sent him a camel, but he didn't sit on it'; warg nest, wû wexúg pé $\theta$ -ay *im-ra*  $\delta$ adág 'there is no wolf; a person shot it'; *ni wůs-əf žůd, můn əmi murðá vašt 'you* (pl.) killed my bull calf, and I sold its corpse'; *ən dəmi šam ðow boc: wûg-u nar, – əmi maðén-u roxn, wûg-u mayá – əmi kāl-u roxn 'in its (the sheep's) stomach are two babies: one male – it has a white girdle; and one female – it has a white head'. <i>wáy-me užtsolá bəč vədá, way ž-im k<sup>0</sup>əžtá-ay* 'he had an eight-year-old billy goat; he slaughtered it'; yéw-u inko farbe ki, **mi** wu cú-da nəməčáy, – royn 'the ox was so fat that you would pull a hair out of him and it was lard.'; *dəmi xow-e!* 'it (the beetle) has horns!'; *kaf kát-ay ðed, dər mi yax na šod* 'the bird pecked, but it didn't end up in its mouth.; etc.

Thus, an entire class of nouns in Yazghulami continues to belong to the feminine gender. Cf. examples from the Shughni-Rushani group, where nouns of this class also belong to the feminine gender (*um* is the feminine pronoun): Ru. *um* aydár dað luvd 'then the dragon said'; Ru.  $y\bar{a} ya\delta \dot{a}$  *um*  $\dot{x}it\dot{u}r$ -ti saw $\dot{\delta}r$  sut 'the boy got on that camel'; Bt. *um* naxč $\dot{t}r$   $x\bar{o}w$ ánd ni $\dot{x}t\dot{e}zd$  'the owner of that mountain goat is leaving'; Bt. sad ba r $\dot{\delta}sit$  **um**  $\dot{s}\bar{e}r$  'it (a donkey) went (verb is in fem.) right up to the lion'; Ru. *yi* murčák $\bar{a}$ -n **um** puð pakíd 'they removed a leg of that ant's'; etc.<sup>206</sup>

<sup>&</sup>lt;sup>206</sup> In rare cases in the Shughni-Rushani group we find the names of animals which belong to the masculine gender ( $y\bar{u}r\dot{x}$  'bear';  $p\bar{u}rg$  'mouse'). Besides this, in the Shughni-Rushani group words which indicate a male animal (Sh.

2. In some words which continue the umlaut form of the feminine gender: Yz. *nabás* 'granddaughter' vs. *nabés* 'grandson'; *verj* 'filly' vs. *varág* 'steed'; *maw* 'ewe' vs. *můw* 'ram'; *vražt* 'flour' from the feminine form of the participle of the verb meaning 'break up; shatter'; vs. *vrožt* (present-day past-tense stem of this same verb); *čaž* 'wormwood' vs. the form with masculine vocalization *čůž* 'bitter'; *čamančážt* 'with bent handles?' (of a container) vs. *čužt* 'bent'; *raštaðám* 'type of bird?' vs. *ðom* 'tail'. In all of these cases, the feminine forms continue the same vocalization as their corresponding words in the Shughni-Rushani group: *i*-umlaut vocalization in the words *nabás* and *verj* (Sh. *nibés*, *vērdz*) and *a*-umlaut vocalization in the remaining cases<sup>207</sup> (cf. Ru. *virážt* 'broken (f.) vs. *virúžt* 'broken (m.)'; *cāž* 'bitter (f.)' vs. *což* 'bitter (m.); *čāžt* 'bent (f.)' vs. *čožt* 'bent (m.)'; *katagál* 'with a lot of hair (f.)' vs. *katagól* 'with a lot of hair (m.)').

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3. In certain formations which have been preserved with the feminine suffi:  $\check{z}ar\check{a}\check{z}g$  'partridge' (with the later addition of g);  $biray\check{e}j$  'pregnant'; where the suffix  $-\check{e}j$ ,  $-\check{a}\check{z}$  are the feminine *i*-umlaut form vs. the masculine  $-\check{a}g$  (in the Shughni-Rushani group: Sh.  $-\check{t}dz$ ; Kh.  $-\check{e}dz$ ; Ru., Bt.  $-\check{e}dz$  vs. masculine Sh.  $-\check{t}j$ ; Ru.,  $-\check{o}j$ ; Bt.  $-\check{o}j$ );  $\check{x}ay\acute{e}nj$  'bride' vs.  $\check{x}e$  'groom (at a wedding)'; where  $-\acute{e}nj$  is the feminine to -(n)ang (suffix for relational nouns); it is possible that this suffix is also found in the word *wenj* 'heifer' vs. *wůs* 'bull calf' (cf. a similar contraction in  $\check{x}aw\acute{a}n$  'wing' from  $\check{x}awaz\acute{a}n$ ).<sup>208</sup>

Another suffix which continues the feminine form is the plural suffix  $-e\check{z}g$  (§167), which combines with nouns in the feminine gender. For instance: Yz. *nanéžg* 'mothers';  $\check{x}^{0}arģ\acute{z}g$ 'sisters';  $\gamma a\check{c} \acute{g} \acute{z} \acute{g}$  'girls';  $\check{x}^{0}an\acute{z} \acute{g}$  'cows';  $\nu az\acute{z} \acute{g}$  'goats';  $\acute{k} arģ\acute{z} \acute{g}$  'hens';  $\acute{k}abad\acute{z} \acute{g}$  'doves';  $\acute{k} arm\acute{z} \acute{g}$  'worms'; etc. Nouns in the feminine gender which indicate or which can indicate males do not combine with the suffix  $-\acute{z} \acute{g}$  ( $\gamma ew\acute{a}\theta$  'bulls';  $ba\check{c} \acute{a}\theta i$  'billy goats';  $warģ\acute{a}\theta$  'wolves'; etc.). There are some words attested which combine with the suffix  $-\acute{z} \acute{g}$  but which do not signify animals:  $zam\check{c}\acute{z} \acute{g}$  'plots of land; fields' (sg.  $zam\check{c}$ );  $saf\check{c}\acute{z} \acute{g}$  'beads' (sg.  $saf\check{c}$ );  $šad\acute{z} \acute{g}$  'talus' (sg.  $\check{s}ad$ ). The corresponding words in the Shughni-Rushani group belong to the feminine gender: zimdz 'field'; sifc 'beads', and the final  $\check{c}$  (Yz.) // c (Sh.) indicates the feminine suffix  $-\check{c}i$ . It is unclear, however, whether these words belong to the feminine gender in present-day Yazghulami.<sup>209</sup>

 $v\bar{o}j$  'steed';  $x\bar{i}j$  'bull';  $cu\dot{x}$  'rooster) always belong to the masculine gender. However, this also true for Yazghulami; for instance, *varág* 'steed' (but *verj* 'filly') belongs to the masculine gender.

<sup>&</sup>lt;sup>207</sup> The deviation from the expected vocalization in the word Yz. *maw*; Sh. *maỹ*; Bt. *māw*; Ru. *mēw*; Sr. *mɛwl* 'sheep' is not entirely clear and is connected to the influence from the following  $w, \check{y} < *\check{s}$ .

<sup>&</sup>lt;sup>208</sup> In the Shughni-Rushani group the feminine form of this suffix has also pretty much been lost; however, it can be found in some words: cf. Ru. *rastayéndz* 'a measure for cereals)'; cf. also the rare opposition in gender: Ru. *biyōnǘny̆* 'yesterday's (m.)'; *biyōnḗndz* 'yesterday's (f.)'; Sh. *maɣdzṻ́ny̆* 'hungry (m.)'; *maɣdzḗndz* 'hungry (f.)'.
<sup>209</sup> Cf. ЯЯ: 30.

#### **Prepositions and postpositions**

#### General remarks

**§174.** Substantial discrepancies in the form and usage of prepositions and postpositions are observed not only between Yazghulami and the Shughni-Rushani group, but also within the Shughni-Rushani group itself.

1. The directional-locative preposition -*či* is very active in Sarikoli and has as wide range of usage: Sh. *či tom nažtúg, xi ýin-ir či rezn levd* 'he went up on the roof; he told his wife through the smoke opening'; *či wi pond qudby kewjénj vud* 'on that road a well was dug'; *či tanuv tedz* 'you pass over the rope'; *či penj waðič yoðd* 'the bird came to the grain'; etc. In Rushani and Bartangi this preposition is found only in the form of a prefix in combinations of the following type: *či-péc* 'prone; face down'; *či-kấl* 'upside down'; *či-dấm* 'face up'; etc. In Shughni, in addition to similar combinations, it is used also in customary expressions of the type *žīr či žīr* 'no stone unturned'; and in and inchoative constructions together with the (short form of the) infinitve: Sh. *wúz-um či tīd* 'I'm about to leave' (cf. Sarikoli *xom či čeyg sewd* 'begins to cook dinner'). In Bartangi and Rushani in such cases the infinitive is used alongside the preposition or particle *pay* (Ru., Bt. *pay nīwd sut* 'started to cry'), a construction which is not found at all in Shughni or Sarikoli.<sup>210</sup>

Yazghulami repeats the picture of Bartangi and Rushani with respect to these two formants. Yazghulami  $s(\partial)k$ , which corresponds to the *či* of the Shughni-Rushani group,<sup>211</sup> is used in the same limited cases in which it is used in Bartangi and Rushani:Yz.  $s\partial k$ -páčk 'prone; face down';  $s\partial k$ -térn 'upside down';  $s\partial k$ -pālów 'on one's side'. The particle pay is used with the infinitive in inchoative constructions: Yz. pay x<sup>0</sup>aráj mad 'he started to eat'.

2. In Shughni and Sarikoli the postposition  $-\bar{e}c$  (Sh.), Sr. -ic, is used to indicate a limit as well as a means of action: Sh.  $biy\bar{o}r$ - $\bar{e}c$ -um pi ti falt 'I waited for you until the evening'; Sh.  $k\bar{a}d$ - $\bar{e}c$ -at  $vud - Rixun-\bar{e}c$  'where did you get to? – to Rushan'; Sh.  $yu v\bar{o}rj$ - $\bar{e}c$ -imu- $rd d\bar{a}k c\bar{u}d$  'he gave me everything, even a/his horse'; Sr. yad peysin-ic cer kaxt 'he will work until noon'; Sh.  $xu c\bar{e}m$ - $\bar{e}c$ -um wint 'I saw (it) with my own eyes'; Sh. calak- $\bar{e}c xac var$  'bring water with a/the bucket'; Sr. i- $\delta ust$ -ic a-xurjin waðord 'with one hand he grabbed the bag'; Sr. wi-yic, di-yic 'thus; in this way'; Sr.  $ban \delta$ -yic 'under a/the pretext'.

In Rushani and Bartangi this postposition (Ru., Bt. -*ac*) has almost completely been forced out. It is used only in constructions expressing a limit in time or space in combination with the preposition  $t\bar{o}$ : Ru.  $t\bar{o}$   $t\bar{t}ram\bar{o}$ -yac 'until the fall'.<sup>212</sup> At the same time, -*ac* is often contaminated with the augmentative particle -*a* $\theta$ : Ru.  $t\bar{o}$  *ásri*  $b\bar{s}t\acute{u}m$ -*ac* (//  $b\bar{s}t\acute{u}m$ -*a* $\theta$ ) '(up) until the twentieth century'; Ru.  $m\ddot{a}\bar{s}$ -*am*  $t\bar{o}$  Rixunar (//  $t\bar{o}$  Rixunar -*a* $\theta$ )  $piy\bar{o}d\acute{a}$ -*a* $\theta$   $t\bar{a}yd$  'we went all the way to Rushan on foot'; Bt.  $t\bar{o}$  *ik*- $d\bar{i}$  *m* $t\bar{\theta}$ -*ac* (//  $m\bar{i}\theta$ -*a* $\theta$ ) *lāk* 'leave (it) for two days'.

 $<sup>^{210}</sup>$  In the Bajuwi dialect of the Shughni language we find a parallel usage of *či* and *pay* with the infinitive, but here, as in other cases, we are likely dealing with influence from Rushani.

<sup>&</sup>lt;sup>211</sup> Cf. Mnj.  $s(\partial)k$ ,  $sk\partial$  'on'; Wkh.  $s\partial k$  'on the surface'; but Ish. kb 'on; on the surface'. If these are from \* $usk\bar{a}t$  or \*uska- (cf. IIFL II: 246; EVP: 30; s. v. hask), then Sh. /sk/ would correspond to  $\check{c}$ .

<sup>&</sup>lt;sup>212</sup> In the Roshorvi dialect of Bartangi, -ac is more widely used, and is also used in constructions indicating the means of an action: Rv. *čég-ac mā ðal* 'don't hit (it) with a knife'.

In order to express the means of an action in Bartangi and Rushani the preposition *par* is used: Ru. *xu par cām-um wunt* 'I saw (it) with my own eyes'; Bt. *par dim yalbīr žac tāž* 'don't carry water with this sieve'. In Shughni the preposition *par* is not attested. In Sarikoli it is present, but it has a different meaning – the goal and direction of an action: Sr. *putžú a-máš par ta bužt* 'the king sent us for you'; Sr. *wi-yan ya soyib par wi yot* 'his owner came for him'; Sr. *putžú par maš qor kažt* 'the king got angry at us'; Sr. *vurj par peð patéw* 'throw it to the horse'.

In the remaining languages to express the goal of an action, the preposition Ru., Bt. *pas*; Sh. *pis* is used: Ru. *pas žoz sut* 'he went for wood'; Sh. *wúz-um pis žac yat* 'I came for water'. In Sarikoli, *pas* does not have this meaning and is used primarily with locative meanings, which it has in common with the other languages of the group (for instance: 'after / along'): Sr. *mы pas doim teyit* 'go after me'; Bt. *yā pas mú-aθ tēzd* 'she goes after me'; Sr. *pas wi čudīr-i narjéd-ri čewg* 'he started to walk along that fence'; Sh. *pas daryố zimbấ-aθ-an tāyd* 'they went along the bank of the river'; etc.

The corresponding Yazghulami preposition  $p(\partial)\check{s}a$ ,  $p\partial\check{s}^{213}$  is close in usage to that of Bartangi, Rushani, and Shughni, and expresses the goal and purpose of an action: Yz.  $p\check{s}a$  xéx-an šod 'they went for water'; Yz.  $\check{s}\partial d\check{a}g$ -at Žamág  $p\partial\check{s}$  olibolú 'You went to Jimak for cherries'. However, Yazghulami  $p(\partial)\check{s}a$  has only preserved one of the other meanings associated with this preposition in the Shughni-Rushani group,<sup>214</sup> namely that of 'after; following': Yz. *na zayít pša můn* 'don't come after / follow me'; Yz. *pša juma-u čig*? 'after Friday, what?'.

The postposition Sh.  $-\bar{e}c$ ; Sr. -ic; Ru., Bt. -ac, as well as the preposition *par*, is not attested in Yazghulami. The meaning of limit and means ot method of an action is expressed in Yazghulami with the postposition -ama, on which see §182.

3. There are also cases in which a given functional element is present only in one of the languages – or even dialects – of the Shughni-Rushani group, and is not attested at all in the other languages. Thus, only in Shughni do we see the postposition *-va*, which expresses path of motion: Sh.  $w\bar{e}\delta$ -va yu ar tagóv sut 'it went down via/along the aqueduct'; Sh. wiðič diví-va riwāxt 'the bird flew through the window'. This postposition has been lost even in the Bajuwi dialect of the Shughni language, and the meanings corresponding to va in Shughni are expressed in Bajuwi with the preposition *pis*, as they are in Rushani and Bartangi.

Only in Khufi do we find the postposition  $-\bar{o}w$ , which expresses belong (cf. §183). However, in Sarikoli we find a nominal element  $-\varepsilon w$ , but its meaning meaning has been difficult to pinpoint; although, perhaps, (at its core is the allocation of an object?).<sup>215</sup> In any case, the Khufi

<sup>&</sup>lt;sup>213</sup> From \**pasča*; *pas*, *pis* of the Shughni-Rushani group may continue this form through the assimilation of sc > s, which is identical to the assimilation in Yazghulami of sc > s.

<sup>&</sup>lt;sup>214</sup> See, for instance, the transformation of the meanings of *pis* in БДШ: 196.

<sup>&</sup>lt;sup>215</sup> Cf., for instance, the following uses of Sr. -*ɛw: lɛwr pы́c-ir lɛwr radzén ðon, maðonséðĭ pы́c-ir maðón radzén ðon, sar-dzыléw pы́c-ir dzыléw razén ðon* 'we are going to give the oldest daughter to the oldest son, the middle daughter to the middle son, and the youngest daughter to the youngest son'; *ðɛw vrud tizd ɣɛyw, dzыléw nast* 'two brothers go on a hunt, and the younger one stays'; *az wef iwéw xы ɣin ыč aziz veðĭ* 'one of them really loved his

postposition  $-\bar{o}w$  is as difficult to connect to this (Sarikoli) formant as it is to connect to the Shughni, Ru., Kh., Bt. infinitive  $-\bar{o}w$ ; Sr.  $-\varepsilon w$ .<sup>216</sup>

In Sarikoli, besides the nominal formant  $-\varepsilon w$ , there is also another formant  $-m\varepsilon yj$  which is not attested in another language, and is used alongside the infinitive in inchoative (or prospective?) constructions of the following type: Sr. *quzi tid-m* $\varepsilon yj$  sut 'the judge was about to leave'; Sr. wi *yin šič bačo v* $\varepsilon yg$ -m $\varepsilon yg$  sut 'his wife is (was?) about to give birth' (which in meaning is identical to Ru., Bt., yā pay nīwd, Sh. yā či nīwd 'she is about to cry').<sup>217</sup>

**§175.** The examples given above by no means represent all of the discrepancies in prepositions and postpositions within the Shughni-Rushani group. However, they suffice in order see the difference and the diversity of routes taken by each of these languages in the development of function words. Moreover, we constantly see that the development of one element is accompanied by the dying out of another element which was close to the new one in meaning (cf. the intersection in meaning and differing usage of *par, či, pas, -ac (-ēc, ic)* in each language).

Such a situation reveals a significant grammatical instability for most function words in the Proto-Shughni-Rushani period – that is, it reveals that these function words were not very grammaticalized. Those function words which had a sufficiently defined grammatical meaning in the Proto-Shughni-Rushani period remain stable in all languages of the group in the modern time (the prepositions *pa*, *tar*, *ar*; postposition Sh., Ru. *-avēn*; Bt. *-avān*; Sr. *-avon*). These prepositions *pa* (Sh. *pi*), *ar*, and *tar*, with their opposition to one another in indicating top (upward) – bottom (downward) –horizontal plane in fact characterize the nature of the modern system of prepositions in the Shughni-Rushani group. For the remaining inherited prepositions and postpositions, we find some differences in their meanings among the languages of the group.

It is natural that a lack of grammaticalization of function words (weak differentiation with respect to their prepositional, postpositional, prefixal, and nominal usages in the majority of cases, as well as intersection in their meaning) was even more characteristic of the Proto-Shughni-Yazghulami period. The exception to this is apparently the preposition /aj/ > Yz. *ž*-, Sh. *az* (*adz*), *as* (\**hača*), which got its grammatical specifications relatively early on.

wife'; *iw az wef putžú sыt, xeléw wazīr sыt* 'one of them became a king, and (the) six (others) became viziers'; *wi žeðéf-an wi lɛwréw Tujorbaman num vыd* 'the oldest of these outlaw's name was Tujorbaman'; *wáz-am xы soyib-ir pindz-xél-am zud, nerɛw žej sыt, sitiréw žɛw sыt* 'I (cow) gave birth five or six times for my owner; and he got a pedigree bull and a pedigree cow'.

<sup>&</sup>lt;sup>216</sup> However, Sarikoli -εw as an infinitive suffix still apparently acts as a postposition together with the postpositions -*ri*, -*ic*; etc.; each with its own meaning. Cf., for instance: y<sub>bl</sub> xat fript-εw, wiató mas betuqát s<sub>bl</sub>, r<sub>bl</sub>wún s<sub>bl</sub> tar x<sub>bl</sub> p<sub>bl</sub> cyet-ir 'when this letter arrived (lit. with the receipt of this letter), his father couldn't take it anymore and he set out to meet his son (for a meeting with (his) son)'; wi čéd-dar<sub>bl</sub> dos ž<sub>b</sub>'rm-iko, xalg deyd-éw kabúb sewd 'in this house it is so hot that upon entering, one turns into a kabob'; Cf. the usage of -*ir*; -*ic*: paméyg-ir-am leq na v<sub>bl</sub>g 'I didn't find any clothes to wear'; x-ato ž<sub>bl</sub>keyg-ir t<sub>bl</sub>yd 'he went to look for his father'; i čat wuž wéðd-ic, iwew čat merd 'while they give one cow hay, the other one dies'; lekín m<sub>bl</sub> xovd-ic, tamaš jam a-wi xorit 'while I go down, you will eat all of this'.

you will eat all of this'. <sup>217</sup> Cf. the usage with the auxiliary verb Sh., Bt., Ru. *sitów*: Ru., Bt. *yā pay nīwd sat*; Sh. *yā či nīwd sat* 'she started to cry', which in Sarikoli corresponds to the construction: *či niwd sewd* 'starts to cry'.

Consequently, the development of prepositions and postpositions, as well as the development of plural markers, is a later phenomenon and took place for the most part after the split of the Proto-Shughni-Yazghulami language into Proto-Shughni-Rushani and Proto-Yazghulami. From here it is naturally that we get the discrepancies in meaning that we find, an examination of which is provided below.

# Yazghulami characteristics

### Prepositions an/am, dar(i), dam and the postposition -anda

**§176.** The prepositions Yz.  $\partial n$  (with the phonetic variant  $\partial m$ ),  $d\partial r(i)$  (with the variant dar), and  $d\partial m$  have a more or less identical core meaning: direction toward the interior of something or into the limits of something and location within the interior or within the limits of something. The preposition  $d\partial m$  is used rarely and is likely the result of contamination between the prepositions  $d\partial r$  and  $\partial m$ .

This meaning coincides with the meaning of the fundamental locative postposition of the Shughni-Rushani group: Sh. -andīr; Ru. andi; Bt. indēr. Cf. Yz. əm ni sabát dis 'get into my basket'; magás ən dalíz nest 'there are no flies on the iwan'; əm čədán-ay půx<sup>o</sup> 'it cooked in the pot'; yasán-da dər wů kůd 'they take the grain into one house'; šód-əm dəri ðůr 'I went into the canyon'; xi čináy wəyín dəm (//əm) jubák 'I'll put my snuffbox in my pocket'; Sh.-Ru. group: Sh. ik-mi dāxt-andīr 'in(to) this steppe'; Ru. mu dargō-ndi yi čanṓr nēð 'plant a sycamore tree in my yard'; Bt. wī pa dām camūg-indēr garðā 'he has bread in his back pocket'; etc.

**§177.** Thus, we have reason to posit that the Yazghulami prepositions and the Shughni postposition continue one and the same functional word (\**antar*), which in the Proto-Shughni-Yazghulami period was used both as a postposition and as a preposition. A continuation of the postpositional usage of \**antar* is found in Yazghulami in the form of the postposition -*ənda*, which is found comparatively rarely and primarily with a temporal meaning: Yz. *ar dow wů mīθ-anda məg* 'both of them died on one (the same) day'. The other usages of the postposition -*ənda* force us to posit some influence from Tajiki (Tj. -*ъnda* of the southeastern dialects), as in such cases it is only found in combination with borrowed words: Yz. *zawód-ənda-da kār kºənín* 'I work in the factory'; Yz. *tów-da ičiģ gáp-ənda xafá vay* 'you are getting upset for a lost cause'; Yz. *ti soát-at čon súm-ənda nyůd* 'how much did you buy your watch for?'.

Support for this disappearing postposition from Tajiki is natural. However, it should be stressed that this is precisely *support from* or *contamination with* Tj. -*bnda*, rather than a direct borrowing of it. The fact that the postpositional usage of \**antar* was typical in a previous stage of the Yazghulami language can be appreciated through its presence in complex locative adverbs: Yz. *wa-ndar, wa-da, yay-da* 'here'; *am-dar, anda(r)* (from *am-andar*) 'there'; *k*<sup>0</sup>*o-ndar* 'where'; *wů jo-nda* 'somewhere'; etc.

**§178.** In this regard, it is fully plausible to posit that the preposition *dar* of the Shughni-Rushani group is not simply a borrowing, but is the result of contamination of its own preposition *(an)dar* 

with the Tajik-Persian dar.<sup>218</sup> This notion is supported by the fact that dar in the Shughni-Rushani group, just like the dar(i) of Yazghulami, is widely used in the structure of inchoative constructions, most often with infinitives, in a function that is not characteristic for the Tajiki or Persian languages. Cf. Sh.-Ru. group: Sh. *yu dar žēxt ðod* 'he started running'; Ru. *way cāmḗn, way yōwḗn dar dārð ðayd* 'his eyes and ears start to hurt'; Bt. *yā dar nēwd ðod* 'he started to cry'; Sr. *dar x̄ыkarút ðud* 'he went out searching'; Yz. *if-an dər x̆kəráj ðed* 'they started to search'; *ti kāl dəri růvn-da ðayd* 'your head will start to hurt'; *dəri wayáj ðayd* 'he bursts into tears'.

**§179.** In the Sarikoli language, the postposition *indér* has a limited application, and is used only to mean 'with whom; whose': Sr. *čos iko, gúli qaqa čidúm yac indér* 'look which girl has the flower of joy'.

<sup>219</sup> However, along with the significant change of its lexical meaning, Sarikoli *inder* has preserved its independence as a noun better than the other languages of the group, and it has the ability to, when taking on suffixes, function in the role of a noun: Sr. *yad yaðó xы inderénj pыl zыwúst* 'the youngster pulled out his cash (the cash he had on his person)'.

Traces of the nominal usage of \**antar* are found in other languages as well in the form of fixed compounds: Yz. *andaravðůst* 'thin gloves worn under leather work gloves' (*avðůst* or *dastbilá*); Yz. *andarawé badín yo tagév* 'should I go along to the top or along the bottom?'; cf. also Yz. *andarbág* – (name of a village).<sup>220</sup>

**§180.** Therefore, we can reconstruct the following uses for \**antar* in the Proto-Shughni-Yazghulami period: 1) prepositional /( $\vartheta$ )ndar/, which gave ruse to the prepositions: Yz. *\varthetan/\varthetam, d\varthetar(<i>i*); Sh. *dar*; 2) postpositional / $\vartheta$ nd $\vartheta$ r/, which gave rise to the postpositions: Sh. *-and\bar{i}r*; Ru. *-andi*; Bt. *-ind\bar{e}r*; Sr. *-inder*; Yz. *-nda(r)*; 3) nominal usage / $\vartheta$ nd $\vartheta$ r/.

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### Yazghulami preposition ma and postposition -ama

**§181.** The Yazghulami locative preposition *ma* is connected primarily to the meaning of 'direction onto the surface' or 'location on the surface': Yz. *wů qop mawíz – ma skád* 'one sack of mulberries is on the roof'; *rapc ma wiðg tůr ðed* 'the fox climbed up onto the grapevine'; *ma sajék niθ* 'sit on the bedding'; however, it can also express other types and instances of direct locative convergence and contact: Yz. *ma dami ðůst kan* 'put it (a chain) on your legs'; *ma xůd* 

<sup>&</sup>lt;sup>218</sup> The vocalization of the preposition (*an*)*dar* in the postposition Sh. *and*t (and the others of the Sh.-Ru. group) is explained by the lack of stress of the preposition. Cf. the preposition *tar* and the postposition  $t\bar{t}r$  from the same \**tar*-. Generally, postpositions maintained a connection to nouns for a longer period of time and retained word stress. Yazghulami -*anda*(*r*) instead of -*and*t is explained, first of all, by the loss of *r* (-*anda* is the basif form), and secondly through its contamination with Tajik =*bnda*.

<sup>&</sup>lt;sup>219</sup> In other languages this meaning is given by the postposition Sh. -*ja*; Ru. *jo*; Bt. -*jō*; Yz. -*je*; Sh. *tu qalam mu-ja* 'your pen is with me'; etc.

 $<sup>^{220}</sup>$  It is possible that it was precisely this possibility of the prepositional *andar* to be used as a noun in Yazghulami with the presence of attributive *-i* (*andari*) which gave rise to the alternative form of the preposition *dari*.

*lay na kəxt* '(the cow) won't allow anyone to approach her';  $du x^0 an ma vəndék kən$  'tie the cow up onto the line'.

In the languages of the Shughni-Rushani group this preposition is observed only as a prefixal particle: Sh., Kh. *mi*-; Ru., Bt. *ma*- in expressions such as the following: Sh. *mi-qap*, *mi-dust* 'in (one's) hands; on hand'; Sh. *mi-nul* 'in one's beak/mouth'; Ru. *ma-yul*(*w*) 'into (one's) arms'. In Sarikoli *ma* is found in the structure of complex nominal postpositions: Sr. *yot-i di yadó ma-kal* 'he went up to that youngster'; *a-di gap Xid ma-za-mún* 'hearing these words . . .'). In the final example we can see the influence of a foreign (Turkic) language (cf. northern-Tajik *in gap Sunidan zamón* 'hearing these words . . .'), which points to the recent, and possibly modern, independence of Sarikoli *ma*.

**§182.** The Yazghulami postposition *-ama* continues the same functional element, but in its postpositional variation. In meaning it is identical to the postpositions: Sh. *-\bar{e}c*, Sr. *-ic*; i.e. it indicates limit and means of action.

As can be seen from the examples given in the preceding section, the fundamental meaning of the preposition *ma* is direct approach or joining to something – i.e. some kind of (primarily locative) direct contact within whose confines something is found, as well as the meaning of direction onto the surface or location on the surface of something. Cf. Yz. *ma skad-əm awád* 'I put (something) on the roof'; *ma way kůdi ráyd-ay nəvišt* '(he) wrote on the wall of that house'; *taká pajín ma θen* 'I bake bread in the oven' (the bread is stuck to the walls of the oven); etc.

The meaning of limit and of the means of an action, the postposition *-ama* developed, are simply different aspects of this fundamental meaning – i.e. different aspects of some direct approach. Limit: Yz. *tiramó-ama* '(right) up until the fall'; Yz. *way jet way maðán-ama fadá* 'his hair reached all the way to his belt'. Jointness or reciprocity: Yz. vá xi žarážg, ni žarážg-ama rəfanám 'bring your partridge, we'll pit it against my partridge'; Yz. *du dew wáy-ama paðóvd* 'that demon grappled with him (in a fight)'; cf. the closeness in usage of the preposition *ma*: Yz. *təmóx ma ven-a-vén ošág mədá* 'you fell in love with one another'.

The meaning of means or manner of action we find in the *ma-*, *mi-* of the Shughni-Rushani group, where it is still clearly connected to locative approximation: Sh. *yu žīz xu mi-yůý ðōd* 'he took the wood into his arms (lit. 'to his ear'); Sh. *aqṓb čáx̃-i xu mi-nůl čūd* 'the eagle took the chicken into (with) its beak'; Sh. *xu púc-um xu mi-qấp čūd* 'I took my son into my arms'. The very same meaning is found for Yazghulami *-ama*: Yz. *kāf xi nál-ama-y nəmášt du qəlyá* 'the jackdaw pulled out those pieces with its beak', but parallel to the developing abstract meaning of any means or course of action: Yz. *na daháy mó-ra šúp-ama* 'don't throw dirt at me'; *yez aģ! ðow péð-ama!* 'Run along! quickly! (lit. with two legs)'.

We should add that the postposition *-ama* in some cases still preserves the meaning of approximation/direction – i.e. it interescts in meaning with the preposition *ma*. Cf. the postposition: *mi oxún-ama na vašáy* 'don't sell me to my teacher'; *awqót-ama-da na stiz* 'don't

be offended by the food'; and the preposition: ma xud lay na koxt 'he/she doesn't allow anyone to come near'; tow yoya tůmát ma mon na away 'don't throw such slander at me'.<sup>221</sup>

Thus, for the Proto-Shughni-Yazghulami period, as with \*antar, we can reconstruct both prepositional and postpositional usages of the function word /(a)mə/ (cf. Av. ham, ham-, hamə-).

#### Yazghulami postposition -me

§183. The Yazghulami postposition -me expresses belonging. In the Shughni-Rushani group the formants of belonging are different: Sh. -and; Sr. -an; Ru., Bt. -ā; Kh. ōw. If we assume that -and, -an, and - $\bar{a}$  are phonetic transformations of the same element,<sup>222</sup> then Khufi - $\bar{o}w$  is clearly of a different origin. Consequently, the formation of formants of possession/belonging are also a later phenomenon: their ultimate formation took place in each language individually. Yazghulami -me, which is used to fill this role is like Khufi  $-\bar{o}w$  in that it is difficult to compare with anything else.<sup>223</sup> In terms of meaning, Yazghulami -me is fully equal to the possessive formants of the Shughni-Rushani group: Yz. tú-me yast əncávn? 'do you have a needle?'; yúki *čiráy-me lap vůr* 'this apricot tree has a lot of fruits'; *x*<sup>0</sup>*arg-ay mó-me, tú-me na* 'my sister, and not yours'; kºaná təd, pərwés-me 'old mulberry from last year'; Sh. mu-nd pūl nist 'I don't have money'; Sr. wí-yan ybi sovíb par wi yot 'his owner arrived after him'; Ru. id kit $\delta b - t \hat{a} - v \hat{a}$  'this book is yours'; Bt. wī yuladör podžó razén vúg-at, wī maðéndz wazír-ā 'the oldest one took the king's son and the middle one took the vizier's'; Kh. vi matala tojiken-ow yast 'the Tajiks have a riddle'; etc.

#### Yazghulami postposition -me

**§184.** The Yazghulami preposition *na* has all the same meanings as the preposition *az (adz)*, *as* of the Shughni-Rushani group: Yz. na čo namóxt 'he went out of the dungeon'; na yúki aftá dúki aftá-ama 'from this week until next week'; na *ỹiw yat* 'he came back from the hunt'; na biyír-ay kašdůr 'hotter than yesterday'; počó na wazír pist 'the king asked the vizier'; per ðadá na da xərəvdég 'he crossed the stream'; mág-əm na xəndáj 'we died with laughter'; etc. The development of this preposition in Yazghulami was caused by the loss of the ablative meaning of the preposition ž-, š-. Modern Yazghulami ž-, š- is used as a marker of accusative case for pronouns, having transformed from a preposition into a prefixal formant: *ž-way*, *ž-day* 'him (acc.)'; ž-im, ž-dim 'her (acc.)'; ž-mun 'me (acc.)'; š-tu 'you (acc.)'; etc.

**§185.** There are no traces of the preposition *na* in the Shughni-Rushani group, but there is still the possibility that it is connected to the possessive formants of the Shughni-Rushani group: Sh. -

<sup>&</sup>lt;sup>221</sup> An example of a similar connection between the meaning of means or manner of action and the meaning of approaching is given by *par* of the Rushani and Bartangi languages, which replaces in this function the postposition -ac (§174, pt. 2). It should be assumed, in connection with this, that the postposition Sh. -ec, Sr. -ic, Ru., Bt. -ac (\*aθra) initially indicated some kind of convergence, in a wide sense. <sup>222</sup> Cf. Mnj. -an, εn; Wkh. -an (IIFL II: 123, 137, 486; MЯ: 126); for instance: Mnj. wo hādom-εn lu luydi vīat 'that

person had two daughters'; Wkh. *ya ðáy-ən tu bu pətr* 'that person had two sons'. <sup>223</sup> However, for Kh.  $-\overline{o}w$ , see  $-\varepsilon w$  in Sarikoli (§174, pt. 3).

*and*; Sr. -*an*; Ru., Bt. - $\bar{a}$ . Cf. the Pashto ablative postposition *na* and the Saka ablative formant *na*, which is connected to Munji and Wakhi -*an*, -*∂n* (cf. the footnote to §183), which are combined with the ablative prefix: Mnj. *že tat-n* 'from father' = Psht. *d∂ plār na*; Wkh. *ca xūn-an* 'from home' = Psht. *d∂ kōr na* (EVP: 50).

Yazghulami *na* was able to develop an ablative meaning precisely from its combination with the preposition  $\dot{z}$ -  $/a\dot{z}/$  or  $/\dot{z}$ ə/. Evidence of such a combination in Yazghulami is plentiful. The ablative meaning is often realied not only via the preposition *na*, but also via its combination with - $\dot{z}$ , and thus we get the complex Yazghulami preposition *na*- $\dot{z}$ : Yz. *səpanáy-da na-\dot{z} web* 'you pour flour from the box'; *na-\dot{z} dab*, *na-\dot{z} wandá* 'from there'; *na-\dot{s} k<sup>0</sup>ore, na-\dot{s} k<sup>0</sup>onda* 'from where'; etc, the latter examples –i.e. frozen adverbial formations – do not have parallel variants with *na* without  $\ddot{z}$ -,  $\ddot{s}$ -. This means that in the period of their formation, the preposition *na* in the ablative meaning was apparently still not used outside of combinations with  $\dot{z}$ -,  $\dot{s}$ -. The combination of *na* with  $\ddot{z}$ -,  $\ddot{s}$ - is also obligatory before pronouns: *na-\ddot{z} way talabáy* 'ask him!'; *na-\ddot{z} day zazáy* 'take from him!'; *jé na-\ddot{z} ni peð*! 'get off my leg!'; *u na-\ddot{z} munda* 'from *is not bigger than me*'; etc.

In some cases we observe traces of the previous meaning of *na*, which are not connected or which could have not been connected to the ablative. In such cases it is typical to have the independent (i.e. not in combination with *ž*-, *š*-) use of *na*: Yz. *na xi wéx-ax laft* 'she said to her husband' (cf. the parallel construction with the dative *-ra*: *xi déd-ra-ay laft* 'he said to his father'); *na kašáy-da jet kəl je mit* 'all the hairs fall out (from/with/in) the heat'; *na-táw-da per wəyín* 'I'll transfer? by (across) the bridge'; *ú-da na čoy sir na mit* 'she cannot get enough tea'; *na čiģ-da bazáy k°ənít*? 'so what are you guys playing?'; *na xõ°ayéki yərdáb-ta na xõ′ard-a wex* '(the cow) doesn't eat grass out of fear of gadflies (in fear of gadflies).'

The preposition *na*, *nə* is also found in Munji alongside a postposition *-an*. While it has as its fundamental meaning the directional (dative) meaning, Munji *na* intersects sometimes with the preposition za, za (cf. similar constructions: Mnj. *yirv na škürin* 'mouth of a camel?' and *sahob* za *škürin* 'owner of a camel'; MЯ: 134, 14. Cf. also the Av. preposition *ana*).

However, there is a need for a significantly more detailed study of the Munji and Wakhi languages in order to establish clearer historical connections of Yazghulami *na*.

### Yazghulami preposition -i

**§186.** The Yazghulami preposition *i* is apparently exclusively a locative prefix, expressing direction to a place or to a side: Yz. *šod i kud* 'he went home'; *badəm i xəd* 'let's go to the shore'; *žəqáy-da xi peð i wob* 'push down hard with (your) legs'.

There are no correspondences to this preposition in the Shughni-Rushani group. Most likely, in Yazghulami *i* has lost an initial or final consonant, which makes it difficult to make judgments about such correspondences.

#### Shughni-Rushani characteristics

#### Prepositions pa, tar and ar

**§187.** The spatial opposition characteristic of these prepositions, which involves an up – down – horizontal plane (Ru. *tar way qīwt* 'they called to him'; *pa way qīwt* 'they called up to him'; *ar way qīwt* 'they called down to him') should be considered a later phenomenon, which arose within the Shughni-Rushani group itself. We can see this (besides the fact that we do not find such a system in other Pamir languages) by the wide usage of the three prepositions without regard to the meaning of up or down. In this sphere of their usages, the prepositions *pa, ar, tar* have the following fundamental meanings.

**§188.** The preposition *pa* (Sh. *pi*) expresses maximum approaching, connection, or some direct contact: Ru. *pa day yůc mā biráf* 'don't touch the fire'; Ru. *pa tā xu vindum* 'I'll tie myself to you'; Bt. *pa um Simúry yi baló yōr sut* 'a poor bird became attached to Simurg?'; Sh. (Bj.) *čōdár pi lēf ðāð* 'fasten the bedsheet to the blanket'; Sh. (Bj.) *sipún pi sipōrn ðām* 'I'll put the tip on the plow'. Even where the meaning is of direction toward a surface or location on top of something, it doesn't go beyond this basic fundamental meaning: Ru. *yā pa dišāt* 'he is on the roof'; Kh. *pi way tāx mirúm* 'I'll die on this mountain'; Ru. *pa yi pužtá naxčír piðó* 'on a highland mountain sheep are visible'; Sh. *piš pi wēd sifād* 'the cat climbed up the willow'; Bj. *ðud pi osmůn indúyd* 'the smoke went up into the sky'. From these cases of the usage of *pa*, an abstract meaning of 'top; up' was subsequently developed.

It is not difficult to see that the meanings of *pa* described here coincide in meaning with the Yazghulami preposition *ma* (§181). Traces of intersection in the usage of *pa* and *ma* are found in the Shughni-Rushani group as well: cf. Sh. *mi-nůl* vs. Bt. *pa-núl* 'in(to) the beak'; Sr. *ma-kal* but Ru. *pa-kāl* – a complex postposition meaning 'to; above'. The preposition *pa* in some cases also has a meaning of jointness and of means of action, which is characteristic of the Yazghulami postposition *-ama*: Sh. (Bj.) *pi amdigár janjól-ēn čūd* 'they quarreled with one another'; Sh. (Bj.) *dím-um xi pi cēm wīnt* (= Ru., Bt. *xu par cēm*) 'I saw it with my own eyes'.

Thus, we see that in the Proto-Shughni-Yazghulami period, two function words were used which were close to each other in meaning  $-p\partial$  and  $am\partial$  – the first of which was subsequently used more in the Shughni-Rushani group, and the second was used more in Yazghulami.

**§189.** The preposition *ar* expresses movement into the interior part or into the confines of something, or the location in the interior or within the confines of something: Ru. *ar čód-an xōvd* 'they slept in the house'; Ru. *xalq ar zāl qarṓr čo* 'the people became silent in the hall'; Ru. *indáyj ar camúg* 'he got into the basket'; Bt. *az wí-yan ar jawṓl ðōj* 'they set it inside the sack'; Sh. (Bj.) *māš yōɣj ar ziðun vud* 'our flour was in the closet'; etc. We also find cases of the usage of *ar* such as the following: Ru. *yi xikímc xūdz yēst ar yi kurcáy* 'the wind took a bundle of fiber into the ravine'; Kh. *yaw ðayd ar um qūl* 'she falls into that pond'; Bt. *ar čō az-tấ patáum* 'I'll

throw you into the hole'; etc. From these latter usages an abstract meaning of 'down(wards)' was subsequently developed.

The meanings of the preposition *ar* described here coincide with the Yazghulami prepositions  $\frac{\partial n}{\partial m}$  and  $\frac{\partial ar(i)}{\partial r}$  (§176). For this reason it is entirely possible that the *ar* of the Shughni-Rushani group is phonetically (and semantically) a derivative of the preposition  $\frac{\partial ar}{\partial r}$ .

**§190.** As for the preposition *tar*, with the opposition which developed between *pa* (up) and *ar* (down), it took on the function of indicating a horizontal plane or, alternatively, indicating the general direction to some place or someone: Bt. *sāwan tar bōzór* 'they're going to the bazar'; Bt. *tar xu zibố gāxt* 'he turned around'; Sj/*wāð-ēn fúkaθ tar kōr sat* 'they all went to work'; Bt. *na tar vaĭ, na tar darún* 'neither outside, nor inside'; Bt. *tar wī luvd* 'he said to him'; Bt. *ãz xu jōn tar xu várum* 'I'll get my soul back'; etc.

For the preposition *tar* we also get meanings of maximum approach, joining, contact, and means of an action which are characteristic for *pa* of the Shughni-Rushani group and *ma*, *-ama* of Yazghulami. Cf. Bt. *tar amdigár muslất kinán* 'they consult one another; Sh. (Bj.)  $t\bar{o} xu \, \delta \bar{u} st tar wim \, \delta \bar{a} \delta \bar{e} n$ -at, yā dará wōxt 'as soon as they touched her, she fell'; Sh. (Bj.)  $c\bar{e} d$ -ām tar pisén sēwd 'we sharpened the knife on the whetstone'; Sh. (Bj.) yi maw tar māk bānd vūst 'they tied a rope to the sheep's neck'; Sh. (Bj.) yu ziv tar nůl-a $\theta$  lūvd 'he said with this tip of his tongue (unwillingly)'; Sh. (Bj.) pīndz-ām, tar mu mům-a $\theta$  'there are five of us together with my grandmother'; Ru. way tar-sivd bīl 'there's a shovel on his shoulder'.

**§191.** In its full phonetic form the preposition *tar* is observed in Yazghulami in the fixed combinations *tər-xuðm* 'in sleep; in a sleeping state'; cf. Ru. *yā tar xuðm* 'she is sleeping'; *yā tar xuðm ðud* 'she fell asleep'.

As an independent but rarely used preposition *tar* in Yazghulami is found in the form of *ta*: Yz. *rəpc bad ta musaféd* 'the fox goes to the old man'; Yz. *xafá mədá-t ta xi ded šod* 'he became sad and went to his father'.

But this preposition is very widely used in the structure of the complex Yazghulami preposition *pəta, pta, where the first component is apparently the preposition pə (pə + tar), which has lost its independent usage. This complex preposition indicates direct approximation to someone or something, or location nearby, in front of, or next to: Yz. <i>za pta můn* 'come to me'; *fərapanít ž-můn pta du il* 'take me to that ?'; *áz-əm yat, yuk pta tu* 'I came right in front of you'; *za, wů pyalá čoy braz pət-xi nān* 'come here, drink this cup of tea by your mother'. In its meaning Yazghulami *pəta* fully coincides with the preposition Sh. *xēz*; Ru., Bt. *xīz*; Sr. *xɛys*; Ru. *ya tar radiō xīz yiðd* 'he comes up to the radio set'; Kh. *wáy-i pa xu xīz qīwt* 'he called him to come'; Bt. *rōst tar wī xīz yat* 'she went right to him'; etc.

### Postposition avēn (Sh., Ru.); avān (Bt.); avon (Sr.)

<sup>&</sup>lt;sup>224</sup> A link between *ar* and *\*areða* (Sh. postposition *-ard*; Ru., Bt. *-ri*) (see NTS:46) is hardly likely: *-ard* always indicates a direction approaching something, but not direction into the interior part of something.

**§192.** This preposition expresses a goal or appointment 'for, for the sake of': Sh. *čalák avén-um yat* 'I came for the bucket'; Bt. *tā aván-um yat* 'I came for your sake'; Ru. *tu mu avén, az tā avén* 'You for me; I for you'; Sr. *maš ano zorð yuc rang mas avón \theta \in wd* 'our mother's heart, like a fire, burns for us'. In all likelihood this is a complex preposition. Its vocalization indicates a contraction from *-a(y)a-*.

In Yazghulami the postposition *be* is used for this meaning and might be connected to it in origin. Yz. *xi déd-at nán-be itág* 'he came for the sake of his mother and father'.

#### Yazghulami adverbial participle in -árm

**§193.** Traces of this form are observed in the Bartangi (non-productive ?) adverbial suffix -*ūrm*; Bt. *sirawū́rm* 'selectively' (*siraw* 'select; sort'); *tōzūrm* 'in a filtering way' (*tōz* 'strain; filter'); *čipōx̃ūrm* 'rolling; pushing' (*čipōx̃* 'roll; push'). It is possible that we can add here the word Bt. *taxīrm* (*čēgōw*, *sitōw*) 'spill; crumble', with *i*-vocalization.

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The Yazghulami vocalization in -a might be either the result of *i*-umlaut or the continuation of \*ar-vocalization, or it is possibly the result of an initially weak (secondary) stress on the suffix. It is impossible to determine anything more definite regarding this suffix due to a lack of data.