

The Dangari Tongue of Choke and Machoke
Tracing the proto-language of Shina enclaves in the Hindu Kush

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Abstract

Data from four little-studied varieties of Indo-Aryan (Southern Palula, Northern Palula, Sawi and Kalkoti) spoken in the Hindu Kush is analyzed and discussed from a historical-comparative perspective. Evidence is presented showing that Kalkoti, until recently only tentatively classified, is part of this particular cluster of closely-related Shina varieties. An attempt is made at reconstructing some phonological and grammatical features of a common source speech, here named Proto-Dangari, and the order in which the present-day varieties may have split off. An important conclusion drawn is that Southern and Northern Palula probably are more distantly related than present-day similarities seem to indicate, the high degree of synchronic similarity instead being due to relatively recent convergence taking place in southern Chitral. It is hypothesized that the present speech communities are the result of two different westward routes of migration, one geographically linking Southern Palula (Ashreti) and Sawi with Chilas, the other linking Northern Palula (Biori) and Kalkoti with Tangir, both located in the same general area of the main Indus Valley.

Keywords: Indo-Aryan, Shina, Dangari, Palula, Sawi, Kalkoti, Gawri, Kohistani, convergence, vowel alternation, vowel raising, recon-

struction, comparative method, aspect, perfective, imperfective, tense, grammaticalization, aspiration, consonant cluster, chain shift.

1. Introduction

This paper is an attempt at applying some insights that can be drawn from historical linguistics on data from four little-studied varieties of Indo-Aryan Shina: Southern Palula, Northern Palula, Sawi and Kalkoti.¹ Each of these is spoken by a dispersed community in a region west of the main Shina belt. Data is also presented showing that Kalkoti, which has so far only tentatively been classified as belonging to Shina (Strand 2001: 254–5, 258; Joan Baart, p.c.), is indeed part of this particular cluster.

In Section 2, the four speech communities are briefly introduced, followed, in Section 3, by a presentation of first-hand data supporting the classification of Kalkoti as a Shina variety. In Section 4, I focus on issues pertaining to the relationship between Southern and Northern Palula, such as a common origin and shared development. After that, in Section 5, I present some features of a hypothetical source speech of these two varieties. In Section 6, I widen the scope to include the more distantly related varieties Kalkoti and Sawi in a discussion along comparative lines, in an attempt to trace a source speech (Proto-Dangari) of all four of the Shina enclaves. In Section 7, I sketch some lines of development from Proto-Dangari into the present-day varieties and suggest how these four may be grouped vis-à-vis each other. The most important conclusion drawn is that the apparently closely-related Southern and Northern Palula may in fact be a little more distantly related than the present-day similarities seem to indicate, these similarities instead being the result of more recent convergence. In Section 8, I hypothesize how two different routes of migration – one resulting in Southern Palula and Sawi, and another in Northern Palula and Kalkoti – took the speaker communities to where they are presently found. Finally, in Section 9, I point to the impor-

1 I am consciously avoiding the non-linguistic and politically charged terms “dialect” and “language” as much as possible.

tance of a closer study of these, in many respects archaic, varieties to gain a better understanding of the early development of Shina at large.

In most cases, I base the analysis on my own field data, collected since 1998 in collaboration with local researchers and informants, among whom I especially want to mention and give credit to Naseem Haider of Ashret and Muhammad Zaman Sager of Kalam, both associated with the Frontier Language Institute in Peshawar.² Thanks also to Ajmal Nuristani who assisted me in collecting Sawi data and obtaining information on this speech community.³

2. The speech communities

Southern Palula is spoken by 5–6,000 individuals in Ashret Valley in the southern part of Chitral District in northwestern Pakistan. Palula (*paaluulaá*) is commonly referred to within the community as *atshareetaá* ‘the speech of Ashret’, and by the district’s Khowar-speaking majority as *Dangarikwar*, the latter a designation inclusive of the speakers of Northern Palula. Ashret Valley is situated at the main entry point into Chitral through the Lowari Pass. Although often considered a single large village, it really is a long-stretched area consisting of seven separate settlements. There are few speakers of any other language residing in Ashret Valley and the language is vital and actively transferred to the next generation. The degree of multilingualism, however, must be considered high, with Pashto and Khowar as the most common second languages. Most Palula samples in the literature are taken from this variety. It was confirmed through Morgenstierne’s pioneering fieldwork on this variety (Morgenstierne 1932; Morgenstierne 1941) that Palula is indeed part of the Shina linguistic cluster. Apart from the results of my own fieldwork (Liljegren 2008), Strand (1997/2008) offers a snapshot presentation of

- 2 All Kalkoti data discussed here (a word list recorded with two different speakers, a questionnaire focusing on verbs, another focusing on pronouns, and a few texts) were collected by Haider and Sager during a survey trip to Kalkot in 2006.
- 3 Regarding Sawi I have mainly chosen to rely on Buddruss (1967) for this paper and only to a lesser degree on my own, rather scanty, field data.

the variety, partly based on Morgenstierne, partly on a brief field-study in the 1980s.

Northern Palula is spoken by 3–4,000 individuals, primarily in Biori Valley, in the villages Mingal, Dhamaret and Bhiuri. The valley is situated to the north of Ashret Valley, and as in Ashret, the speech serves as the sole instrument of communication within the valley. Here, too, we find a high degree of multilingualism, with Khowar as the second language of choice. This variety (with slight variations) is also spoken in Puri,⁴ a village in the Shishi Koh Valley, although with considerably diminished vitality,⁵ as well as in a portion of Kalkatak, a village in the main valley, about two kilometers south of the mouth of Biori Valley.⁶ Northern Palula has not been the main subject of any study in the past, although one of Morgenstierne's informants belonged to Biori and another to Puri. Because Morgenstierne focuses on Southern Palula, he only offers fragmentary comparisons with Northern Palula (1941: 8). The variety is usually referred to as *paaluulaá* or *paaulaá* by its speakers.

Sawi is the speech variety of Sau, a village situated on the east bank of Kunar River in Afghanistan, about 20 kilometers south of the border town Arandu in southern Chitral.⁷ It is uncertain to what degree *Sawi* is spoken in this village today. According to K. D. Decker's (1992) informants there had been approximately 8–12,000 people living in the village before the long period of war and unrest. After that most of the people had moved out and settled in various refugee camps in Pakistan, primarily in Chitral and Dir.⁸ That the variety

4 Purigal is the Khowar name form.

5 The weakened status and vitality of Palula in Puri is due to intermarriage with Khowar speakers and a general trend of Khowar taking over as the first language.

6 Another village, Ghos, situated on the mountainside east of Drosch, was also a partly Palula-speaking village, most likely of the Northern Palula type, until recently, but is reported to have gone through an almost complete language shift in favor of Khowar.

7 The speech variety was referred to as *Sauji* (and never *Sawi*) in my own interaction with informants (cf. K. D. Decker 1992: 78). On one occasion *Gaar Boti* (not to be confused with Gawarbati) was claimed to be its actual name.

8 A good portion of a refugee camp in Timargara in Dir District that I visited along with Ajmal Nuristani in 2000 was populated by *Sawi* speakers from Sau. Since then many are said to have returned to their home village in Afghanistan.

spoken in Sau is closely related to the Palula varieties of Chitral was pointed out already by Morgenstierne in the first half of the last century (Morgenstierne 1941: 7), and was further confirmed by the more extensive study undertaken by Buddruss (1967: 11):

Dagegen ist die nahe Verwandtschaft des Sawi mit dem Phal. bereits durch einen Blick in Grammatik und Vokabular evident und wird überdies durch die Angabe meines Gewährsmannes bestätigt, daß er die Sprache der Leute von Ashret verstehen könne. Dennoch sind die beiden Sprachen keineswegs identisch mit einander.

Many of my informants seemed to be aware of the speech of Ashret and its striking similarities to their own variety. However, no major interaction or contact between the two communities seem to have taken place in the recent past, and the population of Sau has already for a long time been included in the all-surrounding Gawar community, sharing their identity in all aspects save the language (Cacopardo & Cacopardo 2001: 231–2).

Kalkoti is spoken by approximately 6,000 people in the village of Kalkot in upper Panjkora Valley in Dir Kohistan (Pakistan).⁹ As no systematic survey has been carried out in Dir Kohistan there may be other locations in the more inaccessible side valleys where this or similar varieties are spoken. Most other villages in the main Panjkora Valley, from Rajkot (Patrak) upstream, are Gawri-speaking,¹⁰ and that the speech of this village may be something rather different was first hinted at in the sociolinguistic survey carried out by Rensch and his SIL colleagues (1992: 7):¹¹ “The linguistic variety spoken in the village of Kalkot in Dir Kohistan seems to be quite distinct from that spoken in the surrounding villages of Dir Kohistan and in Kalam, although it is obviously related.” It was pointed out that Kalkotis understand the Gawri spoken in the same or in neighboring villages,

- 9 Some evidence suggests that the proper name Kalkot is pronounced by the speakers of this variety with an initial aspirated plosive, *khalkooʈ*.
- 10 I use Gawri to refer to the Kohistani varieties variously called Bashkarik, Kalam Kohistani or Dir Kohistani. Gawri seems to be a designation acceptable to speakers from Swat as well as from Dir Kohistan.
- 11 Approximately 70 per cent of the population of Kalkot speaks Kalkoti and the remaining 30 per cent are speakers of a Gawri (Kohistani) variety (Muhammad Zaman Sager, p.c.).

but not vice versa. When carrying out intelligibility tests in Dir and Swat Kohistan, the survey team concluded that Kalkoti stood out as significantly different from the other speech varieties, in fact “generally considered to be a different language altogether” (Rensch 1992: 14). Gawri speakers from Swat Kohistan who listened to recorded texts from various locations in Dir Kohistan understood, for instance, most of the rather different speech variety of Rajkot whereas “when listening to the Kalkoti text, some of the men in Kalam looked puzzled and asked what kind of language it was” (1992: 14). Strand (2001: 255, 258) tentatively classifies Kalkoti as one of a number of “dispersed dialects” of Chilasi Shina, based on the word list presented in the above-mentioned survey report (Rensch 1992: 159–76).

3. The classification of Kalkoti

Before comparing the four varieties, something more specific needs to be said about the relationship between Kalkoti (Klk) and Palula (Pal) on the one hand, and between Kalkoti and Gawri on the other. Since Pal and Gawri themselves are related to each other as IA languages,¹² it is rather challenging to determine the exact place of Klk in relation to these two varieties, but I primarily want to show that Klk in its essential parts is a Shina variety.

It is obvious that Klk, spoken for a long time in the vicinity of Kohistani varieties, would have been influenced by the latter. However, certain classes of words are much less likely to be borrowed, such as kinship terms, simple and basic verbs, lower numerals and pronouns (Trask 1996: 23); when taking these into account the Shina origins of Klk become obvious. Nearly all basic kinship terms in Klk have close cognates in Pal, whereas only a few such terms are similar enough between Klk and Gawri to define them as close cognates. The most striking in this comparison (see Table 1) is the close correspondence between Klk and Pal for the most frequent and important verbs ‘be’ and ‘do’, the latter also being the semantically “empty” component that together with e.g., a noun makes up many so-called conjunct verbs (Masica 1991: 326). The present tense form of ‘be’ in

12 According to some scholars they also belong to the same “Dardic” sub-branch.

Klk represents a regular development of *h*-dropping and apocope from an earlier **hino*, etc., with a stem *hi-* (or *ha-*) typical of the Shina copula, whereas in Kohistani languages the copula verb has a *th*-stem. A *th*-stem for ‘do’, on the other hand, is a typical Shina feature, while Kohistani follows the main IA languages with a *kar*-stem. With lower numerals, primarily ‘11’ and ‘12’ show significant differences between Pal and Gawri; here Klk clearly goes with Pal.

Table 1: Lexical comparison between Pal (southern), Klk and Gawri (for Gawri, Baart 1997; 1999; Sager p.c.)¹³

Pal	Klk	Gawri	
<i>baábu</i>	<i>bab</i>	<i>bob</i>	‘father’
<i>yéey</i>	<i>yi</i>	<i>yeey</i>	‘mother’
<i>bhroó</i>	<i>draa</i>	<i>jää</i>	‘brother’
<i>bheéṅ</i>	<i>bään</i>	<i>išpo</i>	‘sister’
<i>maámu</i>	<i>mool</i>	<i>mooṭ</i>	‘maternal uncle’
<i>kúṛi</i>	<i>treer</i>	<i>khämäniin, is</i>	‘wife’
<i>šúur</i>	<i>šur</i>	<i>šušur</i>	‘father-in-law’
<i>preṣ</i>	<i>irpäṣ</i>	<i>čiš</i>	‘mother-in-law’
<i>hínu (de)</i>	<i>in (aas)</i>	<i>thu (aas)</i>	‘be’
<i>bíáanu (gúum)</i>	<i>buun (gu)</i>	<i>báčant (gaa)</i>	‘go’
<i>bháanu (bhílu)</i>	<i>buun (bil)</i>	<i>hoant (hu)</i>	‘become’
<i>tháanu (thílu)</i>	<i>thuun (thääil)</i>	<i>kárant (kiir)</i>	‘do’
<i>akóoš</i>	<i>akaaš</i>	<i>ikää</i>	‘eleven’
<i>bóoš</i>	<i>baaš</i>	<i>bää</i>	‘twelve’
<i>be</i>	<i>bä</i>	<i>mä</i>	‘we’
<i>tus</i>	<i>tis</i>	<i>thä</i>	‘you PL’
<i>aró</i>	<i>ru</i>	<i>äy</i>	‘he, that’

The personal pronouns (Table 2) also offer interesting points of comparison. Apart from form similarities, the Pal and Klk systems share most distinctions made, although Pal contains differentiations not found in Klk, such as between the masculine and feminine third person singular, and a three-way distance contrast. The forms and the distinctions used for first person singular and second person singular are also parallel to those in Pal. In the plural, however, only first person plural distinguishes between a nominative and an ergative form in Klk, as is the case with plural pronouns in Pal, whereas there is no

13 The verb forms given in the table are the imperfective and the perfective forms, respectively (the latter within parentheses).

such distinction made in the second and third person plural in Klk. The most obvious differences between the Pal and Klk systems on the one hand and the Gawri system on the other are the first and second person plural and the third person distal forms (see Table 2).

Table 2: Klk personal pronouns

	Singular				Plural			
	Nom	Acc/Obl	Erg	Gen	Nom	Acc/Obl	Erg	Gen
1	<i>ma</i>	<i>ma</i>	<i>mi</i>	<i>mi</i>	<i>bä</i>	<i>asaa(~)</i>	<i>is</i>	<i>äsi</i>
2	<i>tu</i>	<i>tu</i>	<i>t(h)i</i>	<i>t(h)i</i>	<i>tis</i>	<i>tusaa(~)</i>	<i>tis</i>	<i>tusi</i>
3 distal	<i>ru</i>	<i>räs</i>	<i>rä</i>	<i>räsi</i>		<i>ränaa</i>	<i>rin</i>	<i>räni</i>
3 remote	<i>su</i>	<i>täs</i>	<i>tä</i>	<i>täsi</i>	<i>tin</i>	<i>tänaa</i>	<i>tin</i>	<i>täni</i>

4. Northern and Southern Palula and their common source

Pal, that is Northern (NP) *and* Southern Palula (SP), is usually described as a single “language” or “dialect” (Morgenstierne 1941: 7; K. D. Decker 1992: 7; Masica 1991: 21; Strand 2001: 253, 258), as well as the speech shared by a single ethnic community (Cacopardo & Cacopardo 2001: 79–143). Although the former is not very surprising, from a synchronic perspective, the latter is a more complex issue.

To the outsider, particularly the Khowar-speaking majority of Chitral, the people and the speech of Ashret and Biori Valleys are indistinguishable, the people referred to as Dangarik and their speech – dramatically different from Khowar – as Dangarikwar. As there are no other closely related linguistic communities in Chitral, they are seen as a single community in much the same way as the neighboring Dameli community. Internally, however, the picture is less clear-cut. Indeed, the “southerners” find the speech of the “northerners” rather similar to their own and largely comprehensible, and vice versa, but both have the idea that the other variety has somehow deteriorated from its pure form. It is not uncommon for “southerners” to hold that they speak *atshareetaá* while the “northerners” speak another language, *bhioorčaaá* or *paaluulaá*. Among educated people in both valleys,

however, there is a notion about a shared language, with minor dialectal differences, called Palula.¹⁴

Although speakers of the two varieties have interacted and also intermarried for a long time, the people of Ashret do not consider the people of Biori their own kin. They have no genealogy in common and their respective origins differ, no matter how well they understand one another. We will have reason to return to this issue, but for now we can imagine two different scenarios: Either we have a single speech community that geographically (i.e., settling in two separate mountain valleys) has been split in two and gradually diverged and over time become more different from one another, or we observe two speech communities with two distinct (but not too distantly related) source varieties that have merged due to prolonged contact.

4.1. Shared Palula features

Regardless of the position we take on divergence versus convergence, there are some important features that these two varieties share that are not documented in any other Shina varieties. One of them is the use of *de*, a grammaticalization of a form of ‘give’, as a tense marker, seen in examples (1) and (2). In many other varieties (including Kik and Sawi) we instead observe a grammaticalization of ‘be’ or ‘come’.

- (1) *bíḍu gáaḍu tesée dabdabá de*
 very big his dignity be.PST
 ‘His was a most dignified person.’ (NP)

- (2) *xaamaár ba mheeríl-u de*
 dragon/big.snake PRT kill.PFV-MSG PST
 ‘And the dragon was killed.’ (SP)

Another outstanding feature is the feminine plural suffix *-(i)m*, occurring with one of the noun classes, as in example (3), as the regular agreement suffix with verbs, as in example (4), and with many predicative adjectives, as in example (5). I know of no other Shina variety where the feminine plural is formed with a nasal consonant.

14 This opinion was reflected in the choice of the name *Anjuman-e-Taraqqi-e-Palula* when a society for the promotion of Pal was formed in 2003 by representatives from all major Pal locations.

- (3) *bhíira* *kirnáan-a* *čéeli-m* *kirnáan-a*
 he.goat.PL sell.PRS-MPL she.goat(F)-PL sell.PRS-MPL
 ‘They sell their he-goats and their she-goats.’ (NP)
- (4) *bijéeli dhiyá* *tasí* *heensíl-im* *de*
 several daughters his stay.PFV-FPL PST
 ‘He had several daughters.’ (SP)
- (5) *aní* *peerúun-a* *puréenim*
 these shirt(F)-PL old.FPL
 ‘These shirts are old.’ (NP)

The extent to which the two varieties agree lexically and morphologically is also overwhelming. Their nominal as well as their verbal paradigms are, for instance, virtually identical. Before turning to the apparent differences between NP and SP and an application of the comparative method, we will take a look at some possibilities of internal reconstruction (Fox 1995: 146) in each of the two varieties.

4.2. *Intravariety vowel alternation*

One of the more promising sets of data we find in SP compounds or derivations (Table 3, following page), containing a number of vowel alternations between the form of e.g. a simple noun and the form of the noun when it occurs as part of a compound or a derivation.

From the following data we can already make some generalizations. First, there are vowel sounds in the derived words that alternate with other vowel sounds in the simple words: *oo* alternates with *uu*, *aa* with *oo*, *ee* with *ii* and short *a* with long *aa*. There are also a few examples of alternations between *o* and *uu* and between *au* and *uu*. Second, we observe that whereas these vowels are unstressed (or rather unaccented) in the polymorphemic words, they are stressed in the monomorphemic words. The latter observation should make us a bit cautious when interpreting our data; while it may be true that the forms in the first column represent an earlier pronunciation of these words (whether derived or nonderived), predating a possible vowel shift affecting only the vowels of the stressed syllables, it is equally possible that the vowels in the derived forms have lost their “original” quality or quantity due to destressing.

Table 3: Derived or compounded words vs. monomorphemic noun stems in SP

Derived word		Stem	
<i>gookh(u)rá</i>	‘bovine animals’	<i>gúu</i>	‘bull’
<i>bhoorílu</i>	‘became deaf’	<i>bhúuru</i>	‘deaf’
<i>bhiaanmút</i>	‘willow tree’	<i>bhíooŋ</i>	‘willow’
<i>bhraapútr</i>	‘brother’s son’	<i>bhroó</i>	‘brother’
<i>šeenbóo</i>	‘side of string bed’	<i>šín</i>	‘string bed’
<i>deesneečír</i>	‘village hunt’	<i>díiš</i>	‘village’
<i>kharamoós</i>	‘donkey meat’	<i>khaár</i>	‘donkey’
<i>yambaát</i>	‘mill stone’	<i>yáandr</i>	‘mill’
<i>čorkúuŋdu</i>	‘rectangle’	<i>čúur</i>	‘four’
<i>šauróol</i>	‘house of father-in-law’	<i>šúur</i>	‘father-in-law’

Not entirely surprising, some of these vowel alternations are resurfacing as we compare cardinal and ordinal numbers (Table 4). The *aa~oo* alternation is seen in *baašúma/bóoš*, the *ee~ii* alternation in *treešúma/tríiš*, and the *a~aa* alternation in, for instance, *dašúma/dáaš*. There are also individual examples of the *o~uu* alternation.

Table 4: SP numerals, cardinals and ordinals

Cardinals		Ordinals	
<i>čúur</i>	‘four’	<i>čoríma</i>	‘fourth’
<i>sáat</i>	‘seven’	<i>satúma</i>	‘seventh’
<i>núu</i>	‘nine’	<i>no(y)íma</i>	‘ninth’
<i>dáaš</i>	‘ten’	<i>dašúma</i>	‘tenth’
<i>bóoš</i>	‘twelve’	<i>baašúma</i>	‘12 th ’
<i>tríiš</i>	‘thirteen’	<i>treešúma</i>	‘13 th ’
<i>čandíiš</i>	‘fourteen’	<i>čandeešúma</i>	‘14 th ’
<i>satóoš</i>	‘seventeen’	<i>sataašúma</i>	‘17 th ’

In some noun paradigms, too, we find some of these alternations. The regular pattern of case and number inflection is through suffixes added to a noun stem, without any changes to the stem itself, such as in the following singular vs. plural forms: *šín/šína* ‘string bed’; *kuḍ/kuḍí* ‘wall’. In some other cases, however, there are notable stem changes that are not phonologically motivated. For instance, while a shift of

the accent from the root to a suffix is predictable with most nouns in SP,¹⁵ this is not the case with the nouns in Table 5.

The alternation *a~aa* occurs with a group of nouns from two main classes, one that inflects with *-a* and one with *-i*. The example with *aa~oo* alternation belongs to a small set of irregular nouns.

Table 5: Noninflected vs. inflected word forms in SP

Noninflected	Inflected	
<i>basaánd</i>	<i>basandí</i>	‘spring’
<i>jhaát</i>	<i>jhatí</i>	‘fur’
<i>sáar</i>	<i>sarí</i>	‘lake’
<i>dhaataár</i>	<i>dhaatará</i>	‘fire-place’
<i>haál</i>	<i>halá</i>	‘plough’
<i>ráat</i>	<i>ratá</i>	‘blood’
<i>bhroó</i>	<i>bhraawú</i>	‘brother’

A study of the verb paradigms of SP confirms these observations. Some verbs show a paradigmatic stress alternation similar to that of the noun paradigms above. For instance, the future third person singular receives stress on the stem, whereas the stem of the present masculine singular is unstressed. For some verbs this results in vowel alternations (Table 6) that by now should strike us as familiar.

Table 6: SP future vs. present tense forms

Future 3sg	Present msg	
<i>udhííwa</i>	<i>udheewáanu</i>	‘flee’
<i>jhóona</i>	<i>jhaanáanu</i>	‘recognize’
<i>máara</i>	<i>maráanu</i>	‘die’

All alternations we have seen so far are various cases of stem alternations, and we have been able to identify a few common vowel alternations in SP that some way or another are related to accent. These are summarized in Table 7, with some possible developments.

15 Nouns with pitch accent on the last vocalic mora shift their accent from the stem to the suffix, a pattern observed also in Gilgiti (Radloff 1999: 90–98).

Table 7: Vowel alternation and proposed historical sound changes

Alternation	Possible sound shift	Tentative pre-forms > SP
<i>aa~oo</i>	stressed <i>aa</i> > <i>oo</i>	* <i>baaš</i> > <i>bóoš</i> ‘twelve’
<i>oo~uu</i>	stressed <i>oo</i> > <i>uu</i>	* <i>gooli</i> > <i>gúuli</i> ‘bread’
<i>ee~ii</i>	stressed <i>ee</i> > <i>ii</i>	* <i>šeen</i> > <i>šín</i> ‘string bed’
<i>a~aa</i>	stressed <i>a</i> > <i>aa</i>	* <i>khar</i> > <i>khaár</i> ‘donkey’
<i>o~uu</i>	stressed <i>o</i> > <i>uu</i>	* <i>čor</i> > <i>čúur</i> ‘four’
<i>au~uu</i>	stressed <i>au</i> > <i>uu</i>	* <i>šaur</i> > <i>šúur</i> ‘father-in-law’

Nothing is really controversial with those suggestions, even though they remain tentative at this point. The direction is the same for all of the suggested shifts: a historical vowel raising and/or tensing, mirroring a universal tendency (Trask 1996: 89). Data from NP, too, give evidence to raising/tensing, although not along exactly the same lines. Probably the most interesting in this regard is the extent of paradigmatic vowel alternations. While there are only a few examples of stem alternations in the noun paradigms of SP (as the ones in Table 5), NP is full of them, as shown with only a few examples in Table 8.

Table 8: NP nominal paradigms with vowel alternation

Nom sg	Obl sg	Obl pl	Gen sg	
<i>angáar</i>	<i>angúura</i>	<i>angúuram</i>	<i>angúure</i>	‘fire’
<i>dééš</i>	<i>díša</i>	<i>díšam</i>	<i>díše</i>	‘village’
<i>kram</i>	<i>kráama</i>	<i>kráamam</i>	<i>kráame</i>	‘work’

The corresponding forms for ‘fire’ in SP are, for instance, *angóor/angóra/angóoram/angóorii*, i.e., with a constant *oo* in all of its forms. On the other hand, some nouns that in SP show stem alternation do not alternate in NP: *sar/sarí* ‘lake’; *hal/halá* ‘plough’.

4.3. Intervariety vowel correspondences

In spite of the differences between the two varieties, it is striking how systematic these (vocalic differences) seem to be. On basis of the regularity of the correspondences (Fox 1995: 65), we can therefore establish some equivalences and draw some tentative conclusions about proto-forms.

Table 9: Comparative word list, SP and NP

	SP	NP		SP	NP	
1	<i>kráam</i>	<i>kram</i>	‘work’	17	<i>ghoóšt</i>	<i>ghoóšt</i> ‘house’
2	<i>anú</i>	<i>anú</i>	‘this’ (M)	18	<i>súuri</i>	<i>súuri</i> ‘sun’
3	<i>khaár</i>	<i>khar</i>	‘donkey’	19	<i>kuḍ</i>	<i>kuḍ</i> ‘wall’
4	<i>dáar</i>	<i>dar</i>	‘door’	20	<i>núu</i>	<i>núu</i> ‘nine’
5	<i>mhaás</i>	<i>mhaás</i>	‘meat’	21	<i>čúur</i>	<i>čáar</i> ‘four’
6	<i>kaál</i>	<i>kaál</i>	‘year’	22	<i>šúur</i>	<i>šáar</i> ‘father-in-law’
7	<i>káaku</i>	<i>káaku</i>	‘big brother’	23	<i>šilúuk</i>	<i>šiláak</i> ‘story’
8	<i>čhaár</i>	<i>čhar</i>	‘water fall’	24	<i>aḗa</i>	<i>até</i> ‘bring!’
9	<i>sáar</i>	<i>sar</i>	‘lake’	25	<i>čhiír</i>	<i>čhiír</i> ‘milk’
10	<i>báat</i>	<i>bat</i>	‘stone’	26	<i>čhúitr</i>	<i>čhéetr</i> ‘field’
11	<i>akóoš</i>	<i>akáas</i>	‘eleven’	27	<i>nílu</i>	<i>nílu</i> ‘blue/green’
12	<i>so</i>	<i>so</i>	‘he’	28	<i>bheéṅ</i>	<i>bheéṅ</i> ‘sister’
13	<i>tróo</i>	<i>trúu</i>	‘three’	29	<i>déeṛi</i>	<i>déeṛi</i> ‘beard’
14	<i>nóo</i>	<i>náaw</i>	‘name’	30	<i>deés</i>	<i>deés</i> ‘day’
15	<i>sóon</i>	<i>sáan</i>	‘pasture’	31	<i>be</i>	<i>be</i> ‘we’
16	<i>phoó</i>	<i>phoó</i>	‘boy’	32	<i>aní</i>	<i>aní</i> ‘this’ (F)

Already from a brief look at Table 9, we observe that there are in fact not very many one-to-one correspondences between individual vowel sounds in one variety as compared with the other. In effect we obtain a large number of correspondence sets. It does not help us a lot, when, for instance, a long *oo* in SP corresponds to three different long vowels in NP, *aa*, *oo* and *uu*. Two important factors in vowel change at large are accent placement and syllable structure (Trask 1996: 64), and we will therefore include them as conditioning factors to obtain useful sets of correspondence, as shown in Table 10.

Table 10: Correspondence sets, SP vs. NP, including accent and syllable structure

Open S: SP/NP			Closed S: SP/NP	
<i>áa/áa</i>	<i>éé/éé</i>	<i>íí</i>	<i>áa/á</i>	<i>úu/áa</i>
<i>óo/úu</i>	<i>á/é</i>	<i>i/i</i>	<i>aá/aá</i>	<i>íi/éé</i>
<i>oó/oó</i>	<i>a/a</i>	<i>é/é</i>	<i>aá/á</i>	<i>íi/íi</i>
<i>úu/úu</i>	<i>ó/ó</i>		<i>óo/áa</i>	<i>eé/eé</i>
<i>íi/íi</i>	<i>ú/ú</i>		<i>oó/oó</i>	<i>ú/ú</i>

The only item we are not able to deal with in the format of this table is item 14, as the syllable structure differs between the varieties. It is, however, more than likely, on phonological grounds, that the SP form

has been subject to apocope after raising of the vowel: **náaw* > **nóow* > *nóo* ‘name’. For the rest of the items we have a somewhat clearer picture, and we can already start making some hypotheses about proto-vowels and the vowel shifts that are likely to have taken place in each of the varieties. For the sake of simplicity we will limit our discussion to accented vowels.¹⁶

From an initial look it is clear that it is in the closed syllables we find most of the variation. We also note that the first-mora accented long vowels (such as *óo*) tend to display more intervary diversity than the short vowels or the second-mora accented long ones (e.g. *oó*). Much of the differences in vowel quality and quantity between NP and SP can be attributed to three shifts taking place from the proto-language into SP. In closed syllables, **a* was lengthened to *aa*, **aa* was raised to *oo*, and **ee* to *ii*. The two raising processes are relatively straightforward (SP: *akóos̃* ‘eleven’ < **akáas̃*, and SP: *chíitr* ‘field’ < **chéetr*), whereas the lengthening of **a* happened to produce some irregularities in SP. Along with the lengthening of **a* to *aa*, some of the vowels developed a first-mora (falling) accent and some of them a second-mora (rising) accent. The conditioning factors seem to have been aspiration and word structure. Second-mora accent evolved in those closed syllables that had an aspirated onset (including a single onset *h*) and in a syllable that was preceded by another unstressed syllable: *khaár* < **khár*; *basaánd* < **basánd*; *haát* ‘hand’ < **hát*.¹⁷ All other lengthened **a* developed a first-mora accent: *báat* ‘stone’ < **bát*. Only first-mora accented long **áa* and **éé* were subject to raising, whereas second-mora accented *aá* and *eé* kept their quality: SP/NP *kaál* ‘year’ < **kaál*; SP/NP *deés* ‘day’ < **deés*. The contrast between NP *áa* and SP *úu*, as in the pair *šáar* vs. *šúur* ‘father-in-law’, must be attributed to a slightly different development, and it will be necessary to suggest a proto-form different from any of the two derived forms. I suggest the diphthong **au* as a likely proto-phoneme, supported by internal evidence (cf. *ša(w)úra* ‘household of father-in-law’), developing through raising and monophthongization

16 Vowels in unaccented positions pose some further challenges that are outside the scope of the present discussion.

17 But *háata* ‘hands’ < **háta*, as will be predicted by the internal reconstruction in the following discussion.

into SP *úu*, and through monophthongization into NP *áa*. Another complicating issue is that NP *e* sometimes corresponds to SP *e* and sometimes to SP *a*, in roughly the same phonological environment. For reasons that will not become entirely clear until we discuss further internal reconstruction and comparison with other varieties, we will opt for a proto-phoneme **ai* as the source of the *e* in NP/SP *be* ‘we’, whereas *e~a* in NP *aṭé* and SP *aṭá* ‘bring!’ probably go back on **e* in the proto-language.

In the phonologically more archaic NP, there is only one notable case of vowel raising that has not taken place in SP, that from closed syllable **óo* to *úu* in NP: *trúu* ‘three’ < **tróo*. Again, this has only affected first-mora accented vowels, while the second-mora accented ones remained “untouched”: *phoó* ‘boy’ < **phoó*. All of this points in the direction of a 12-vowel system in the proto-language, as shown in Table 11.

Table 11: The vowel system of the Pal proto-language

<i>ii</i>	<i>i</i>	<i>ee</i>	<i>e</i>	<i>ai</i>	<i>a</i>	<i>aa</i>	<i>au</i>	<i>o</i>	<i>oo</i>	<i>u</i>	<i>uu</i>
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In Table 12, the developments that have taken place between a proto-language and the modern-day varieties are summarized.¹⁸

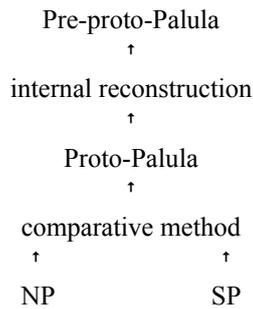
Table 12: Vowel developments from proto-language to SP and NP

Proto-Pal	<i>*chéetr</i>	<i>*deés</i>	<i>*aṭé</i>	<i>*bai</i>	<i>*baṭ</i>	<i>*kaál</i>	<i>*sáan</i>	<i>*šaur</i>
SP	<i>chíitr</i>	<i>deés</i>	<i>aṭá</i>	<i>be</i>	<i>báaṭ</i>	<i>kaál</i>	<i>sóon</i>	<i>šúur</i>
Proto-Pal	<i>*bai</i>	<i>*šaur</i>	<i>*tróo</i>					
NP	<i>e</i>	<i>aa</i>	<i>uu</i>					
	<i>be</i>	<i>šáar</i>	<i>trúu</i>					

18 The elements in the tables and their mapping of proto-phonemes to phonemes in SP and NP should not be taken in the absolute sense, i.e. not all **áa* developed into SP *óo*, only those in closed syllables.

5. Tracing the precursor of Palula

The attempted reconstruction outlined in Section 4 is probably as far as the comparative method can take us in our search for an earlier stage of Pal. That, however, is not the end of the story, and we have already hinted at some other developments that are traceable through internal reconstruction. We will therefore make an attempt at sketching some features of an even earlier stage; one that we will call pre-proto-Palula, using a combination of the comparative method and internal reconstruction:



It is in the closed syllables in NP we find some of the more conservatively pronounced vowels, whereas in most open syllables we can in fact witness the results of an earlier raising or tensing in both varieties (stage 1 in Table 13). A lengthening of short accented *á in the open syllables of the pre-proto-language resulted in *áa in the proto-language (giving the pre-proto-form *káku for NP/SP *káaku* ‘older brother’), while in closed syllables tensing took place only in SP (stage 2). That would simultaneously explain the alternations in the noun paradigms of both NP and SP, as seen in Table 13 and Table 14.

Table 13: Sound changes producing vowel alternations in the NP paradigm for *krám* ‘work’

Pre-proto forms	<i>*kram</i>	<i>*kráama</i>	<i>*kram</i>	<i>*kráama</i>
Stage 1	<i>*kram</i>	<i>*kráama</i>	<i>*kram</i>	<i>*kráama</i>
Stage 2	<i>*kram</i>	<i>*kráama</i>	<i>*kráam</i>	<i>*kráama</i>
Output	<i>kram</i>	<i>kráama</i>	<i>kráam</i>	<i>kráama</i>
	NP (nom sg)	NP (infl)	SP (nom sg)	SP (infl)

Table 14: Sound changes producing vowel alternations in the SP paradigm for *sáar* ‘lake, pond’

Pre-proto forms	<i>*sar</i>	<i>*sarí</i>	<i>*sar</i>	<i>*sarí</i>
Stage 1	<i>*sar</i>	<i>*sarí</i>	<i>*sar</i>	<i>*sarí</i>
Stage 2	<i>*sar</i>	<i>*sarí</i>	<i>*sáar</i>	<i>*sarí</i>
Output	<i>sar</i>	<i>sarí</i>	<i>sáar</i>	<i>sarí</i>
	NP (nom sg)	NP (infl)	SP (nom sg)	SP (infl)

Similarly, long first-mora accented **áa* were raised to *óo* in open syllables (further raised to *úu* in NP), resulting in the following forms: SP: *tróo*, NP: *trúu* < **tráa* ‘three’. In some cases, an umlaut formation intervened to instead produce forms like SP/NP *déeri* ‘beard’ from **dáari* (cf *paṇardóoru* ‘village elder; lit. white-beard’). Second-mora accented *aá* on the other hand are likely to have kept their proto-vowel quality. For *phoó* we therefore have to assume a shift from a first-mora accent to a second-mora accent after raising had occurred: *phoó* ‘boy’ < **phóo* < **pháa*.

Since the processes of raising **éé* to *íi* and **óo* to *úu* are more or less parallel, I will not go into any more detail here. Naturally, there is a difficulty from an exclusively comparative perspective to know which of the *ii* and *uu* in the modern varieties are products of raising, and which are inherited high vowels. Having access to Old Indo-Aryan (OIA) cognates helps us differentiate *nílu* ‘green, blue’ as having an inherited long high front vowel (Turner 1996: 7563), while the same vowel quality in *míša* ‘men’ most likely has developed from the proto-form **méša*.¹⁹ As is the case with Greek (Trask 1996: 90), the high front position has possibly become a “sink” where vowels from other positions in the system have been collected and kept. It is only to be expected that the *ii*, and to an almost equal extent *uu*, wherever they happen to occur in the lexicon of today’s Pal varieties, are of a very mixed origin. The short vowels, other than **a*, seem to have maintained their position in the system to a rather high degree, possibly with *e* acting as another “sink”, akin to the high front position just mentioned.

19 For the same reason I hesitate assigning the proto-form **sóori* to NP/SP *súuri* ‘sun’, since most of the attested OIA forms have a high back vowel (Turner 1966: 13574).

The vowel system of Pre-Proto-Pal was probably not very different from the system suggested for Proto-Pal, i.e. one with five basic positions and length contrasts, but while the diphthongs *au* and *ai* are rather marginal and heavily restricted in the modern varieties, they may have played a role in Pre-Proto-Pal phonology on par with the long vowels. I trace the vowels in *núu* ‘nine’, *šúur/šáar* ‘father-in-law’, *čúur/čáar* ‘four’, *šilúuk/šiláak* ‘story’ to the proto-diphthong **au*, with a fair degree of confidence, whereas I prefer to be less dogmatic with my assigning **bhain* as the proto-form of *bheén*, ‘sister’ and **bai* as the ancestor of *be* ‘we’.

6. Reconstructing Proto-Dangari

The conclusions reached so far take us to a stage where we are dependent on comparative data from varieties more divergent than SP is from NP, to establish features of a more remote ancestor language.

6.1. Kalkoti findings

As yet no detailed study of Kik has been published,²⁰ and it will therefore be necessary to present a rough outline of its phonology and some of its morphological features. I hasten to add that this is a tentative analysis, and a future in-depth study will be needed to confirm these findings.

The consonant inventory (in Table 15, exemplified in Table 16) is similar to that of most languages in the immediate region, with its dental/retroflex contrasts for plosives and retroflex/palatal contrasts for fricatives. While aspiration is contrastive for voiceless stops, there is no such contrast for any voiced sounds.

20 An unpublished thesis written by Syed Ali Shah (Dept. of Archaeology, Peshawar University) with the title *Descriptive analysis of Darāg Dialect of Kalkot (Dir Kohistān)* describes the Gawri (Kohistani) variety spoken in the same village.

Table 15: *Klk consonants*

<i>ph</i>	<i>th</i>	(<i>th</i>)		<i>kh</i>	
<i>p</i>	<i>t</i>	<i>ʈ</i>		<i>k</i>	(<i>q</i>)
<i>b</i>	<i>d</i>	<i>ɖ</i>		<i>g</i>	
		<i>çh</i>	<i>čh</i>		
	(<i>ts</i>)	<i>ç</i>	<i>č</i>		
			<i>ǰ</i>		
	<i>s</i>	<i>ʃ</i>	<i>š</i>	(<i>x</i>)	(<i>h</i>)
	(<i>z</i>)			(<i>ʎ</i>)	
	<i>r</i>	(<i>ʀ</i>)			
	<i>l</i>				
<i>w</i>			<i>y</i>		
<i>m</i>	<i>n</i>	<i>ŋ</i>		<i>ŋ(?)</i>	

A number of sounds may have been introduced via loans, primarily from Pashto and more recently from Urdu: *q*, *ts*, *x*, *h*, *z*, *ʎ*, *ʀ*. Some of these (*ts*, *h* and *ʀ*) may also be examples of reintroduction of phonemes present (and later lost) in previous stages. Some phonemes are restricted. I have, for instance, not found any unambiguous *ʈ* word-initially,²¹ but that may of course be due to limitations of my data. I only have one single occurrence of *th*, and even that seems to alternate with *th*: *iṭhyil~iṭhyil*. The contrast between *çh* and *ç* is questionable, lacking word-initial examples of the unaspirated member. The phonemic status of *ŋ* is not entirely clear; there is at least a trace of a cluster *ŋg* alternating with this sound.

Table 16: *Klk consonants exemplified*

<i>ph</i>	<i>pheep</i>	‘father’s sister’	<i>čh</i>	<i>čheel</i>	‘goat’
<i>p</i>	<i>paan</i>	‘path’	<i>č</i>	<i>čaam</i>	‘skin’
<i>b</i>	<i>baal</i>	‘hair’	<i>ǰ</i>	<i>ǰib</i>	‘tongue’
<i>th</i>	<i>theer</i>	‘hand’	<i>s</i>	<i>saat</i>	‘seven’
<i>t</i>	<i>taar</i>	‘star’	<i>ʃ</i>	<i>ʃiʃ</i>	‘head’
<i>d</i>	<i>daan</i>	‘tooth’	<i>š</i>	<i>šaak</i>	‘wood’
<i>th</i>	(<i>iṭhyil</i>)	‘to stand up’	<i>r</i>	<i>raat</i>	‘blood’
<i>ʈ</i>	<i>khätän</i>	‘short’	<i>l</i>	<i>loon</i>	‘salt’
<i>ɖ</i>	<i>daak</i>	‘back’	<i>w</i>	<i>waat</i>	‘came down’
<i>kh</i>	<i>khaal</i>	‘to eat’	<i>y</i>	<i>yaal</i>	‘to come’
<i>k</i>	<i>kaal</i>	‘year’	<i>m</i>	<i>maam</i>	‘mother’s father’
<i>g</i>	<i>goor</i>	‘horse’	<i>n</i>	<i>naam</i>	‘name’
<i>çh</i>	<i>çhiir</i>	‘milk’	<i>ŋ</i>	<i>çuŋil</i>	‘wrote’
<i>ç</i>	<i>dräçum</i>	‘right’	<i>ŋ</i>	<i>aŋ(q)aar</i>	‘fire’

21 There seems to be a fluctuation between *tä* and *ʈä* ‘to’ and maybe even *thä*.

I suggest an analysis of Klk providing for a 10-vowel system (in Table 17, and exemplified in Table 18).²²

Table 17: Klk vowels

<i>ii</i>									<i>uu</i>
	<i>i</i>							<i>u</i>	
		<i>ee</i>				<i>oo</i>			
			<i>ä</i>		<i>a</i>				
				<i>ää</i>	<i>aa</i>				

Table 18: Klk vowels exemplified

<i>ii</i>	<i>siir</i>	‘sun’	<i>aa</i>	<i>naam</i>	‘name’
<i>i</i>	<i>šis</i>	‘head’	<i>a</i>	<i>nam</i>	‘nine’
<i>ee</i>	<i>treer</i>	‘woman’	<i>oo</i>	<i>goor</i>	‘horse’
<i>ä</i>	<i>där</i>	‘door’	<i>u</i>	<i>dur</i>	‘dust’
<i>ää</i>	<i>däär</i>	‘husband’s brother’	<i>uu</i>	<i>duur</i>	‘far’

The primary contrastive features, however, are qualitative rather than quantitative, as the phonetic realizations of the vowels give at hand:²³

<i>ii</i> is pronounced [i:]/[i]	<i>aa</i> is pronounced [a:]
<i>i</i> is pronounced [ɪ]/[ě]	<i>a</i> is pronounced [ɔ]/[ɒ]/[a]
<i>ee</i> is pronounced [e:]/[e]	<i>oo</i> is pronounced [o:]/[o]
<i>ä</i> is pronounced [a]/[ɛ]/[æ]/[ə]	<i>u</i> is pronounced [ʊ]/[ɔ]
<i>ää</i> is pronounced [æ:]	<i>uu</i> is pronounced [u:]/[u]

The main motivation for not assigning instances of [ě] phonemic status *e* is that a great deal of the instances of *i* fluctuate considerably in the vicinity of [ɪ] and [ě] in their pronunciation. The same holds for vowels that are heard as short [ɔ], that they most likely are part of the *u* phoneme. I do not hold it impossible that previously contrasting [ɪ] and [ě], as well as previously contrasting [ʊ] and [ɔ], may have fused,

22 Although I use single vs. double-written vowels in my transcription, this is based on what has become customary among Shina scholars (marking pitch-accent in an unambiguous manner) rather than reflecting any language-specific factors.

23 At the moment I am unable to give any consistent account of the variation and possible conditioning factors.

perhaps quite recently.²⁴ With one of our main informants, the contrast between *a* and *ä* was not entirely clear, both of them pronounced as central open vowels, whereas one of the other informants usually made a clear back [ɔ] vs. front [ɛ] contrast. I have not been able to establish any minimal pairs with oral vs. nasal vowels and therefore refrain from introducing a series of nasal vowels along with an oral series, although nasalization does seem to be phonemic.

The only two definite syllable-internal consonant clusters found are word-initial *tr* and *dr*. There is also a general preference for closed syllables word-finally, a word-structure feature shared with neighboring Gawri (Baart 1997: 37).

I do not have enough data to account for Klk noun morphology, an area therefore needing extensive follow-up. A main objective of a future study would be to determine whether Klk (like Pal) forms plural and non-nominative case forms primarily by adding suffixes to the stem, or if it (like Gawri) employs stem modification (Baart 1999: 15, 35).²⁵ Neither do I claim to have data to give a complete picture of Klk verb morphology, but a somewhat sketchy account will nevertheless be given. The two most commonly occurring TMA categories that correspond to distinct forms can be characterized thus:

1) Activities, states or actions in the present (and possibly in the future) or those that can be considered continuous. I regard this as primarily an imperfective. The regular endings are: *-uun* (MSG), *-aan* (MPL), and *-iin* (F). In this category, the verb always agrees with the subject, whether transitive (6) or intransitive (7).

(6) *ma tipä tusaa~ tä ä qisä th-uun*
 I.NOM now you.OBL to a story do-IPFV.MSG
 ‘I’ll now tell you a story.’

(7) *su y-iin*
 3SG.NOM come-IPFV.F
 ‘She’s coming.’

24 It could on the other hand very well be that further research would make it necessary to include two separate phonemes *e* and *o*, as short counterparts of *e* and *o*, to give justice to all possible contrasts.

25 A tentative comparison of the tonal patterns of Gawri and Klk carried out by Baart (pc) indicated that Klk may have developed the same type of tonal system seen in Gawri (Baart 1997), possibly as a result of a historical loss of final vowel segments. This stands in contrast to the simple pitch-accent system found in most other Shina varieties (including NP and SP).

These forms are found with almost all verbs in the material, the only obvious irregularity, in this respect, being the copula, with a single form for this category: *in* ‘am, is, are’. With some verbs, *-oon* instead of *-uun* is heard, but that could also be related to stress: *‘märoon* ‘kills, is killing’ (contrasting with *mä’ruun* ‘dies’) and *šiloon* ‘aches’.

2) Activities, states or actions in the past that are completed. I regard this as primarily a perfective. The two most frequently occurring endings are *-il* and *-aal*. The difference between the two is conjugational, exemplified in (8) and (9).

- (8) *äsi* *mukhä ä* *puu* *y-aal*
 1PL.GEN front a boy come-PFV
 ‘A boy came up to us.’
- (9) *tä* *ä* *phit* *mär-il*
 3SG.ERG a fly kill-PFV
 ‘He killed a fly.’

For at least one verb, the ending is *-ääl* rather than *-aal*: *thääl* ‘did’. Usually no gender or number differentiation occurs, but a number of verbs show irregular formations (Table 19), some of them radically suppletive, and a number of them forming perfective with *-t*.²⁶

Table 19: *Klk* imperfective vs. perfective forms with suppletive verbs

Imperfective (MSG)	Perfective	
<i>in</i>	<i>aas</i>	‘to be’
<i>buun</i>	<i>gu</i> (MSG), <i>gee</i> (F) ²⁷	‘to go’
<i>päšuun</i>	<i>driš</i>	‘to see’
<i>märuun</i>	<i>mur</i>	‘to die’
<i>piluun</i>	<i>piil</i>	‘to drink’
<i>duun</i>	<i>dit</i>	‘to give’
<i>wuun</i>	<i>waat</i>	‘to get down’
<i>nikhuun</i>	<i>nikhät</i>	‘to appear’
<i>bišuun</i>	<i>bät</i>	‘to sit down’

26 Perfectives with *-l*- or *-t*-elements occur in many Shina varieties, e.g. Pal, Sawi (Buddruss 1967: 50–1), Gilgiti (Radloff 1998: 184) and Kohistani Shina (Schmidt 2001: 444).

27 I assume a separate masculine plural form but lack data to account for it.

Apart from the imperfective and perfective verb forms, there are isolated examples of other forms. It is quite likely that Klk has a mode category that displays at least partial person agreement (see Table 20).

Table 20: Klk verbs with person agreement²⁸

1sg	<i>dam</i> ‘I may give’, <i>tham</i> ‘I may do’, <i>bum</i> ‘I may become’
2sg	<i>čhinä</i> ‘you may/will cut’
3sg	<i>čhinä</i> ‘he may/will cut’, <i>yä</i> ‘he may/will come’
3pl	<i>čhinään</i> ‘they may/will cut’

Although the primary TMA contrast in Klk is aspectual, the data suggests a more peripheral layer of tense distinction. What apparently is a past tense *-s* can be suffixed to the aspectual forms. A fragmentary picture of this process is given in Table 21. The last segment of the perfective is dropped if consonantal and replaced by *-s* to form past tense (cf. *driš* and *dri-s*).

Table 21: Verb forms in Klk (The English glosses represent the translations of the sentences these forms are found in)

Ipfv	Ipfv + pst	Pfv	Pfv + pst
<i>b-uun, -aan, -iin</i>	<i>b-uun-s, -aan-s, -iin-s</i>	<i>gu, gee</i>	<i>gus</i>
‘is going, goes, will go’	‘was going, used to go’	‘went’	‘went’
<i>biš-uun, -aan, -iin</i>		<i>bä-ʃ</i>	<i>bäs</i>
‘is sitting’		‘is seated (sat down)’	‘had sat down (was sitting), was seated’
<i>päš-uun</i>		<i>driš</i>	<i>dri-s</i>
‘sees, is seeing’		‘saw’	‘had seen’
	<i>čun-uun-s</i>	<i>čun-il</i>	<i>čun-i-s</i>
	‘was writing’	‘wrote’	‘had written’

6.2. Sawi revisited

Turning to Sawi (Sw), I follow Buddruss to give a brief outline of this variety, focusing on phonology.²⁹ Again, the consonant inventory (Table 22) is rather similar to many other such systems in the region.

28 No examples of first and second person plural agreement.

29 I have taken the liberty to regularize Buddruss’ transcription to facilitate cross-variety comparison.

Table 22: Sw consonants

<i>ph</i>	<i>th</i>	<i>th</i>		<i>kh</i>	
<i>p</i>	<i>t</i>	<i>t</i>		<i>k</i>	<i>q</i>
<i>(bh)</i>	<i>(dh)</i>			<i>(gh)</i>	
<i>b</i>	<i>d</i>	<i>ɖ</i>		<i>g</i>	
		<i>çh</i>	<i>čh</i>		
	<i>(ts)</i>	<i>ç</i>	<i>č</i>		
			<i>ǰ</i>		
<i>f</i>	<i>s</i>	<i>ʃ</i>	<i>š</i>	<i>x</i>	<i>h</i>
	<i>z</i>			<i>ɣ</i>	
	<i>r</i>	<i>r</i>			
	<i>ɻ</i>				
	<i>l</i>				
<i>w</i>			<i>y</i>		
<i>m</i>	<i>n</i>	<i>ɳ</i>		<i>(ŋ)</i>	

Buddruss (1967: 15–6) expresses some uncertainty as to the phonemic contrast between some aspirated and unaspirated stops, such as between *čh* and *č*, between *çh* and *ç*, and more generally between unaspirated and aspirated voiced plosives. In fact, in none of the words that Buddruss (B) tentatively transcribes with an aspirated voiced plosive do I detect any aspiration (L, my own data): L: *doṛim* ‘pomegranate’, *darān* ‘earth’, *beṇ/be(e)ṇ* ‘sister’ vs. B: *d(h)aarim*, *dheereṇ*, *bhyeeṇ*. I do not exclude that these words were indeed still weakly aspirated by B’s informants half a century ago,³⁰ but is altogether lost as a feature of modern-day Sw. The *ts* is marginal, occurring almost exclusively in Pashto or Gawarbatī loans. Other sounds that are primarily found in loans are *x*, *ɣ*, *q*, *z* and *f*. Whether *ɳ*, *r* as well as *ɖ* have full phonemic status is also questioned (Buddruss 1967: 16–7). The *ɻ* is a voiceless lateral, contrasting in voice with *l*, but is phonetically a fricative.³¹

As for the vowels, B suggests a symmetric 8-vowel system (Table 23). Although he includes length in his transcription, he questions its phonemic relevance, as almost all vowels show a quantitative fluctuation. The only relevant length contrast is between *a* and *aa*.

30 Described as “sehr schwach und zweifelhaft” (Buddruss 1967: 22).

31 *ɻ* is also a phoneme in Gawri (Baart 1997: 18).

Table 23: Sw vowels

<i>i</i>		<i>u</i>
	<i>ee</i>	<i>oo</i>
	<i>e</i>	<i>o</i>
	<i>a</i>	<i>aa</i>

Following is an approximate IPA representation of Buddruss, partly drawn from his prose description:

<i>i</i> (B: <i>i</i>) is pronounced [ɪ]/[iː]/[ɨ]	<i>aa</i> (B: <i>ā</i>) is pronounced [ɛː]/[ɛː]
<i>ee</i> (B: <i>e</i>) is pronounced [eː]/[e]	<i>o</i> (B: <i>o</i>) is pronounced [ɔ]/[ɔ]/[ɑ]/[ɑ]
<i>e</i> (B: <i>e</i>) is pronounced [æ]/[a]	<i>oo</i> (B: <i>o</i>) is pronounced [oː]/[o]
<i>a</i> (B: <i>a</i>) is pronounced [ɐ]/[ə]	<i>u</i> (B: <i>u</i>) is pronounced [ʊ]/[u]/[uː]

The *aa* and *o* are acoustically very similar and Buddruss (1967: 12–13) expresses a difficulty in differentiating consistently between them. The *o* is slightly labialized, but not as rounded as its Persian equivalent. Both *o* and *oo* can be heard as a short [o], but there is never a variation between [ɔ] and [oː] in the same word; they are very definitely realizations of two different phonemes. *oo* and *u* may on the other hand be neutralized, and it is only in word-final position that the phonemic contrast between them is beyond doubt. The primarily qualitative contrast *e*~*ee* plays a role in morphology, although the latter is quantity-wise very variable. In my own data, the pair *šen* ‘roof’ and *šeen* ‘string-bed’ illustrates this contrast. A sound [ɛː] (varying with [eː] and [e]), B considers an allophone of *aa*, rather than an independent phoneme, as it occurs only as an umlaut counterpart to [ɛː] in masculine-feminine pairs such as [ghɛːnu] (M) ~ [ghɛːni] (F) ‘big’ or the present tense endings [-ɛːnu] (M) ~ [-ɛːni] (F). A neutralization analogous to that between *oo* and *u*, is also found between *i* and *ee*, leaving monosyllabic words ending with vowels as the only fully contrasting environment for these two vowels. B identifies two distinct diphthongs *ai* and *au* (Buddruss 1967: 12–14).

The only word-initial clusters in Sw are plosives followed by either *r* or *y*, but a few loanwords with the clusters *pl* and *bl* are also noted. Word-finally, clusters with a nasal followed by a stop are found, and in a few loans some other cluster types as well (Buddruss 1967: 17).

6.3. *The four varieties compared*

A comparison of cognates in all four varieties (Table 24, following page) shows a relative consonantal stability. The seemingly regular consonantal correspondences have mainly to do with: a) the presence/absence of word-initial *h*, *w*, or *y*, b) the presence/absence of voiced aspiration, c) the presence/absence of word-final *ŋ* and *r*, and d) the presence/absence of certain clusters. There are also a few non-systematic differences, such as metathesis.

The most sonorant and vowel-like consonants (*h*, *w*, *y*) are those that seem most prone to change; *h* is in a sense the most minimal consonant (Trask 1996: 58) and is as such easily dropped, and more seldom inserted. That is most obvious word-initially. We have several examples of vowel-initial words in Klk, where the other varieties (also more distantly related) have an initial *h*, such as *äsil* ‘laughed’, *in* ‘is, are’, *im* ‘snow’ (cf. Gilgiti Shina *hin* and SP *hiimaál* ‘glacier’), *aaḍ* ‘bone’ (NP *haḍ*), *an* ‘egg’ (NP/SP *haṇoô*), so it is reasonable to suggest *h*-loss in the case of Klk. However, while **h* possibly disappeared altogether in Klk, it seems to have been reintroduced into the phonological system by means of recent loans, such as *hukumät* ‘government’ and *här* ‘every’. In Sw, on the other hand, there are word-initial *h* occurring where it is missing in Pal: *haṅgor* ‘fire’ (SP *angóor*), *huguroo* ‘heavy’ (SP *ungúru*), *haaru* ‘peach’ (SP *óoru*).

There are also examples of *w*-loss (in *i* ‘water’) as well as *y*-addition (in *yek* ‘one’ and *yekoš* ‘eleven’) in Sw. As far as this *w*-loss is concerned it does not seem to be representative of any consistent *w*-loss in initial position, rather conditioned by the following (high) front vowel. The *y*-addition seems to be its “mirror image” in that it occurs when there is a following front vowel, such as the example above, and also in *yeeṛoo* ‘(male) sheep’ where it goes along with SP *yúru/yúri*, but not with NP *íri* ‘(female) sheep’ and Klk *eer* ‘sheep’.

Table 24: Comparative word list, NP, SP, KIk and Sw

	NP	SP	KIk	Sw	
1	<i>kram</i>	<i>kráam</i>	<i>tram</i>	<i>kraam</i>	‘work’
2	<i>iprés</i>	<i>pres</i>	<i>irpäs</i>	<i>praş</i>	‘mother-in-law’
3	<i>şing</i>	<i>şing</i>	<i>şin / şi~</i>	<i>şin</i>	‘horn’
4	<i>dan(d)</i>	<i>dáand</i>	<i>daan(d)</i>	<i>daand</i>	‘tooth’
5	<i>mhaás</i>	<i>mhaás</i>	<i>maas</i>	<i>mos</i>	‘meat’
6	<i>lhoón</i>	<i>lhoón</i>	<i>loon</i>	<i>loon</i>	‘salt’
7	NO DATA	<i>bistúnu</i>	<i>bisiin</i>	<i>bisi~ru</i>	‘wide’
8	<i>saaréeni</i>	<i>saaréeni</i>	<i>saran</i>	<i>saroni</i>	‘wife’s sister’
9	<i>bhéřu</i>	<i>bhéřu</i>	<i>bät</i>	<i>beeřu</i>	‘sat down’
10	<i>ghúuru</i>	<i>ghúuru</i>	<i>goor</i>	<i>guroo</i>	‘horse’
11	<i>akáaş</i>	<i>akóoš</i>	<i>akaaş</i>	<i>yekoş</i>	‘eleven’
12	<i>ghoóşř</i>	<i>ghoóşř</i>	NO COGNATE	<i>gooş</i>	‘house’
13	<i>trúu</i>	<i>tróo</i>	<i>traa</i>	<i>řo</i>	‘three’
14	<i>náaw</i>	<i>nóo</i>	<i>naam</i>	<i>nom</i>	‘name’
15	<i>múru</i>	<i>múru</i>	<i>mur</i>	<i>muřoo</i>	‘died’
16	<i>pańáaru</i>	<i>pańáaru</i>	<i>pánär</i>	<i>parańoo</i>	‘white’
17	<i>řínčuk</i>	<i>řínčuk</i>	NO DATA	<i>řikuč</i>	‘scorpion’
18	<i>yandr</i>	<i>yáandr</i>	NO DATA	<i>yaař</i>	‘mill’
19	<i>hansířu</i>	<i>hansířu</i>	<i>äsil</i>	<i>hansiloo</i>	‘laughed’
20	<i>řip</i>	<i>řip</i>	<i>řib</i>	<i>řib</i>	‘tongue’
21	<i>hínu</i>	<i>hínu</i>	<i>in</i>	<i>hinu</i>	‘is’
22	<i>wíi</i>	<i>wíi</i>	<i>wä</i>	<i>i</i>	‘water’
23	NO COGNATE	<i>gróom</i>	<i>draam</i>	<i>grom</i>	‘village’
24	<i>bhruú</i>	<i>bhroó</i>	<i>draa</i>	<i>bro</i>	‘brother’
25	<i>anqáar</i>	<i>anqóor</i>	<i>ař(g)aar</i>	<i>hařgor</i>	‘fire’

Perhaps the most salient feature of this comparison is the systematic presence and absence of voiced aspiration. As mentioned earlier, I have not been able to detect any such aspiration in my recorded data from Sw. Also, where there is voiced aspiration in the SP and NP items, there is no aspiration to be found in the corresponding KIk items. There may however be a connection between voiced aspiration in Pal and low-rising pitch in KIk and Sw, perhaps parallel to the optional breathy-voicing observed with low tone in Gawri (Bart 1997: 46). The question arises, however, whether we can be sure that aspiration always is lost in Sw and KIk whereas it is kept in SP and NP. It could also be attributed to the development of voiced aspiration in Pal after the other varieties split off.

For some of the cognates we may refute the latter alternative with a fair degree of confidence, as aspiration is documented in OIA or has been reconstructed; such is the case for item 10, *ghōṭa* (Turner 1966: 4516), and we must draw the conclusion that original aspiration has been lost in Klk and Sw. For other words it is obvious that the aspiration was present in the OIA form, although originally associated with another segment, such as (item 12 above) *gōṣṭhá* (Turner 1966: 4336), but has since been transferred from the voiceless plosive at the onset of the second syllable to the initial syllable in NP and SP. That such a “promotion” or left-shift of aspiration did not (or at least not always) take place in Sw is evidenced by *beethu* (item 9), which (contrary to Pal) has preserved the aspirate of the second syllable.³² In some cases, however, aspiration is not even a feature of the OIA forms, and the presence of it in the modern varieties can, for instance, be attributed to the influence of low-rising tone.

The *ɲ* in NP, SP and Sw corresponds to *n* in Klk, regardless of its occurrence word-finally or intervocalically. The status of *ɲ* as a phoneme in Klk is overall weak. The same is mostly true of *r̥* which occurs in the other varieties but corresponds to *r* in our Klk cognates. While *r̥* in the other varieties indeed corresponds regularly to Klk *r*, also in initial position (cf. third person singular pronouns *ru*, *rās*, *rāsī* with SP *aró*, *arás*, and *arasī*), the phoneme *r̥* may be re-entering the variety, perhaps via Pashto loans such as *lārām* ‘scorpion’. In the other varieties, too, *r̥* is restricted in its occurrence; although the aforementioned third singular pronouns occur with a pronunciation *ró*, *rás*, *rasī* in their shortened forms in SP, the more commonly heard pronunciation is with an initial *l*: *ló*, *lás*, *lasī*. The forms of these pronouns in Sw are *la*, *lasee*, *leesi*.³³

As far as syllable structure is concerned, the two Pal varieties have preserved a number of clusters that have been fused or simplified in Klk and Sw. Excluding clusters that can only occur word-medially,

32 That aspiration in earlier stages of Pal was sensitive to placement of accent or stress is supported by paradigmatic aspiration contrasts noted in the conservative speech of Puri (a subvariety of NP): *bhrú* ‘brother’, *brahú* ‘brothers’; *gháw* ‘cow’, *gehí* ‘cows’.

33 The sound *r̥*, as in the Sw form of item 7, is, according to Buddruss (1967: 16), in free variation with *ɲ*.

the ones found in modern Pal (SP) are basically of three kinds: 1. Plosive + *r*: *bráam* ‘joint’, *utrapáanu* ‘is running’, *súutr* ‘thread’; 2. Nasal + plosive: *páand* ‘path’, *ukháandu* ‘is coming/going up’, *láang* [ŋg] ‘cross!’, and 3. Fricative + plosive: *dhríštu* ‘saw’, *ghraást* ‘wolf’. Cluster types 2 and 3 show a considerable degree of intra-variety variation in the word-final position, often with a deletion or weakening of the last segment.³⁴ The comparative Kik data for type 1 is of particular interest. Unfortunately, I do not possess any comparative data for the final position, but for the initial position assimilation with the second segment has taken place across the board: **kr*, **tr* > *tr*; **gr*, **dr*, **br* > *dr*.³⁵ In Sw we witness a very different situation. Most of these clusters are preserved, except **tr* which has fused into a voiceless lateral fricative *t̥*.³⁶ Its voiced counterpart *dr* is preserved in e.g. *draç* ‘grape’, whereas Pal *yáandr* ‘mill’ has Sw *yaał*, and Pal *dhríštu* ‘saw’ corresponds to Sw *darşoo*. Buddruss notes that the *dr* cluster is “phonetisch eine sehr unfeste Gruppe” and gives examples of considerable variation in the development of this cluster, providing evidence that one and the same word is sometimes heard with a cluster pronunciation, sometimes with a vowel between the segments. However, the proto-form of *yáandr/yaał*, as the Sw form suggests, most certainly had the voiceless cluster **tr*, with several parallels in Pal of a development **nt* > *nd*, the voiceless plosive becoming voiced following a nasal.³⁷

As in Pal, Kik pronunciation of what remains of the clusters of type 2 varies. For word-final *ng*, I hear only nasalization on the vowel when pronounced in isolation, whereas in the middle of a sentence I hear a velar nasal *ŋ*. Intervocally, there is an alternation between *ŋg* and *ŋ*. If the latter prevails we would need to include the phoneme *ŋ* in the consonant chart rather than regarding it as an allophone of *n* in

34 The word *yáandr*, item 18, exemplifies a combination of 1 and 2, not matched by any other example in my data.

35 I don’t have any examples of *pr* > *tr*, although that would be predicted; instead we have an example of metathesis *pr* > *rp* in item 2.

36 An intriguing exception is the numeral ‘13’ (B: *truíš*, L: *trooinsš*).

37 OIA *hēmantá* > **heemantá* > SP: *heewandá* ‘winter’ (OBL); OIA *vasantá* > **basantá* > SP: *basandá* ‘spring’ (OBL)

front of *g*.³⁸ The same tendency of dropping the plosive element and leaving an assimilated nasal is observed for the cognates of Pal words including the clusters *nd* and *nd*, again making it necessary to include *n* as a phoneme and not as a mere allophone of *n*. While traces of clusters of type 2 remain in Klk, type 3 is lost altogether, in Klk as well as in Sw. Even in intervocalic position only the fricative segment remains in item 7. Where we have the development **st > s* in Klk, as in *driṣ* ‘saw’ and *äṣ* ‘eight’, we seem to have a seemingly unmotivated development **st > š* in Sw: *gooš* ‘house’ and *aš* ‘eight’.

Item 16 in Sw is an example of metathesis, supported by the OIA form *pāṇḍara* (Turner 1966: 8047), while I am not able to say which of the Sw or the Pal forms of item 17 reflects an older order of the segments. Item 20 has a word-final *b* in Sw and Klk and a word-final *p* in the two Pal varieties. Considering that devoicing is common word-finally, it is more likely that the proto-form had a final *b* than a final *p*. The correspondence set *w/Ø/m/m* that item 14 (‘name’) gives us, seems straightforward, as we also have access to the OIA form *nāman* (Turner 1966: 7067). As mentioned earlier, the raising of *aa* to *oo* in SP resulted in the assimilation/fusion of the final consonantal segment *w* with the preceding vowel. The Sw and Klk forms show that *w* in itself would have had to go through a lenition process from an original bilabial nasal: **m > w*.³⁹

The area of vowel development is more complex, and we will not be able to deal with it exhaustively. A few snapshots, however, will give a hint at what a reconstruction of the Proto-Dangari vowel system may look like. Not unexpectedly, the phonological outlook of the present-day vocabulary is the result of a general tendency of raising and tensing, but rather more clearly so in the Pal varieties than in the other two. Especially Klk has retained many of the vowel qualities in stressed syllables, although a dramatic “onslaught” in the form of

38 With the only reservation that its distribution would be limited to word-medial and word-final positions.

39 Some other data, however, casts doubt over the *m* of Klk. (and possibly also Sw) always being the direct descendant of the OIA *m*. Also *nūu/nūu/nam/nu* ‘nine’ has an *m* in Klk, whereas the OIA form is *nāva* (Turner 1966: 6984), suggesting that the Klk. *m* represents a word-final fortition: *w > m*. The same holds for *nāawu/nāawu/nam/nāawu* ‘new’, also *nāva* (Turner 1966: 6983) in OIA.

apocope has made the vocabulary at large look rather different than the cognates from the other varieties. Virtually all final unstressed segments were lost some time after the variety split off from the rest.

In the Pal varieties we can witness a chain shift (Table 25), which could be described as a *push chain* rather than a *drag chain* (Trask 1996: 86–7), where the accented open syllable **a* goes through tensing to *aa* (**tato* > *táatu* ‘hot MSG’), pushing the previous **aa* through raising to *oo* (**taaro* > *tóoru* ‘star’), pushing the previous **oo* to *uu* (**ghooṛo* > *ghúuru* ‘horse’), where it simply merges with the existing **uu*. Similarly, in the front realm, some previous **aa* and **a* developed through umlauting into *ee* (**tati* > **taati* > *téeti* ‘hot F’; **čhaali* > *chéeli* ‘she-goat’), pushing the previous **ee* through raising to *ii* (**deesā* > *díšā* ‘villages’), merging with the existing **ii*. As we saw earlier, the vowel system and its symmetry was largely preserved from Proto-Pal to the present day NP and SP varieties, although along with a near-extinction of the diphthongs *ai* and *au*.

Table 25: Chain shifts in Pal

<i>ii</i>				<i>uu</i>
↑				↑
<i>*ee</i>	<i>ee</i>	(←)	<i>oo</i>	<i>*oo</i>
	(↑)		↑	
	<i>aa</i>		<i>*aa</i>	
	↑			
	<i>*a</i>			

As we noted in previous section, in NP (but not in SP), *all* open syllables **óo*, ‘old’ (e.g. **ghooṛo*) as well as ‘new’ (e.g. **tóoro*), were raised to *uu*. In SP (but not in NP), the closed syllables **a*, **aa* and **ee* were tensed/raised, just as the open ones.

In Sw, a similar development can be traced (Table 26), with the additional (and probably late) feature of phonological merge (due to loss of two quantity contrasts): **ii/*i* > **i*; **uu/*u* > **u*. No umlaut arose from **aa* in the development of Sw, the reason why the **aa* of **čhaali* as well as **taaro* developed into *o*: *čholi* ‘goat’ and *toru* ‘star’, respectively. However, a more recent umlaut process is under way with present-day *aa*, according to Buddruss resulting in the two allo-

phones [ɛ:] and [ɐ:]. I do not exclude the possibility that this may lead to or already has led to the establishment of a new phoneme.

Table 26: Chain shift and merging in Sw (čhi ‘ashes’, taatu ‘hot MSG’, taati ‘hot FSG’, ghuṛoo ‘horse’, toru ‘star’, čholi ‘she-goat’)

<i>i</i> ↑ <i>*ii</i> ↑ <i>*ee</i>	<i>čhi</i> <i>*čhii</i> <i>*čhee</i>		<i>o</i> ↑ <i>*aa</i>	<i>toru, čholi</i> <i>*taro, *čhaali</i>		<i>u</i> ↑ <i>*uu</i> ↑ <i>*oo</i>	<i>ghuṛoo</i> <i>*ghuuṛo</i> <i>*ghooṛo</i>
	<i>aa</i>	<i>taatu</i> [ɐ:], <i>taati</i> [ɛ:]					
	↑ <i>*a</i>	<i>*tato, *tati</i>					

In Klk, relatively few changes took place in its development from Proto-Dangari, as far as stressed vowels are concerned. Alone among the four varieties, Klk kept the open syllable **aa* as in: *taar* ‘star’ < **taaro*; *baal* ‘hair’ < **baalo*; *draa* ‘brother’ < **bhraa*, the exception being those (particularly feminine) nouns that developed umlaut: *pheep* ‘paternal aunt’ < **phaapi*; *meeš* ‘maternal aunt’ < **maaši*; *čheel* ‘she-goat’ < **čhaali*. Similarly, the Proto-Dangari **oo* remains in *goor* ‘horse’ < **ghooṛo*, and **ee* in *eer* ‘sheep’ < **eeṛo*. As in NP, the closed syllable **aa* is also retained: *ḍaak* ‘back’ < **ḍaak*; *draam* ‘village’ < **graam*; *aṇaar* ‘fire’ < **angaar*. However, a tensing of **a*, although not entirely lining up with the development in SP and Sw, has taken place (in open as well as in closed syllables): *baaṭ* ‘stone’ < **baṭ*; *kaan* ‘ear’ < **kaṇ*; *taat* ‘hot’ < **tato*.⁴⁰ The other vocalic changes are mainly to do with diphthongs fusing with or giving birth to other phonemes. The “new” phoneme *ää*, contrasting with *aa*, is perhaps the result of one or more diphthongs, one of them probably **ai*, being monophthongized: *ḍäär* ‘belly’ < **ḍhair*; *bään* ‘sister’ < **bhain*; *däär* ‘husband’s brother’ < **dair*. In open syllables, the **ai* monoph-

40 A suprasegmental/tonal distinction seems to be maintained between *aa* < **aa* and *aa* < **a* in Klk, but I am presently unable to give a systematic and accurate account of it.

thongized into a short open front \ddot{a} : *bāṭ* ‘sat down’ < **baiṭo*; *bā* ‘we’ < **bai*, now (at least partly) contrasting with a back *a*.

7. Relatedness and the development of the Hindu Kush Shina varieties

There are a number of unsolved problems in the development of the vowel systems, and without more data it would be too speculative to try and sort them all out. Instead we will return to the question of relatedness and whether it is possible to group the varieties in a way that would give an approximation of how the four are interrelated. Questions that arise are how similar traits in the varieties can be explained; is it a matter of shared innovation, shared retention, or parallel innovation? In addition, language convergence and the amount of contact between speakers will need to be looked into as a factor in producing similarities. In order to group the varieties as closely related, we will primarily look for shared innovation, but also take non-linguistic data and lexicostatistics into account, the latter with a great deal of caution.

7.1. Phonological development

A summary of the more salient phonological innovations or developments discussed so far is found in Table 27.

Table 27: Summary of phonological innovations in Sw, SP, NP and Klk

Innovation	Sw	SP	NP	Klk
Vowel raising in open syllable	YES	YES	YES	NO
Vowel raising in closed syllable	YES	YES	NO	NO
Umlaut of <i>*aa</i>	NO	YES	YES	YES
Apocope	NO	NO	NO	YES
Loss of voiced aspiration	YES	NO	NO	YES
Dental assimilation of plosive+r-cluster	NO	NO	NO	YES
\int -phoneme	YES	NO	NO	NO

The last three innovations do not shed a lot of light. The (incomplete) fusion of **tr* into \int is an innovation unique to Sw, and possibly it has

come about under influence from Gawarwati.⁴¹ In any case, it is a development taking place subsequent to any split off from the other varieties. The assimilation of various plosives in clusters with *r* is a similarly unique and isolated development in Klk. The loss of voiced aspiration in Sw and Klk is most likely not attributable to any shared innovation, rather a reflex of shared retention in the two Pal varieties. It seems, as far as Sw is concerned, to be a rather late development, as Buddruss in the 1950s with some hesitation still noted a weak voiced aspiration in some cognate words.⁴²

This leaves us with vowel raising, umlaut formation and apocope, all of them interrelated. For one thing, the umlaut formation must predate the apocope in Klk, the latter certainly a development taking place after splitting off from the other varieties. However, since this particular umlaut formation is not found in Sw, it is a development taking place after Sw's splitting off from the other varieties. Since umlaut-formation is quite a common process in the languages of the region, it could very well be a parallel innovation in Klk, NP and SP. The raising of vowels in open syllables is shared by Sw, SP and NP, whereas the raising of vowels in closed syllables is shared by Sw and SP. This would point us in a direction where the closed syllable vowels in Sw and SP were raised after NP split off from the other two varieties, the latter thus sharing a retention with Klk. There is also the raising of **oo* to *uu*, unique to NP to take into account. A possible scenario is to regard the vowel raising as an unconditional process in SP and Sw, separate from a conditional process (in two steps) in NP, as shown in Table 28 (following page). This means that the rather restricted vowel raising processes in NP can be described as independent from the more extensive vowel raising processes common to SP and Sw, whereas Klk has not been affected by any of these. As far as phonological development goes we are therefore able to suggest a separate subgroup consisting of Sw and SP, whereas NP and Klk branched off earlier.

41 Probably this is a matter of lexical rather than phonological influence.

42 There may very well be other suprasegmental correspondences in Sw and Klk to the voiced aspiration in the Pal varieties, yet to be studied and described in detail.

Table 28: From proto-forms to present-day forms ('twelve', 'star', 'horse') in Sw, SP, NP and Klk

	Sw	SP	NP	Klk
Proto-form	<i>*baaš</i>	<i>*baaš</i>	<i>*baaš</i>	<i>*baaš</i>
Unconditional raising: <i>aa, oo</i>	<i>boš</i>	<i>booš</i>	-	-
Surface derivation	<i>boš</i>	<i>booš</i>	<i>baaš</i>	<i>baaš</i>
Proto-form	<i>*taaro</i>	<i>*taaro</i>	<i>*taaro</i>	<i>*taro</i>
Unconditional raising: <i>aa, oo</i>	<i>toru</i>	<i>tooru</i>	-	-
Conditional raising 1: <i>aa</i> in open S	-	-	<i>*tooro</i>	-
Conditional raising 2: <i>oo</i> in open S	-	-	<i>tuuru</i>	-
Surface derivation	<i>toru</i>	<i>tooru</i>	<i>tuuru</i>	<i>taar</i>
Proto-form	<i>*ghooro</i>	<i>*ghooro</i>	<i>*ghooro</i>	<i>*ghooro</i>
Unconditional raising: <i>aa, oo</i>	<i>*ghuroo</i>	<i>ghuuru</i>	-	-
Conditional raising 2: <i>oo</i> in open S	-	-	<i>ghuuru</i>	-
Surface derivation	<i>guroo</i>	<i>ghuuru</i>	<i>ghuuru</i>	<i>goor</i>

The vowel system of proto-Dangari must have been something similar to the one we sketched in Table 11 for the Palula proto-language, involving five basic qualities (*a, e, i, u, o*), length contrast and two or more diphthongs. In all four descendant varieties, the diphthongs in most stressed syllables have become monophthongized and subsequently fused with other vowel phonemes, and at best they have survived in some unstressed syllables. This development is (partly) responsible for the “new” front-back contrast among the open vowels in Klk.⁴³ In Sw the quantity contrast seems to have been lost, with subsequent fusion of for instance **u* and **uu*, whereas the open-close dimension is utilized with four degrees. Klk is by far the most archaic when it comes to the retention of vowel quality in stressed positions, while open accented syllables have been subject to tensing and raising in NP, and open as well as closed accented syllables have been subject to similar tensing/raising processes in SP and Sw. On the other hand, a general loss of final unstressed vowel segments taking place in Klk after having split off from the other varieties has radically affected the word structure in this variety.

The consonant inventory of proto-Dangari was probably not very different than those in the four descendant varieties, although a more

43 Partly, it may have arisen due to an influx of loans from the neighboring donor language Gawri, which already had this contrast.

recent influx of loans have added the, largely fricative, sounds *f*, *z*, *x*, *y*, *q*, all of them to some degree phonemicized in the receptor varieties.⁴⁴ The phonemic status of [ɳ] and [ɲ] is uncertain; they may have been allophones of *n* preceding another retroflex and velar consonant respectively. The relationship between the sounds [ɾ] and [ɖ] is also somewhat unclear, whether they contrasted fully or stood in an allophonic relationship. Voiced aspiration was a feature of the proto-language, but whether it had already developed secondary aspiration before branching out is still to be determined. Voiced aspiration is retained in NP and SP, but has been (segmentally) lost in Sw and KIk.

Clusters of plosive + *r* were permitted both word-initially and word-finally, and a number of final clusters of nasal + plosive and nasal + fricative occurred. Many of these clusters have been reduced or broken up in Sw and KIk. Most *tr*-clusters in Sw have developed into a voiceless lateral fricative *ʃ*, constituting a new consonant phoneme. A rather interesting type of assimilation can be observed in KIk where all plosive + *r* clusters have been dentally assimilated by the following *r*: **gr*, **dr*, **br* > *dr*, and the same for the voiceless clusters into *tr*.

The raising and tensing processes in SP and NP (and possibly also in Sw) have resulted in paradigmatic vowel alternations. Umlaut formation is present in all four varieties, although it seems to have affected the lexicon of Sw less than that of the other varieties. It seems, however, that umlaut has arisen independently and at different stages in the varieties.

7.2. Morphological development

There are so far no strong *phonological* reasons to group NP together with SP/Sw vis-à-vis KIk, while there are many *grammatical* features shared by SP and NP alone. Two of these were mentioned earlier, the *de*-construction and the (*i*)*m*-suffix. Both of them must be defined as grammatical innovations, rather than retentions, and I hold that these have resulted from a more recent (approximately the last two centuries) interaction between the speech communities in Biori (NP)

44 A number of Pashto and Urdu words are in their turn loans from Arabic, Persian, English, etc.

and Ashret (SP). Basically the entire nominal and verbal systems have converged. The relevant grammatical categories in the nominal paradigm are number (singular and plural) and case (nominative, oblique and genitive), and the great majority of nouns belong to one of three main noun classes or declensions (see Table 29). The oblique case is a multi-purpose case, having locative function, being the case used with most postpositions and also when the noun occurs as an agent in ergative clause constructions.

The most obvious point where Sw differs from Pal is the absence of any inflections with an *m*-element, whether number or case forming. We can otherwise spot very clear parallels to the noun classes in Pal, although the distribution looks different. Most Sw cognates of the *m*- and *i*-declensions in Pal form their plurals with *-e*.⁴⁵ The masculine subclass of the Pal *a*-declension with stems ending in (unaccented) *-u* has its direct parallel in a class of Sw masculine nouns forming the plural with *-ee*. However, in this Sw class we also recognize some Pal nouns (with singular *-oo* and plural *-ee*) from a small subset of the *i*-declension. Another subset of the *a*-declension in Pal has its parallel in Sw (mainly masculine) nouns forming plural with *-a*.

Table 29: Noun classes in Pal (SP) and Sw compared (inflection, gender, example words in sg/pl)

Pal			Sw			
<i>-a</i>	m/f	<i>báat/baťá</i>	<i>-a</i>	m/f	<i>baat/bata</i>	'stone'
	m	<i>kučúru/kučúra</i>	<i>-ee</i>	m	<i>kučuroo/kučuree</i>	'dog'
<i>-i</i>	m	<i>hanoó/haneé</i>			<i>aŋđoo/aŋđee</i>	'egg'
	f/m	<i>ĵip/ĵípí</i>	<i>-e</i>	f	<i>ĵib/ĵibe</i>	'tongue'
<i>-im</i>	f	<i>angúri/angúrim</i>			<i>anguri/angure</i>	'finger'

Another similarity across these varieties is a set of four endings – masculine singular, masculine plural, feminine singular, feminine plural – that are used as agreement suffixes on adjectives and verbs alike, identical to the noun endings of the (present-day) most dominant noun classes: Pal *-u*, *-a*, *-i* and *-im*; Sw *-oo/u*, *-ee*, *-i* and *-e*. Although it would be tempting to see a link between these masculine singular and feminine singular noun endings, respectively, and the OIA masculine *-as* and feminine *-ī* or *-s*, the latter segments were

45 All of the examples given by Buddruss (1967: 36) are feminine.

early on subject to weakening and were eventually lost altogether in most NIA languages. The heirs of those we would actually find among the consonant-ending nouns (such as those in Pal *i-* and *a-* declensions), rather than among the nouns with “overt” gender in modern-day Pal and Sw (Masica 1991: 222). The modern masculine ending *-o/-oo* etc. is instead, according to Morgenstierne (1941: 15) and Buddruss (1967: 29), a weakened form of an OIA derivational suffix *-aka*, and the feminine ending *-i* comes in a similar way from a feminine counterpart *-ikā*.⁴⁶

As far as the plurals are concerned, the *-a* of Sw goes back on a Prakrit form *-āo*, according to Buddruss, whereas *-ee* has developed out of **-aya* (1967: 37). For Pal, it seems the two have largely fused into *-a*, only keeping an accented *-ee* distinct from *-a* in a small subclass of nouns. Thus *-a* has become the main masculine plural marker (also reflected in the agreement suffixes) in Pal, whereas the corresponding one for Sw is *-ee*. The characteristic feminine *m*-plural common to NP and SP, is obviously a morphological innovation (Buddruss 1967: 37) that has come about after Sw split off from SP. Buddruss suggests that the Sw plural *-e* is derived from **-ya < *-iyā* (1967: 37), thus giving us a reconstructed plural formation: **angur-iyaa*. This plural morpheme was subsequently extended to other feminine nouns, such as the consonant-ending *jīb* (which historically lost its final vowel). In Pal, the unaccented *-iyaa* may very well have undergone a development *-iyaa > -i*, resulting in the loss of a segmental singular/plural contrast (since the singular form was already *-i*). Somewhere along the way, and to make up for the loss in number contrast, the *-m* of what had already become an oblique plural was being reinterpreted as a plural marker in this noun class.

Just as the *-u* and *-a* have become the main players as masculine singular and plural markers (and invariably as agreement suffixes) in Pal, the same can be said about the feminine singular and plural *-i* and *-im*, respectively.⁴⁷ This pattern has apparently become a system-

46 Although in the latter case its development may also have been influenced by a restrengthened old feminine *-ī*, Masica (1991: 222).

47 It seems the feminine plural *-im* is still gaining ground, as it doesn't show quite the same consistency and distribution as the other three markers do. As an

defining structural property for nouns (McMahon 1994: 103-4), and even relatively recently added non-native words conform to the pattern: *nalyáči/nalyáčim* ‘baking-board’ (fr. Khowar).

It is less clear how the case inflections of Sw should be compared with the Pal ones; apparently the varieties have diverged more here than is the case with the plural inflections. With singular reference, two different case-marking forms occur: *-ee* and *-o~* (Buddruss notes *-a~* and *-oo~*, which I tentatively interpret as instances of *-o~*). Both of these markers are “multipurpose” as far as case is concerned. The *-ee* is used as genitive (of animates), oblique, dative (with or without a “to”-postposition), sometimes as locative, and invariably as the ergative case-marker. The *-o~* is more limited in its distribution; it occurs as genitive and ablative of inanimates. The ending in *-ee* is certainly related to the Pal genitive (*-íi/-ii* in SP and *-íi/-e* in NP), but whether it is a question of several suffixes merging with the genitive in Sw or the genitive suffix being extended to other case-functions, I am not able to determine at this point. With plural reference there is only one “multipurpose” case marker *-oo~/u~* in Sw, used for virtually all non-nominatives. Interestingly, the forms *-ee* (in singular) and *-oo~* (in plural) are also used as accusatives, marking definite objects, especially when preceded by a demonstrative pronoun, as in example (10), most likely due to influence from Gawarbati (11).

- (10) (Sw)
- | | | | |
|-----------|-----------|------------------|------------------|
| <i>mi</i> | <i>la</i> | <i>moonuṣ-ee</i> | <i>darṣoonoo</i> |
| I.ERG | this | man-ACC | have.seen |
- ‘I have seen this man.’

- (11) (Gawarbati)
- | | | | |
|------------|-----------|-----------------|-----------------|
| <i>mui</i> | <i>sa</i> | <i>maanuṣ-a</i> | <i>maaritum</i> |
| I.ERG | that | man-ACC | killed |
- ‘I killed the man.’

The information at hand on Kik nominal inflections is too scanty to make any meaningful comparisons. It is likely that a number of morphological distinctions that were present in an earlier stage of this

agreement suffix attached to an adjective, *-im* only occurs predicatively, whereas attributively *-i* is used with singular and plural reference alike.

variety were lost in connection with the disappearance of unaccented final vowels. Most nouns with plural reference in my data are, at least segmentally, identical to those with singular reference. However, I have noted what looks like a plural oblique in *-um* preceding a postposition in the phrase *lärkeer-um t(h)ä* ‘to the girls’, a form that very well may be related to the Pal plural oblique *-am* (accented *-áam/-óom*) and the Sw *-oo~/~u~*. An ergative marker, *-ä*, may have developed recently, as it attaches at the end in a fashion similar to postpositions and does not seem to have any other allomorphs: cf. *zamaan-ä* ‘Zaman (agent)’; *mees-ä* ‘the man (agent)’; *lärkeer-ä* ‘the girl (agent)’; *lärkoorum-ä* ‘the boys (agent)’.⁴⁸

I propose a common origin of Pal plural oblique *-am/-óom*, Sw *-oo~/~uu~* and possibly what looks like a Klk plural oblique *-um*. In the Sw variety the nasal segment is retained only in the nasalization of the preceding vowel. The distinct form of the plural genitive in Pal is probably also an innovation come about during the convergence phase of NP and SP. As a result of a transparency/uniformity pressure on the morphological system (McMahon 1994: 98), the relatively invariable singular genitive was transferred and analogically attached to the periphery of the already inflected noun: *táapar* ‘hill’, *táapar-ij* GEN.SG, *táapara* NOM.PL, *táaparam* OBL.PL, *táaparam-ij* GEN.PL. NP may even have been the primary agent of pressure in this case. The third person plural genitive of the pronouns that has the form *(ha)tenúme*, unique to NP (Table 30) suggests an innovation with more transparent forms that started in this variety and spread to the noun paradigm of SP but did not quite make it into the innermost of the pronominal system. Of course, it still needs to be shown conclusively that the NP form is indeed the result of innovation rather than retention.

Table 30: Some pronominal forms compared (NP, SP, Sw and Klk)

	3sg obl	3sg gen	3pl obl	3pl gen
NP	<i>(ha)tés</i>	<i>(ha)tesée</i>	<i>(ha)tenaám</i>	<i>(ha)tenúme</i>
SP	<i>tas</i>	<i>tasí</i>	<i>tanaám</i>	<i>taní</i>
Sw	<i>tasee, tasi, ta</i>	<i>teesi</i>	<i>teeno, teena~</i>	<i>teeni</i>
Klk	<i>täs</i>	<i>täsi</i>	<i>tänaa</i>	<i>täni</i>

48 Note, again, the plural oblique *-um-* in the last example.

The reconstruction of proto-Dangari morphology is more challenging than the phonological one, especially as apocope in Klk resulted in serious loss of previous suffixation, and NP and SP have converged to such an extent as to make morphology almost identical in the two. The only meaningful comparisons made are those between Pal and Sw. Those comparisons point in the direction of the proto-language having three noun declensions, with three different plural formations, one declension made up of largely feminine nouns, one largely masculine, and one with both masculine and feminine nouns. I have not attempted to reconstruct the case system, as that would need further analysis and additional Klk data, but we seem to have a singular genitive ancestor form with the descendants *-ii/-e* in NP, *-ii* in SP, and *-ee* in Sw, and there is also evidence for a plural oblique (maybe including genitive functions) with a nasal element.

7.3. *The development of TMA categories*

The most central grammatical distinction in the Pal verbal system (see Table 31) is aspect, clearly reflected in verb morphology, *-aan* (or *-aand*) for imperfective and mostly *-il* or *-(i)t* for perfective (along with a smaller number of verbs with an imperfective stem clearly different from a perfective stem, almost all shared by NP and SP).

Table 31: Main conjugational distinctions in Pal (NP forms of ‘walk’, ‘come down’ and ‘find’ exemplified)

	Ipfv (MSG)	Pfv (MSG)	Fut (1SG)	Imp (SG)	Converb
L-form, <i>-aan</i>	<i>tiláanu</i>	<i>tilílu</i>	<i>tílum</i>	<i>tíl</i>	<i>tilí</i>
T-form, <i>-aand</i>	<i>wháandu</i>	<i>wháatu</i>	<i>wháam</i>	<i>whá</i>	<i>whaí</i>
Stem change	<i>lhayáanu</i>	<i>láadu</i>	<i>lháyum</i>	<i>lháy</i>	<i>lhayí</i>

Tense distinctions are clearly secondary, the only overt reflex being the *de*-construction already mentioned. In the perfective as well as in the imperfective, the verb displays gender/number agreement (*-u* MSG, *-a* MPL, *-i* FSG, *-im* FPL, attached to the aspect morpheme), whereas in the future there is personal agreement (*-um* 1SG, *-eṛ/aṛ* 2SG, *-e/a* 3SG, *-íia* 1PL, *-et/at* 2PL, *-en/an* 3PL).⁴⁹ The aspectually unmarked form is

49 The presence of more than one set of agreement markers is not uncommon in IA languages at large (Masica 1991: 259).

used with future reference or (when combined with the past tense marker *de*) for continuous or nonfinite actions in the past. Historically, the paradigm of this form goes back on the OIA present tense, although the second singular and first plural forms seem to be Pal-specific innovations (Morgenstierne 1941: 22).

The centrality and relative time-depth of the imperfective vs. perfective distinction is supported by the fact that it is primarily the perfective and the imperfective verb forms we recognize when broadening the comparison to include Sw and Klk. The imperfective-forming segment is found in Sw as well as in Klk (in the former, like in Pal, followed by gender/number agreement, whereas in the latter fused with gender/number agreement): *bheśāanu* (SP), *beeśāano* (Sw), *biśuun* (Klk) ‘is/am sitting (MSG)’. The reflexes of the perfective, *-il* and *-t*, are also found in both of these varieties, often with the same distribution as in Pal: *nikāatu* (SP/NP), *nikhaatu* (Sw), *nikhāt* (Klk) ‘appeared, came out’ vs. *mheerīlu* (SP), *moriloo* (Sw), *mārīl* (Klk) ‘killed’. A perfective/imperfective stem alternation is likewise often seen with cognate verbs: *paśāanu/dhriṣṭu* (SP), *paśaanu/darṣoo* (Sw), and *pāśuun/driṣ* (Klk) ‘is seeing/saw’.

Some of these forms found at the core of verb morphology in all four varieties are obviously old, although the exact origin is not always easy to fix, and further research will be necessary. First, the perfective forms belonging to what I will refer to as the *T-forming class* (forming perfective forms with *-t* or in some cases *-d* or *-ṭ*) most certainly go back on a Sanskrit past (passive) participle *-ta* (Whitney 2002 [1889]: 952), representing an early development of a perfectivity category, contrasting initially with an aspectually unmarked plain verb stem.⁵⁰ The other perfective marker, *-il-*, found in an *L-forming class*, is younger, and can be traced back to the Prakrit *-illa* (Schmidt & Kohistani 2008: 140).⁵¹ The T-forming class is clearly a kind of residual category in all four of the varieties under discussion, limited in number and unproductive, whereas the paradigm of the L-forming class (and its subclasses) has become the system-defining structural

50 This element has numerous parallels in NIA at large (Masica 1991: 269, 272).

51 Outside of Shina this mostly occurs in NIA languages in the eastern and the southern parts of the Subcontinent (Masica 1991: 270).

property for verbs, evidenced by the inclusion of recent loans: NP *newešilu* ‘wrote’ (from Khowar *niweš-*).⁵²

The origin of the imperfective is more difficult to determine with certainty. Both Morgenstierne (1941: 22) and Buddruss (1967: 48) state that the *-aan* of Pal, as well as the virtually identical element in Sw, goes back on the Sanskrit present active participle *-ant*, even this with numerous parallels in other NIA languages (Masica 1991: 270–1). What complicates the picture is a small class of verbs in Pal that form their imperfectives with *-aandu*.⁵³ We also have a problem posed by the imperfective verb forms of Klk, where the imperfective morpheme has three different allomorphs: *-uun*, *-iin*, *-aan*. I see it as very unlikely that the different vowel qualities would be straightforward examples of umlauts triggered by a now lost final vowel.⁵⁴ Instead, a possible origin is a gender/number agreeing auxiliary **hino* or **hano* ‘is’ attached to the aspectually unmarked verb stem.⁵⁵

Turning to the third core category in Pal, the future, the corresponding form category seems rather marginal in Sw and Klk. In Sw, it is used as a subjunctive, but infrequently so. Only the first person singular *-um/-om/-aam* corresponds with any precision to SP *-um/-uum/-eem*. The form *-yee* is used for third person singular, first and third person plural alike, and comes closest in resemblance to the Pal first person plural. A verb form built on the first person singular subjunctive, an *n*-element and a gender/number agreement suffix (giving *dumnoo*, *dumnee*, *dumni*, *dumne* ‘will give’), is used as a future in Sw. This construction is obviously a Sw-specific innovation; it is likely that the combination *n* + gender/number agreement is

52 Perfectivity allomorphy occurring within the L-forming class is quite easy to predict and the class as such has been subject to much more of leveling and innovation as compared to the older T-class (Schmidt, p.c.).

53 These are all frequent motion verbs: *yháandu* ‘is coming’, *wháandu* ‘is coming down’, *ukháandu* ‘is going up’, *nikháandu* ‘is coming out, is appearing’.

54 Although umlaut is a feature of the historical development of Klk, we don’t have any parallel cases where *a* or *aa* has developed into *uu* or *ii* elsewhere in this variety.

55 The auxiliary may have dropped the initial *h* already when attached to the stem, and the first vowel may have been colored by the final gender/number-alternating vowel, leaving a trace even as the final vowel was lost.

related to the copula (*hinoo, hinee, hini, hine*): *dumnoo* < *dum hinoo*. For imperfective or habitual past, the other instance where the future/subjunctive is used in Pal,⁵⁶ Sw uses a construction with the imperfective followed by a suffigated form of *aalo* ‘was (MSG)’ or one of its gender/number alternants: *thaan-aalo* ‘was doing’, etc. The ancient agreement pattern has therefore been given up almost exclusively in favor of the new gender/number pattern in Sw (Buddruss 1967: 46–54).

The near-absence of any forms in Klk related to the Pal future (and the OIA present) points in the same direction. Elicitation of future propositions tends to produce the same imperfective verb forms as for most present tense propositions. Only in a few examples there are forms with person agreement: *-am/-um* 1SG (as in *ma guwaa tham* ‘What should I do?’), *-ä* 2/3SG, and *-ään* 3PL, which correspond closely to the Pal first singular, third singular and third plural agreement forms, respectively. Although form sharing between the second and third person singular of the aorist is also found in Kohistani Shina (Schmidt 2002: 39), a loss of contrast, probably as the result of sound changes in a more distant past, in Klk (and Kohistani Shina), is more likely than a split into second and third person in Pal.⁵⁷

The other TMA-categories found in Klk are, as we saw, formed with a suffix added to the imperfective or perfective, thus giving them an overt past tense marking, a strategy we recognize from Sw and Pal. Considering the differences in construction and the usage across the varieties and also the peripheral position of such elements, these categories are considerably less stable and newer than the core categories (imperfective, perfective, future/aorist). A sketchy presentation of the strategy “core + tense extension” to form new TMA-categories is given in Table 32 on the following page.

56 Along with the past tense marker *de*.

57 However, the actual form of the somewhat “mysterious” second person singular in Pal is an innovation peculiar to SP/NP.

Table 32: TMA categories in SP, Sw and Klk (Ext = Tense extension)

Core	Ext	SP	Sw	Klk	Usage
Ipfv	Pst	–	<i>thaan-aloo</i>	<i>čũũun-s</i>	Sw: “was doing, used to do”; Klk: “was writing, kept on writing” ⁵⁸
Pfv	Prs	<i>muřu hínu</i>	<i>thiloo-noo</i>	–	SP: “died, has died”; Sw: “has done” ⁵⁹
	Pst	<i>samóolu de</i>	<i>thil-aaloo</i>	<i>čũũi-s</i>	SP: “was built”; Sw: “had done”; Klk: “had written”
Aorist	Prs	–	<i>khom-noo</i>	?	“will eat”
	Pst	<i>tílum de</i>	<i>khom-n-aloo</i>	?	SP: “was walking”; Sw: “would eat, would have eaten” ⁶⁰

Note that the Sw form seems to be marked for present as well as past tense (aorist + present + past); this may be diachronically true, but it is more likely that the *-n* (probably from ‘is’) was already a grammaticalized future marker when the past tense marker *-aloo* (from “was”) was added to create a new, primarily modal, category. Obviously most of the tense markers are grammaticalizations of ‘be’.⁶¹

As far as verb morphology and TMA categories are concerned, the formal distinction between perfective and imperfective, most likely was a feature of the proto-language, having two distinct inflectional forms with perfective meaning, *-il* and *-(a)t*, each representing a major inflectional class. The imperfective as well as the perfective finite verbs, originally based on participles, showed number and gender agreement. Person-inflecting verb forms probably played a more

58 Continuous or habitual past in Sw. Continuous past in Klk.

59 Reported past or perfect in SP. Perfect in Sw.

60 Continuous past in SP. Conditional in Sw.

61 The Pal past tense marker is the exceptional case, with a form of ‘give’ as its source.

prominent role in proto-Dangari than in most of the descendant varieties. In Pal as well as in Sw, future reference is based on one or more of these forms, whereas in Pal they are also used, along with a tense marker, for imperfective past. A variety of strategies to indicate tense are used in the four varieties, and we must therefore regard tense on the whole as a newer and more peripheral category than aspect.

7.4. *Lexical development*

Lexically, the present environments of the varieties have exercised considerable influence. NP and SP have converged in the vicinity of e.g. Kalasha and Dameli, who have supplied the two varieties with new, shared vocabulary. Sw is, as we have pointed out before, entirely surrounded by Gawarbat speakers, and lexical influence from that language is inevitable. Klk, surrounded by Gawri, owes much of its present-day vocabulary to the latter. Further studies of these environments and their sociolinguistic dimensions may throw some light on why certain changes (and not others) have taken place, lexically, phonologically and morphologically.

Although lexicostatistics is highly questionable as the sole method of determining language relatedness (Trask 1996: 361–2), it may hint at how closely related these four varieties are to one another, or at least to what extent they have diverged (and later converged) since splitting off. In the SIL sociolinguistic survey that was referred to earlier, phonetic similarity counts were made based on a 210-item word list collected from all the locations under study. Those counts show a 95 per cent lexical similarity between NP and SP, 56 per cent between SP and Sw, 57 per cent between NP and Sw, and 32 per cent between NP and Klk (K. D. Decker 1992: 80; S. J. Decker 1992: 70). No counts were presented showing similarity between Klk and Sw or between Klk and SP. The aim of that study was to indicate to what extent speakers of the different varieties can be expected to understand one another, and not primarily to determine language relatedness.⁶² For our purpose, I find it more helpful to count the number of shared cognates, and I have therefore used the same lists to obtain lexical

62 K. D. Decker rightly points out that “looking at the word lists, it is easy to see that there is a historical cognate relationship between a greater percentage of the words than this chart shows” (1992: 80).

similarity percentages between all four varieties, as can be seen in Table 33.⁶³

Table 33: Lexical similarity percentages (based on shared cognates)

<i>Southern Palula</i>			
92	<i>Northern Palula</i>		
67	67	<i>Sawi</i>	
59	59	60	<i>Kalkoti</i>

This shows us is that NP and SP are lexically very similar, while Sw is considerably different from all of the other varieties, showing an almost equal similarity rate with NP and SP, respectively, and a slightly lower one vis-à-vis Klk. Klk, on the other hand, is equally different from all the other three varieties. If we were to take this at face value, Klk would have split off first from the other varieties, then Sw, and finally the two Pal varieties from each other. However incomplete that picture may be, we should keep it in mind for later.

8. Non-linguistic clues to historical developments

Looking for evidence in local history or oral tradition, such as memorized genealogies, the most extensive documentation of the kind is found among the SP speakers of Ashret. Somewhat simplified, the people of Ashret consider themselves as Shin, i.e., members of a tribe whose history goes back on one of the four castes inhabiting the traditional territory of Shina.⁶⁴ According to local history, the ancestor of the people of Ashret was a certain Choke son of Machoke,⁶⁵ who migrated to the present location from Chilas in the Indus Valley some 15–16 generations (or at least 300 years) ago, a scenario that has been

63 With a few exceptions, such as when my own material suggests that the items in the survey may be incorrect or misunderstood, I have used them as they stand. In general I have only counted them as similar when they can be assumed to have developed from the same proto-form.

64 The Shins were considered ritually cleaner than the other three castes, the Yeshkuns, the Kamins, and the Doms (Jettmar 2002: 17).

65 In some versions of this tradition Choke and Machoke were brothers (Cacopardo & Cacopardo 2001: 85; own notes.)

convincingly corroborated by Alberto Cacopardo's ethnohistorical research (Cacopardo & Cacopardo 2001: 84–93). One source states how this Choke and two accompanying brothers arrived in Chitral, reached Drosh, and subsequently separated. One brother went to Kalas in the Shishi Koh Valley, one continued to Sau in the Kunar Valley, where he settled, and Choke himself settled in Ashret (Cacopardo & Cacopardo 2001: 84). This would support a common origin of the speakers of SP and those of Sw. As pointed out earlier, some of my informants from Sau indeed acknowledge the people of Ashret as their "brothers". All of the inhabitants of the present-day village Kalas are now Khowar speakers, but according to information obtained in Puri (the only remaining Pal-speaking village in Shishi Koh), the people of Kalas used to speak Palula. An independent tradition among the Bozhokey in Laspur Valley (about 200 km northeast of the Pal-speaking area) also speaks of a migration from Chilas some 12–15 generations ago. Dr. Inayatullah Faizi, himself a Bozhokey, has documented this tradition, according to which the two brothers Choke and Machoke left Chilas after a power-struggle with their elder brother. After parting during their exile, Machoke arrived in Laspur where his elder son Laphur subsequently settled. The descendants in Laspur Valley have since been linguistically assimilated by their Khowar-speaking neighbors. Some Ashreti sources also claim that the Chilasi immigrants came to Ashret from the north, perhaps via Laspur, rather than through the Lowari pass and Dir Kohistan, thus lining up with the Laspuri tradition (Cacopardo & Cacopardo 2001: 85, 125–6).

What then about the speakers of NP? It has been explicitly pointed out to me by Ashretis that the people of Biori (i.e. the main bulk of NP speakers) are not descendants of Choke and Machoke, but are Kohistanis from Dir who have adopted the language of Ashret (cf. Strand 2001: 255; Saeed 2001: 296). The first part of the statement is probably true, as Biori genealogies lack any convincing links to the genealogies of Ashret, but I suspect the second part to be an overinterpretation on the part of the Ashreti informants. Although the ethnic composition of Biori Valley is more complex than that of Ashret, there is indeed a local tradition that connects a good section of the population with Dir Kohistan,⁶⁶ in particular with a village called

66 That is particularly the case in Bhiuri, the uppermost village in Biori Valley.

Biyar,⁶⁷ and Cacopardo (2001: 111–18) holds that the Palula of Biori most likely came to the valley from Dir Kohistan, somewhat later than the Palula arrived in Ashret, and possibly to escape conversion to Islam in Dir Kohistan. However, present-day Biyar is a Gawri-speaking village, and we do not know anything for certain about any previous language spoken there, but it is not unlikely that the Klk speakers are a remnant of a previously more widely spoken Shina variety in Dir Kohistan, which had to give way to Gawri and Pashto. Kalkot is in any case not far from Biyar, both situated along the Panjkora River. Atiq Ullah, my main Biori informant, further claims that the people who came from Biyar were originally from Tangir,⁶⁸ one of the Indus side valleys west of Chilas, hence the designations Tangiri, Dangari or Dangarik.⁶⁹ While visiting Puri, an old man claimed that his village was founded by two brothers, Dooshi (*dúúšī*) and Kanooshi (*kaṇúúšī*), who came via Dogdarra in Dir Kohistan from a place in Tangir Valley called Dangeri Phururi (*dangeri phurúri*).⁷⁰ As an explanation for the exclusiveness on the part of the SP speakers vis-à-vis the NP speakers, Inayatullah Faizi (p.c.) suggests that the ancestors of the Northerners may very well have been Shina speakers, but being Yeshkun rather than Shin would immediately have placed them in a non-kin category, regardless of their linguistic proximity.⁷¹

67 This is pronounced *bhiaar*, which in a genitive, or perhaps an adjectival form, along with the regular sound change *aa* > *uu* gives *bhíúuri* ‘Biori’ (lit. “from Biyar”).

68 However, as pointed out by Alberto Cacopardo (p.c.), the narrow modern-day use of Tangir referring to this particular valley differs from a broader, past use of Tangir that refers to the whole region around Chilas, including many major Shina-speaking areas.

69 Interestingly, while Ashreti (SP) people usually dislike the designation Dangarik, the people of Biori (NP) do not seem to mind.

70 This probably corresponds to a place in Tangir rendered Phurori on some maps.

71 This idea is disputed by Alberto Cacopardo (p.c.), who holds that the awareness of such a caste identity in relatively recent times is out of question.

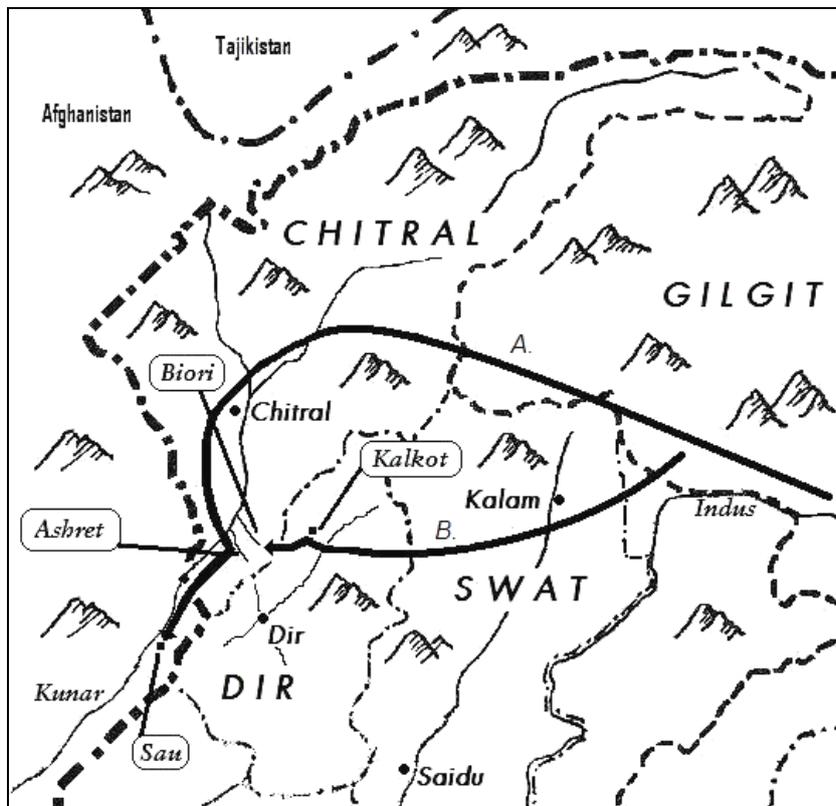


Figure 1: The two migration routes from the Indus Valley to the Kunar and Panjkora Valleys: A. Chilas-Laspur-Ashret-Sau, B. Tangir-Dir Kohistan-Biori.

What this gives us are two possible migration routes from Indus Valley to Chitral (Figure 1). One would have originated in the Chilas area, taking the way over Shandur Pass to Laspur, continuing south through Chitral to Ashret Valley and later on branched out to Sau. The other one would have originated in Tangir or its vicinity, taking the way over Swat and Dir Kohistan, ending up in Biori Valley. Linguistically speaking, a variety of Shina spoken in the Chilas area was transplanted in Ashret Valley, later on producing an offshoot in

Sau, developing into present-day Sw, much influenced by the locally dominant Gawarbati; another variety spoken in Tangir Valley would have been transplanted in Dir Kohistan, leaving a trace in Klk, with an offshoot in the Biori Valley and a few other places. The varieties that found themselves in the immediate neighborhood of one another in southern Chitral, i.e., NP and SP, would as time passed cross-fertilize each other and converge considerably, grammatically and lexically. Further research in Dir Kohistan would probably give us more clues, but for now I consider this a likely historical scenario.

9. Dangari and other Shina varieties

In the previous section we proposed that the ‘Urheimat’ of the Dangari speakers most likely is to be found in the present-day Diamer District in Indus Valley. Interestingly enough, Radloff (1992: 142–3) points out that some vocabulary items from a word list collected in Darel and Tangir set these speech varieties apart from other Shina varieties in Indus Valley while agreeing with Pal and Sw (Table 34).

Table 34: Words shared by Darel/Tangir and SP and Sw (for Pal the author’s own data, for Sw Buddruss (1967), and for the other varieties Radloff (1992))

	‘heart’	‘girl’	‘died’
Darel / Tangir	<i>hɪru</i>	<i>phu'i</i>	<i>mu~ɾo~</i>
SP	<i>hɪro</i>	<i>phaí</i>	<i>múro</i>
Sw	<i>hi'roo</i>	<i>pho'i</i>	<i>mu'roo</i>
Diamer	<i>hio</i>	<i>mu'lai</i>	<i>mu~</i>
Kohistan	<i>hio/hali'ti</i>	<i>mu'lai</i>	<i>mu~</i>

A continued examination of our four western Shina enclaves, and further efforts to determine the features of their source speech, will be important for any future attempts at reconstructing proto-Shina. In connection with a large-scale comparison of Shina varieties, Schmidt (2002: 52) specifically points out a closer study of Pal along with research in the Shina of Astor as important keys in understanding the early developments of Shina at large. As far as lexical items are concerned, a comparison of all known Shina varieties would identify

the two Pal varieties as representative of a number of archaic phonological features, such as retention of OIA clusters *tr*, *dr* etc., where many varieties have developed retroflex consonants *ç* and *ʒ*, and final clusters such as *ʃt*, where most other varieties are left with a single segment *ʃ* or *t*. Pal alone has also retained voiced aspiration. Such features would certainly be of importance when trying to tackle the question of tonogenesis or the source of the pitch accent system in Shina, a system shared by all of the varieties that have been subject to any deeper phonological analysis, including Gilgiti in the north, Astori, Guresi and Drasi in the east, Kohistani Shina in the south, and Pal in the west (Radloff 1999: 57-107; Schmidt 2002: 36-7). A comparative study would also be of importance when reconstructing the case system of early Shina, as well as its pronominal system.

Abbreviations

acc	accusative	obl	oblique
B	Buddruss	OIA	Old Indo-Aryan
erg	ergative	Pal	Palula
f	feminine	pfv	perfective
fut	future	pl	plural
gen	genitive	prs	present
IA	Indo-Aryan	prt	particle
imp	imperative	pst	past
IPA	International Phonetic Alphabet	S	syllable
ipfv	imperfective	sg	singular
Klk	Kalkoti	SP	Southern Palula
L	Liljegren	Sw	Sawi
M	masculine	TMA	tense, mood, aspect
NIA	New Indo-Aryan	1	first person
nom	nominative	2	second person
NP	Northern Palula	3	third person

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