Notes on the Phonetics of the Gilgit Dialect of Shina

BY

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THE publication of vol. viii, pt. ii of Sir George Grierson's monumental work, *The Linguistic Survey of India*, which contains a section on the Shina (**ṣiṇá**) language, and the appearance of a short but valuable critique of it by Dr. the Rev. T. Grahame Bailey in the *Journal of the Royal Asiatic Society* of July, 1921, are immediately responsible for the present essay on Shina phonetics.

In his article Dr. Grahame Bailey rightly states that many points of Shina grammar and pronunciation still require elucidation, and two questions of pronunciation in particular he claims to settle.

The first of these is the question of the existence of real cerebrals, which Sir George Grierson, judging from the discrepancies existing in the records on which he had to work, had called in question; the second relates to the question of aspirates.

During the past twelve months, subject to prolonged interruptions, I have spent a considerable amount of time

in studying on the spot the Gilgit dialect of Shina, and latterly I have devoted special attention to the question of its phonetics. I can lay no claim to being an expert trained phonetician, but I have some acquaintance with the theory of phonetics, and I have tried to make up for my deficiencies by the exercise of care and patience and the preservation of an open mind.

The result has been that, while agreeing with Dr. Grahame Bailey in many respects, I am inclined to query certain of his statements and conclusions, and I think it can only serve the cause of truth if I state my views for what they are worth. They will both widen and define the basis of doubt and disagreement, and future students and scholars will be the more easily able to adjudicate.

As the question of Shina phonetics has never been fully dealt with as a whole, I take the opportunity of traversing the entire ground. The examination is necessarily cursory, but it may suffice to bring to light other points of interest or contention.

To explain the exact character of the present study, and enable the student to judge the use to which its results—assuming them to be correct in themselves—can legitimately be put, it is necessary to offer some preliminary remarks regarding the material on which it is based.

Shina is the unwritten language of groups of people who are still to a considerable extent isolated, and in the past have been even more so. It is natural that it should exhibit itself in different dialects. Dr. Grahame Bailey mentions five which he has studied, and there are more, for instance "Punyāli".

These are main dialects corresponding to major geographical and ethnological differences, but subdivision is carried down much further. Of the village communities grouped in the small stretch of ground, about 3 miles by 1 mile, which constitutes Gilgit proper, I am assured

that no two speak exactly similarly, and from my own observation I can well believe this. I have worked with several local men, and have found marked variation in their pronunciation and some difference in vocabulary.

Where such differences are universal it is impossible to obtain any workable form which will embrace them all, and, in the absence of a wide knowledge and large experience of the language, it is equally impossible to work out any sort of average, which can be treated as the standard language.

This being so, the best course seems to me to be to confine one's attention to one type of speech, or in practice to the speech of one man. This individual should of course be selected as one who talks his language well and clearly and in a form which is generally approved.

Such a man after some experimenting I found in Sarfarāz, son of Bakhtawār, of the Amperi village of Gilgit proper. He belongs to the Kachatei (**kʌčʌtɛ.i**), the leading section of the Yashkūn community of Gilgit. He is a man of marked intelligence and of some education, being able to read and write Hindustani well, and apart from this he has the linguistic sense well developed. He is strongly interested in his own language, and prides himself on the correctness of his pronunciation and idiom, which he claims reproduce those of the older generation of the upper class, materially untainted by the foreign influence of the Kashmiri shopkeepers of the Gilgit bazaar, and the Dogra and Gurkha sepoys and the Indian officials and clerks of the Gilgit headquarters. I believe his claims to be justified. He has the soul of a purist, rejecting a Hindustani word where there is a Shina equivalent, and his pronunciation emphasizes, rather than mitigates, the main phonetic peculiarities of the language. Accordingly, when after a few months I had discovered him, I made

him my chief medium for acquiring a knowledge of Shina.

My procedure in such cases is to eschew the assistance of all existing books and work out the grammatical forms and structure from the beginning. When I have obtained in this way sufficient knowledge of the elements and essential vocabulary of the language I then have folk tales repeated to me, which I take down verbatim. These show the language in natural operation and afford reliable material for the exact study of its morphology, syntax, and vocabulary. The evil effects of prejudice and theory on the part of the informant are largely eliminated, for he is prone to forget his little peccadilloes under the hypnotic influence of his own flow of talk.

By repudiating the help of pioneer books several dangers are avoided. One starts unhampered by initial prejudices or actual errors, for the sight of the printed page, when it precedes first-hand knowledge, exercises a subtile influence on the mind which it requires some effort to discount; and the printed page is frequently incorrect, especially in regard to the representation of sounds. The investigator cannot hope to prevent the entry of error into his early work, but these errors then are his own, unsupported by extraneous authority, and so more amenable to subsequent correction.

At a later stage a study of the books may be turned to excellent account, for it affords a check on one's own work and suggests points which have escaped one's attention.

Having given an idea of the general lines on which I have worked at Shina, I have only to add that the present article is the outcome of a re-examination of my material from the point of view of phonetics. The examination has been both extensive and detailed, but the scheme of sounds now given is based essentially on the speech of one man, the above-mentioned Sarfarāz

(hereafter "Sf."). Some account has indeed been taken of variants within the Gilgit dialect, but where this is not explicitly stated all sounds given are to be attributed to this one source.

I want to make it clear that no claim of universality is made for the following statement, even within the limited sphere of the "Gilgit dialect". I would further state, to avoid all chance of misunderstanding, that phonetics are *not* my hobby. I regard them as an unmitigated but inevitable nuisance.

Readers happier and more skilled than myself I would beg not to allow themselves to be irritated by the dogmatism and indecision between which a tyro is prone to oscillate.

Since writing the above I have gone through the whole of the draft of this article with Gushpūr Shāh Rāis Khān (Š.R.), eldest surviving son of the late 'Ali Dād Khān, Raja of Gilgit. He is a man of intelligence and some education, and, as the most prominent member of the ruling family of Gilgit, his diction may be regarded as an unimpeachable standard.

I append a note at the end of the article stating the chief results of this re-examination based on his speech and help, and it will suffice here to mention that in every case I was confirmed in the conclusions I had already arrived at and recorded. Further, Shāh Rāis's pronunciation is extraordinarily similar to Sarfarāz's, which is evidence that I was well advised in the choice of my first and chief informant.

For the present article I have adopted the symbols favoured by the International Phonetic Association—with hesitation and reluctance, for the human being clings to his accustomed symbolism, while his typewriter is a slave to the letter. A few deviations from the I.P.A. system, as in the use of **č**, **j**, **y**, and **š**, will be remarked, but they are sufficiently explained in the course of the

text. The stress accent is represented by a vertical stroke inserted before the vowel of the syllable on which it falls.

The following contractions may be noticed :—

b.	=	**bo.iki**	*to be, become*
d.	=	**do.iki**	*to give*
t.	=	**to.iki** / **tho.iki**	*to do, make*

Vowels

1. The most striking general features of the vowel system in Shina are :

(1) The consistency with which almost every quality of vowel occurs in longer or shorter quantities.

(2) The existence of ultra-long vowels of most qualities.

(3) The existence of final vowels so weak that it is difficult positively to assert their presence, or of final vowels which may be dropped.

2. As regards (1), the existence of longs and shorts of each quality of vowel presents some difficulty to the Englishman who is in the habit of equating longs or semi-longs of one quality with shorts of another, as in the case of

the sound of i in *machine* and *chin*
the vowel sounds of *boot* and *put*
the vowel sounds of *sought* and *sot*

which are usually represented by iː, i; uː, u; and ɔː, ɔ respectively.

This confusion is acquiesced in even by phoneticians, though of course they correctly *describe* the sounds; cf. *The Pronunciation of English*, 2nd ed., 1914, by Daniel Jones.

In Shina the existence of a long and short of the i of *machine*, and of at least a short of the i in *chin*, necessitates for exact rendering the use of different symbols for the two qualities of i.

3. As regards (2), long vowels tend to become diphthongal, but pure very long vowels occur, as in :

'a::lo *thence* ; **yo::no** *winter* ; **pu::ç̣** *son.*

4. As regards (3), I am aware of only one or two cases :

niš *or* **niši**		*is not*
buš	**buši**	*is not known*

Here it is difficult to affirm that there is a final vowel, but the **š** does not seem to stop dead.

Possibly these present examples of final unvoiced vowels the existence of which Dr. Grahame Bailey remarks.

In other cases a final vowel is optional, as in

the dative ending **-tɛ, -tə, -t**

the nominative ending **-sɛ, -sə, -s**

Some persons affect one form, some another. The same remarks apply to the final vowel of the 3rd person forms of certain tenses of the verb, and the

locative ending **-r** beside **-ro**

and to **kɪri** beside **kɪr** *below*

a:l beside **a:lᵉ, a:li** *there*

and others.

5. Dr. Grahame Bailey gives the forms :

thoikⁱ, khoikⁱ, thyōnᵘ, khojōnᵘ

I do not know what he intends to convey by the final vowel in the air. As regards the first two, which are infinitives, I have heard only

-o.ɪki *or* **-oɪkɪ**

for the infinitive suffix.

The last two are 1st person plural future tense forms for which I have only heard

-o:n, -o:ᵉn

without any final vowel.

The following are the *principal vowel sounds* in Shina :

6. **i:, i.** Approximately the vowel sound of *keen*, either long or short, as in French

" pi:r " (pire) and **" pi " (pis)**

7. **ɪ.** Approximately the vowel sound of *pin.* It frequently replaces the short of the last sound **i**, especially when it is unstressed.

It also tends to appear before **š** and **s.**

It may also follow an **e** or **ɛ.**

I have not attempted to distinguish **ɪ** from **i** throughout this article. Ordinarily **i** in the text is to be pronounced **i**; final **i** is normally **i.**

Note.—Sf. does not appear to possess this **ɪ** sound; his shortest and lightest **i**'s all appear to be of the **i** quality.

Examples—

ni:lo	*blue, green*
ki:no	*black*
tiki	*bread*
tilɛn	*saddle*
čino.ɪki	*to cut*
čɪvi:	*put down*
g'inimɪsis || **g'imimɪsɪs**	*I was taking* (fem.)
mɪšto || **mišto**	*good*
nɪš || **nuš**	*is not*
ɪrga:tak	*round about*
ɪšpi:t	*lucerne*
ṣɪṣɪč	*on the head*
be.ɪn	*he is,* etc.
-o.ɪki *or* **-o.ɪkɪ**	the infinitive suffix

8. **e:, e.** Approximately the French *é* as in *été,* etc. The sound may be long or short. When long, however, or stressed, it tends to become diphthongal

e^i, e^I, $e^ə$

as in **de:^{i}** *he will give.* It is most often final; I have few examples of it used medially or initially.

oke:ṣi *slope up* may be mentioned.

9. **ɛ:, ɛ.** Approximately the French *è* as in *père* **(pɛ:r).** It may be decidedly long as in

lɛ:l *known,* opposed to **lɛl** *blood*

čɛ:^{i} *key* „ „ **čɛ^i** *woman*

Examples—

ɛsɛ *of him*, etc.
de.inɛ *thou givest* (fem.)

It is frequently difficult, however, to determine whether a vowel is **e** or **ɛ**, which probably means that there is a common vowel lying between these two. But I think there is also actual interchange.

10. **æ**. Approximately the vowel sound of the English *cat*. With Sf. at any rate this is a rare, if not doubtful sound. It may be heard in

æčʲi *eye*

and its derivatives, and sometimes in

mæɲyo *hip* (otherwise **maɲyo**)

and **æčʲu:uni** *hole*

11. **ə**. The "mixed" vowel sound of **e** in English *water*. It is an indeterminate sound, usually occurring in unstressed syllables, and replacing **ʌ** especially before **r**.

Examples—

ʌnə *these*
čivi:ənən *they place*
hərʊm *I shall take away*
pašərʊm *I shall show*

12. **a**. I.P.A. **ɑ**. Approximately the sound of **a** in English *father*. It may be short, long, or ultra-long. When short and unstressed it is apt to degenerate into **ʌ**, or else it is developed from **ʌ** when stressed.

Examples—

short	**parujo.iki**	(*or* **pʌr-**)	*to hear*
	maro.iki	(*or* **mʌr-**)	*to kill*
	pašum	(*or* **pʌš-**)	*I see*
long	**ja:rɛ**		*brothers*
	ča:kʊr		*young man*
	ma:lo		*father*
ultra-long	**a::ɲ**		*here*
	ja::k		*pity*
	ta::to		*hot*

13. **å̊**. I.P.A. ɔ: (?). Approximately the initial vowel sound of the English *awful*. This sound is of rare and irregular occurrence. I have only met it as a fairly long sound. Sf. admits it in

å̊rə *without*
odå̊r *mortar* (for braying rice, etc.)
yå̊r *mill*

Otherwise it occurs in the speech of some for **o**.

e.g. **kå̊.i** || **ko.i** *cap*
kå̊ᵉr || **koᵉr** *virgin*

14. **ʌ**. Approximately the vowel sound of the English *but*. It is apt sometimes to be confused with **a**, see § 12 above.

15. **ɔ**. I.P.A. **ɔ (ö ?)**. Approximately the vowel sound of the English *on*. It is rare. I have recorded

c̆ɔn *leisure*
ɔdå̊r *a mortar*

but in both cases Sf. pronounces a short, not very tense **o**.

16. **o:**, **o**. Approximately the sound of the first part of the **oᵘ** diphthong in the English *coat*, **koᵘt**, Scots **kot**. The sound in Shina is, however, I think, tenser than the English **o** and in certain cases both closer and tenser. It occurs short, long, and ultra-long.

Examples—

short	**bodo**	*sacrifice*
	-o	ending of the nominative singular and genitive plural when not stressed, as in **a:po** *a little*, **kilai.o** *of female ibexes*
long	**bo:do**	*much*
	go:t	*house*
	to:m	*own*
ultra-long	**mo::s**	*meat*
	o::šo	*guest* (more correct, **au:šo ?**)
	po::ŋko	*footstep*

It is of course difficult in this and other similar cases to draw any definite dividing line between the different grades. The vowel length may vary owing to difference of individual pronunciation, or to stress of emphasis, the general tendency of stress of any kind being in all cases to increase length.

17. **u:**, **u**. Approximately the vowel sound of the English *boot*. It occurs short, long, and ultra-long.

Examples—

short	final unstressed **-u**	
	unstressed **-u** in general	
	duku:ri	*hut*
	dugu:no	*double*
long	**ku:ro**	*strong*
	ju:k	*wood*
	ju:^{u}k t.	*to touch*
ultra-long	**pu::ç̣**	*son*
	ju::k	*pain*
	ku::ro	*hoof*

u is sometimes preceded by a **y**-sound, as it is in the English *due*, **dyu.**

dib^{y}u.o	*forty*
hyu:.o, hi:wo	*heart*
minεl^{y}u:.o	*beautiful*

18. **ʊ**. I.P.A. **ʊ** (?) is approximately the vowel sound of the English *put, look*. I do not think it occurs finally.

Examples—

sʊm	*earth, ground*
mʊzʊl (mʊzεl)	*pestle, pounder*
ʊdu:	*dust*
tʊr	*whip*
-ʊt	dative plural suffix
šad∂rʊt	*to servants*

19. **ü**. I.P.A. **y** or **Y**. Approximately the vowel sound of the German *Füsse* is sometimes heard in words like

čüni **yüli**

the feminine forms of

čuno *small*
yu:lo *different*

where the original **u** is modified by the following **i**. **čini** is also heard.

With Sf. the modification, if it occurs, is slight and negligible.

Diphthongs

20. The principal diphthongs in Shina are **ai, ao,** and **au.**

In addition to these, the long vowels

a: e: ɛ: o:

tend to develop into various diphthongs such as

a:ᴬ e:ⁱ, e:ᵊ ɛ:ⁱ, ɛ:ᵊ o:ᵘ, o:ᴬ, o:ᵊ

while **i:** occasionally gives **i:ɪ, i:ᵊ.**

Some persons pronounce **ɔi** for **å.i, o:.i.** This sound approximates to the diphthong in the English *boycott.*

This diphthongal sound does *not* occur in the Infinitive ending **-ˈo:.ɪki** in which the **o:** and the **ɪ** are kept distinct.

21. **ai.** I.P.A. **ai.** Approximately the vowel sound in English *fly.* Finally it tends to develop into **ai.i.** (An occasional variant is

əi as in Scots *tight.*)

Examples—

aiʰ	*mouth*
ai(.i)	*they* (nom. plur. of **o**)
aiyo	*such*
baiya	*both*
dai.o.iki	*to burn* (vb. trans.)
čai.ī	*bird*
a:gai.i	*sky*
mu:lai(.i)	*girl*
lai.ɪk b.	*to be obtained, procurable*

22. **ao.** I.P.A. **ɑo.** I doubt if this sound occurs except finally, and it is questionable if it is not generally to be regarded as two distinct vowels

a.o, a:.o.

Examples—

bʌča:o	*kind of trap*
ʗao t.	*to milk*
ispao, ispa:o	*sweet*
sao || **sɛʷo**	*bridge*
tʌnao, tana:o	*braid of choga*
tsirao	*razor*

Perhaps also in

taotɛ	*skin foot-bandages*

23. **au.** I.P.A. **au**, approximating to the vowel sound of English *how*. It occurs medially and is usually followed by **w** + a vowel. Finally, it tends to **a:u**.

Examples—

initial	**ausʌt** || **o:sat**	*superior*
medial	**ʒauwo**	*brother's son*
	pl. **ʒau.u:wɛ**	
	nauwo	*new*
	fem. **nai.i**	
	sauwi	*sister's daughter*
	sauwɛ || **sɛwɛ** pl.	*bridges*
final	**ba:u**	*thing*
	pl. **bawi**	
	dau	*fatty meat*
	nau, na:u	*nine*

Examples of Diphthongs developed from Single Vowels

a:ᴬ	**ra:ᴬti**	*night*
	sã:ᴬti	*with*
	ra:ᴬn	*he says*
e:ⁱ, etc.	**le:i**	*torch wood*
ɛ:ⁱ, etc.	**tɛ:ənən**	*they do*
	tɛ:ᵊn (tɛ:n)	*now*
o:ᵘ, etc.	**do:ᴬn**	*we shall give*
	ko:ᵊr	*virgin*
	šo:ᵊm	*spleen*
	go:ᵘ	*he went*
i:ᴵ, etc.	**dĭ:ɪz**	*pit*
	(also **di:s**)	

Vowel Variation

24. There is a considerable amount of variability in the quality of the vowel sounds in Shina words. Even one individual speaker is not constant in his pronunciation, though he usually resents the charge of inconstancy, while the pronunciations of different individuals talking the same main dialect are often considerably divergent.

This makes it difficult to take any record which will give permanent satisfaction.

The incidence of the sentence stress accent has doubtless a good deal to say to this variation. In Shina, as elsewhere, vowels are apt, in the absence of stress, to relapse into less distinctive neighbouring sounds, that is extremes of tenseness, openness or closeness tend to be reduced.

Vowels are also liable to be affected by Assimilation. The following are common equations. All examples are not from Sf.

i = ɪ = ʊ see § 7	nʊš || nɪš	*is not*
e = ɛ	mel || mɛl	*buttermilk*
	ʧe.i || ʧɛ.i	*woman*
	-e^{i} || -ɛ	suffix of genitive singular
ɛ = ɪ = i	kɛrtɛ kɪrtɛ kirtɛ	*downwards*
a = ʌ = æ	amʊš || ʌmʊš	*forget*
	ʌš || aš	*to-day*
	gʌno.iki || gano.iki	*to tie*
	ʌʧi || æʧi	*eye*
	ʌčo.iki || æčo.iki	*to penetrate*
ʌ = ə = ɛ	jʌkʊr || jɛkʊr	*hair*
	ʌwe:lu || ɛwe:lu	*year*
å = o	kå.i || ko.i	*cap*
o = u = ʊ	pu:ʧ || po:ʧ	*son*
	amʊš || amu:š	*forget*
	joto || jʊto	*chicken*

o = **u** = **ʊ**	**-o** ‖ **-u**	in the termination of nouns and adjectives
-ai.i = **-e^{i}** = **-ɛ**	**wai.i** ‖ **wɛ.i** ‖ **we.i**	*water*
	ạwai.i, **-e^{i}**, **-ɛ**	*of a brother*
-ai.^{ɛ} = **-ai.i**←—**-a** + **ɛ**	**muša:**, gen. **mušai:ɛ**	*man*
	ga, gen. **gai.ɛ**	*nalah*
	čʌga, gen. **čʌgai.i**	*talk*

Consonants

25. The following Consonant Sounds occur in Shina:

Plosives	**k**	**t** (*t*) **p**	**g**	**d** (*d*)	**b**
Fricatives	[χ]	**f** [γ]	**w**, **v**		
Sibilants	**s**	**š** **z**	**(ž)**		
Nasals	**ŋ**	**ɲ** **n**			
Liquids	**l**	**r** **y**			
Aspirate	**h**				
Compound Sounds		**č** **j**	**pf**,	**ᵽf**	
Cerebral Sounds		**ṣ** **ç**	**(ẓ)**	**ị**	
		(ṭ-) **ḍ**			
		ṇ			
		(ṛ)			
Aspirates	**kh**	**th** **(ph)** (not recorded throughout this article; v. § 84 infra).			

Plosives

Voiceless.

26. **K.** Approximates to the sound of **k**, **c** (before **o** and **a**) in English and does not present any practical difficulty.

Its place of production varies considerably from back to front under the influence of adjacent vowel sounds. There is no ultra-velar sound like the Arabic **q** (ق), still less any such strained association as in Arabic "daqīqa" as pronounced by a Persian.

On the other hand, there is no distinctly palatal **k**.

The "back" vowels in Shina are **o**, **u**, and **ʊ** and the back position of **k** occurs chiefly in association with them. There is also, I think, an **ʌ** which is produced further back than the **ʌ** of the English *but* (is not the **ʌ** of the English *guglet* more back than that of *but*?), which may be added to the back vowels mentioned above.

a. The following are words in which I diagnose the **k** as being "back":—

ko:jən	*inquiry*
ko:l	*crooked*
ko:no	*thorn*
ko:t	*fort*
ku:ro	*strong*
šʊka	*choga*
bu:kak	*a kind of bean* (the first **k**)
muk	*face*
to:k	*mud* (on road)
tʊk tʊk t.	*to peck*

The following are less certain:—

kʌčo	*bad*
kʌču:n	*carrot*
kʌn	*hill, pass*
kai.a:s	*cotton*
bʊlka	*farrier's hammer*
da:ki	*loins*

b. The opposite extreme is found where **k** is accompanied by one of the "front" vowels **i**, **ɪ**, **ɛ**, as in

ki:l	*ibex*
kɪr	*below*
ki:no	*black*
ʌki:	*self*
jɛk	*what?*
lɪki:gʌs	*I wrote*
mi:kə	*urine*
gɪk	*flank*
tiki	*bread*

In these words the position of the **k** is, I think, somewhat advanced, but from repeated examination I have come to the conclusion that the **k**'s are not really palatal. In a few words a glide ^{i} or **y** is sometimes inserted between the **k** and the following front vowel, and at first I assumed that in these the **k** was necessarily palatal, but this, I now think, is not the fact; the **i, y,** is in fact a glide between the relatively back **k** and the front **i, ɛ,** etc.

Examples are:

kɛ *or* **k^{i}ɛ**		*why*
km	**k^{y}m, k^{y}ɛn** (Sf.)	*why not?*
kɛn	**k^{y}ɛn**	*time*

Perhaps the vowel tends to produce a preceding **y** for no easily explainable reason, for I have noticed it in

	j^{y}ɛk ‖ **jɛk**	*what?*
also	**k^{i}o, kyo**	*how?*
and	**pyõ:lo-**	*shoulder blade*

The development of a **y** sound before **u** is referred to in § 17 above.

My general conclusion is that while **k** in Shina varies within certain limits, as it does in English, these limits are not so far apart as to require the use of different symbols.

27. **t.** In Shina **t** is normally alveolar. When, however, it occurs initially, immediately followed by **r**, as **tr-**, it appears to be more or less dental.

Examples of **tr-**:

tra:g	*ruined building*
tra:m	*copper*
trʌk t.	*to tear*
trʌn t.	*to fire* (a gun)
trʌŋ	*half*
tri:k	*dirty*
tro:g b.	*to burst* (of a bud)

As in the case of **k**, the place of production is, I think,

liable to be drawn slightly back by a back vowel, the result being a post-alveolar or palatal **t**.

Thus in	**go:t**	*house* (when the **o:** is pronounced far back).
	ko:t	*fort*
	ku:to	*knee*
	mʊt	*fist*
and perhaps in	**kʌt**	*bedstead*
	bʌt	*stone*

In addition to these a number of words have been quoted to me in which an initial **t-** is said to be produced slightly further back than the normal **t**. I cannot say that I note any appreciable difference in the sound in ordinary speech, but it is recognized by Shina speakers. The following are examples :—

tʌg	*rascal*
tʌŋ t.	*to push, shove*
tər b.	*to fall* (of leaves)
tər t.	*to cut* (wood, etc.)
təri:	*polo-ball*
te:ro	*crooked*
ti:n	*a "tin"*
tʊru	*wooden vessel*

Of these **tʌg** is to be compared with Hind. **ṭhag,**

te:ro „ „ „ **ṭe:ṛha**

and **ti:n** is the Hind. **ṭi:n,** English *tin*

This sound does not in my opinion approximate to a Cerebral, nor can it be rightly described as such. See further below, § 71.

For all practical purposes this slight variation from the normal may, I think, be ignored.

28. **p.** The normal **p** sound in Shina calls for no remark. It does not differ apparently from the English sound. Thus :

pa:r	*beyond*
pu:ç̌	*son*
lu:po:ɪki	*to light* (lamp, fire, etc.)
ši:pi	*forearm*
lʌp	*mouthful*
lɪp t.	*to fling away*

It is sometimes difficult to tell whether a final sound is **p** or **b**. Thus:

čərʌp *or* **čərʌb t.**	*to cut, trim*
dərʌp „ **dərʌb**	*wooden trap for chikor*

Perhaps the sound is an unvoiced **b**, but more probably it is **p**, as there seems to be a general tendency for words in Shina to end in a voiceless, in preference to a voiced consonant. Final **p** for **b** appears in loan-words. Thus :

sa.ɪp for **ṣa:ḥɪb**
ai.ɪp „ **'a.ɪb**
ji:p cf. Hind. **ji:bh**
cf. **du:t**, also **du:d** cf. Hind. **du:dh**

P replaces final **f** in **ku:lʊp** *lock* for Arabic **qʊlf**.

Voiced.

29. **g**. Follows the general analogy of **k**. It may be more or less advanced in the guttural position, but it does not become palatal nor ultra-velar.

In some cases it may, like **k**, be followed by a **y** glide, e.g.

gyɛ || **gɛ**	*having gone*
gyɛn plur. **gyma:rɛ**	*wife*

There is some uncertainty as regards final **-k** and **-g**. Some individuals, including Sf., appear practically to reject final **g** altogether :

dok b. || **do:g b.**	*to meet*
ki:k ⟵ P. **χi:g**	*inflated skin for raft*
prik d. || **prig d.**	*to jump*
tra:k || **tra:g**	*ruined building*
tro:k b. || **tro:g b.**	*to open* (of bud)

30. **d.** The normal Shina **d** is alveolar and does not call for any special remark.

Final **d** is either non-existent or rare in Shina.

There is a **d** which is produced slightly further back than the normal **d**. It corresponds to post-alveolar **t**. I think I can detect a slight difference, but it is not of practical significance.

The following, marked *d*, may be cited on the authority of Sf. :—

da: **t.**	*to take up on the shoulders*
but, **da: fɛro.ɪki**	*to overturn*
dʌdʌŋ	*teeth-chattering*
dʌdər	*tumbled mass of boulders*
but, **dʌdər b.**	*to shiver*
dʌm **bɛ wa:**	*come along all together*
but, **du** *dʌm*	*twice*
da:**ki**	*loins, waist*
didi:**ŋ**	*hard, smooth ground*
do:**ko**	*hole in the ground*
*d***ʊk b., *d*ok b.**	*to meet*
but, **do:k**	*gum*
*d***uku:ri**	*hut, shelter*

Apart from this *d*, a decided cerebral **ḍ** exists. See below, § 69.

31. **b.** Shina **b** calls for no special remark. As has already been stated, it is doubtful if **b** occurs finally, while medially it occurs but sparingly in native Shina words.

Medially it sometimes alternates with **w, v.**

E.g.	**ʌba:to** (Sf.)	*slack, lazy*
	ʌbʌte:^{i} || ʌwʌte:^{i}	*slackness*
	čɪbo.ɪki || čɪvo:.ɪki (Sf.)	*to place*

Examples of **b**:

initial	**ba:li**	*string*
	bʌno.ɪki	*to put on* (clothes)
	bilɛ̀n	*medicine, gunpowder*
	bo:la	(head of) *polo stick*

medial	**bʌbʌlá b.**	*to float*
	bubu:lo	*lukewarm*
	dʌbo:n	*master*
	dubo.iki	*to be unable*
	gʌbu:n	*bottom*

Medial **m** in loan-words is liable to be converted into **b**, but this is not considered correct :

E.g. **guba:n || guma:n** *suspicion, belief*

cf. the obviously earlier borrowing

lʌbʌn *skirt* which may be referred to P. **da:mʌn**, and again cf. **Afγ. lʌmʌn.**

Fricatives

Voiceless.

32. χ. The voiceless guttural spirant as in Scots *loch.* This sound does not appear to be native to Shina.

Doubtful instances are :

χʌlawo.iki	*to make dough into balls*
muχi.a:n	*verandah*

In the former, however, χ tends to pass into **h**; thus **hʌlʌwumus**, and in the latter it alternates with **k mukʰi.a:n.** It is possible that both words are of foreign origin :

muχi.a:n may be equated with Khowār **muχu.ɛn.**

In loan-words χ is frequently retained, as the Shina-speaker is capable of pronouncing it, but generally it is transmuted into **k**. Some allege that there is a difference between **k**, *ex* χ, and ordinary **k**, but I doubt it.

Examples—

a:kun || a:χun	*akhund, mulla*
kʌt || χʌt	*letter*
kaiya:l || χaiya:l	*thought, intention*
ko:ni = χu:ni **kunda:r = χu:nda:r**	*murderer*
kuš t. || χuš t.	*to like, approve*
kuša:n || χušʰa:n	*happy*

but usually

mištə χair χairiyat hʌna ? *is all well?* (stock phrase for "how do you do?")

mʌχmʌl *velvet*

33. **f.** This sound is somewhat difficult to deal with. It is doubtful if pure **f** ever occurs *initially* as distinguished from the very common sound which is preceded by a more or less distinct sound of **p** and which may be represented by **pf** or **ᵖf**.

This **f** sound is replaced by some by aspirated **p**, i.e. **ph** or **pʰ**, while by others it is pronounced almost like a pure **f**.

Medially pure **f** occurs in a few words:

E.g. **bʌfu:r** *down* of ibex or ducks
lʌfa: *pace, step*
nifai.o.iki *to arrive*
and in **ma:fɛr** beside **ma:pɛr** *middle-aged, elderly person*

It is also found in loan-words.

E.g. **kʌfʌn** *shroud*
sʌfa: *clean*

I know of no case of final **f** in a Shina word.

For the discussion of **ᵖf** see below, § 54.

Voiced.

34. **γ.** The voiced guttural spirant as in German "Tage". This, again, like **χ**, is not a sound native to Shina, though the following two examples have been quoted to me:

hi:n ərzʌm be:in *the snow gives under foot*
γʊl *fine broken straw*, or *straw dust* (chaff?) left after winnowing

γ may be preserved by individuals in loan-words, but it is ordinarily changed to **g**, or when final to **k**.

Thus: **ka:gʌz** ← **ka:γʌz** *paper, letter*
gaib ← **γaib** *invisible*
gʊla:m ← **γʊla:m** *slave*
bʌge:r ← **bʌγair** *without*
ba:lɛk ← **ba:lɪγ** *adult*

(Sf. says **ɣaibi:** *hidden*)

kʌlte *mistake, error, lie* seems to be an acclimatized form of Arabic **ɣʌlʌṭ, ɣʌlʌṭi.**

kʌlte rai.o:.iki is the regular expression for *to lie.*

35. **δ.** I do not think this sound, the *th* of the English *this*, exists in Shina. I have once or twice used the symbol, but have always eventually had to change it to **d** or **l.**

36. **w, v.** These sounds, approximating to the English **w** and **v** respectively, both occur in Shina.

The ordinary sound is **w,** not, I think, so much rounded as in English, and **v,** as far as my observations have gone, occurs only in a few instances in association with **i** or **ɪ.** Some persons use only **w.**

Neither of these sounds occurs finally.

Examples—

v.	**vi.o:.iki**	*to throw, spread, etc.*
	vi.ajo:iki	*to be open*
	čivo:.iki; imper. **čivi:**	*to place, set down*
	(also with some speakers **čɪbo:.iki**)	
w.	**wʌlo:.iki**	*to bring*
	wai.i, we:.i	*water*
	wai.o:.iki	*to come*
	ʌwa	*yes*
	ʌwajo:.iki	*to be necessary*
	ʌwe:lu, ɛwe:lu	*year*
	šəwa:rm	*polo ground*

w also frequently occurs as a glide:

bawi: plur. of **bau**	*thing*
jʌwɛt dat. of **ja:**	*brother*
sɛwi (Sf.) || **sauwi** plur. of **sɛʷo** || **sao**	*bridge*
šɛwo (Sf.) || **šau.o**	*blind*
šũ:wi plur. of **šũ:**	*dog*

Medial **w/v** alternating with **b** has been mentioned above, § 31.

Sibilants

37. Voiceless **s** in Shina is alveolar.

Voiceless **š** is palatal. There is also a cerebral **ṣ**. The two sounds are discussed further on, §§ 59–62.

Voiced **z** is the voiced equivalent of **s**.

Voiced **ž** is similarly the voiced equivalent of **š**. It is used by some to replace **j (dž)**, or as an alternative to it. Other speakers, including Sf., do not use this reduced sound at all, but always the full **j (dž)**.

There is also a cerebral **ẓ**, to which the same remarks apply. It corresponds to the cerebral **ḍ (ḍž)**. These sounds are discussed fully further on, §§ 66–8.

Here it is only necessary to note a few points regarding **s** and **z**.

Final **s** is sometimes found corresponding to medial **z**.

mo:s	*meat*	locative	**mo:zər**	
ma:s	*month*	nom. pl.	**ma:zi**	
ba:s	*halt for the night*	gen.	**ba:ze^{i}**	pl. **ba:zi**

On the other hand, **z** may occur finally as in

dɛ:z (not **dɛ:s**)	*day*	pl. **dɛ:zi**
di:^{i}z	*pit*	

and in loan-words; while **s** may be retained medially as in

da:s	*open country*	loc. **da:sər**
giyu:s	*widow*	pl. **giyu:si**
tis	*fault*	pl. **tisɛ**

From this it seems legitimate to draw the conclusion that in the **mo:s** type of word the **z** is the essential sound. For the unvoicing of other voiced sounds when final see §§ 28, 29.

Nasals

38. **n.** The normal **n** sound in Shina appears to be alveolar as in English. It occurs in all situations—initial, medial, final.

In the search for cerebral **n's** I sometimes think I have noticed a peculiarity, not of the nature of cerebralism, and have come to the conclusion that it is in most

circumstances the result of the speaker's endeavouring to make the sound clear. To produce the required emphasis a stronger current of air than usual is driven down the nasal passage and is apt to be continued when the **n**-closure is relaxed.

It is possible also that **n** is sometimes post-alveolar.

39. **ŋ**. Guttural **ŋ** is common. It does not occur initially. Medially it usually stands between vowels; but in a few cases it is immediately followed by **g**, occasionally by **k**, and at least once by **s**. It occurs principally as a final.

It is sometimes difficult to say whether there is a full **ŋ** or only a nasalization, of a guttural character, of a vowel.

Medial **ŋ** is frequently produced by the addition of an inflectional suffix to a word ending in **ŋ**.

Examples—

Medial (original)	**a:šiŋaiyo**	*suddenly*
	bʌŋut	*loophole*
	čʌŋul	*tripod*
	duŋhərɛ tɛl	*a kind of oil*
	jiŋa:t	*stone shoot on a hill*
	kʌŋər	*sword*
	lʌŋi:duk	*something that has happened, is past*
	šʌŋa:li	*chain*
	šuŋo	*voice*
Followed by a consonant:		
	a:ʌŋgər (L.W.)	*blacksmith*
	ʌŋga:ro	*Tuesday*
	brʌŋsa	*shed, shelter-hut?*
	pfʌŋkɛ	*advantage, benefit*
	kuŋkuro:čo (perhaps **kũkuro:čo**)	*cock*
	lʌŋgər	*permanent practice of giving food as alms*
	po:ŋko	*footstep, step*

rʌŋgi:nɛ ʈ̌i:lo	*a kind of black piece-goods*
zʌŋgər	*rust*

These are the principal instances of medial **ŋ** I recollect having met with.

The word for "**chikor**" is, I think,

kã:kʌs rather than **ka:ŋkʌs**

So also **pʊmũ:ko** *first* fem. **pʊmu:.iki**

In **čʊmʊnkʲər** *marriageable girl* (cf. Khowār **čʊmʊtke:r**)

and **mʊnkʲər** (L.W.) *denying*

the nasal is the ordinary alveolar **n**.

Medial, derived	**ʈ̌i:riŋɛt**	(*on*) *the day after to-morrow*
	ki:ŋʌwa:r	*to a side*
	-siŋɛt	*till, up to* (time)
	-tʌŋɛt	*up to, as far as*
	trʌŋʌk	*a half*

Final. Examples are very numerous:

ʈ̌i:riŋ	*day after to-morrow*
fʌtʌŋ b.	*to fall*
hu:ŋ d.	*to take oath*
na:ŋ	*lead*
ri:ŋ	*a piece of woollen homespun* ("pattoo")
sʌŋ	*light* (not dark)
tu:tʌŋ	*dark*

40. **ɲ**. A distinct palatal **ɲ** is found in a few words in Shina. I have noted:

a::ɲ	*here*
ko:iɲ	*where*
ma:ɲʸo	*hip*

The palatal **ɲ** is specially noticeable where followed by an **o** as in the third case above and in the ablative forms of the two first, obtained by adding **-o** to them. In such cases there is something approximating to a **y** glide.

I do not think the combinations **n** + **j**, **n** + **č**, or **n** + **š** are native to Shina. There is the loan-word

sʌtrʌnji *cotton carpet* ("durri")

but it is doubtful whether the **n** in it is palatal, so also

gunji *receptacle in the wall for putting money in*

40 (*a*). **ṇ**. An approximation to a cerebral **ṇ** occurs sometimes in the vicinity of another cerebral consonant. *Vide* below, §§ 72–6.

Nasalization of Vowels

41. Nasalization of Vowels is very common in Shina and some individuals are specially addicted to it.

Where the vowel is long, the nasalization appears to me not always to begin simultaneously with the vowel, but to supervene at some point during its progress.

Nasalization occurs with vowels in all positions, and varies considerably in intensity. When strong it is not always easy to determine whether it is not a weak **ŋ** or **n** of the quality of the following consonant.

Examples—

Initial	**ã:ṣ̌o**	*tear*
	ã:tə	*flour*
	ã:ti	*bone*
	ãiya:r	*hail*
	aĩ.ər	*in the mouth*
	ũ:čũ	*tongs*
Medial	**bũ:yʌl**	*earthquake*
	bu:yẽ:iẓ̌o	*weaver*
	čã:lo	*wide*
	pfũ:ško	*empty*
	pũ:.ɛ	*moustache*
	pyõ:lo	*shoulder-blade*
Final	**bri.ũ:**	*rice*
	čĩ:	*pine-tree*
	dai.ĩ	*beard*
	hɛ̃:	*yes*

	kã:	*crow*
	ko:õ	*instep*
	pʌpa.õ	*thin wafer-like bread*
	po:.ĩ	*five*
	saiyõ:	*flour* (for journey)

In such words as

	ʧĩ:ʂ	*mountain*
	kã:kʌs	*chickor*
	sõ:ʧi	*female*
	sũ:ʧo	*straight, true*

the character of the nasalization appears to me to be affected by the quality of the succeeding consonant, and in the last two of them quoted I originally wrote a full nasal.

Lateral

42. l. The ordinary l in Shina does not seem to differ essentially from the average English l, that is to say, it is alveolar and unilateral and probably varies between l^i and l^u (*vide* "Pronunciation of English", Daniel Jones, 1914).

Examples—

Initial	**la:o**	*much, very*
	lɛl	*blood*
	liko:.iki	*to write*
	lo:ko	*swift, quickly*
Medial	**di:lɛ**	*bark of tree*
	fʊti:lo	*it broke*
	hʌlo:l	*nest, lair*
	pa:lo	*young* (of animal)
	šidʌlo	*cold*
Final	**ča:l**	*kid*
	ki:l	*ibex*
	mel	*buttermilk*
	na:l	*bride's party*

I originally noted what I thought was a peculiar l in the speech of certain "Punyālis" **(Pũ:ye:.i)** and others. It

seemed especially marked in the Imperfect of the verb *to be*, **ʌsul**, etc.

At first I diagnosed it as bilateral. I have failed, however, to detect any difference in Sf.'s speech between this **l**, other suspected l's, and the ordinary **l**, and on further study of Punyali speech I find the difference, if any, slight.

The l in question may with some people be bilateral; it is not voiceless.

Words which I have at one time or another stigmatized as having a peculiar l are :

ʌsul, etc.	
mu:lai.i	*girl*
muzul	*pestle*
šumi:lun	*he is tired*
tʌnu:lo	*thin*

In a few words l seems to be associated with an **i** or **y** sound. I am not certain whether this adventitious sound is to be regarded as appertaining to the l or to the vowel

lo:ilo, lo:ilʏo	*red*
lo:ili	*small-pox*
minɛlʏu:o	*beautiful*
(fem. **minɛli:li, minɛli**)	

ROLLED

43. **r.** The normal **r** in Shina is, I think, post-alveolar, and is trilled. The trill is not always very marked, but it is distinctly perceptible

(1) When a word is carefully and slowly pronounced.

(2) When it is final.

(3) When it occurs initially in the combination **tr-**, which is more or less dental.

Examples—

Initial	**ra:**	*raja, chief*
	rʌto.iki	*to prevent, stop*
	ri:l	*brass*
	ro, rɛ	*he, she*

Medial	**dərum**	*up to now, yet*
	dorʌs	*hostage*
	gi:rpa	*sorrow*
	čuro:.iki	*to place, put down*
Final	**ʌga:r**	*fire*
	mo:r	*speech, affair*
	ni:r	*sleep*
	tur	*whip*

For examples of **tr-** see above, § 27.

44. Cerebral **ṛ**. I have found no examples of independent cerebral **ṛ**. See below, Cerebrals, § 71.

45. It is to be noted that there is a sound in Shina which on first hearing I personally mistake, as a rule, for **r**.

This is found on closer examination to be a cerebral **ḍ**.

It is recognized by the people as being a "**d**", not an "**r**". See below, § 69.

46. **y**. There is no marked difference between the **y** of Shina and that of English.

It occurs initially and medially. Initially, it is most frequently found followed by a back vowel. I know no case in which it is followed by **i**.

It seems probable that medially it only occurs as a glide. It appears most frequently between two back vowels. Between other combinations of vowels it is usually lacking, or optional and slight, but no strict rule can be laid down.

Personally, I should write (without a **y** glide):

mai.a:rɛ	*game animals*
pai.a:lo	*herdsman*
ba:.anɛt	*you are becoming*
rai.o:.iki	*to say*
dai.o:.iki	*to burn* (vb. trans.)
wai.o:.iki	*to come*

In the three last the root appears to be **ra-**, etc., and the **ai** has resulted from **a** + **y**

ni.o:.iki	*to squeeze*
vi.o:.iki	*to cast*
bo:.ī	*sleeve, roof-tree*

After **ai**, however, the glide is very near, and I have written

daiyum	*I burn*
baiyo:.iki	*to sit*
bai(y)umus	*I sit*
baiya	*both*

47. **y** has perhaps a philological value where it replaces medial **g**, as it frequently does in vulgar speech in verbal inflection. Thus:

tiyas	...	**tɛ:gas**	*I did*
tyu:	...	**tɛ:gu**	*he did*
diyʌnus	...	**dɛ:gunus**	*I have given*

48. The occurrence of an ⁱ or **y** glide after **k** and **g** has been referred to in §§ 26*b*; 29, above; its occurrence before **u:** has been mentioned in § 17, and its tendency to appear after **ɲ** in § 40.

It also appears in

pyõ:lo	*shoulder-blade*
su:ryo	*in the day-time*

(**su:ri** *sun, daylight*)

and doubtfully in

lo:ⁱlʸo	*red*

With some speakers a similar glide tends to appear occasionally after **š**. This may be compared with its occasional appearance after the palatal **j (dž)**, as in **jʸɛk**, § 26*b*.

An example is **šʸʌŋ** b. for **ṣuŋ** b. (Sf.) *to awake*

and **šya:l** *wolf*

I draw attention to these various occurrences of **y** without intending to imply that they are all to be accounted for on one principle.

The following examples of **y** may be studied. The list of words with it as an initial is fairly comprehensive.

ya:ro:.iki	*to cause to progress* (caus. of following)

yaiyo:.iki *to proceed, walk, move*
yå̊r *mill*
yʌmyå̊r *handmill*
yʌp *small irrigation channel*
yʌt *reason*
yʌško *equal, suitable*
yɛr *in front*
yɛro an interjection, "*look here!*"
yo *barley*
yoja:lɛ *twins*
yo:no *winter*
yoza:li *miller*
yu:lo *separate, different*
yu:m *liver* (?)
yu:n *moon*
yu:to *pair*
yudo:m *yoke-strap*
yupo:.iki *to compose* (a quarrel)
Medial **bũ:yʌl** *earthquake*
buyɛt *representation, petition*
bu:yo:.iki *to weave, plait*
bu:yumus *I weave*
bu.i:gʌs *I wove*
bu:yəro:.iki *to have* (something) *woven*
go:yɛl *cow-house*
gũyo:rɛ *cow-dung*
haiyo:n *sign, token, present*
oyʌ̀no *hungry*
saiyõ: *flour* (for journey)
uṣ̌e:yõ *hare*
yayo:.iki || yaiyo:.iki *to proceed*
yaiyumus *I shall go*
yaiyɛt *you will go*
(i)yaiyɛn *they will go*

Breathing

49. The Shina **h** is similar to the English "breathed glottal fricative" **h**.

It occurs initially. I know no certain example of its occurring medially in a true Shina word, and even in loan-words it tends to disappear. It may perhaps occur finally in a reduced form in a word like

aiʰ *mouth*

or with a voiceless plosive

e.g. **hʌtʰ** *hand*

but in neither case is it of serious practical import.

It is occasionally prefixed by some speakers, in the Cockney fashion, to words beginning with a vowel:

hʌga:r	for	**ʌga:r**	*fire*
hoṣe:yõ	beside	**uṣe:yõ**	*hare*

Examples of **h**:

hai t.	*to run*
hai(y)a t.	*to play*
hʌlwo:.iki	*to pacify, quiet*
hʌt	*hand*
hin	*snow*
hẽ:ṣ, hĩ:ṣ	*breath, sigh*
ho: t.	*to call* (to)
hu:ç̌	*field terrace*
hyu:o ‖ hi:wo	*heart*

Medial (all loan-words):

mɛhərba:ni	*kindness, present* (from a superior)
mʌhər	*marriage gift* (given by bridegroom to the bride)
sihər	*magic*
mɛhnʌtga:r	*bondsman*

Compound Consonantal Sounds

50. The following compound consonantal sounds are of importance:

č (tš) **j (dž)**

with the corresponding Cerebrals.

ċ (ṭš) **j̣ (ḍž)**

and **pf**

č and **j** present in themselves no special difficulty. In their extreme forms they are easily distinguished from their Cerebral counterparts, but border cases occur which are not always easy to determine.

Some people usually reduce **j (dž)** to a simple **ž**; and that is sometimes replaced by **y**, but this is considered incorrect. (This suffix appears to be a reduced form of the adv. and prep. **ʌjɛ**, *up, upon.*)

As far as I have observed, there is no corresponding reduction of **č** to **š**. (It occurs in Chilasi.)

In certain cases final **-č** is preferred by some to final **-j**, e.g. in the suffix **-č || -j** = *on.*

Which is the essential sound is hard to determine; **j** appears to prevail when a vowel is added after it:

girɛč || girɛj, pl. **girɛjɛ** *a kind of bird of prey*

The following are examples of **č** and **j**. More will be found in §§ 63, 66, where the question of their relation to **ċ** and **j̣** is dealt with.

ča:r	*four*
čʌko:.iki	*to look*
mučo:	*before*
-kʌč	*in the possession of; to* (motion to a person)
jaro, žɛro	*old man*
iji:lu, ži:lu	*sheep*
mʌja	*middle, among*

51. The power of combining a sibilant with a plosive is a matter in which languages differ considerably, and is therefore a characteristic trait.

The following combinations occur in Shina:

sk	**usku:n**	*relation, kinsman*
st	**a:sto:m**	*act of justice, decision*
sp	**ispao**	*sweet*
šk	**iška:ra**	*wasp*
št	**ašto:n**	*groom*
šp	**ašpo**	*horse*

These combinations do not occur initially, nor, at any rate as a rule, finally. I think I have heard

ʌšt for **ʌš** *eight*

52. It may be noted incidentally that at some time in the history of Shina or its ancestors an **s** or **š** sound before **t** was rejected. Thus:

ã:ti	*bone*, cf. Skr. **ásthi-**
õ:ti	*lip* „ **óṣṭha-**
muṭ	*fist* „ **muṣṭhí-**
diṭ	*span* is to be compared with Khowar **di:šṭ**

53. Besides **č (tš)** and **j (dž)**, the following combinations are to be found in which the plosive precedes the sibilant:

ʦ common in all positions, e.g. **ʦo**, *you*; **miʦer**, *stone marten*; **pfuʦ**, *dew*

ʤ **ʤ** I have only met with in **dəru:ʤ**, *hunting*; **dəru:ʤ**, *shikari, hunter*; **dəru:ʤ šũ:**, *hunting dog*

54. **ᵖf.** This sound fluctuates within wide limits, and is consequently difficult, or rather, impossible, to fix. I have at different times, and from different people, recorded it as

ph **pʰ** **pf** **ᵖf** and **f**

In most, if not all, cases, Sf. excludes **ph** and **pʰ**, and for practical purposes it is probably safest to compromise on **ᵖf**.

By **pf**, **ᵖf**, I represent an ordinary fricative **f** preceded by a slight, or very slight, explosion as for **p**. The sound is not to be equated with the German **pf**, in which the **p** element is much stronger.

ph may perhaps be presumed to have been the original sound, and the spirants to be derivates from it which have not yet won universal acceptance. Compare the **ph** in Hindustani, which is generally pronounced **f** in N.W. India, though I do not remember to have met any grammar which admits this fact.

Was not **ph** recorded in various dialects of Old High German before the **pf** arising in the so-called " Second Sound-Shift " (from West Germanic **p** in certain positions) eventually established itself ?

55. This sound, or series of sounds, appears not to occur finally, at least in any fricative form, while it is rare or doubtful in a medial position. This supports the theory of its being a variant of **ph** or **p**. (The High German **pf** arose only when initial in word or syllable.)

A few instances of medial pure **f** have already been given, § 33, above.

The **ᵖf** sound is very common initially :

Examples. (In all cases the **ᵖf** may be reduced to **f**. Cases where **ph** has been recorded are noted in parentheses.)

Initial	**ᵖfa:l t.** (also **pʰ**)	*to throw*
	ᵖfʌkuzo:.iki (pʰ)	*to open*
	ᵖfʌl b. (pʰ)	*to mount*
	ᵖfʌš b.	*to be finished*
	ᵖfʌt t.	*to leave, let*
	ᵖfʌtʌko	*bald*
	ᵖfʌtu	*after, afterwards*
	ᵖfai.o:.iki	*to tear* (verb trans.)
	ᵖfɛro:.iki (pʰ)	*to turn round* (vb. trs.)
	ᵖfiti:k	*vexed*
	ᵖfunər (pʰ)	*flower*
	ᵖfurgo (pʰ)	*feather*
	ᵖfuto:.iki	*to break* (verb trans.)
Medial	**dʌmᵖfus** || **dʌmfus**	*cudgel*
	ᵖfapər || **ᵖfaᵖfər** || **ᵖfafər** b.	*to spin round*

(the Medial sound is elusive)

pfu:pul || **pfu:pʌl** *front part of head*

seem more correct than **pfu:ful.**

I have recorded

pi:pi, pʰi:pi, pfi:pi, fi:fi *father's sister*

Hindi, **phu:phi**

Cerebrals

56. Having cleared the ground by the consideration of the other sounds of the language, we may now turn to the vexed question of Cerebrals.

First, I will state the definition of "Cerebral" to which I am working. Much perplexity and factitious disagreement is produced by a lack of precision in defining the exact meaning of technical terms used.

To ensure that the angels may be on my side, I will quote the definition given by Mr. Noël-Armfield, which I believe has the authority and blessing of the International Phonetic Association. It runs as follows :— ·x·

"A class of tongue-tip consonants . . . is that which is produced with the tip of the tongue somewhat curled back so as to come in contact with the highest part of the roof of the mouth, that is somewhere about the junction of the hard and soft palates . . . Indian grammarians class these consonants as *Cerebrals.* The name for them in the terminology of Phonetics is *retroflex* or *cacuminal.*" ("General Phonetics" by G. Noël-Armfield. Heffer, 1915, pp. 98–100.)

Further on, in his instructions for producing the Cerebrals, Mr. Noël-Armfield says : "The tip (of the tongue) must be pressed firmly against the highest part of the roof (of the mouth) to form the obstruction, and kept in this position for the greater part (sc. of the ?) stop. It then glides rapidly along the hard palate till it reaches the gum ridge, whence it falls as it were by its own weight on the floor of the mouth with a kind of flap."

57. I shall now proceed to state briefly the conclusions

·x· Not accepted by Dr. Grahame Bailey — Daniel Jones ?

I have arrived at, and shall then give in detail the material on which these conclusions are based. This will, I think, make the material appear less of a confused jungle.

Primary Cerebrals.

1. There is in Shina a strong original Cerebral **ṣ̌**.

2. This in combination with **t** and **d** gives the Cerebral combinations **ṭṣ̌** and **ḍẓ̌**. **ḍẓ̌** is by some reduced to **ẓ̌**.

3. There is a distinct original Cerebral **ḍ**. It is not of as common occurrence as the sounds mentioned in 1 and 2.

4. The above four sounds occur in any situation quite independently of their surroundings.

Secondary Cerebrals and Pre-Cerebrals.

5. **t, d,** and **r** in direct contact with one of the primary Cerebrals are cerebralized.

6. **n** does not occur in such a situation, but in certain cases it may be similarly influenced by an original Cerebral in close proximity to it.

7. I have been unable to establish that the same process operates in the case of **t, d,** and **r**. It would seem that at the most they are slightly retracted. If it is desired to take notice of them they may be called Post-Alveolars or Pre-Cerebrals or Palatals.

8. Back vowels may in like manner tend to draw back the point of production of neighbouring sounds, and **t, d, r,** and **n** may, I think, be thus affected by contiguity with a back vowel. The resulting sounds, however, are certainly not Cerebrals. They, too, are at the most *Post-Alveolar*, or *Pre-Cerebral*.

58. I will now proceed to deal with each of the Cerebral sounds just mentioned in its relation to the corresponding non-Cerebral sound, attempting to ascertain whether the difference between them coincides with any difference between their cognates, where they exist, in other languages, particularly in Sanskrit, where the distinction between Cerebrals and non-Cerebrals exists; and how far, if at all,

the Shina Cerebrals may be referred to any other source than that which has given birth to the Sanskrit Cerebrals.[1]

In this connexion I shall, where I can, draw attention to any relations existing between the vocabulary of Shina and that of Sanskrit.

I shall sum up my conclusions on these points after I have presented the material.

As my equipment for determining such philological matters is slender, I will provide a considerable body of material from which some better qualified scholar may be able to work out more far-reaching and more reliable results than I can hope to obtain.

In the lists given below, B. indicates that the word is also in use in the Burushaski language. Where B. is followed by another form, that form is the Burushaski equivalent of the Shina one in the main column.

It may be explained here that the two series of sounds **š, ṣ**; **č, ċ**; **j** or **ž, j** or **ẓ**; **d, ḍ**; **n, ṇ** occur in Burushaski, but that the cerebrals, with the exception of **ḍ**, are not, as far as I have had an opportunity of observing, so decided as in Shina.

Burushaski is spoken by the people of the Hunza and Nagir states, and in a variant form by some of the population of the Yasin valley. It is supposed to have been the language of the people inhabiting the Gilgit region prior to the irruption into it of an alien race whose language was Shina.

The linguistic affinities of Burushaski have not been determined, but some theory has been advanced claiming points of resemblance between it and the Munda languages.

I may here just mention the existence of cerebral sounds

[1] The affinities of the sounds of Shina have, I do not doubt, been dealt with by Sir George Grierson, with his unrivalled learning, in his *Piśāca Languages of N. W. India*. Unfortunately, my copy of that valuable work is in Ireland, or at least is reported "missing" in that inauspicious country.

in Wakhi, the Iranian language of Wakhan, and reserve fuller discussion for the end of this section.

59. **ṣ̌**.

This sound in its more pronounced forms is a strongly-marked cerebral and is then readily distinguishable from the typical **š**. But Nature does not favour hard and fast classification in Phonetics any more than she does in the natural sciences, Botany and Zoology, and intermediate forms are found which it is difficult to refer definitely either to the **š** or to the **ṣ̌** category.

In more than one instance I have transferred a sound from one to the other and then back again.

ṣ̌iṣ̌ *head* may be adopted as the extreme type word for **ṣ̌**, while **šai.o:r** *father-in-law* and **diš** *place* will serve as types of **š**.

Examples—

Initial

š		**ṣ̌**	
ša:	*green vegetables*	**ṣ̌ã:** B. **ṣ̌a:**	*respiration (?)*
ša:ko	*arm*	**ṣ̌a**	*six*
šʲa:l, šya:l	*wolf*	**ṣ̌a:ko**	*noose, loop (?)*
ša:ru:ko	*autumn*	**ṣ̌a:l**	*fever*
šʌk (L.W.)	*doubt*	**ṣ̌alu** B.	*torch-wood* (unprepared)
šʌl	*100*	**ṣ̌ʌk** B. **ṣ̌ək**	*full*
šʌt	*power, strength*	**ṣ̌ʌk**	*nape of neck*
šai.o	*white*	**ṣ̌ʌko:n d.**	*to tie in a bow*
šai.o:r	*father-in-law*	**ṣ̌əruŋ**	*kind of henna (?)*
šɛra	*big game* (ibex, etc.)	**ṣ̌ɛ:wo** fem. **ṣ̌e:i**	*blind*
šəro	*autumn*	**ṣ̌i:ŋ**	*horn*
šiˈe:lo	*generous*	**ṣ̌i:ṇ**	*Shin*
šidʌlo	*cold*	**ṣ̌iṇˈa**	*Shina*
šipi	*forearm*	**ṣ̌ido:.iki**	*to strike*
ši:ti B. **ši:ti** *floor*	*dais round three sides of room*	**ṣ̌o:.iki**	*to affix*
		ṣ̌oᵘlu	

š		ṣ	
šo B. **šu:a**	*good, better; yes*	B. **ṣulto** (?)	*twig, shoot*
šoŋ B. **šʌŋ**	*care*	**ṣo:to**	*throat*
šũ:	*dog*	**ṣũ:** t.	*to smell*
šu:lo B. **šu:li**	*muzzle of gun*	**ṣuḍu:.iki**	*to whistle*
šu:.o	*boy*	**ṣyu:** t.	*to whistle*
šu.o:.iki	*to dry* (vb. trs.)		
šugu:lo B.	*friend*		
šumi:lunus	*I am tired*		
šušo:.iki	*to become dry*		
ppc. **šu:ko**	B. *dry*		
šuti	*corner*		

Medial

ʌša:to B.	*weak, thin*	**ā:ṣo**	*tear*
ʌšpo (ašpo)	*horse*	**kʌṣʌp** B. **γʌṣʌp**	*magpie*
ʌšto:n	*groom*	**kiṣi** B.	*line*
bʌšo:.iki	*to play* (musical instrument)	**mʌṣo**	*voice*
bišo:.iki	*to rest*	**oke:ṣo**	*slope up, ascent*
dʌmši t. B.	*to approve*	**ṣī:ṣo**	*ear of corn*
gušpu:r B.	*aristocrat*	**uṣa:rin**	*debtor*
hu:ši t. B. d.	*to plunder*		
i:ša B.	*sluice*		
išpi:t B. **šipi:t**	*lucerne*		
kušulo B.	*broken*		
li:šo:.iki	*to hide* (vb. intrs.)		
muš'a:	*man, "vir"*		
nišo:.iki	*to go out* (of fire)		
o:ši	*wind*		
o:šo, aošo B. **ašo**	*guest*		
pʌšo:.iki	*to see*		

	š	ṣ
tɛši	*top of roof*	
tušo:.iki	*to be sated*	
tuša:r B.	*very much*	
yʌško B. yʌški	*equal, suitable to*	

Final

ʌš (ʌṣ ?)	*eight*	ba:ruṣ B. pfəri:ṣ	*duck*
ʌš, aš	*to-day*	biṣ	*poison*
ʌbʌš B.	*unfavourable*	čī:ṣ B. či:ṣ	*mountain*
buš	*is not known*	hē:ṣ B. hi:ž	*breath, sigh* (?)
diš B.	*place*	kʌṣ t.	*to wipe*
pfaš b.	*to be finished*	kī:ṣ t.	*to push, pull*
pfupuš	*hearth*	lʌṣ t. B.	*to lick*
laš	*shame*	maiyu:ṣ B.	*buffalo*
niš, nuš	*is not*	nu:ṣ pl. nuja:rɛ	*daughter-in-law*
praš	*rib*	pa:ṣ	*manure*
subʌš B.	*favourable*	ro:ṣ loc. ro:ṣər	*anger*
ušuš b. B. u:š	*to shiver*	šʌṣ	*mother-in-law*
		ṣiṣ	*head*
		tʌṣ b. B.	*to slip*
		u:ṣ B. u:š (?)	*debt*

(*To be continued.*)

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PART II.—APRIL

Notes on the Phonetics of the Gilgit Dialect of Shina

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(*Concluded from p. 42.*)

THE AFFINITIES OF SHINA š AND ṣ

60. (*a*) Shina palatal **š** corresponds to Sanskrit palatal **š** (श) in the following:—

ʌšpo	*horse*	Skt.	**ašva-**	
diš	*place*	,,	**diš**	
pʌšo:.iki	*to see*	,,	**√paš-**	
šʌl	*100*	,,	**šatam**	
šʌṣ	*mother-in-law*	,,	**švašrū**	
šai.o	*white*	? ,,	**švetá-, √švit-** (or **šiti**)	
šũ:	*dog*	,,	**švan-**	
šu:ko	*dry*	? ,,	**šúška-**	

(*b*) Shina **š** perhaps corresponds to Sanskrit **-dy-** in:

ʌš, aš *to-day* Skt. **adya** cf. Hind. **āj**

bʌšo:.iki *to play a musical instrument*, may, on the analogy of

Shina **ʌš** Hind. **āj**

be compared with Hind. **bajnā, bajānā, bājā,** which I would tentatively suggest may be referable to some form ***vădya-** from **√vad-**, of which the causative **vādáya-** may mean "to play a musical instrument".

Shina medial **š** may perhaps correspond to Skt. **-rty-** in:

muš|a: *man* Skt. **mártya-**

cf. Khowar **mōš** and Iranian **mašya**

61. (*a*) Shina cerebral **ṣ̌** corresponds to Skt. **ṣ̌** (**ʂ**) in:

biṣ̌	*poison*	Skt.	**viṣa-**
nu:ṣ̌	*daughter-in-law*	,,	**snuṣ̌ā**
pl. **nu:ja:rɛ**			
ro:ṣ̌	*anger*	,,	**roṣa-**
loc. **ro:ṣ̌ər**			
ṣ̌a	*six*	,,	**ṣ̌áṣ̌**

(*b*) Shina **ṣ̌** corresponds to Skt. **šr** and **šṛ** in:

ā:ṣ̌o	*tear*	Skt.	**ášru-**
šʌṣ̌	*mother-in-law*	,,	**švašrū́**
ṣ̌i:ŋ	*horn*	,,	**šṛ̀ŋga-**

(*c*) Shina **ṣ̌** perhaps corresponds to Skt. **ṛṣ̌, rṣ̌** in:

kī:ṣ̌ t.	*to push, pull*	Skt.	**√kṛṣ̌-**
kiṣ̌i	*line*		
kʌṣ̌ t.	*to wipe, shave*	,,	**√karṣ̌-**

(*d*) In **pʌṣ̌** *wool* Skt. **pakṣ̌man**

pʌṣ̌i:lu *woollen*

one would expect **ç̌**, but perhaps the **k** was lost before the **m**, giving ***paṣ̌m** ⟶ **paṣ̌**. In any case the Shina forms show a cerebral corresponding to a Sanskrit cerebral.

62. The following are apparent exceptions to the general principle: palatal *vis-à-vis* palatal, and cerebral *vis-à-vis* cerebral:

ʌš (but perhaps **ʌṣ̌** doubtful) *eight* Skt. **aṣ̌ṭá**

Punyali is, I think, **ʌšt** or **ʌṣ̌t**.

prʌš	*rib*	Skt.	**pṛ̀ṣ̌ṭhí-**
šušo:.iki	*to become dry*	,,	**√šuṣ̌-**

In the first two, however, the forms are peculiar, for in other cases **št, st** are reduced to **t**, *vide* § 52.

Further **praš** is probably a borrowing from Khowar, where it is found with the same meaning.

In **šuš-** for **šuš-** we must assume assimilation. Perhaps **šiš** is a similar case of progressive assimilation of **s** to **š**.

šiš *head* for **šiš** ← ***šras** Skt. **širas**

63. **č** (**tš**). This sound is common in Shina. It is usually distinctly cerebral and readily distinguishable from **č**, but, as in the case of **š** and **š**, doubtful cases occur.

če:č *field* may be taken as the type-word for **č** and **čʌk** *day* as that for **č**.

I have adopted the symbol **č** to represent these sounds in preference to **tš** because I do not think the initial sound in the combination is a full **t**.

The following are examples of the two sounds :—

Initial

č		**č**	
ča:l	*kid*	**ča: b.**	*to be cold*
čã:lo	*broad*	**ča:ko**	*spindle*
ča:r	*four*	**čano:.iki**	*to send*
čʌk	*day*	**ča:r** B. **čər**	*cliff*
čʌk B.	*pick*	**čã:to**	*dung*
čʌko:.iki	*to look*	**čʌči:l**	*rind of a green walnut*
čʌpo:.iki	*to chew*		
čʌs b.	*to be torn, broken off*	**čʌt b.** B.	*to break*
		čʌto:r B. **jʌto:r**	*quince*
čʌstʌn B.	*matting*	**čɛ**	*three*
čã:š B. **čʌš**	*thorns*	**če:č**	*field*
čʌti:lo	*1½ to 2-year goat*	**či:čʉ (maro:č)**	*piebald (mulberry)*
čəru:	*top, peak*	**či:čupi:čʉ:**	*piebald*
čɛča:ro	*rough*	**či:lo**	*cloth, clothes*
B. **jɛča: rum**		**či:ŋ**	*a kind of cereal*
čɛ.i	*woman*		
čɛ:.i B.	*key*	**či:ri**	*udder*
čī:	*pine*	**čī:š** B. **či:š**	*mountain*
či:jo:t	*shade*	**či:to**	*bitter*
či:li	*juniper*	**čič** B. **čiš**	*ladder*

č		ç	
či:ni B.	*cup*	**çilo:.iki**	*to tease wool*
čile:.i	*nurse, ramrod*	**çon** B. **çʌn**	*leisure*
čimo, čumo	*fish*	**çot** b. B. **çot**	*to fall*
B. **čumo**		**çu:kəça:kɛ**	*dirt*
čino:.iki	*to cut*	B. **çu:kča:k**	
čivo:.iki	*to place*	**çyu:** b.	*to fall in love*
čo t. B.	*to gallop*		
čo:l B.	*proper, becoming*		
čot B.	*heap, pile*		
čõ:tʌl B. **čo:tʌl**	*rhubarb*		
jɛk čo:kij	*how?*		
B. **čo:k**			
ču:čo B. **ču:ču**	*teat, nipple*		
ču:no	*small*		
ču:rko	*yeast, dough*		
ču:ri	*theft*		
čuro:.iki	*to place*		
ču:š t. B.	*to suck*		
ču:t	*slow*		
čumus, B. **čʌmus**	*bug*		
čuru:to	*thief*		

Medial

ʌčo:.iki	*to penetrate*	**a:çe**	*walnut*
b^{l}ičuš B.	*lightning*	**açe:.e**	*walnut-tree*
pfʌč^{l}o	*tail*	**ʌçi:**	*eye*
pfʌtɛčo (pfʌcɛto)	*kick*	**ʌçu:^{u}ni**	*hole*
kʌčo	*bad*	**bʌçe** d.	*to irrigate*
kʌčo	*near*	**dʌč^{l}ino**	*right hand*
kulči:n B.	*house-steward*	**fʌça:li**	*wing*
mʌča:rɛ	*wasp*	**pfi:çe** B. **p^{h}i:çe**	*mosquito*
muč^{l}o	*in front, before*	**gʌçi:** B. **gʌçɛ**	*osiers, wicker*
		ha:çum	*jaw*
mučo:.iki	*to recover, escape*	**uçu:ni**	*female bear*
		jʌmu:çe	*son-in-law*

č		ç	
pʌčo:.iki	*to ripen*	kʌçʌti	*match*
(pʌjo:.iki)		mʌçi:	*fly, honey*
šaičo:.iki	*to be affected*	po:ço	*grandson*
tuku:čo	*knuckles, fetlock*	sã:ço	*dream*
		sʌço B.	*easy*
ũ:çu, B. u:čo	*tongs*	siço:.iki	*to learn*
učačo:.iki	*to reach, arrive*	sõ:çi, B. so:çi	*female*
		sũ:ço	*straight, true*
		tʌçi	*adze*
		tʌço:n	*carpenter*
		uço:.iki	*to flee*

Final

-č ‖ -j	(suffix) *on*	bisa:ç B. bisərš	*sickle*
-kʌč	(suffix) *in possession of*, etc.	bu:ç B.	*chenar-tree*
		ga:ç	*price*
		hʌro:ç B. hərɛnj	*pitch-fork*
bir|ʌč	*horizontal*	hu:ç	*field terrace*
mar|o:č	*mulberry (tree, fruit)*	i:ç	*bear* (male)
		lʌç	*goat*
m|a:ruč	*pepper*	moç	*earth cliff*
		(owa:lo) pʌç B.	(summer) *time*
		pu:ç	*son*

The Affinities of Shina č and ç

64. Shina č corresponds to Sanskrit č in:

ča:r	*four*	Skt.	čatúr-, čatvár-
čom	*leather*	,,	čárman
ču:ču	*nipple*	,,	čūčuka-
ču:ri	*theft*	,,	čaurya-, √čur-
čuru:to	*thief*	,,	čaura-
ču:š t.	*to suck*	,,	√čūš-
čum	*chin* (?)	,,	čibuka
pʌčo:.iki ‖ pʌj-	*to be cooked, to ripen*	,,	√pač-

ma:ruč *pepper* suggests Skt. **mārika** and Hind. **mirič**

65. (*a*) Shina cerebral ç̣ corresponds to Skt. **tr, -tṛ -tar** in

ç̣ɛ	*three*	Skt. **tráyas** ‖ **trí**
ç̣e:ç̣	*field*	„ **kṣétra**
jʌmu:ç̣o	*son-in-law*	„ **jā́mātṛ-, -tar-**
pu:ç̣	*son*	„ **putrá-**

The word for "woman", **čɛ.i** in Gilgit Shina, is said to be pronounced **ç̣ɛ.i** at Gupis and in Darel. It is conceivable that it may be related to the Sanskrit **strī́**.

(*b*) Shina ç̣ corresponds to Skt. **kṣ** in:

ʌç̣ˈi	*eye*	Skt.	**ákṣi-**
ç̣e:ç̣	*field*	„	**kṣétra-**
ç̣on	*leisure*	„	**kṣaṇa-**
dʌç̣ˈino	*right (hand)*	„	**dákṣiṇa-**
fʌç̣a:li	*wing* (?)	„	**pakṣá-**
i:ç̣	*bear* (?)	„	**ṛ́kṣa-**
mʌç̣i	*fly*	„	**mákṣā**
tʌç̣o:n	*carpenter*		**tákṣan-**

Notes.—(i) In the loan-word **me:ç̣** *table* ç̣ represents **z** of **mɛz**.

(ii) I have noted that for **ç̣e:ç̣**, **ga:ç̣**, and **pu:ç̣** some people say **če:t**, **ga:t**, and **po:t**. How far this tendency to reduce ç̣ to **t** is general I cannot yet say, nor whether it only works where ç̣ corresponds to **tr**. I also cannot say whether the **t** in these cases is cerebral.

Here again palatal sounds in Shina correspond to palatal sounds in Sanskrit, and similarly cerebral sounds correspond to cerebral, **r** being reckoned cerebral in Sanskrit.

66. **j̣ (ʤ̣, ẓ̌)**

This sound, which is fairly common in Shina, is the voiced counterpart of ç̣ and like it is, at its best, a marked cerebral. By many it is reduced to **ẓ̌** in the same way as **j** is reduced to **ž**.

Sf.'s pronunciation of it always suggests to me a sort of **g**-sound and I used to write it **gẓ̌**, but he himself

absolutely repudiates the existence of anything resembling **g**. When it is pronounced slowly and carefully I now always think that I can recognize **ḍẓ̌**, the **ḍ** element being subordinate.

I have adopted the symbol **j̣** to represent it, because I take the full-dress sound to be **ḍẓ̌** and I want to avoid the formal adoption of either **ḍẓ̌** or **ẓ̌**. **j̣** is also the correlative of **č̣** and similarly obviates the inference that the initial is a complete plosive.

The following are examples of the two **j**'s.

Initial

j (**dž**, **ž**)		**j̣** (**ḍẓ̌**, **ẓ̌**)	
ja:tɛ	*whither*	**j̣a:**	*brcther*
ja:k B.	*rheumatism*	**j̣a:s** t.	*to pull*
ja:k B. **ja:k**, **ža:k**	*pity*	**j̣ʌp**	*property*
		j̣ʌs t.	*to take by force*
ja:lo	*raft*	**j̣ʌtai.ɛ**	*leather bag*
ja:r	*paramour* (m.)	**j̣ʌč̣**	*grapes*
jaro	*old man*	**j̣æʰ**	*black from smoke*
jʌk	*people*		
jʌkur	*hair* (human)	**j̣ɛk**	*extended*
jʌl B.	*net*	**j̣i:go**	*long*
jʌmu:č̣ˈo	*son-in-law*	**j̣i:n** B.	*line*
jʌn t.	*to loot*	**nʌto j̣o:.ilɛ**	*nostril*
jʌp t.	*to stop up*		
jʌt	*hair* (animal's)		
jərˈo: B. **jəro:**	*mctherless parentless*		
jɛk	*what*		
jɛri	*old woman*		
jel	*jungle* (of trees, thorn bushes, etc.)		
ji:l b. B.	*to rise, appear* (of sun)		
jil B. **ji:**	*soul*		

j (dž, ž)		j̣ (d̠ž, ž)	
jo:.iki (3rd sg. pret. **ja:lo**)	*to be born*		
jo:no B. **ji:no**	*living*		
jo:to B.	*chicken*		
ju:k B.	*pain*		
juk	*wood*		
ju^{t}k t. B. **ju:k**	*to touch*		
ju:li B. **ju^{u}li**	*soup*		
jʊn	*snake*		
jʊru:ni B. **jʊru:no**	*fringe of hair on the forehead*		

Medial

-jo	ablative suffix	**a:j̣o**	*rain, wet mist, wet*
a:je	*mother*	**gʌj̣ʌm t.** B. **γ^{r}ʌj̣ʌm**	*to lay violent hands on*
ʌji	*up*	**hʌli:j̣o**	*yellow*
ʌjo:no	*strange*	**jõ:j̣i**	*birch-tree*
ʌju ka:l	*this year*	**mʌnu:j̣o**	*man* (homo)
bijo:.iki	*to fear*	**mu:j̣i**	*rat*
bij^{ʏ}u:to B. **bij$_{ʏ}$a:to**	*terrifying, evil-looking*	**mʊj̣o:.iki**	*to save, preserve*
bʊjo:.iki	*to go*	**pi:j̣o:.iki, (pɛ:j̣ʌm)**	*to grind,* (I grind)
čijo:t	*shade*	**pi:j̣u**	*flea*
dija:rɛ (pl.)	*daughters*	**roj̣a:to**	*angry*
dijo:.iki	*to fall*	**u:j̣u** B. **uju**	*otter*
dʊjo:.iki	*to wash*		
-i:j-	theme of passive and neuter verbs		
iji:lu (ži:lu)	*sheep*		
-ojɛ	suffix of present participle		
maj^{l}a:	*middle*		
pʌju	*salt*		

j (dž, ž)		**ị (ḍž, ž)**	
	Final		
-j (suffix sometimes alternating with **-č**) *on*		**ro:ị** || **ro:ṣ**	*anger*
bʊlɛj B. **bʊlla** *ramchickor*			
gi:rɛj	*vulture*		

AFFINITIES OF **j** AND **ị**

67. (*a*) Shina palatal **j** (**dž, ž**) corresponds to Sanskrit **j** in:

jʌmu:ṭo	*son-in-law*	Skt. **jā́mātṛ-**	
jaro	*old man*	,, **jarat**	
jʌt	*animal's hair*	(?) ,, **jaṭā**	*braid of hair,*
		Hind. **jaṭā**	*matted hair*
jo:.iki, ja:lo	*to be born, he was born*	Skt. √**jan-**, **jāya** IV.A.	
jo:no	*living*		

(*b*) Shina palatal **j** corresponds to Sanskrit **č** in:

jʌkʊr	*hair of head*	Skt. **čikura-**	
jɛk	*what, something*	(?) ,, **-čid**	

(*c*) Shina palatal **j** corresponds to Skt. **-dhi, -dhy-** in:

ʌji	*above, upwards*	Skt. **ádhi**	
mʌj|a:	*middle*	,, **mádhya-**	

68. Shina cerebral **ị** corresponds to:

(*a*) Sanskrit **dr** in:

ịʌč	*grapes*	Skt. **drākṣā**	*vine, grape*
u:ju	*otter*	,, **udrá-**	*water animal*

and perhaps

ji:go	*long*	,, **dīrghá-** (Aryan **dr̥**)	

(*b*) Sanskrit **ṣ** (as a rule only when medial in Shina):

mʌnu:jo	*human being*	Skt. **mā́nuṣa-**	
mu:ị̇i	*rat*	,, **mūṣa-, mūṣika-**	
pi:jo:.iki	*to grind*	,, √**piṣ-**	
ro:ị (beside **ro:ṣ**)	*anger*	,, **roṣa-**	*anger*
ro:ịa:to	*angry*		

Here, again, we have palatals corresponding to palatals, and cerebrals to cerebrals.

The case of **mujo:.iki** (doubtful **mʊjo:.iki**) is distressing; one would naturally connect it either with

Skt. √**muč**- or √**mukṣ**- (both transitive verbs)

and then **mučo:.iki** *to escape* would follow as

muj + č + o:.iki → mučo:.iki

-č- being a neuter verbal theme like **-i:j-**, but the first root should give **muč-** and the latter **mʊč-**, not **mʊj-** or **muj-**.

69. Cerebral **ḍ**

This is the last of the Primary or Original Cerebrals which I find in Shina.

It is distinctly not a normal, i.e. dental or alveolar, **d**. It is much more akin to an **r**, for which I am always inclined to mistake it. The sound is, however, regarded by the people as a **d**, and when pronounced slowly and clearly I can recognize it as **ḍ**.

The sound is not a very common one, nor have I met it except as a medial. The following are all the examples that I have as yet been able to collect of it :—

Examples—

bʌḍo	*big, large*
bʌḍo:.iki	*to finish, complete*
bʌḍi:lo (ja:)	*big (brother)*
bʌḍʊli:k B.	small Kashmiri *iron dish* (used for drinking from or putting vegetables in)
bəḍijo:.iki	*to be finished, exhausted*
bəḍi:do, bəḍi:lo	
biḍi:ŋ B.	*noise* (of gun, or falling stone)
biḍ|i:ro B. **bi:ḍir|i:ko** **bi:ḍir|u:ko**	*round*
bʊḍijo:.iki	*to dive*
bʊḍʊlo:ko B.	*muddy* (of water)

dʌḍʌŋ, daḍʌŋ B.	*drum* (larger kind, not kettle-drum)
di:ḍu B. **di:ru**	*bullet*
fʌḍʌko || **fʌtʌko**	*bald*
(**gu:me:i**) **gˈa:ḍo**	*sheaf* (of wheat)
gʌḍʌm B.	*noise* of a stone falling into water
gʌḍubˈi:	*iron vessel* (" **lota** ", " **mašarba** ")
guḍu:r B. **gudu:r**	*large wicker platter* (for cleaning rice in)
kəḍəkˈī:	a kind of repulsive *white grub* which eats the roots of plants
korˈo:ḍo B.	*thin, emaciated* (of cattle)
ku:ḍo	*lame*
lɛḍo B.	*bastard*
šərʌḍo B.	*vegetables* cooked in a stone vessel
šuḍu:.iki d.	*to whistle*
tʌlbu:ḍo B. **tʌlʌbuḍo**	*spider*
təḍʌm b. B.	*to stumble*
tərʌḍo	*slack and incompetent*

Affinities of ḍ

70. I am unable to trace cognates of any of these words in Sanskrit. Perhaps they may be obvious to a Sanskrit scholar, but I can only assume that there are none.

Perhaps **bʌḍo** is to be connected with Hind. **baṛā**; in meaning they are identical and they closely resemble each other in sound.

gʌḍʌm is presumably onomatopoeic, and may be compared with Pashtu **γṛab**, with the same meaning, and **γṛumb**.

If Sanskritic affinities are lacking, Burushaski ones are, on the other hand, very prominent. It will be noted that about fifty per cent of the words quoted are used also in Burushaski in an identical or slightly differing form.

Shina **ḍ** is represented by **r** in Burushaski **di:ru** (the form in which I first recorded the word in Shina) and by **d** in B. **gudu:r**.

Secondary Cerebrals

71. The sounds **t, d,** and **r** become, I think, cerebralized when in contact with a primary cerebral.

Thus the **t** in **ṭš̌ (ć)** and the **d** in **ḍž̌ (j)** are, I think, cerebral, the tongue being drawn back to the cerebral position before the pronunciation of the compound sound begins.

The same seems to be the case with **r** in

ć̣ʌṛć̣ʌt *fruitless mulberry*

I am at a loss to provide further examples. I have **ć̣i:ṛš̌** (for **ć̣ī:š̌**) recorded from a Punyali, but it is probably incorrect.

72. Cerebral **ṇ**. I am inclined to agree with Dr. Grahame Bailey that the **n** in **ši:ṇ, šiṇˈa:** is a real cerebral. Failing proof to the contrary, I hold that this **ṇ** is cerebralized by the preceding **ṣ̌**.

73. This process of cerebralization over a vowel is easily conceivable (consider the laws affecting the change of **n** to **ṇ** in Sanskrit). The difficulty is that I have failed to find any signs of its operating as a general rule in Shina. Out of a large number of words I have examined, I am prepared to admit some degree of cerebralization only in the following instances:

č̣aṇo:.iki	*to send*
č̣oṇ	*leisure*
dʌč̣i:ṇo	*right hand*
ji:ṇi	*lines*
tʌč̣o:ṇ	*carpenter*
ju:ṇ	*a wild plant* with medicinal virtues

I have experimented with the theory that a close vowel, requiring less alteration of the mouth cavity, might favour the continuance of the cerebralization, but without positive results;

č̣aṇo:.iki is hostile to it.

I have failed to find in Gilgit Shina confirmation of Dr. Grahame Bailey's assertion that in all dialects the **n** of

kuni plural of **ko:n** *ear*

is cerebral, or evidence of any general principle by which a final alveolar **n** changes to cerebral **ɳ** when it is followed by a vowel. Incidentally, why should it ?

74. It might be expected that if **n** is sometimes affected by a carry-over of cerebralization that **t, d,** and **r** would be similarly affected, but I have examined many words without obtaining any positive result. I think these sounds may possibly be slightly affected in some cases, but not to the point of cerebralization. For example in

ʌčiːru	*in the eye*
čot b.	*to fall*
jʌtai.ɛ	*bag*

and still more in

dʌmijaːr (or **j** ?)	*trouble*
čiːri	*udder*
rojaːto	*angry*

it would be incorrect to describe the **t's** and **r's** as cerebrals.

75. There still remains one possible source of cerebralization to be considered, the influence of *back vowels.* I have already referred in §§ 26, 27 to the apparent effect of back vowels in retracting the position of a neighbouring consonant, but this does not in itself entail cerebralization, nor, as far as I can judge does it lead to it in Gilgit Shina.

A few isolated words, such as :

soːn	*gold*
kʌn	*hill*
kuɳ	*blanket*

seem to have rather retracted **n's,** perhaps due to the contiguous vowels, but I do not think they are cerebral.

76. Burushaski possesses a cerebral **ɳ** which, so far as I have been able to ascertain, occurs only in the proximity of a primary cerebral. The following are examples:

čʌɳ	*empty, leisure.* Cf. Shina **čoɳ**
šʌɳ	*gate*
šɛːɳ	*Shin.* Cf. Shina **šiːɳ**

šɛn̩, šɪn̩	*kind of bedstead*
ši:n̩, ši:n̩a	*they eat, eat !*
šo:n̩	*egg*

77. Burushaski has also one or more sounds which I cannot exactly distinguish or define. In one or two words I seem to hear what may be a cerebral **r** or **l**. E.g.

bʌr̩um	*mare*
gɛr̩ətʌs	*to dance*, etc.
gʌr̩u	*chickor*

In other cases there seems to be something resembling more a **y** or **w** glide, and in others something suggesting γ and again **ž**. These sounds appear to occur only in words which are not found in any form in Shina.

78. Before passing on I would advert for a moment to the inconsistency in marking cerebrals of which Sir George Grierson complains in the records on which he has had to work, and which has naturally led him to doubt the existence of any true cerebrals in Shina.

I would suggest that his records have all been prepared by Indian inquirers, or at least with their assistance, and that there are *primâ facie* grounds for distrusting an untrained Indian's judgment in discriminating between cerebrals and non-cerebrals.

Indians as a rule in transliterating render the English alveolar **t, d, r** as cerebrals, to which in fact they bear no relation. When these sounds are not dental they apparently strike the Indian ear as resembling his cerebrals. Again, are *all* modern Indian written cerebrals really cerebrals ? I ask for information.

Again, as regards cerebral **š, č, j**, the Indian is no better off than the Englishman, for am I not right in believing that they are equally unfamiliar to him ? What, by the way, has become of the Sanskrit cerebral **ṣ** in the modern vernaculars ?

The Indian officials who have furnished records have undoubtedly been men of high intelligence, but it is

unlikely that their attention was ever called to phonetics as a science and they have probably been very much at sea in meeting with sounds new to them.

No such suspicions can be cast on Dr. Grahame Bailey. He bears a reputation as an expert and an enthusiast of the modern school of phonetics. The only suggestions I can make towards explaining the difference of our views are: that I am entirely wrong, which every candid-minded person will agree is unthinkable; or that Dr. Grahame Bailey has relaxed the standard of admission for cerebrals —there are reputable writers who describe the **sh** of the English *ship* as cerebral; or that the Gilgitis whom he has had to deal with have been sufferers from acute cerebralism.

Dr. Grahame Bailey will probably retort that he is incapable of error in such a simple phonetic matter as the diagnosis of cerebrals.

Be this as it may, he must at least confess to a lapse from grace in his use of the term "letter" which he habitually uses for "sound". He says of Shina, "The cerebral letters are used with extraordinary consistency," etc. Would that they were ! for then we should have Shins who were conscious of the quality of different sounds in their own language and we should have their own written record of what they considered cerebrals. Unfortunately, from this point of view, however, Shina is an unwritten language and has no letters. It is *vox et praeterea nihil.*

79. I have already referred to the existence of cerebrals in Wakhi. The existing position as regards the recognition of cerebrals in Wakhi is not very clear. Shaw (JASB. xlv, pts. i, No. ii, 1876, p. 150) seems to represent a cerebral ṣ by his "**sch**".

Sir George Grierson (*Ishkashmi, Zebaki, and Yazghulami*, R.A.S. 1920) adopts his description and remarks that the sound "appears to be much the same as the Indian cerebral ṣ".

Geiger in G.I.P. i, 2, pp. 292 and 305, I apprehend to

admit cerebral **ṣ̌** and **ẓ̌** in Shigni, but in Wakhi only palatal **š**.

I have recently had an opportunity of making a very brief study of Wakhi with one or two Wakhis and I found most decided

cerebral **ṣ̌**, **ẓ̌**, and **č̣**

The first two were even more pronounced than in Shina. As regards **t**, **d**, **n**, **r**, I can say nothing; I did not observe them, but I was not seeking for them.

Shaw records only a few instances of his **sch**, of which I have only the one word for *black*, which he gives as

"**schū**", while I have only **šu:**

I am probably wrong. On the other hand, Shaw does not appear to recognize cerebrals in the twenty words or so in which I have recorded **ṣ̌**, **ẓ̌**, and **č̣**. Dr. Grahame Bailey will, I am sure, support me in saying that it is very unlikely that I recorded a cerebral where it did not exist.

This sharing of these peculiar sounds by Shina and Wakhi is curious and noteworthy.

Wakhi is certified as an Iranian language by Geiger and Grierson, while the "Dard" language is placed by Sir George Grierson as an offspring of the Aryan language subsequent to the branching off from it of the Indo-Aryan language, but prior to the development of full Iranian characteristics.

Is it certain that Wakhi is a definitely Iranian language, or may not it also have taken form before the full development of the Iranian group? I ask in ignorance.

It is to be noted, however, that none of my Wakhi words with cerebrals have cognates in Shina with cerebrals. The only instance in which I find the same root represented in both languages with a cerebral in *one* case is

Wakhi **yaṣ̌č̣** Shina **ã:ti**

both of which are presumably cognates of Skt. **ásthi-**, Av. **asta-**

80. It is interesting to notice in Pashtu the existence

of sounds which are somewhat similar in character and origin to the Shina series ṣ̌, ç̣, j̣. They are those represented in the script by ښ and ږ and pronounced ṣ̌ and ẓ̌ (written ṣ̌ and ẓ̌) in the South, χ̣ and g̣ in the North. I am not certain whether they are in any sense cerebrals.

Pa. ṣ̌ represents 1. Iranian **rs** and **sr**

2. „ š ⟵ Indo-European k'**s**

Pa. ẓ̌ represents Iranian intervocalic š

Thus Pa. ṣ̌ corresponds to Shina ṣ̌ and ç̣
and Pa. ẓ̌ in some cases to Sh. j̣ and ṣ̌

The dialectal interchange between Pa. ṣ̌ and χ̣ and ẓ̌ and g̣ appears to be paralleled in Wakhi by an interchange of ṣ̌ and χ̣.

E.g. my **yi:ṣ̌** *ice* Shaw and G.I.P. **yiχ̣**
„ **ṣ̌u:i** *sister* Shaw **khü.i** (**kh** palatal spirant ?)

but the Pashtu and Wakhi sounds are not of common origin.

81. We have now completed our survey of the Shina cerebrals and their non-cerebral counterparts, and have inquired as far as lies in my power into their affinities. Our investigations have been in no way exhaustive, but so far as they go it is legitimate to sum up their results and see if any deductions can be drawn from them, always having due regard to the fact that at the best they are true, but probably not the whole truth.

The results may be stated as follows :—

1. There are in Shina four Primary Cerebrals :
   ṣ̌, ç̣, j̣, (including ẓ̌) ḍ.
2. There is further a Secondary Cerebral ṇ.
3. In cognate Shina and Sanskrit words
   Shina palatal **š**, **č**, and **j**, correspond to palatal sounds in the Sanskrit words.
   Shina cerebral ṣ̌, ç̣, and j̣, correspond to cerebral sounds in the Sanskrit words.

4. Shina cerebral **ḍ** has not been found in any Shina word which has a cognate in Sanskrit.
5. Shina cerebral **ṇ** cannot be definitely asserted to correspond to Skt. **ṇ** or any other Skt. cerebral. It doubtfully occurs in **dʌčiːṇo**, Skt. **dakṣiṇa-**, but it is probably simply due to the Shina **č**.
6. In words common to both Shina and Burushaski Shina **š**, **č**, **j**, correspond to Burushaski **š**, **č**, **j**.
7. Of known Shina words with **ḍ** about fifty per cent are common to Burushaski.
8. Cerebral **ṇ** occurs in Burushaski apparently in association with a Primary Cerebral (**š**). In at least one case the word is shared by Shina, and this word has a Sanskrit cognate: B. **čʌṇ**, Sh. **čoṇ**, Skt. **kṣaṇa-**, *leisure*.
9. Shina has no independent true cerebral **t** or **r**.
   Sanskrit has cerebral **t**, and Skt. **r** is reckoned a cerebral.
   Burushaski appears to have no cerebral **t**, and it is very doubtful if it has a cerebral **r**.
10. Wakhi has cerebral **š**, **č**, **j**, but so far as is known they do not occur in words which have cognates in Shina and display cerebrals.

82. These are our results, stated briefly. Can any certain deductions be drawn from them ? Personally I doubt it, unless further extraneous knowledge can be brought to bear.

Where words with Sanskrit cognates occur in both Shina and Burushaski, one may suspect, but one cannot assert, that they have reached Burushaski through Shina.

Where Sanskrit cognates do not exist, the presumption on the whole lies that Shina has been the borrower from Burushaski.

Burushaski is believed to have preceded Shina as the language of the Gilgit region and it is non-Aryan.

Is the existence of cerebral sounds in Shina and

Burushaski to be traced to one original source or to two independent sources ?

There seem to be no signs of any historical connexion between the cerebrals in Shina and Burushaski and those in Wakhi.

How has Wakhi, an Iranian language come to possess them at all and to display them in its own indigenous words ?

The š̌ (ښ) and ž̌ (ږ) of Southern Pashtu, also an Iranian language, correspond roughly to the Shina Primary Cerebrals. Are they also cerebrals ? and when and how did Pashtu come by them ?

Was the Aryan language in its earlier stages in possession of cerebrals, and was it only the stock or branch which developed into full-blown Iranian which lacked or lost them ?

Has the theory up to the present not been that Sanskrit derived its cerebrals from the pre-Aryan inhabitants of India ?

Some local cerebralizing centre might be conceived of as having existed in early times in the Hindu Kush, but in that case the exact correspondence between cerebrals in Shina and Sanskrit would appear to be a peculiar coincidence.

These are some of the questions which suggest themselves to my mind, but which I have no intention of attempting to answer.

83. Before leaving the subject, however, I will challenge one conclusion announced by Dr. Grahame Bailey. He says :

"It is remarkable that a considerable majority of (sc. Shina) words containing ṭ, ḍ, ṛ, ṇ are non-Sanskritic, a fact which shows us that the letters (*sic*) belong to the original Aryan heritage of the race."

On the contrary, the fact proves nothing more than is contained in its statement. It remains to be shown

that such words are Aryan and not of some other origin, possibly that from which Burushaski had its provenance ; and it remains to be proved that Aryan had cerebrals.

Aspirates

84. I have reserved this subject for separate treatment partly because it is a subject of disagreement between Sir George Grierson's opinion, based on the material before him, and Dr. Grahame Bailey's, based on his own observation and experience.

I have also had a still better reason for postponing discussion of it, in the fact that in many cases I am not prepared to pronounce whether the sounds in a word are aspirated or not aspirated. I have therefore sought safety in showing all sounds alike as unaspirated. That, however, does not correctly represent my exact position.

I agree with Dr. Grahame Bailey that the voiced plosives, **g, d, b** are not aspirated. I am not prepared either to endorse or challenge his saving clause "except occasionally by accident".

I also agree that the voiceless plosives **k, t, p** are liable to be aspirated.

The general conclusion at which I have arrived is that normally these sounds are slightly aspirated, just as they are in English, but that in certain cases there is more decided, and in some probably less decided aspiration.

I have been unable to determine definitely whether they are ever totally unaspirated.

From the practical point of view I do not think that the question is of first-rate importance.

The difference between aspirates and non-aspirates, using these terms relatively, is recognized by intelligent Shina speakers, and the distinction may constitute the sole difference between similar words with different meanings, but the ambiguous position of English in the matter provides a working compromise, and I do not think

that general application of the natural English pronunciation of **k, t, p** would be likely to lead to misunderstanding. The Shin is in any case well accustomed to dealing with homonyms.

85. I am not prepared to offer an opinion on the justice of Dr. Grahame Bailey's dictum that: "In the case of words common to Shina and Indo-Aryan languages, Shina in general has the same aspiration as India, except for sonants."

For this I have two excellent reasons: firstly, that I should have to classify the bulk of Shina words according as they contain or do not contain aspirates, and I see no immediate prospect of doing this as I constantly experience the greatest difficulty in deciding whether a sound is to be classed as aspirated or non-aspirated; and secondly, because my knowledge of the Indo-Aryan languages is insufficient to enable me necessarily to discover the cognates of Shina words which may occur in them.

Some aspirates are to me quite clear:

e.g. **tʰo:.iki** *to do;* **kʰo:.iki** *to eat.*

Kʰujo:.iki *to inquire* and the noun **kʰo:jən** *inquiry* are both, I think, aspirates, but I have usually written them instinctively without aspiration.

86. The case of **p** is slightly different from that of **k** and **t**.

Those who favour the **pf** sound appear to substitute it wherever the others use a distinct **ph**. The **p's** remaining in the **pf**-speaker's vocabulary are, I think, unaspirated, or only slightly aspirated.

87. The following are a few words with **k** and **t** tentatively classified. For convenience I write **kh, th,** etc. for the aspirates, but I think that that representation gives an exaggerated impression of the strength of the aspiration.

K

Aspirated		Unaspirated	
khā:	1. *crow*	ka:o	*bracelet*
	2. *bill-hook*	kã:kʌs	*chickor*
	3. *stirrup*	(mʌ)ka:r	*for* (me)
kha:ro	*a cross furrow* (in a field)	kʌča:k	*how much?*
		*kʌči	*near*
khʌbo	*left* (hand)	kʸɛn	*boulder*
*khʌčo	*bad*	ki:no	*black*
khai.i	*gravel*	ko	*who?*
*khʌlo:.iki	*to count*	ko:ərɛ	*pabboos, shoes*
khʸɛn	*time*	ko:lu	*crooked*
khɪr	*down*	ko:m	*work*
kho:.i	*cap*	*ko:n	*ear*
kho:.iki	*to eat*	ko:no	*thorn*
kho:jən	*inquiry*	ku:lɛ	*grain*
khoᵊr	*virgin*	ku:no	*corpse*
khu::ro	*hoof*	ku:ro	*strong*
khu::ri	*heel*	ku:to	*knee*
khu:to	*short*		
khʊjo:.iki	*to inquire*		
khʊn	*blanket*		

Medial.

likho:.iki	*to write*	fʌtʌko	*bald*
		hɛrkʊn	*jewelry*
		mi:kɛ	*urine*
		-o:.iki	infinite ending
		khʊku:n	a kind of cereal
		tiki	*bread*
		tʊku:čo	*knuckle*
		ʊsku:n	*kinsman*
		jʌkʊn	*donkey*

Final.

I have found no distinct final aspirate.		čʌk	*day*
		jʌk	*people*
		mɪšərɛk t.	*to mix*
		rʌk	*intention*

T

Aspirated		Unaspirated	
thʌlo	*basket*	**ta::to**	*hot*
thʌk t.	*to shake out* (cloth)	***tʌl**	*roof* (internal)
		tʌm d.	*to swim*
thʌm t.	*to clean*	**tʌm t.**	*to close*
thʌŋ t.	*to shove*	**tər**	*piece, bit*
thər t.	*to open, to throw*	**te:ro**	*crooked*
thəri	*polo ball*	***tɛ.ən**	*now*
thərmʊk	*pellet-bow*	***tɛši**	*roof* (external)
thi:ŋi	kind of *brush-wood*	**tiki**	*bread*
		***tok**	*mud*
tho:.iki	*to do*	**to:m**	*own*
thu:lo	*fat*	**tuša:r**	*much*
thu:n	*post, pillar*		
thʊk t.	*to peck*		

In regard to medials I have found still greater difficulty in determining aspiration. At present I write:

ã:thi	*bone*	**la:to** (?)	*low*
***nathɛ**	*dances*	***pfʌtu**	*afterwards*
pi:t^{h}o	*back*	**mʌto**	*brains*
thʌtho	*turban*	***mu:to**	*other*
ʊthʌlo	*high*	***nʌto**	*nose*
***ʊtho:.iki**	*to rise*	**nʌto**	*lost*
		pʌti	*wicker dish*
		pʌto	*leaf*
		pi::to	*tight*
		***rogo:to**	*ill*
		sʊtʊs	*I slept*
		šʌti:lo	*powerful*
		šo:to	*throat*
		***tɪti:ro**	*breast*
		tʊrmʌk	*gun*

Final.

Final **th** appears at best

* *Note.*—An asterisk indicates that a word has

to be very rare. It seems to occur in

čʌth *land that has lapsed from cultivation*

nath or **nat** *dance* is doubtful

been shifted from the other category to conform to Shah Rais's practice.

88. The spirants **š, č** and **š, ç** are not, I think, aspirated. Indians tend sometimes to write **č's** as aspirates, but here again Indians are not necessarily good judges.

The general result of my investigations, as far as they go, is to show that aspirated **k** and **t** are of doubtful occurrence finally, and are rare medially.

This agrees with the rarity of **Pf** or **f** representing aspirated **p** as a medial and its absence as a final.

Stress Accent

89. Dr. Grahame Bailey has referred to the "remarkable accentual system upon which nearly all the declension and conjugation depend".

This statement of the case seems rather strong; declension and conjugation depend essentially on inflection, but there is an accompanying stress accent the incidence of which follows one or other more or less definite system.

The normal incidence may, however, be to some extent affected, as in other languages, by the sentence stress or stress of emphasis.

The following is an outline of the chief phenomena of the stress accent.

Nouns, Pronouns, Adjectives, and Adverbs

90. (*a*) In *dissyllables* the stress accent falls:

(i) usually on the first syllable

(ii) sometimes on the last syllable

e.g. (i) **ˈʌšpo, ˈʌnu, mˈišto, PfˈʌtuPf**

(ii) **mušˈa:, — Pfitˈi:k, mučˈo:**

The stress accent tends to fall on a long vowel, or to

lengthen the vowel on which it falls; but this is not an invariable rule.

(*b*) In *polysyllables* the stress accent falls:

(i) usually on the penultimate

(ii) but sometimes on the last syllable

There is a subsidiary accent on the next syllable but one and in a trisyllable it is not always easy to tell whether the main accent is on the first syllable or the last.

Examples—

(i) **mʌnˈuːjo** **rogˈoːto, minɛlˈiːlo**

(ii) **tsˈʌnʌlˈɛ** (but generally **tsʌnˈʌlɛ**) *trousers*
mˈuːgulˈi *melon*
ɛk kiːŋʌwˈaːr *to one side*
šugurˈi *pear*
bʌbʌlˈaː *floating*

(*c*) The addition of inflectional suffixes of case does not normally affect the position of the accent, but there is a tendency to accent the suffix of the genitive singular and plural.

Examples—

	ˈʌšpo	**ˈašpɛ**	**ˈʌšpəjo**	gen. pl.	**ˈʌšpˈo** (level)
	mʌrˈoːč	gen. sg. nom. pl.	**mʌrˈoːcɛ**	„	**mʌrˈoːčo**
	pfˈunʌr	gen. sg.	**pfunʌrˈɛː**	nom. pl.	**pfˈunʌrɛ**
				gen. pl.	**pfunʌrˈo**
nom. sg.	**goːt**	gen. sg.	**gutˈei**	dat. sg.	**gˈutɛt**
nom. pl.	**gˈuti**	gen. pl.	**gutˈoː**	dat. pl.	**gˈutut**

(*d*) When a monosyllable becomes a dissyllable by the addition of a suffix the accent falls in some cases on the radical syllable, in others on the suffix:

paː *foot* gen. sg. **pˈaːɛ** nom. pl. **pˈaiɛ** gen. pl. **pˈaːwo**
sa *sister* „ **saiˈɛ**

(*e*) Dissyllables of the type of **čijˈoːt** retain the accent on the second syllable throughout.

In dissyllables in **-ˈaː** the suffix usually coalesces with the final **-ˈaː** and the accent remains.

sg. nom. **muš'a:** gen. **muš'ai.ɛ** dat. **muš'a:t** abl. **muš'a:jo**
pl. nom. **muš'ɛ** gen. **muš'o:** dat. **muš'o:t** abl. **muš'o:jo**

(*f*) In dissyllables in -i: :

If the -i: bears the accent it persists throughout the declension and the suffix vowel also remains.

If the accent is on the first syllable the -i: is dropped, except perhaps in the Ablative, but in any case only one vowel is retained.

Examples—

	təri: *polo ball*			**ba:li** *rope*	
sg. n.	**tər'i:**	pl.	**tər'i:ɛ**	sg. **b'a:li**	pl. **b'a:lɛ**
g.	**tər'i:ɛ**		**tər'i:o**	**b'a:le**	**b'a:lʏo**
d.	**tər'i:ɛt**		**tər'i:ʊt**	**b'a:lɛt**	**b'a:lʊt**
abl.	**tər'i:jo**		**tər'i:ujo**	**b'a:lijo**	**b'a:lijo**

(*g*) The **-k** suffix of singleness does not affect the accent
k'u:i *country* loc. **k'u:yɛr, k'u:yɛkər**

(*h*) These rules and examples only apply in a general way; there is, I think, no cast-iron practice.

For instance I have

	dəru: *big game*		**ga** *nalah*	
n.	**dər'u:**	sg. **ga**	pl.	**g'ai.ɛ**
g.	**dəru:w'ai.i**	**g'ai.ɛ**		**gai.y'o**
d.	**d'əruw'ɛt**	**gai.'ɛt**		**ga.'o:t (gaiy'ʊt)**
abl.	**dər'u:ɛjo**	**gai.'ɛjo**		**g'ai.ʊjo**
form.	**dər'u:ɛ(ka:r)**			

One would expect to find the accent usually on the **-u:** of **dəru:** and on the **-ai** of **ga** throughout.

Verbs

91. (*a*) In certain parts of *all* verbs the stress always falls on one and the same element. These are:

1. The **o:** of the suffix of the infinitive, of the present participle, and usually of the 3rd sg. subjunctive.

Thus:	**ʧa:ɳ'o:.iki**	**ʧa:ɳ'o:jə**	**ʧa:ɳ'o:t**
	wʌl'o:.iki	**wʌl'o:jə**	**wʌl'o:t**
	fɛrij'o:.iki	**fɛrij'o:jə**	**fɛrij'o:t**

(also, however, **fer|i:jot, uč|a:čot,** and **čiv|i:ot** (vb. with i: theme)).

2. The **ɛ:** or **i:** of the preterite, present perfect, and pluperfect suffixes of transitive verbs.

čaːṇ|iːgʌs **wʌl|ɛːgunus** **pʌšər|ɛːgusus**

As an alternative, however, the accent is sometimes shifted to the penult, the vowel of which becomes

aː or **ʌ**

e.g. **dig|aːno || d|ɛːguno; big|anus || b|iːgunus; big|ʌs || b|iːgʌs**

3. The **ɛ:** or **i:** suffix of the past participle active

čaːṇ|iː **wʌl|ɛː** **fɛrij|iː**

4. The last syllable of the base of neuter and passive verbs in the preterite, perfect, and pluperfect tenses (or the base itself when it is monosyllabic):

fɛr|iːdus, fɛr|iːlus **š|aːtunus** **uč|ʌtusus**

	Imperative	Indicative		
		Fut.	Pres.	Imperfect
I. **čaːṇoː.iki** *to send*	**č|aːṇɛ** **č|aːna**	**č|aːṇum** **č|aːṇɛ** **č|aːṇei** **č|aːṇoːn** **č|aːṇɛt** **č|aːṇən**	**č|aːṇumus** **č|aːṇɛno** **č|aːṇɛn** **č|aːṇoːnʌs** **č|aːṇɛnɛt** **č|aːṇənən**	**č|aːṇumusus** **č|aːṇiso** **č|aːṇis** **č|aːṇonəsəs** **č|aːṇəsɛt** **č|aːṇənis**
II. **wʌloː.iki** *to bring*	**wʌl|ɛ** **wʌlʸ|a**	**w|ʌlum** **wʌl|ɛ** **wʌl|ei** **wʌl|oːn** **wʌl|aːt** **wʌl|ɛːn**	**w|ʌlumus** **wʌl|ɛːno** **wʌl|ɛːn** **wʌl|oːnʌs** **wʌlʸ|aːnɛt** **wʌl|ɛːnən**	**w|ʌlumusus** **wʌl|eː.iso** **wʌl|eː.is** **wʌl|oːnəsis** **wʌl|aː.əsɛt** **wʌl|ɛːnis**
III. **zʌmoː.iki** *to strike*	**z|ʌmɛ** **zʌm|a**	**z|ʌmum** **z|ʌmɛ** **z|ʌmeːi** **zʌm|oːn** **zʌm|aːt** **zʌm|ɛn**	**zʌm|umus** **zʌm|ɛːno** **zʌm|ɛːn** **zʌm|oːnəs** **zʌm|aːnət** **zʌm|ɛːnən**	**zʌm|umusus** **zʌm|eː.iso** **zʌm|eː.is** **zʌm|oːnəsis** **zʌm|aː.əsət** **zʌm|ɛːnis**

(*b*) In the remaining parts of the verbs, i.e. the imperative, future, present, and imperfect, some choice of system exists and verbs may be roughly classified according to the system which they follow.

In the case of simple transitive verbs two main types are to be noticed, which are illustrated by the verbs

ʧa:ɳo:.iki and **wʌlo:.iki**

There is also an intermediate type of which **zʌmo:.iki** *to strike* may be given as an example.

Notes

It will be observed that in I the accent is always on the base, while in II it is usually on the first syllable of the suffix.

I have also **wʌl'ʊmʊs**. There is a secondary accent on the penult of **w'ʌlʊm'ʊsʊs**.

III appears to be only a slight variant of II.

No. I series includes **hər'o:.iki** *to take away*
la:m'o:.iki *to catch*
čin'o:.iki *to cut*

The imperative singular of these is **hər, la:m, či:n.** In the imperative plural **čin'o:.iki** has **čin'a:**

No. II series includes **gʌn'o:.iki** *to tie*
and **mər'o:.iki** *to kill*

ʂid'o:.iki also agrees with II except that it has the forms **ʂid'ʌm, ʂid'ʌmʊs, ʂid'ʌmʊsʊs.**

nɪkalo:.iki has the accent on the second syllable **-ʌl-** where **wʌlo:.iki** has it on the first syllable, otherwise it exactly conforms to this type.

(*c*) Transitive verbs with an **-i-** theme have the stress on the **i** throughout these tenses.

čiv'o:.iki *to place* impv. sg. **čiv'i:** pl. **čiv'i:.a**
indic. fut. **čiv'i:.um, čiv'i:.ɛ, čiv'i:i**, etc.
„ pres. **čiv'i:.ʊmʊs, čiv'i:.ɛno**, etc.
„ impf. **čiv'i:.ʊmʊsʊs**, etc.
injunctive **čiv'i:.ot**

(*d*) i. The following appears to be the type of *Causative Verbs* :—

pʌšər'o:.iki	**pʌšer'ɛ:**	**p'ʌšərum**	**pʌš'ərumus**	**pʌš'ərumusus**
to show	**pʌšər'a:**	**pʌšər'ɛ**	**pʌšər'ɛ:no**	**pʌšər'ɛso**
		pʌšər'e	**pʌšər'ɛ:n**	**pʌšər'ɛs**
		pʌšər'o:n	**pʌšər'o:nʌs**	**pʌšər'o:nasəs**
		pʌšər'a:t	**pʌšər'a:nət**	**pʌšər'a:.ɛsɛt**
		pʌšər'ə:n	**pʌšər'ɛ:nən**	**pʌšər'e:nis**

pʌšər'ʌm is heard as well as **p'ʌšərum** for the 1st sg. fut.

ii. **ʌmušər'o:.iki** *to cause to be forgotten* agrees with this except in having **ʌmuš'ərʌm** in place of **p'ʌšərum**; it has a secondary accent on the first syllable but one, preceding the main accent: **ʌm'ušər'ɛ:no** but **'ʌmušər'o:.iki.**

iii. **tər'o:.iki** *to cause to be done* has the accent on the first syllable in the singular of the imperative and in the 1st pers. sg. of the future, present, and imperfect:

t'ərɛ **t'ərʌm** **t'ərʌmus** **t'ərʌmusus**

Elsewhere it is on the suffix as in **pʌšər'o:.iki.**

Neuter Verbs

(*e*) i. In neuter verbs in **-i:j'o:.iki** the accent throughout these tenses and in the 3rd pers. sg. of the injunctive falls on the **-'i:j-**.

Thus: **fɛr'i:j** **fɛr'i:jʌm** **fer'i:jumusus** **fer'i:jo:t**

ii. In neuter verbs in **-čo:.iki** the accent falls uniformly in these tenses and frequently in the 3rd sg. injunctive on the vowel preceding the **-č.**

učа:č'o:.iki *to arrive* **uč'a:č** **uč'a:čum** **uč'a:čumus** **uč'a:čumusus** **uč'a:čo:t**

Similarly **šʌɛčo:.iki** *to be affected* **š'a:čum**, etc.

In the past tenses of the **-čŏ:.iki** verbs the accent falls on the vowel preceding the **-t-** of the suffix. Thus:

uč'ʌtus **uč'ʌtunus** **š'a:tusus**

iii. **nɪkai.'o:.iki** *to come out* has **nikai.'o:jə** **nikai.'o:t** **nikai.'ɛ:.** In all other parts the accent falls on the **a:** or **ai**, e.g. **nik'a:.umus.**

iv. **ʌmuš|o:.iki** *to forget* has :

am|uš, am|uša ; am|ušum ; am|u:šumus ; am|u:šumusus am|u:šo:t ; am|u:tus and **amuš|i:lus ; am|u:tunus ; am|u:tusus**

92. I believe that the above examples cover the principal phenomena of the accentuation of verbs, but my studies have not been exhaustive, and something has always to be allowed for the personal peculiarities of individual speakers, and the influence of emphasis or rhythm in a sentence.

Tone

93. Dr. Grahame Bailey announces the existence of tone words in Shina. I am not prepared to say much on this subject, for it is new to me, but I may record my own discouraging experience.

I first took the words quoted by Dr. Grahame Bailey and believed that I found in them the required tones. Later I experimented with other pairs of similar or nearly similar words and obtained certain positive results, after which I left the matter alone for a week or two.

I again repeated my experiments with the damping result that I found I reversed my previous conclusions, or that I failed to find any fixed tone. I have further tried a more extended list of words, but have similarly failed to find tone.

I still think I can get the rising tone in Dr. Grahame Bailey's **ba:ṣ** *lungs*, but I cannot get consistent or certain results with his other words. (I am now, later, sceptical regarding the tone in **ba:ṣ**.)

Many apparent twin words are really different in other respects, and this both removes any *raison d'être* for the existence or retention of tone, and also makes it more difficult to make comparisons.

The vowel of **lɛ:l** *known* (not, "visible") is long, that of **lɛl** *blood* is short.

The final vowel of **ṣidɛːⁱ** *having struck* is long, is liable to variation of quality, and bears the stress accent, that of **sidɛ** *strike!* is short, and the stress accent is less marked.

I had hoped to get one man to repeat a series of pairs of tone-differentiated words to another and note whether the listener gave the correct meaning in more than 50 per cent of cases, but I now think the test would be ineffective owing to the difficulty of excluding discrimination by other criteria.

The people themselves appear to have no conscious appreciation of tone, though that is perhaps no conclusive argument against its existence.

So far as my own examination of a number of homonyms, or almost identical words, goes, I have failed to find any constant tone.

While not venturing to deny the discovery of such an expert authority as Dr. Grahame Bailey, I would venture to state my opinion that tone is of no practical importance in Gilgit Shina, but is, if it exist, merely a matter of academic or philological interest.

The factors which are important in distinguishing words at first sight identical are:

vowel length,
aspiration,
incidence of the stress accent,

and, occasionally, the quality of unstressed vowels.

Thus:	**lɛːl**	*known*	**lɛl**	*blood*
	šidˈɛːⁱ	*having struck*	**šidˈɛ**	*strike!*
	dˈaːri	*doors*	**dˈaːrɛ** or **dˈaːrɪ**	*sons*
	čɛːi	*key*	**čɛ.i**	*woman*
	piːːto	*tight*	**piːto**	*back*
	kunˈiː	*nineteen*	**kˈuni**	*ears*
	kʏɛːn	*boulder*	**khʏɛn**	*time*
	juːːk	*pain*	**juːk**	*wood*
	khuːːro	*hoof*	**kuːro**	*strong, firm*

There remain words like

čak	*day*	**čak**	*pitch-fork*
gun	*smell*	**gun**	*knot*

which, when divorced from their context, appear to me as indistinguishable, and are so represented by the people, as

"well" noun and "well" adverb

in English, of both of which the tone may vary according to the context.

ADDENDUM

The Pronunciation of Gushpūr Shāh Rāis Khān

Shāh Rāis (Š.R.) was a satisfactory person to deal with. He was quite alive to the operations covered by the terms Dental, Alveolar, Palatal, Cerebral, and Guttural and evolved for himself means of describing them.

The following are the principal points in which his pronunciation differs from that given in the text.

§ 4. For **a:l** *there* he says **a:li**
a:ɲ *here* ,, **a:ni**
kač *near* ,, **kači**

§ 13. **o:** for **å̊** in words given, except **a:rə** for **å̊rə**

§ 15. for **ɔ** he says **ʊ** and **o** e.g. **ʗun, odo:r**

He has two sounds of this type :

(i) a very short **ʊ**, as in **kʊn** *ear;* **čʊm** *chin*
kʊn *blanket*
dʊk *meeting*
trʊk *opening* (of buds)

other speakers in some cases have **o**.

(ii) a very short **o** less tense than **o** proper as in
mor *speech;* **pon** *road;* **tok** *mud;* **čom** *leather;*
čot *heap;* **tom** *tree;* **moč** *earth cliff*

with other speakers this sound is heard in some cases as **o** proper, in others as **ʊ**.

§ 17. **hi:.o** for **hi:wo** etc.

§ 19. **ču:ni** the **u** very slightly if at all, modified

§ 23. **na:.o** for **nauwo**
da:.o, da:.u for **dau**
dī:z for **dī:.ɪz**
nuš for **nɪš** so also Sf.

§ 24. **mɛ:l** for **mel**
æ in preference to **ʌ** where there is option, also **uwe:lu, awe:lu**
wɛ.i or **wəi.i** *water* as distinguished from **wai.i** *he will come*

§ 26. He says that all his "k's" and "g's" are guttural, and they seemed to me to be so.

b. **kɪnə** for **kɪn** ("why not?") etc.

§ 28. **čərʌp** and **dərʌp**, but **dərʌb** is also said.

§ 29. He favours final **k** except in **prɪg**.

§ 31. He uses **b** for **v/w** in **abʌte:i, čɪbo:.iki**.

§ 34. He has no **γ** and says **gərzʌm, gul**.

§ 36. He has no **v** substituting **b** (see § 31) and **w** **šũ:i** for **šũ:wi** *dogs*.

§ 37. He confirms **dɛ:z** and denies the existence of **de:s**.

§ 38. He says **pfʌnkɛ** not **pfʌŋkɛ**.

§ 40. **a:ni** for **a:ɲ**; **ma:ɲo**.

§ 41. He nasalizes vowels in some cases where they are not nasalized in the text:

ai.ī	*mouth*	**paīya:lo**	*herdsman*
õ:ši	*wind*	**bũ:yõ:.iki**	*to weave*
gũ:yɛl	*cowhouse*	**bũ:yəro:.iki**	*to have woven*

§ 46. He is rather freer with the **y** glide than the text. So **maiya:rɛ**; **paīya:lo**; **šaiyur** *father-in-law* (v. § 59).

Note. **bi:yo:.iki** *to sit*; **baiyo:.iki** *to plough*. Sf.'s vowel in "to sit" is, I think, usually **ɛ** rather than **ai**. Also "both" **bɛya** rather than **baiya**.

§ 47. Neither Š.R. nor Sf. approves of **y** for **g**; but it is common.

§ 50. He says **j** (**dž**) is the correct sound, but his own pronunciation sometimes tends to the **ž** he condemns.

Both Š.R. and Sf. favour -**j** for the suffix = *on*.

§ 51. **ʌs ʌš** *eight*, doubtful.

§ 52. **ʌtʰi** for **ã:ti** *bone*.

§ 53. **pfu:ts** and **pfu:s**.

sɪrao for **tsirao** *razor*.

dəru:z and **dəru:ts**.

§ 54. His **p** in **pf** is slight.

pfʌgu:zo:.iki for **pfʌku:zo:.iki**

dʌmfu:s not **dʌmpfu:s**

pfʌpər and **pfʌfər**

He gives as correct forms **pfʌpi:** and **pfʌfi:**

pfi:pi, he states, is said by people of Bargu and Sherot on the Punyal border.

§ 59. **ša:l** *fever* with a vowel between **a** and **æ**.

šək for **šʌk** *full*.

§ 63. **ča:r** for **ča:r** *cliff*.

He says that it is similar to **ča:r** *four* only more emphatically pronounced.

čɛ:č for **če:č** *field*.

čʌmu:s for **čumus** *bug*.

učačo:.iki for **učačo:.iki**.

bɪrʌčo for **birʌč**.

§ 66. **jɛro** for **jaro**.

jʌkur for **jʌkur**.

juto, jŏto.

juk t. *to touch*, similar to **juk** *wood*.

He gives **j** (**ʤ**) as the correct pronunciation, but himself tends to **ž** and in a few cases to something suggesting **ṛ**.

ʌjɛ for **ʌji**, so also Sf.

mujo:.iki for **mujo:.iki** (which was doubtful before).

Beside **ro:š** also **ro:j**.

§ 69. His **ḍ** sounds to me like English **r**. He does not know the words **kuro:ḍo** and **šərʌḍo**.

§ 71. He agrees with the views expressed about cerebral **t**, **r**, and **n**. He represents the further back **t** as palatal.

§§ 84–88. The results I have obtained from Š.R. differ more from my previous ones in the matter of Aspirates than in any other point.

This only bears out my views as to the absence of a clear distinction in all cases between aspirates and non-aspirates.

It is necessary, however, to mention that Š.R. is pretty clear in his own mind as to what are and what are not aspirates. He recognizes, however, doubtful or intermediate cases, e.g.

ʌtʰi *bone* **õ:tʰi** *lip*

His pronunciation accorded with his theory.

In this one case I have altered the text to conform to his views and practice.

This has necessitated the transference of a few initial aspirates to the non-aspirate category, and *vice versa*; but the principal result has been the elimination of half a dozen medial aspirated **t's** which I had recorded.

§§ 89–92. Few variations have to be noted

§ 90. **d.** **gutˈut** for **gˈutut**

e. **mušˈo:.o** „ **mušˈo**

h. **nom. dərˈu:** **abl. dərwˈɛ:jo**

The declension of **ga** is:

sg.	**n.**	**ga**	pl.	**gaiyˈɛ:**
	g.	**gaiyˈɛ:**		**gaiyˈo**
	d.	**gaiyˈɛt**		**gaiyˈut**
	s.	**gai.ˈi:jo**		**gaiyˈu:jo**

§ 91. **e.** Š.R. gives **uçʌčˈo:d** (with an anomalous **-d**) as more common than **uçˈʌčot.**

He also admits **fɛrijˈo:t** beside **fɛrˈi:jot**

and **amušˈo:t** „ **amˈu:šot**

amˈu:š for **amˈuš**

§ 93. Š.R. denies the existence of "tone words".

In the case of **ba:ṣ̌** he makes the distinction:

ba:ṣ̌ *lung*

ba::ṣ̌: *language*

He admits cases of true homonyms such as **gun** = knot and smell.

Is there any evidence for the existence of tone in any language outside the consciousness of an intelligent speaker of the language and imperceptible to him? If there is not, then the case for the existence of tone in Gilgit Shina is a very weak one.

GILGIT.
December, 1921.