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GRAMMATOGRAPHY

MANUAL OF REFERENCE

TO THE

ALPHABETS OF ANCIENT AND MODERN LANGUAGES

BASED ON THE GERMAN COMPILATION

F. BALLHORN.

LONDON
TRÜBNER AND CO., 60, PATERNOSTER ROW.
1861.

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PREFACE.

THE GRAMMATOGRAPHY is offered to the Public as a compendious introduction to the reading of the most important ancient and modern languages. Simple in its design, it will be consulted with advantage by the Philological Student, the Amateur Linguist, the Bookseller, the Corrector of the Press, and the diligent Compositor.

Although substantially based on "Ballhorn's Alphabete," a German compilation, which, in the space of a few years, passed through nine editions, the present manual has in several articles been very considerably improved and enlarged. Of the new observations which have been inserted, some may prove useful even when this work shall be consulted by the side of the respective Grammars. With regard to the Asiatic Alphabets, it may be stated, that the continued efforts to obtain trustworthy specimens have, in some instances, led to highly satisfactory results. In preparing the type of the Chinese characters, the lateral "Tones" have been adjoined to the 214 symbols of pronunciation. These additions will enable the student, instructed by native teachers, to remember with greater facility the varying articulation of vowel-sounds.

The publishers entertain the hope, that the present work, an humble attempt to assist in the furtherance of philological pursuits, will obtain the encouraging consideration of competent scholars, whose suggestions, available for future editions, are respectfully solicited.

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PERSIAN CUNEIFORM CHARACTERS.

There are two main families of Cuneiform Characters which, before the expedition of Alexander the Great, were in use nearly in all Asiatic Countries, subjected to the (Acharmenides) Persian Kings. One of these, the Arian arrow-headed, is here given, and is a pure alphabet of fixed characters, which was made use of by the old Persians, proper, and is now read with tolerable accuracy. The other, however, not yet deciphered with sufficient certainty, was employed, with some modifications, by at least five different nations, the Babylonians, the Assyrians, the Medo-Scythians (the second in the triglot inscriptions of Persepolis and Bisutun), the Susians and the Armenians. Almost in each of these five sorts of characters can be distinguished three styles, the Archaic, the Lapidary, and the Cursive.

Form	Value	Form	Value	Form	Value	Form	Value
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(17)	u	111-	t'hefore u	· E <	n	-/<	z', g'
Y ≿	k	1<1	th	14	* y	⟨≥ ⟨	h
<1	q	W	d	3	r	¥	thr (tr)
***	kh	(E)	dh		r'	1<	rp, q
<yy-< th=""><th>g</th><th>E Y</th><th>р</th><th>*</th><th>f</th><th>**</th><th>d, h</th></yy-<>	g	E Y	р	*	f	**	d, h
(gh	Y <<	f	15	v	***	b, u, m, i
TY >	k'	₽Y	. b) NE	ç (s)	•	point for separating words.
-	g'	-141	m				
fre					*	 	

MEDIAN CUNEIFORM CHARACTERS

Form	Value	Form	Value	Form	Value	Form	Value
>> Y	a	≽Y	t	=7=7	phi	E(/-	v o
-EYE	â	E-11	ta	₿₽₩	У	YE	s
	i	- Y≥	ti	-11<	yu	*	sa
	î	~	tu	≥yyy	yo	EY	su
<	u	EY≥	h	-311-	r	≥ YY	s'
¥¥≿	û	13	thi	-777	ra	V	s'a
***	q	②	thu	-111<	ri	<!---</b-->	s'i
Y) E	qu	FEY	p	≽γγ̈́γ	ru	٧-	z
$\gamma_{\widetilde{Y}}^{\gamma}$	k	EY	pa	77≥	ro	₩	za
*	ka	=Y=	pi	<i>></i> ■1	lu	*	h
YYY≥	ku	E //>	pe	(E)=	fi	**	ha
-12	kh	Y ≥	pu	*	fe	≻≿ Y	n
\Z</th <th>kha</th> <th>₹Ÿ</th> <th>ph</th> <th>YEY</th> <th>v</th> <th>*</th> <th>ni</th>	kha	₹Ÿ	ph	YEY	v	*	ni
> <	khu	≻ ₹.	pha	≥ ₩	vu	=11=	m
l		•	l				

ASSYRIAN CUNEIFORM CHARACTERS

Form	Value	Form	Value	Form	Value	Form	Value
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《公	g; kh	⊭{\ ¥ \		W W	ds, z, dsh or j	***	} s .
ENN IN	d	*	ì	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		>Y> +Y>	
 	h hu,,v, y	₹ 	i, y i, ü	*	k	Y- ≿ ₩	sh
# < 1	u	图	y			強	
311	•0		kh	7 ₹₹		₩ ₹	
₹ ₹	v, h, a, r	-27	m, v	77-1 77-1 ***<1	r	徐	a, z nue
*** *** ***	ch	→ →	n	7		**-K **I<	vush

OLDEST CHARACTERS

=	Arrangement	Hieroglyphics .	Hieratic	Demotic	Phænician	Numidian	Early - Hebrew
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٦	Dāleth		<u> </u>		49	7	94
П	Hē	ㅁ	디	5	3	þ	ੜ
7	Vāv	ſ	ľ		77		+
1	Zăyĭn	}	7		7		
_	-	2	_				
_		v	1	٨			
П	Chēth	n	A		AB)))	日
۵	Tēth	X		3	8	U	
•	Yõdh	٠	at	24	ጣ ጠ		マス
٦	Kăph	4	4	4	794	21	ä
5	Lāmědh	^	A	,	LLL	5	L
<u>ت</u>	Mēm	*****	Щ	4	7 4 4	۳ 4	y
1	Nūn	1	A	• • •	4 4		y
ם	Sāmĕk		ŢĪ	Y	my 24	4	
ダ	Ayĭn		8	<u>></u>	υo	0	o \diamondsuit
Ð	Pē	9	,	,	1)	7
3	Tsādhē]			r r		m
ק	Q'ōph	•	կ	þ	D D	V	ΉP
٦	Rēsh	•	R	4	94	7	94
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OLDEST	CHAK	AUTERS

Aramaic	Estrangelo	Palmyrenian	Kufic	Old - Hellenic	Old - Italic	Etrurian
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ሃ	コ	4	ŧ	3 B	38	
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HEBREW

Form	Name	Pronun- ciation	Numer value	NOTES.
8	Aleph	Spiritus lenis	1	The Hebrew Alphabet, like all Semitic al- phabets, consists only of consonants, 22 in
٥	Beth	b bh	2	number, some of which, however, have also the force of vowels. Hebrew is read from right
ב	Gimel	g gh	3	to left. Because at the end of the lines, words cannot be divided, the following dilatable cha-
٦	Daleth	d dh	4	racters (dilatabiles) were employed to help to justify, or fill up the lines; but now the prac-
Π	He	h	5	tice is all but obsolete.
7	Vav	w	6	מחחלתם
7	Zayin	S soft	7	CONSONANTS.
ח	Cheth	ch	8	Notes on Pronunciation.
2	Teth	t	9	is the softest guttural, an emission of the breath scarcely to be heard, the Spiritus
,	Yodh	j	10	lenis of the Greeks, similar to π , but much softer.
, final	Kaph	k kh	20 ·	before a vowel, is our aspirated h (the Spiritus asper of the Greeks); but after a
5	Lamedh	1.	30	vowel, at the end of a syllable, it is a guttural, and, at the end of words, it
🗅, final 🗖	Mem	nı	40	often supplies the place of a vowel.
i, final	Nun	n	50	1) is a guttural g, accompanied by a grating or rattling sound; 2) a softer breathing
מ	Saměk	s	60	like s. In reading and transcribing hebrew words, it is now usual to omit; and s,
ע	Ayin	guttural	70	e. g. יֵלִדּ Eli.
D, final I	Pe	p ph	80	is the harshest guttural, like the German ch as pronounced by the Swiss, or the
Z, final ?	Tsadhe	ss	90	Spanish x and j. The is pronounced in Hebrew more like a ratt-
P	Q'oph	q	100	ling guttural, than as a pure lingual, and partakes of both sounds.
٦	Resh	r	200	w and w were originally but one and the same letter, as they still are when written
ש	Sin	s	200	without points; but as in some words this
2	Shin	sh	300	letter had a softer sound, similar to s, this two-fold pronunciation is distinguished
ת	Tav	t th	400	by the grammarians by the diacritical point: \ddot{v} (sh) and \dot{v} (s).
auriah Ch	Final-K	aph		is the English z.

with Shva : with Q'amets 7 with Daghesh and Q'amets 7

LIGATURES.

יְהֹיָה בי בי or בי ייר

בלהרם אל also instead of צלהרם

D, D and B are strongly articulated sounds, produced by a compression of the lower organs of the mouth; the two first, therefore, differ essentially from 7 and 5 which are equivalent to our t and k, and are often aspirated.

The six consonants בגדכבה have a twofold pronunciation: 1) a harder and more slender sound (tenuis), like our b g d k p t, and 2) a smoother sound accompanied by a soft aspiration. The harder sound is the primeval; it occurs at the beginning of words and syllables without a vowel preceding immediately, and is indicated by a point (Daghesh lene) in those six consonants. They are aspirated after a vowel immediately preceding; in manuscripts this is indicated by the Raphe (-), but in printed books the aspiration is shown by the absence of the Daghesh.

CLASSIFICATION OF THE CONSONANTS.

- a) According to the organs of speech by which they are pronounced:
 - 1) gutturals (gutturales) א ה ע ה א

 - 2) palatals (palatinae) מנלק 3) linguals (linguales) לן and ז'ר and לן
 - 4) dentals (dentales) z w 5 7
 - 5) labials (labiales) אים ב ה

The ¬ partakes of the 1. and 3. classes.

- b) According to their sound:
 - 1) aspirated consonants (aspirantes): ממעה א
 - 2) soft consonants (molles): liquids אַ מי בי אָ, semivowels 17
 - 3) sibilants (sibilantes): שַ עַ עַ
 - 4) mutes (mutae): מק and כנדכם מ

VOWELS.

That the scale of the five vowels ă ĕ ĭ o oo is derived from the three primitive vowels a I oo, is to be seen much more distinctly in the Hebrew and the other Semitic languages than in other languages. The è has been formed by a + 1, the o by a + 00, and, properly speaking, both are contracted diphthongs: ê = ai, ô = an. - The full vowels formed by this process are the following, arranged according to the three principal vowels and to their prosodical quantity:

Vowel a (🔌)

- 🖵 Q'amets, â ā
- Patach, ä.

Vowel e - i (')

- * ... Tsere (with Yodh), ê
- Chireq (magnum), ī
- ... Tsere (without Yodh), ē (ê)
- Seghol, ĕ, è (the latter is also written 🔭)
- Chireq (parvum), ĭ (i).

Vowel **o – 00** ()

- ἡ Cholem (magnum), ὁ
- Shureq, ü
- Cholem (parvum), ō (ô)
- Q'amets-chatuph, ŏ
- Q'ibbuts, ŏŏ (ōō).

The vowels, or vowel-points, are placed under the consonants after which they are pronounced (? ra); but the Patach, placed under a guttural at the end of a word, is pronounced before this guttural, an ruach, in which case it is named Patach furtivum. The Cholem (without Vav) is placed above the consonant on the left side: 5ro. The figure i is to be pronounced sometimes ov, the being consonant, and the - preceding it; sometimes vo, the Cholem being read after the Vav. It is more accurate to distinguish thus: i ov, i vo, i ô; likewise also i (Shureq) and i (Vav with Daghesh). As, however, (Shureq) is readily discernible, because a vowel neither can precede nor follow it, only this form is made use of.

In opposition to the vowels

- Shva (Sheva) indicates the absence of a full and distinct vowel. Therefore
 - 1) placed under a consonant concluding a syllable, it indicates the complete absence of a vowel and serves to divide the preceding syllable from the following (Sheva quiescens). It is not made use of, however, when the consonant concluding the syllable at the same time concludes the word, except in the case of the Final Qoph (3), and those words ending in two consonants, when each of them is to be furnished with a Sheva, e. g. בֵּרָהָ
 - 2) itrepresents a slight and indistinct vowel, as it were only the onset or beginning of a vowel (Sheva mobile).

The Sheva mobile is pronounced somewhat more clear and distinct in the so called Chateph-vowels (קשה rapidum), joining a short vowel to the Sheva simplex; in opposition to which it is also named Sheva compositum. There are three Chatephs:

- -: Chateph Patach, half ă
- ... Chateph-Seghol, half ě
- T: Chateph Qamets, half o.

READING-SIGNS.

There are some reading-signs which have close connexion with the vowels and probably were introduced at the same time. Amongst these is to be noticed the diacritical point of wand w. Meeting together with the Cholem (∴), only one point is made use of which represents both; therefore wis to be pronounced so, if no other vowel-point is added; and osh, when the preceding consonant is unpointed, e.g. יבֹּא sone, הֹיֶה mosheh.

More frequently we see a point placed in the consonant to indicate in general a harder pronunciation. There are three cases to be distinguished, viz.:

Daghesh forte, doubling the consonants.

Daghesh lene, hardening the consonant; it stands only in the six mutae: near in the above named cases; otherwise the point occurring in these consonants must be a Daghesh forte.

Mappig, indicates that those consonants, which are also used as vowels, are then to be pronounced as eonsonants; in modern printing it is made use of only in the mat the end of the words.

In opposition to the point hardening the eonsonant, a little stroke standing above the consonant indicates his softer sound. This stroke called

Raphe (') is now almost out of use, and is only employed in order to indicate expressly the absence of a Daghesh or Mappig.

ACCENTS.

The general design of the accents is to indicate the rhythmical members of the verses in the Old Testament. In doing this, they perform a twofold duty; for the accents mark at one and the same time partly the logical relation of each word to the whole sentence, and partly the accented syllable of each single word. In the first case the accents supply the punctuation, in the latter they are signs of tone. — As signs of tone, the different accents are equivalent, because there is in Hebrew only one kind of accentuation. In most words, the last syllable is accented, more rarely the last but one. — As signs of punctuation, their use is more complicated, because they not only separate words, like our points, commas and colons, but also join one to the other. Therefore they are divided in Distinctivi and Conjunctivi. In the following list they are arranged not according to their grammatical value, but according to their being placed below the consonants or above them, in order to give a more facile view of them.

ACCENTS PLACED UNDER CONSONANTS.

- , Silluq only at the end of the verse, therefore always joined with: Soph-pasuq, which stands between the single verses.
- Athnach, mostly in the midst of a verse
- Yethibh (always to the left of the vowel).
- .. Tebhir
- Tiphcha initiale
- , Merkha
- Double-Merkha
- Munach
- Mahpakh (to the right of the vowel)
- Darga
- , Yärach
- , Tiphcha finale.

ACCENTS PLACED ABOVE CONSONANTS.

- . Segholta
- : Zaqeph-qaton
- " Zaqeph-gadhol
- 'Rebhia
- ~Zarqa
- `Qadma
- Pashta
- 3 Shalshelet
- P Paser
- ۹۶ Qarne-phara
 - ^p Great-Telisha
 - 9 Little-Telisha
 - ' Gäresh
 - " Double-Gäresh.

ACCENTS CONSISTING OF TWO PARTS BELONG-ING TOGETHER, THE ONE ABOVE, AND THE OTHER BELOW CONSONANTS.

- ── Merkha mahpakhatum
- Merkha sarqatum
- Mahpakh sarqatum.
- : Soph-pasuq, separating verses.
- ! Pesiq, between the words.
- Maqqeph, hyphen, aloft, between the words.
- Metheg, sign of tone (to the left of the vowel).

NUMERALS.

There are no numerical ciphers in Hebrew; but consonants are used instead of them. The units are expressed by N-v, the tens by -x, 100-400 by p-r. The numbers 500-900 sometimes are expressed by the five final letters

7500 D 600 700 P 800 P 900, sometimes by r = 400 with addition of the other hundreds, e.g. pr=500. In compound numbers, the greater is placed first, e.g. r 11, r 121. The number 15 is written with r (9+6), instead of r, because the name of God right begins with these letters; and for the same reason, 16 is written r instead of r. The thousands are expressed by the units, superscribing two points, e.g. r 1000.

ABBREVIATIONS.

- A stroke aloft to the left of the consonant, e. g. 'א, denotes that this consonant serves as a numeral. By the side of the last consonant of a word, e. g. 'פסורה (בשורה) it marks an abbreviation.
- "Two strokes above a word, e. g. "n, indicate that each of these letters stands for a separate word abbreviated."
- or * in copies of the Hebrew Bible refer to the readings placed in the margin or at the foot of the page. The first is of Masoretic, and the other is of modern origin.

RABBINIC

GERMAN-RABBINIC

Form	Name	Pronunciation	Form	Pronunciation	
4	Aleph	Spiritus lenis	n	a	
3	Beth	bh b	ב	b	
د	Gimel		à	v f	
	1	gh g	1	g	
7	Daleth	dh d	7	d	
0	He	h		\cdot h	
1	· Vav	.w		v u o	
ſ	Zayin	S	11	w	
ח				S	
17	Cheth	ch guttural	ט	cch _.	
ט	Teth	t	,	i j e short	
1	Yodh	y	⊃, final 7	C short	
5, final 7	Kaph	ch k	ā	ch	
5	Lamedh		3	1	
•		1	и, final p	m	
n, final D	Mem	m	.), final	n	
), final	Nun	n	D	s ss	
Ö	Samek	s	ע	e long	
ע	Ayin	guttural	D, final 7	p	
	_		Đ l	ph pf v	
o, final q	Pe	ph p	3, final 7	z tz	
, final 7	Tsadhe	z	ק כ	k ck q	
•	Q'oph	k	ط ط	s sh	
,	Resh	r	л	t	
i i	Shin Sin		în .	tt	
)	Tav	sh s th t	DIPHTHONGS.		

HEBREW RUNNING-HAND

Form		Name Pronun- ciation		Numerical value	Ligatures
Polish	German		Clation	value	,
ų	k	Aleph	ℵ a	1	
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<i>}</i>	۲,	Gimel	l g	3	א בה — 8
3	7	Daleth	٦ d	4	
ล	2	He	ה h	5	$\wp = \mathfrak{P}$ ng
9	,	Vav	1 w	6	nd د ا
3	2	Zayin	i s	7	a -
n	n	Cheth	□ ch	.8	nh נה = יש
6	6	Teth	b t	9	ııf (قَ = قَ
1	,	Yodh	, у	10	nn ند = ىر
2	2 ا	Kaph	⊃ cch	20	
1	\ or €	Lamedh	ו ל	30	יי = יי nw
N	И	Mem	p m	40	nj 😅 ك nj
٦	_1	Nun	n د	50	
0	0	Samek	D ss	60	zd et zd
or 8	9 028	Ayin	уе	70	$\mathfrak{F} = \mathfrak{V}$ zw
ව	o	Pe	p و	80	= z zi
ô	э З	\mathbf{Fe}	Đf	90	
3	3	Tsadhe	Z C or Z	100	Y with mark of ab- breviation, in use at the
2	7	Q'oph	ァ k	200	end of certain words.
٦	?	Resh	٦r	300	
Q	Q	Shin	v sh	400	
ν	ν	Tav	ה th	500	

FINAL LETTERS.

Polish.		German.			
۲ = ٦	cch	۲ = ۶	cch		
ণ 😑 🗅	\mathbf{m}	° = □	m		
(= i	n	(=)	n		
β = ħ	f	P = 8 8 9	f		
$\phi = v$	c z	h 6 = h	c z		

SAMARITAN

Form	Name	Pronun- ciation	Numerical value
N.	Aleph	Spiritus lenis	1
9	Beth	b bh	2
Y	Gimel	g gh	3
7	Daleth	d dh	4
Ħ	He	h Spir. asper	5
*	Vav	w v	6
A	Zayin	s ds	7
Ħ	Cheth	ch hh	8
V	Teth	t	9
π	Yodh	у	10
*	Kaph	k ch	20
2,	Lamedh	1	30
₩	Mem	m	40
	Nun	n	50
Ħ	Samek	s	60
∇	Ayin	y habrew	70
J	Pe	p ph	80
ATT.	Tsadhe	ts ·	90
8	Q'oph	k	100
3	Resh	r	200
w	Shin	sh	300
∧	Tav	t th	400

NOTES.

The Samaritan is a Semitic language. Therefore, the alphabet consists only of consonants (22 in number) and is read from right to left. As in this language words cannot he separated at the end of the lines, the two letters ending the last word are separated from the others and placed at the end of the line; but in printing this is generally avoided by diminishing or enlarging the spaces between the single words.

Save some points and scanty orthographical signs, there ere in Samaritan no vowal-marks, accents or other discritical signs as in Hebrew. Therefore we are somewhat in the dark about the pronunctation of the consonants and vowels and it can be acquired only by comparison with the Syriac and the Hebrew.

VOWELS.

There are no vowel-marks as in other Semitic lenguages. However, to supply this want and to indicate somewhat the pronunciation, some consonants are used as yowels, viz...

Of two consonants beginning a word, the first is pronounced as if it were a slight and indistinct vowel, similar to the Hebrew Shwa.

DIACRITICAL SIGNS.

PUNCTUATION.

A point is put by the side of the final letter of a word. Besides this, the following signs have been introduced by the transcribers:

- or or at the end of a sentence,
- .. (also .) at the end of part of a sentence, like our colon,
- = • or —< more seldom —• etc., or compound —< = etc at the end of a longer sentence or section ,
- or similar signs, sometimes again and again repeated, between the end of one section, paragraph or chapter, and the beginning of the other.

The numbers are written as in Hebrew (see under).

	T	·Fo	rm			1	T
Name	uncon- nected	connect- ed with a preced- ingletter	connect- ed with both	connect- ed with a follow- ing letter	ciation	Nomer value	
Olaph	i	ļ			Spiritus lenis	1	
Beth	9	3	9	2	b or v	2	
Gomal	7	7	1		g	3	
Dolath	?	•			d	4	
He	ਗ	ு			h	5	
Vau	0	٥			W or V	6	
Zain	1	7			Z	7	
Cheth	- 4	مت	•	•	ch	8	
Teth	ا ہے	-ુ.	₹.	3	t	9	
Yud	•	•	•	•	y	10	
Koph	7	*	٥	ء	ch	20	.
Lomad		0	7	7	1	30	
Mim	8	یم	<u>ح</u>	عد	m	40	•
Nun	•	7	ı	נ	n	. 50	-
Semcath	8	-æ	133	8	s	60	-
Ee	"	<i>«</i>	2	2	Z as in hebrew	70	
Pe	ے	٩	2	2	p or f	80	
Tsodé	3	5			ts or z	90	•
Quph	9	9	۵	٩	q	100	p
Rish	,	•			r	200	c c fi
Shin	•	•	•	•	sh	300	tl 88
Tau	2	Δ.			thort	400	is fr d
				LIC	ATTIDES		

VOWELS.

The Syriac is written from right to left. — The vowels are expressed by diacritical signs or some marks in imitation of the greek; the latter of which are now mostly in use. In former times both kinds were employed promiscuously.

Fig	gure	Name	ronun- iation.
Syriac.	Greek.		Pro
÷	<u> </u>	Pethocho	ă
= or =	13	Rebotzo	ĕ
7	= =	Chebotzo	ĭ
, or :	-	Zekopho	o
٠ م م	<u>م ></u>	Etsotso	00

DIACRITICAL SIGNS.

. Ruchoch, a point below an aspirated letter to indicate that it is

to be aspirated.

Qushoi, a little point over an aspirated letter to indicate that

it is not to be aspirated.

• Ribut, two points placed horizontally shove the word to indicate

the plural.

Marketono, a line above a letter between two consonants to indicate the absence of a vowel. Besides, this line signifies 1) a number, 2) an abbreviation, 3) an exclamation.

- Melagyono, a line below a letter, to show that though without a vowel it is to be pronounced as if it had one.

- Linea occultans, a line placed be-low a letter to denote that it is to be mute or omitted in pronuncietion.

PUNCTUATION.

marks a single part of the premise of a sentence.

of a sentence.

"marks the end of a premise; or, it is sign of interrogatioa.

"marks the single parts of the conclusion of a sentence; or, larger iaterrogations.

or 👥 at the end of a period.

NUMERICAL VALUE.

The consonants of the alphabet supply the numbers from 1 to 400; in ompound numbers, the greater pre-cedes. Within 500 - 900, the tens from 50 - 90 are denoted by a point standing aloft. The mark, under a unit denotes the thousands, the ten-thousands, the product of the thou-sands multiplied by the tenthousands. In writing fractions, the numerator is denoted by a little stroke going from left to right, placed above the lenewinator.

LIGATURES.

≤ ≤ Olaph-Lomad. 7 % 12 % Lomad-Olaph.

Double-Gomal. W. Double-Lomad.

Cut in the printing-office of B. G. TRUBNEE in Leipzig conformably to original drawings by Professor Tullberg of Upsala and Professor Bernstein of Breslau.

Form	Pronun- ciation	Name	Form	Pronun- ciation	Name	Form	Pronun- ciation	Name
1 / 2 J	at or Spirit. lenis.	Olaph	29) 30 %	gh	Gomal	57 J 58 J	z (gr. ζ)	Zain
3	b		31 ? 32 ? 33 9 34 •	d and dh		60 61 62	kh	Cheth
7 3 8 7 9 1 10 3 11 3 12 3	and bh	} Beth	35 ÿ 36 ÿ 37 ÿ 38 ÿ 40 ÿ	} d	Dolath .	63 b 64 b 65 b 66 b 67 b 68 b	} t	Teth
13) 14) 15 \(\text{2}\) 16 \(\text{2}\) 17 \(\text{2}\) 18 \(\text{3}\)	bh		41 9 or 42 9 43 9 or 44 9 45 9 46 #	} dh		69 . 70 . 71 . 72 . 73 . 74	ì	Yud
19 \\ 20 \\ 21 \\\ 22 \\\ 3	g and gh		47 o) 48 os 49 os 50 os	h	He	75 ± 76 ± 77 ± 78 • • • • • • • • • • • • • • • • • •		
23	g }	Gomal	51 oi 52 oi 53 oi 54 oi			79 2 80 7 81 2 82 7 83 4	c and ch	Koph
27 3 28 5	gh		55 o 56 o	w v u	Vau	83 y 84 ɔ]	} c	

Form	Pronun- ciation	Name	Form	Pronun- ciation	Name	Form	Pronun- ciation	Name
85 غ			115, 🗪			145 🛋)	
86 5			116 90	s	Semcath	146 🗻	sh	Shin
87 à	} e		عو 117	J	•	147 🙇	J	
88 7		Ì	118 🔽			148 L))
89 '	J	}	119 🛕			149	t and	
ج 90		Koph	120 🔽	ee (hebr.	Ee	150 🕹	th	
ج 91			121 🔪	(ע)		151 🗘		
92 ?	$\frac{1}{2}$		122 🔌			152 L)	
63 		ļ	123 🔌			153 🛦		
94 7		}	124 🔊			154 🟃	} t	Tau
95 7			125 🖭	p and		155 🏡		
96 🔪			و 126	ph(f)		156 L		
97 🔽			ي 🕰 127	l Į	Phe	157 L		
98. 🖊		Lomad	128 🕏	p		158 📐	th'	
99 儿			ر فو 129	Р		159 🙏	` "	
2 00.			(ھے 130	ph f		160 🔈	•	
101, 🕱]			131 🕏]	Pii 1		LIC	FATURE	ES.
02 20			132 J			161 🔊	al	Olaph
02 80			133 j	Sharp S	Tsodé	162 🔊	aı	Loma
0 4 %	m	Mim	134 j	or SS	Isoue	163		
05 x			135 3		i	164		
06)0			136 🚨)			165		
07)0]			137	k	Ounk	166	gg	Double Gomal
(د 80			ا مہ 138	N.	Quph	167		Goma
ا د 09			ر م 139			168		
10 1	n	Nun	140 ;			169		
11 -			141 🗼	r	Rish	170		Gomal
12			142 🥇		19190	171	gv	Vau
13			143 😮		}	172 0		Vau-
14 00	s	Semcath	144 🙇	sh	- 11	173 😛 }	vn	Nun

Form	Pronun- ciation	Name	Vowels	, Acc	cents as cal Sig	nd Orthographi-		Points and	l Numbers
174 ×	in	Yud-Nun	VOW 203	ELS	AND	ACCENTS.		POI 224 .	NTS.
176 N)		204	۴	} a	Pethocho		225 _:	230 :
177 JJ	la	Lomad-	205	n)			226 -:	231 .
178 💥		Olaph	206	Ŋ	} e	Rebotzo		227	232 💠
179 💥)		207	•)			228	
180	ì		208	4)		233		k of marginal
181	1	Lomad-	209		i	Chebotzo	234		otes iber - Mark
182 💫	lt	Teth	210				201		
183 💫			211	o	ĺ			NUM	BERS.
184 💹	ĺ		212	6	0	Zekopho		· Form	Value
185 🔌			213	,		•		7	1
186 灿	l n	Double	214	>	u	Etsotso		3	2
187 👊		Lomad			"			1	3
188 👊								?	4
189 🔌	<i>)</i> 1			mir	o a n	DATE		0)	5 6
190 🚨		, ,	OI	ктн	SIGN	PHICAL IS.		1	7
191 👊	lee	Lomad- Ee	015		n			ů.	8
			215		Ribui			4	9
192 👊)		216		Mehag			•	10
193 🛝		_	217		Marhe			40	20
194 🔊	lt	Lomad- Tau	218	. (Lusho	i,Ruchoch		<i>(u.</i>	30 40
195 🟡	•							4	50
196 🟡								، مو	60
197 故	mn	Mim- Nun	219			hooks at the ning of a word		"	70
108 li			220		i -	the end of a		٩	80
198 JJ 199 JJ	na	Nun- Olaph	221			word		3	90
		Tsodé-	222			kes between		٩	100
200 X	ssn	Nun	223	_		ingle letters to ust the lines		,	200
²⁰¹ 🕸		Tsodé-		,	, ,			1	300 400
202 🚫	ssg	Gomal		•		-		(1000

ARABIC

		Fo	rm		, ,	
Name	Unconnected	Connected with a preced- ing letter	Connected. with both	Connected with a follow- ing letter	Pronunciation .	Numerica value
Elif	•	Ĺ			N Spir. lenis	1
Ba	ب	ب	٠	ڊ	b	2
Ta	ల	<u>ت</u>	Ä	ڌ	ŧ	400
Ţha	ت	ث	‡	ڎ	th	500
Jim	7	~	**	ج	j	3
Hha	٠ ج	<u>ح</u> م	S	_	hh	8
Cha	ح ا	<u>ک</u>	之	خ	ch	600
Dal .	ر ا ا ا ا ا ا	৩ কাকাকাত্র ১			d	4
Dhal	ن	نا			dh or ds	700
Ra	,	7.			r	200
Zay)	7			z .	7
Sin	س	ĺ ú.			s	60
Shin	س ش ص	m m	ж.	ش	sh	300
Ssad	ٔ ص	ص	ھ	ص	SS or Ç	90
Ddad 🗼	ض	ف	غد	ض	d or dd	800
Tta	ط	ط	ط	ط	tt or th	9
Zza	ظ	ط ا	ظ	ظ	ZZ	900
Ain	ع	ف ف ف ك ك		2	ت Spir. gutt.	· 70
Ghain	غ	ا غ	À	غ	gh	1000
Fa	ف	ف	ė	ف	f .	80
Qaf	ن ن ن ك	اق	ä	ق	k	100
Kaf		실	ڪ ک	5 5	k soft	20
Lam	J	J	Ţ	· 3	1	30
Mim	P		•	مر	m	40
Nun	ن	بن	خ	ذ	n .	50
Ha	ช Final ซั	x Final X	4	20	h	5
Waw	,	ا و			w	6
Ya	، ي	G	÷	ڍ	y, i	10

ORTHOGRAPHICAL SIGNS

w 2 = 5 x = 5 , 0 & &

VOWELS.

Fatha, ă ă ĕ Kesre, ĭ ĕ Danma, oo o

At the end of the substantives the vowels are doubled to indicate the case, viz.:

s on an

This is called Nunation, because, in pronouncing, Nun is added to the vowel.

au as in german. وُ مُن عَلْ All عَوْ

ORTHOGRAPHICAL SIGNS.

- <u>o</u> Jezma, separating syllables, is written over the final consonant of all shut syllable and indicates, that the syllable is finished and the consonant to be pronounced with the preceding vowel; it corresponds to the Shwa quiescens of the Hebrew.
- Teshdid, mark of doubling. The final consonant of a syllable being the same as that beginning the following one, this consonant is written only once, but marked with the sign ___, which corresponds to the Hebrew Daghesh forte. In African manuscripts it is written v or Λ.
- Hamza is placed generally above the Elif, when this is used as a consonant and furnished with a vowel; when this vowel is a Kesre, the Hamza is placed beneath; sometimes also it stands above the Y. In Kufic Korans it is supplied by a little green stroke, in Moorish or African manuscripts by a thick green or yellow dot.
- Wesla, joining-mark. The Elif, at the commencement of a word, is sometimes in pronunciation absorbed by the final vowel of the preceding word. In this case, the vowel of the Elif is elided and marked by the Wesla.
- Medda stands above an Elif pronounced by Fatha and followed by a Hamza; it indicates the prolongation of the a. It is placed, also, above an Elif at the commencement of a word, or instead of an omitted Elif. Besides, this sign is a mark of abbreviation.
 PUNCTUATION.

There are no signs of punctuation in Arabic, only in the Koran the verses are separated by . This sign, however, or 'or '' or a red dot, is employed also in other books at the end of a section. In manuscripts, sometimes, a new section begins with a word written in red colour; in manuscript dictionaries a red line is placed above each catch-word.

CIPHERS.

Formerly, the Arabs, like other oriental nations, used the letters of the alphabet to express numbers; at a later period, however, they adopted the following 10 special figures, called by us Europeans the Arabian ciphers, by the Arabs themselves the Indian ones,

1 P P 6 9 V A 9 + 1 2 3 4 5 6 7 8 9 0

ARABIC LIGATURES

خ خ خ خ	Ba-Jim	ثخ	Tha - Cha
ج جے جے جہ جہ ج	Ba-Hha		Jim-Jim
.c. C.	Ba-Hha-Jim	3	Jim-Hha
نج نج خ	Ba-Cha	ھ بج	Hha-Jim
تج خج تبج	Ta-Jim	چ	Hha-Jim-Jim
نج نج نبج ند ند خر تع	Ta-Hha	چ	Hha-Jim-Hha
تختخ خز	Ta-Cha	≥ چ	Hha-Hha
ثُک	Tha-Hha	3	Hha-Hha-Jim

ARABIC LIGATURES

≨نچ	Hha-Cha	圣圣圣	Kaf-Cha
ھ ج	Cha-Jim	N K	Lam-Elif
ج خ چ خ ج	Cha-Hha	분 k k k	Lam-Jim
سج سج سج	Sin-Jim	<u> </u>	Lam-Jim-Hha
سے سے سے	Sin-Hha	1 4 4 4	Lam-Hha
سخ سخ سخ	Sin-Cha	1	Lam-Hha-Jim
شج شج شج	Shin - Jim	# - **	Lam-Hha-Hha
	Shin-Hha	岩岩岩岩	Lam-Cha
يشيخ نشخ	Shin-Cha	الج الج	Lam-Cha-Jim
عج بعج مع مع	Ssad-Jim		Lam-Mim-Hha-Jim
व्य क्ष्य क्ष	Ssad-Hha	3	Lam - Mim - Hha - Hha
مخ مخ مخ مخ	Ssad-Cha	لمي لي	Lam-Ya
**	Ddad-Jim	\$ ₹ ₹s	Mim-Jim
5 00 5 00	Ddad-Hha	الله الله الله الله الله الله الله الله	Mim-Hha
李 李	Tta-Hha	₹%	Mim-Hha-Jim
착 호	Ain-Jim	₹"	Mim-Hha-Hha
& &	Ain-Hha	<u>ئة ه</u> خ مخ	Mim - Cha
غج بخد	Ghain-Jim	نج نج نج	Nun-Jim
غحنح	Ghain-Hha	نح نح نح	Nun-Hha
نج نمج نمج فبح	Fa-Jim	نخنخ	Nun-Cha
فحد فحد فح فح	Fa-Hha	±86 ±86	Ha-Jim
نج بخج بنج نح بخد بنح نح بخد بنخ نخد بخد بنخ	Fa-Cha	≥% → %	Ha-Hha
في	Fa-Ya	益 港	Ha-Cha
تقبح تحج	Qaf-Jim	82	Ha-Mim
تھے تھے	Qaf-Hha	E & S Z	Ya-Jim
شح شح تخ کا کا	Qaf-Cha	<u> </u>	Ya-Jim-Hha
کا کا	Kaf-Elif	يديدي	Ya-Hha
کے کے کے کے کھ کے	Kaf-Jim	3.	Ya-Hha-Hha
کے کھے کچ	Kaf-Hha	झ	Ya-Cha

AETHIOPIAN AND AMHARIC

27							F	rm							Pronun-
Name	with	ă	with	û	with	ıî	with	ıâ	with	ê	witl	ьĕ	wit	h ô	Proj
Hoi	U	ha	ሁ	hu	ų.	hi	Y	ha	y	he	U	he	Մ.	ho	h
Lawi	Λ	la	Æ	lu	Λ.	li	4	la	Λ	le	Δ	le	Λ٠	lo	1
Haut	Ψ	ha	ሎ	hu	Ψ.	hi	Ψ	ha	Ф	he	W	he	Ψ	ho	h
Mai	8	mз	0	• mu	OZ	mi	09	ma	02	me	0	me	P	mo	m
Saut	W	Sa	W	• su	Щ	8i	W	- 8a	W	se	m	se	Ψ	80	s
Rees	L.	ra	4	ru	4	ri	Ln	ra	6	re	C.	re	C	ro	$ \mathbf{r} $
Sat	Й	8 a	Ϊ'n	su	ή,	si	ሷ	88	ľъ	se	IJ	se	Ų	80	s
Shat	Ħ	sha	ř	shu	řī,	shi	鬥	sha	ři	she	ħ	she	ř	sho	sl
Kaf	Φ	ka	4	ku	Ф	ki	ቃ	ka	Ф	ke	Ф	ke	ф	ko	k
Bet	U	ba	U.	bu	n,	. bi	J	ba	U	be	1	be	U	bo	b
Tawi	ተ	ta .	4	tu	1;	ti	士	ta	\$	te	ተ	te	Ť	to	t
'Tshawi	干	tsha	Ŧ	tshu •	Ŧ	tshi	Ŧ	tsha	Ŧ	tshe	干	tshe	Ŧ	tsho	ts
Harm	3	ha	7.	hu	-7	hi	4	ha	7	he	1/2	he	- 4°	ho	h
Nahas	4	па	7.	nu	Z	ni	うらず	na	Ł	ne	3	ne	Ç,	по	n
Gnahas	7	gna	<u>ጙ</u>	gnu	7	gni	5	gna	7	gne	3	gne	7 0	gno	g
Alf	አ	a	ኡ	u	ሊ	i	ኣ	а	ሌ	е	አ	е	አ	0	a
Kaf	'n	ka	'n	ku	Ώ	ki	ካ	ka	Th.	ke	ክ	ke	'n	ko	k
'Chaf	ኸ	cha	ዀ	chu	<i>Τ</i> Ω.	chi '	ክ	cha	ዀ	che	អា	che	ኸ	cho	c.
Wawi	(D)	wa	Ф.	wu	P .	wi	P	wa	B	we	ው	we	Q	WO-	w
Ain	U	a	D	u	Ŋ,	i	O ₂	а	O _Z	е	Ċ	e	ď	0	ע
Zai	H	za	H	zu	H,	zi	Н	za	Н	ze	H	ze	H.	20	z
^e Zshai	H	ja	Ŧ	ju	Җ	ji	H	ja	Ж	je	H,	je	H	jo	jf
Yaman	P	ya	B	уu	P.	yi	.P	ya	R	ye	æ	ye	P-	yo	y
Dent	呂	da	<u>P</u> .	du	<u>R</u> .	di	Ŗ	da	B	de	Ē.	de	<u>R</u>	do	d
L Jent	2	ja	P.	ju	Ŗ	ji	P	ja	夏	je	P	je	P	jo	j
Geml	2	ga	ን-	gu	2	gi	7	ga	3	ge	7	ge		go	g
Tait	W	ta	W		M,	ti	W	ta	W	te	P	te	W	to	t
'Tshait	W	tsha	M.	tshu	M.	tshi	m	tsha	TE	tshe	'n	tshe	774	tsho	ts
Pait	8	pa	8	pu	Å.	pi	ጳ	pa	ጼ	pe	Å	pe	Ŕ	po	p
Tzadai	R	tsa	8	tsu	A,	tsi	R	tsa	8	tse	R	tse	8	tso	t
Tsappa	Ð	tsa	₽.	tsu	₹.	'tsi	A	tsa	图	ţse	Ą	tse	ď	tso	ts
Aff	L,	fa	L	fu	A.	fi	4.	fa	Lo.	fe	4.	fe	B.	fo	f
Pa	Т	pa	F	pu	Ţ	pi	T	pa	T	pe	T	pe	T	po	p

DIPHTHONGS. kua kui kua kue фъ kue фι 4 hhua hhui hhua hhue ኍ hhue ዮ 'n ዅ **ገ**ኙ kua kui kua kue kue ንኣ gua gui gua gue gue

NOTE.
The Aethiopian and the Amharic are read from left to right. The words are separated by: — The alphabet of both languages is syllabic; the Amharic, however, has eeven orders of letters (each order consisting of 7 forms or characters), wanting in Aethiopian, which, in the above table, are marked by *.

AETHIOPIAN

Cut in the printing-office of F. A. BROCKHAUS in Leipzig under the direction of the German Oriental Society.

With a	With û	With î	With â	With ê	With ě	With ô
U ha	. v- hû	Z hí	y hâ	% hê	v he	v hô
Λ la	. ^- lû	A. li	A là	љ lé	A le	Λ lô
சு ha	Ժ- ḥû	க் hi	Ժ իâ	Ժ. hể	h he	լ Ժ ին
<i>a</i> ⊅ ma	a D∙ md	ø2 mi	♂ mâ	∞2 mê	g o me	T mổ
ம ்sa	w śú	யு si	ு Sâ	y se	/ se	ÿ sô
L ra	ζ. rû	& ri	& râ	& rê	C re	C rô
ስ sa	ሱ sû	ሰ. sì	ሰ sâ	ம் sé	ስ se	Λ số
ф qa	4 qu.	⊉ .qi	🔑 qâ	t qê	ф qe	🎝 qô
n ba	n bù	A bi	Q bâ	₲ be	n be	n bô
🕇 ta	‡ w	t ti	ナ tâ	t té	ት te	4 tô
1 ha	小 hú	え hi	🤰 hâ	% he	4 he	4 hô
h na	∱- nû	ž ni	7 nâ	½ nê	7 ne	q nô
ሉ -a	ሉ -ù	ሉ -i	አ -â	ኤ -ė	λ -е	አ -ዕ
h ka.	h- kù	h, ki	h kâ	h ké	n ke	h kô
D wa	Ø ₌ wd	q wi	P wà	g wê	Ø • we	p wò
pʻ a	0- 'ú	ور 'i	7 'â	% 'é	o 'e	ø ' ô
za	H zù	H, zî	Н zâ	HL zê	ዝ ze	H zô.
? ya	k yû	g, yì.	🖍 yâ	R yê	g ye	r yô
Ç ∴ da	4. dù	名 di	ዳ dâ	Ç , dê	🖍 de	& dô
·ga	Դ ցմ	1 , gì	₽ gâ	Z gê	7 ge	7 gô
n ța	₩ tŋ	m, țì	n tâ	α⊾ tê	T te	u io
pa pa	🟃 pû	A. pi	A pà	A pé	Ar pe	ķ pô
za za	2. zů	A. zi	A zâ	2. zê	% ze	2 zô
į za	0 - zú	L żi	9 zá	g zê	b ze	9 zô
L fa	4- fù .	& fi	4. fâ	de fê	F fe	G fô
r pa	7 թմ	T pi	ு pâ	T pê	T pe	y pô

DIPHTHONGS.

Jю	kua	ኩ	kuî	ነተ	kue	ኳ	kuâ	ኴ	kuê
70	gua	74	gui	r	gue	3	guà	2	guê
鬼	qua	ቀ ሩ	qui	ቀ ኣ	que	ጵ	quà	ቋ	quê
70	ḥua	ኍ	hui	ጕ	hue	2	huâ	*	huê

PUNCTUATION.

: Stop for the division of words : Comma : Semicolon : Full stop

NUMBERS.

8 6 7 0 6 7 8 9 10 11 etc. 20 30 40 50 60 70 80 90 100 200 etc. 1000 10,000 10,000 1,000,000

Ethiopic, formerly the vernacular language of the Abyssinians, by whom it was called Gèëz, is only preserved in writings. As a Semitic language it bears a close affinity to the Himyaric, a South-Arabian dialect, which was superseded in the times of Mahomed. The Ethiopic possesses a high degree of flexibility which is mainly due to the diligence with which the study of Greek writings was cultivated in Abyssinia. The Alphabet originally consisted of consonants without indications of vowels. In form it approaches the Himyaric and thus differs from the other Semitic characters. Ancient Ethiopic inscriptions show examples of writing from right to left; owing, however, to the early influence of Greek literature, especially after the introduction of Christianity, the arrangement of words was fixed from left to right. At the same time the coalition of consonants and vowels was indicated by particular forms, which gave rise to the adoption of a complete syllabarium. With the change of the ruling power in the fourteenth century the Ethiopic language began to decay, and rapidly falling into disuse, it is now replaced by the Amharic language.

AMHARIC.

This language deriving its name from the kingdom of Amhara in Abyssinia, has supplanted the ancient Ethiopic idiom. The kings of Shoa, on gaining the upper hand, effected the preponderance of the Amharic language, to the exclusion of the kindred Ethiopic. The Alphabets of both languages are identical, except the following Characters, which are peculiar to the Amharic language.

with a	with û	with î	with â	with ê	with e	with ô
r sha F tsha 7 ña Th kha T ja (Fr.) E ja	F shû F tshû F ñû Th khử F jû F jû	n. shi E tshi E ňi h. khi n. ji E ji	ሻ shâ ቻ tshà ኛ ñâ ኻ khâ ዣ jà ጃ jâ	T shê T tshê T ñê T khê T jê T jê	To she To tshe To he To khe To je To je To je	r shô r tshô r nô r khô r jô r jô
chha	€ chhủ	an chhì	ы сыра оты	Œ chhê	% chhe	ch hô
አ	lua	ሿ šua	a	አ nua	a) tua
አ ማ	mua	a bu	a	以 zua	a	Q cua
Z	rua	tua tua	1	Y yua	3	
ጳ	sua	天 cu	a	ዷ dua	¥	fua

TURKISH.

The Turkish language is a compound of words taken from the Tatar, Persian and Arabic languages. The high dialect, only spoken at Constantinople by people of quality, and serving as the written language, is a compound of Persian and Arabic words. Like most oriental languages, Turkish is written and read from right to left.

- Llif supplies the german vowels a, y, o, u, the consonants of the word being hard; but the german e, i, \ddot{o}, \ddot{u} , the consonants being soft. When Alif is followed by a hard consonant, the $\underline{\hspace{0.2cm}}(Ustun)$ is pronounced like a, the $\underline{\hspace{0.2cm}}(Esre)$ like y,
- and the consonant, the consonant is pronounced like a, the consonant, the consonant, the consonant, the consonant is to be read as e, the consonant is to be read as e, the consonant is to be read as e, the consonant is the consonant in the consonant is the consonant in the consonant in the consonant is the consonant in the consonant in
- Ba is our b. After Ta, Tha, Jim, Cha, Sin, Shin, Ssad, Tta, Qaf, Gef it is often read like p.
- ب Pa is our p.
- Ta is our t. In the conjugation of some verbs it is changed into Dal.
- ثلث Tha is our s or ss, except the word نالد. The Arabs pronounce it like th. . .
- Jim, the italian g before e or i. When meeting the consonants named above in connection with the letter , it is pronounced like Tchim.
- Tchin like.our ch in chess.
- Hha like h in have.
- → Cha, the german ch in branchen.
- Dal like d. It is pronounced like t when meeting the consonants named above in connection with the letter.
- ن Dhal like z.
 - , Ra like r.
- Za like our z.
- يس Sin like s, ss.
- بان Shin like sh.

- Ssad like sharp ss.
- ف Ddad, like our z; the Arabs pronounce it like d.
- Tta like t or th; it is often confounded with Ta and Dal.
- 💪 Zza like onr z.
- $\mathcal{E}_{y, u}^{Ain}$ like a strong guttural and nasal a,
- Ghain like g guttural.
- \bullet Fa like our f.
- Qaf like k, kh or ck.
- Kaf, like q or k, as in the french words qui, quel.
- Gef, accords with our g in give; in some cases it is pronounced like gi very soft; in the middle of words and in some terminations like y.
- Saghur Nun, i. e. mute Nun, like the french nasal-n in mon, son.
- J Lam our l; in some cases it is soft like l in limb, in some hard like l in all.
- Mim, like m.
- Nun our n; but when followed by a Ba, it is pronounced like m.
- y Waw our w or v; furnished with Utru, it is pronounced like u in conjunction with hard consonants; like german ū or ō, how ever, in conjunction with soft ones.
- \mathfrak{P} Ha like our h; at the end of words it is mostly pronounced like a or e.
- y Lamelif, la or lia (Ligature).
- Ya, when a consonant like our y, when a vowel like i; it represents a vowel only in the middle or at the end of words.

ORTHOGRAPHICAL SIGNS.

- Usun is placed over the consonants and pronounced like a with a hard consonant, like e with a soft one.
- Esre below the consonants, is pronounced like vowel y with a hard consonant, but like i with a soft one.
- Utru is pronounced like o or u with a hard consonant, but like o or u with a soft one.
- = Iki ustun (double Ustun) like en.
- " Iki esre (double Esre) like in.
- 6 Iki utru (donble Utru) like on or un.
 The three last marks are only employed in Arabic words.
- Jesm (sign of pause) is placed over a consonant wanting a vowel, followed by an other consonant.
- Teshdid or Shedde when placed over a consonant doubles it.
 - Meddelif or Medda, is only placed over the Alif, which, then, is always pronounced like a.
- Hamzelif or Hamza; placed over Elif, is pronounced like ê; over Waw, like u, over Ya, like i; at the end of words, ending with a vowel, like i.

PERSIAN

		Fo	rm		, ,	_	
Name .	uncon- nected	connected with a preceding letter	cenaected with both	connected with a following letter	Pronun- ciation	Numer: value	Notes ·
Elif	•	Ĺ			Spiritus lenis	1	Many Arabic words having been
Ba	ب	ّ ب	٠	ڊ	b	2	introduced into the Persian language
Pa	پ	پ	÷	ڕ	p		the Persian alphabet consists of 32 consonants, which are written and
Ta .	ت	ಀ	ێ	ڌ	t soft	400	read from right to left; of these consonants, 28 are common to both
Tha	ث	ث	*	ڎ	S sharp	500	languages; only the following four
Jim	ح	<u>ج</u> م	\$	ج	j	3	
Tchim	2	ج	Ź	÷	tch		څک ژچ پ
Hha	2	<i>₽</i> .	5	>	hh sharp	8	VOWELS.
Cha	خ	<u>ر</u>	之	خ	kh guttur.	600	
Dal	3	やややさる	· .		d	4	All Persian letters are consonants except Elif, Waw and Ya, which also supply to n g vowels (the Waw, some
Dhal	ن	ن	,	. ,	Z soft	700	times, represents a short vowel):
Ra	,	7			r	200	y ی w و la
Za	(<u> </u>		/	Z soft	7	The short vowels are written thus:
Zha	ژ	څ			zhorjfrench		Zabar, a Zir, e Pish,
Sin	·	U.L.		ىبد	S sharp	60	
Shin	ش	ش	m	ش	sh·	300	ORTHOGRAPHICAL SIGNS
Ssad	ص	ص	یم	ص	S sharp	90	Hamza, at the end of a word sometimes supplies the Elif; it i
Ddad	ض	ض	ضد	ض	Z hard	800	also placed above an Elif in the middle of a word, when the Eli
Tta	ط	ط	ط	ط٠	t	. 9	represents a consonant.
Zza	ظ	ظ	ظ	ظ	Z hard	900	Teshdid, doubles the lette over which it is placed.
Ain	3	. ع		ء .	Spiritus lenis	70	~ Medda. Instead of an Eli
Ghain		ق ق	ż	غ	gh guttur.	1000	written twice, a Medda is place over it. It is properly a second Elit
Fa	غ ف	ف	غ	ف ا	f	. 80	but written lengthwise; sometimes has a vertical form.
Qaf	ق	ق ا	ق	ق ا	k guttur.	100	Jezma, over a consonant b
Kaf	ك	신	یک ک	ب ک	k	· 20	which a syllable ends. It is also place
Gaf	کی	ى	کے	څ څ	g palatal	٠٠٠ ا	over Waw or Ya, when they form a diphthonig with a preceding.
Lam	ل	J	1	J	1	30	<u> </u>
Mim	ľ,	1	•	.0	m	4 0	CIPHERS.
Nun	ن	_ بن	i	ذ	'n	50	 To write numbers, the Porsians employ either the alphabet, or the
Waw	,	,			ŵ	6.	Arabic ciphera (see under).
На	8	×	æ	فو	_h .	5	LIGATURE.
Ya	ی	ی	4	ڍ	y and i	10	ソン Lam-Elif, la.

AFGHAN OR PUSHTOO

Figure			Pronun-	nun- Figure			Pronun-	
unconnected	in the midst	at the com- mencement	ciation	nnconnected	in the midst	at the com- mencement	ciation	
•	11	,	a, á, i, u	ش	ش	ش	sh	
ب •	٠	ِ ڊ	b	‴ ښ	ىبدىس	ىپد	khín	
پ	*	۫ۑ	p	ص	حد	ص	ss	
	*	ڌ	t ·	ص ض	ض	ض	dz	
ټ	-	ڌ	ţţ	ط	ط	ط	t	
ث	٦	ڎ	t's	ظ	ظ	· ظ	z	
Ĉ	Ė	څ	t's	ع		ع	æ, â	
ج	Z!	. 🗢	j	غ	ġ.	غ	gh	
ج ج	\$	چ	ch	ف	ف	ف	f	
ح	57	>	h	ق	Ä	ڌ	k, q	
て さ ა	汯	خ	kh	œ	ک ک	S	k	
S	۵	ى	d	ق ک ممک	ک ک	5	g	
\$	پ	ؠ	dd ,	J	١.	5	1	
ن	ن	ن	z	۰ م	•	,o	m	
)	٦)	r	<u>ن</u>	ند	ذ	n	
<i>3</i> }	ادا	ړ	ŗŗ	ڼ	ا نہان	خ	ŗŗn	
>	ر خ څ	>	z	و	ا و	,	wúo	
Ϋ́	Ė	څ	dz	8 X	4	ø	h	
ژ ر	۾ بنيا	ا ژ ر	jz	ء	۶	ڈ	a	
w	_ m	- w	s	چ	٠.	ڍ	y, e, í, ai	

NOTES.

Before the introduction of arabic words, the original Pushtoo alphabet consisted only of 29 different sounds; at present, the Afghans make use also of the 28 arabic letters, and of these four letters used in Persian: 😛 🚒 from which results an alphabet of 40 different characters which are all consonants.

The Pushtoo vowels are the same as the Arabic and Persian:

Zabar or Fatha a, Zer or Kasrah e, Pesh or Zammah u.

They are placed either above or under the consonant beginning a syllable, as: $\smile ba$, $\smile bi$,

• bu. Zabar followed by __ is read as the

diphthong au; followed by 5, as the diphthong ai.

- or or Jesm or Jesmah indicates that the consonant has no vowel and the syllable is finished.
- Meddah or Medd, an other form of Elif, , is sign of producing a syllable.
- w Teshdid indicates that a consonant is to be pronounced double.
- Wesla, joining-mark.
- Hamzah supplies the place of Elif.
- Tanwin is the arabic Nunation at the end of the words, pronounced by adding a n to the wowels: an, in, yn.

COPTIC

Fig	ure	Name	Pronunciation	Notes
A	a	Alpha	ă	The Centie lenguage is divided into two dislaster the
В	В	Vida	b v	The Coptic language is divided into two dialects: the upper-egyptian or thebaic or sahidie, and the lower-
$\overline{\Gamma}$	r	Gamma	g	egyptian or memphitic or coptic par excellence, to which may be added a third. the bashmuric dia-
λ	A	Dalda	d	lect. The letters & — W in the Coptic alphabet
G	е	Ei	ĕ	are of greek origin; q — 6 on the other hand signify sounds which either wanted at all in the greek
ζ	ζ	Zida	z	language, or which since the christian era no longer used in writing; they are taken from the elder egyptian.
Ĥ	н	Hida	ĭ	This sign denotes the syllable ti; its prototype
θ	0	Thida	th	is the somitic and greek Tau. The vowels are:
Ī	ı	Jauda	ĭ	& E 1 0,
K	K	Kabba	k	the oo is written by OY, like in greek; hefore
λ	λ	Laula	1	a consonant it is pronounced by oo, before a vewel
U	u.	Mi	m	by v. The coptic diphthongs are:
N	n	Ni	n	10 13 13
3	ξ	Exi	X	pronounced in the salidic dialect only as &, ĭ, ĭ, in the memphitic, however, as the gorman diphthougs
$\vec{0}$	0	0	O short	ai, ei, oi.
П	п	Pi	рb	DEADING SIGNS AND DINORIATION
P	q	Ro	r	READING - SIGNS AND PUNCTUATION. ` ahove a letter: the greek gravis.
C	c	Sima	s	behind a word in sahidic manuscripts: dividing
T	4	Dau	t d	sign.
Y	r	He	i, ü Germ.	•5° signifies a greater pause, like our semicolen or point.
Φ	ф	Phi	ph	signifies a shorter pause, like eur comma.
X		Chi	ch sc	- sign of division sign of abbreviature above the characters.
Ψ		Ebsi	ps	graphic sign above some characters in sahidie
W	l w	0	O long	manuscripts. diacritic sign behind some words in sahidic manu-
P	4	Fei	f ph	scripts.
8	S	Hori	h	, Comma, only in later sahidic manuscripts.
Þ	వ	Chei	kh	 orthographic sign above some characters in mem phitic hooks.
W	ற	Scei	sh	
X M P	2	Giangia	g dsh	NUMERICAL VALUE.
σ	کی ک	Scima	sk sc gh	The numerical value of the coptic characters is the same as in greek. Numerals are written by — above
T	十	Dei Ligatur		the lettera; the thousands are marked by , below near
3	æ	So	Cipher 6	the letter. (90) supplies the place of the greek (koppa).

CHINESE.

A calculation, based upon the Imperial Chinese Dictionary, shows that the Chinese language is represented by 43,496 characters or symbols. Of this number 13,000 are totally irrelevant and consist of signs which are obsolete, incorrectly formed, and unexplained. For the expressions in ordinary literature about 4000 signs appear to suffice. The writings of Con-foo-tee (Confucius) and his disciples can even be read by the help of only 2500 characters, and a knowledge of these will enable the student tolerably to understand all Chinese works on history and philosophy. In lieu of the phonetic and lexicographical system, which appertains to most languages, the Chinese have adopted 214 signs any of which, heing placed by the side of an unknown character, indicates at once its pronunciation. These indicators of sound, are termed by the Chinese "Tribunals". European grammarians have called them "Keys" or "Radicals". Occasionally the "Chones" (modulating accents) are appended at the top or foot of the character, at the right or the left side. Such accents are described as follows,

1 o even tone. 2 o entering tone. 3 o falling tone. 4 o rising tone. The "Keys" are divided into 17 Classes, according to the number of strokes of which each character is composed, and are arranged in the following order:

Clae	9							Class	1	•					
1. 0	consisting				from	Nr.		10.0	consistin	igof 10 s	troke	sextende	fron	a Na	.187194
2.	>>	» 2	strokes	10	>>	1)	7-29	11.	n	» 11	n	29	>>	33	195 - 200
. 3.	10	» 3	13	1)	>)	1)	30 - 60	12.	ø	» 12	>>	>>	19	D	201 - 204
4.	n	n 4	n	10	13	17	61—94	13.	ю,	» 13	1)	n	33	1)	205 - 208
5.	n	» 5	n	>>	10	1)	95 - 117	14.	n	n 14	1)	n	10	n	209210
6.	1)	» 6	"	1)	D)	>>	118-146	15.	n	» 15	13	13	1)	33	211
7.	n	» 7	1)	13	n	1)	147166	16.	10	n 16),	13	13	>>	212 - 213
8.	1)	» 8	33	13	1)	1)	167-175	17.	n	n 17	11	10	7)	1)	214
9.	n	» 9	n	13	10	n	176-186								

9. " "8 " " " " " " " " " " " " " " " " "	» » 167—175 » » 176—186	7 » » » 214
1 — , yĭ, one	17 _{.0} 📙 kŭn	33 🛨 o s'z, scholar
2 chiëh, perpendicular stroke	18 o Д lou, knife	34 欠 ° fanfun
3 o tien, point	19 🔰 a liĕ, strength	35 发° tsieh, slowly
4) o pičh, stroke slanting to the left	20 7 chwen, equal, triangle	36 5 ° dsiëh, evening
5 Z o yi, crooked stroke	21 o L pi, spoon	37。大 tâ, great
6 kiu, hooked stroke	fung, to pull out	38 😾 ° nü, girl
7 o — urh, two	23 L o kwah, division between fields	39 F° tsĕ, son, child
8 o yitièn-yiwa	24 + shiàh, ten	40 of mou or poën-an hat
9 A jin, man	25 poh, to divine	41 To tsun, inch
10 L o chàh, foot	26 To tsshi	42 siou, small
11 人。 shàh, to enter	27 \int o shi, shelter	43 九。kang, horrible
12 人。pah, eight	28 4 chee, perverse	44 🏳 shi, corpse
13 , kwah, desert	29 7° yiu, again,	45 H° tson
140 mièn, to cover	30 kiu, mouth	46 LL san, mountain
15° y pin, ice	31 hwei, return	47 of chuến, stream
16 L chi, bench	32 too, the ground	48° I kòng, artisau, tìme

14

49 🔁 ° chi, self	73 🗏 o yuếh, to talk	97。瓜 kwah, melon
50 to chin, cloth	74 月 o yueh, moon	98 wàh, tiles, earthenware
51° + kan, shield, spear	75 木。moh, tree	99 to kan, sweet
52 yuěn, source	76 欠° chièn, debtor	100 £° senn, to live, to
yin, hut	77 Le ts', to stop	101。用 yòng, to use
54 2 ° tsou, long walk	78° 万 tie, wicked	102 H o tiền, field
55 h kóng, higher	79 kòh, the young of animals	103 疋 。 piěh, piece
56 🕇 🖁 yiĕh, spear	80 ° f' δ , is not	104 T • <i>tsiĕh</i> , sick
57 🗟 kông, a bow	81 K o pi, to compare	105 % fàh, to divide
58 L. kway, Come!	82 o E mou, feather	106 白。 buh, white
59 💪 san, coat	83 氏 ° sz, clan	107。皮 bi, skin
60 + shưang-jin, two	84 气° chi, air	108 min, implement
61 Sin, heart	85 K° shway, water	109 = 0 moh, eye
62 koh, a lance	86。火 chaw, fire	madh, spear
63 $w'\bar{o}\bar{o}$, inner door	87 M° tsou, claws, nails	111 失 ° shi, arrow
64 F° sheu, hand	88 X f'oh, father	112 石。 shiếh, stone
65 荬° tz', branch	89 . 🌂 yow, sign	113 元 ° sz, to admonish
66 Z° chi, the stalk	90 H chwang, pole	nahy or shoh, clapper of a bell
67 💢 funn, gentle	91 H pièn, splinter	115 of haw, grain
68 • tou, a measure	92 yah, teeth	116 K. yuěh, cave
69 F. chin, hatchet,	93°4 niu, ox	117 L. lie, to stand
pound fang, a square,	94°犬 chườn, đog	118 11° choh, bamboo
71°无 f'ě, no	95 • ½ yuĕn, interminable	
72 H shèh, sun, day	96 E o niòh, gem	120 ** ° - s'z, silk
		- TANK - Proposition of the same of the sa

121 缶。 f'ow, jar 145 太。 i, clothing 169°門 mun, a door 122° M kang, hedge 146 币。 yiu, twilight 170。阜 fou, a mount 123 羊 yang, sheep 147 見° chièn, to see 171。隶 di, to accomp 124 初 ü, long feathers 148° 角 krìh, horn, corner	nd
123 羊 yang, sheep 147 見° chièn, to see 171 录 di, to accomp 124 利 ü, long feathers 148° 角 krìh, horn, corner 172° 隹 chiah, fine	
124。初 <i>ii</i> , long feathers 148°角 <i>krìh</i> , horn, corner 172°隹 <i>chiah</i> , fine	lish
ner	
125 老。lạò, old 149。言 nièn, word 173。丽 yü, rain	
126 而 urh, and 150 谷。kòh, apertures in rocks 174 声。tsin, green	
127 某。lie, handle of a list ou, head list feeh, not	
128 Jull, the ear 152 No. Shii, swine 176 mièn, face	
129 \$\big \text{yu\center}\text{h}, \text{ to manifest, a baton} \text{153} \text{\$\circ}^\circ \chi \text{, superior or der of animals} \text{\$\circ}^\circ \chi \text{, leather} \text{\$\circ}^\circ \keta \text{h}, \text{ leather} \text{\$\circ}^\circ \keta \text{h}, \text{leather} \text{\$\circ}^\circ \keta \text{h}, \text{leather} \text{\$\circ}^\circ \keta \text{h}, \text{leather} \text{\$\circ}^\circ \keta \text{h}, \text{leather} \text{\$\circ}^\circ \keta \text{leather} \text{\$\circ}^\circ \keta \text{leather} \text{leather} \text{leather} \text{leather} \text{leather} \text{leather} \text{leather} \	
130 内 jòh, flesh 154 具 pèi, valuables 178 军 hway, high	
131 臣。chin, an official 155 赤。chéh, red 179 韭° chiu, leeks	
132 自 °ts'z, from one self 156 走。tsou, to walk 180。 i yin, a sound, t	one
133 至 ° tsz, to arrive, extreme leaf	, a
134 白° chiu, mortar 158 身° shin, body 182 風° fong, wind	
135 舌。chweh, tongue 159。車 chü, cart 183°飛 fee, to fly	
136 姓。chiah, strong 160°辛 sin, bitter, hard- 184 食° shěh, to eat	
137。并 chiu, vessel 161。辰 jěn, an hour, azure 185。首 sheu, head	
138 艮。kun, inferioror-der of nature 162 美 tseu, to run 186 香 shiang, scen	
139 E sěh, colour 163 E o jě, a town 187° K máa, horse	
140 肿° tsaò, grass 164 酉° yoo, twilight 188° 胄 kwùh, bone	s
141。	
142 \$\frac{1}{2}\$ chong, insects 166 \$\frac{1}{2}\$ li, one third of a mile ka\delta\$, whisk beard	
143 M° shweh, blood 167 Do chin, gold, metal 191 m tou, to figh	
144 To jen, to walk, to 168 chang, long 192 chang, swe win	

				•			
193 鬲。	lièh, to cup open	201 o	黄	hwang, yellow	208	鼠°	chü, rat
194。鬼	kway, devil	202	黍	shü, millet	20 9	鼻	pièh, nose
195。魚 7	nü, fish	203	黑。	'hĕh, black	210	齊。	tsi, to put in or-
196° 🗐 🕹	niαò, bird	204	黹°	<i>chi</i> , embroidery	211	躁。	ts'z, the back teeth
197	loo, brine	205 o	黽	min, a toad	212 o	巃	long, dragon
198 鹿。	lòh, stag	206	鼎	tin, tripod	213	龜。	kway, tortoise
199 麥。1	mèh, wheat	207 0	鼓	koo, drum	214	龠。	yàh, a musical instrument
200	må, hemp						

ARITHMETICAL FIGURES.

All arithmetical combinations are performed by 17 Cardinal figures. In the subjoined table, three different forms of numerical characters are given. The series in the left column represents the plain hand which serves for literary and ordinary purposes. In the middle column words are employed instead of figures. This class is used in bonds, contracts etc., where it is of importance to guard against alterations and fraud. The figures in the right column, written in a "running hand", are used by merchants and traders in keeping their business accounts.

	壹。	.	yĕ,	1	_	 	合十	shiàh ,	10 •
	。滇		urh,	2	Ĩ	; F	° 76	pĕh,	100
=	寒 。	[1]	san,	3	=	F	Ŧ		1000
四	肆。		s'z,	4	Ē	其	万	van,	10,000
\mathbf{H}	。伍	ઇ	00,	5	Ĭ.	意	停		100,000
六	陸。		loh,	6		K	惦		1,000,000
_	淮°		tsiĕ,		•	<u> </u>	。当		10,000,000
八.	捌	=	pùh,	8	_	莎	性		00,000,000
Th	狄。	才	chew ,	9		7 :	*7 _V		

The numbers by which 10, 100 etc. are multiplied are placed at the top of the multiplicand. The numbers added to ten etc., are marked below the figure.

Example + ten. = twice ten and two, or 22.

JAPANESE

IN THE KATA-KANA CHARACTER.

(This type was cut under the direction of Prof. J. Hoffman of Leyden and cast by N. Tetterode in Rotterdam.)

		in Rotterdam,		
I - RO - FA	(Abc).		JAPANESE ALPH ganically arranged.	
25 井 yi	111	1 7 a	25 °C se	49 / ba
26 / no	2 🗖 10	2 7 wa	26 ℃ ze	50 /1° pa
27 × 0	3 /) fa, va	3 子 e	27 ≥ si	51 ~ fe
	·	4 1 i	28 🐉 zi	52 ベ be
28 夕 ku	4 ≒ ni	5 才 0	29 7 so	53 ∼ pe
29 Y ya	5 あ fo	6 7 wo	30 ン zo	54 Ľ fi
30 ₹ ma	6 ヘ fe, ve	7 岁 u	31 % su	55 L" bi
31 ケ kg	7 1 to	8 7 ya	32 X zu	56 L ° pi
32. 7 fu	8 千 tsi	9 I ye	33 🖇 ta	57 🕏 fo
	,	10 # yi	34 🗲 da	58 🕏 bo
33 I ko	9 % ri	11 🗷 yo	35 テ te	59 🕏 po
34 X ye	10 又 nu	12 Z yu	36 デ de	60 フ fu
35 テ t e	11 <i>n</i> / ru	13 カ ka	37 🗲 tsi	61 7" bu ·
36 7 a	12 7 wo	14 ガ ga	38 ヂ dsi	62 7° pu
37 H sa	13 7 wa	15 ケ ke	39 to	63 ナ na
		16 ゲ ge	40 F do	64 → ne 65 = ni
38 † ki	14 力 ka	17 † ki	41 🏸 tsu	66 / no
39 Z yu	15 ∃ yo	18 ギ gi	42 🏸 dsu	67 X nu
40 😕 me	16 ダ da	19 7 ko	43 😽 ma	68 2⁄ n
41 & mi	17 V re	20 J. Bo	44 メ me	69 3 ra
42 ≥ si	18 7 so	21 / ku	45 ≥ mi	70 V re
43 ℃ e	_	22 7 gu	46 E mo	71 9 ri
	19 % ts u	23 🖖 sa	47 Z mu	72 🗹 ro
44 L' fi, vi	20 7 ne	24 F za	48 /\ fa	73 N ru
45 € mo	21 J na	* The accent nig	ori, consisting of two	minute marks at the
46 t 181	翼 ラ ra		e, softens the consonan	
47 7, su	23 4 mu		he right, bardens the narks and the n_r unas	
	24 岁 u		lly 47, are raised to th	

ABBREVIATIONS AND ORTHOGRAPHICAL SIGNS.

7	koto.	T goto.	メ site.	干 tame

N Sign of doubling a letter, placed in the middle line.

Sign of doubling a syllable.

Sign of lengthening a vowel.

[°] Full stop. v comma, towards the right, beyond the middle line.

SANSCRIT

CONSONANTS.

Each consonant is sounded with an inherent short a.

GUT	TURALS.	LA	BIALS.
क	ka	प	pa
व	kha	फ	pha
ग	ga	ब	ba
घ	gha	भ	bha
ड	'nа	म	ma
PA	LATALS.	SEMI	-vowels.
च	cha	य	ya
क्	ch'ha	र	ra
র	ja	ল	la
ক	j'ha	व	va
অ	ña		
CEF	EBRALS.	SIBIL	ANTS AND
3	ţa	ASP	IRATES.
ट	ţha	श	sha
उ	d a	ष	sh'ha
6	dha	स	sa
पा	ņa	क्	ha
DI	ENTALS.	ಹ	Ĭ.
ਜ	ta	This cha	racter peculiar
घ	tha	to the B	lig-Veda has a which partakes
द	da	of l and	r. It stands for bral da . When
ध	dha	it repre	sents the aspi-
ন	na	expresse	this letter, it is ed by (lha) .
- Virân	a (nauga) is	ONAL SIGNAL SIGN	NS. er a final con- cs of the inhs-

sonant, and denotes the absence of the i rent short a.

indicates the close of a sentence, ending in a vowel, a diphthong or a visarga. In poetry it denotes the half of a verse. At the end of a vorse or a period this mark is doubled.

Serves 1. as the sign of hiatus, 2. as sign of the elicion of a after e and o, 3. as the sign of coalescence of two a.

or coalescence of two a.

o is the sign of abbreviation.

nud a represent the letter r. The former sign is pronounced before the consonant (and the semivowel ri) at the top of which it is placed; the latter sign is placed under the consonant and consider a few it. and sounded after it.

VOWELS.

The vowels in the left row are uttered as initials or are placed before their consonants. The vowelsigns in the right division being medials and finals, coalesce with their consonants, and are respectively placed over, under, before and after

the le	tters.
a	COALESCENT VOWELS.
â	T â follows the consonant
i	fiprecedes » »
î	Tifollows " "
u	⇒u under » »
û	SÛ » »
ţ	-
ŗ	c j. 32 11 11
ļ	د ب ه » »
ĵ	w j " "
THONGS.	w j " " "
e	↑ e over » »
ai	ai » » »
0	7 0 follows » »
au	Jan » »*»
	a â i î u û r r r l l athongs. e ai

NASAL SOUNDS.

Anusvára and . Anunásika, are substitutes for m and n. The anunasika has its place above the letter or laterally with virama

: ḥ (orproperly &) visarga, + jihvâmûlîya

and Hupadhmanlya are strong final aspirates. The visage which is the substitute for s and t is the only one in common use. The last two rights hear also the component designations of archiverges the strong designation of the s mon designation of ardhavisarga.

PROSODIAL MARKS.

denotes brevity, 5 length.

ACCENTS.

Anudâtta or grave accent stands under the vowel. | Svarita or circumflex is put over the vowel. In connexion with these marks the numerals

and 3 serve as accents.

 $\mathcal{L}_{\mathcal{A}} = \mathcal{L}_{\mathcal{A}} = \mathcal{L}_{\mathcal{A}}$

NUMERALS.

SANSCRIT

The similarity of shape occasions mistakes in correcting proofs; it may therefore be of advantage both to compositors and readers of proofs to make use of the annexed numbers of reference. The form of the subjoined Alphabet differs from that which precedes, but is superior in point of correctness.

2 天		eceness.	01 0011	Point	is superior if	,	proceu	such which j	18 Hom	t uine	ined Alphabe	. 80010	
2 天	a	ńka	ङ्ग	79	kya	क्य	53	re(withAcc.)	5	27	a	স্থ	1
3 支 i 29 本 raim 55 末 kra 81 至 ńky ńky 5 豆 u 31 · 56 至 kla 82 臺 ńkł 5 豆 u 31 · 57 至 kva 83 壹 ńkł 6 豆 û 32 · 58 전 ksha(x) 84 臺 ńkł 7 五	ta	ńkta	ङ्ग	80	kra	क्र	54	ai (with Acc.)		28	â	ऋा	2
5 3 u 31 · 57 新 kva 83 高 ńkł 6 5 û 32 · 58 数 ksha(x) 84 强 ńkł 7 取 ri 33 l 59 聚 ksh 85 第 ńga 8 取 ři 34 ll 60 聚 kshya 86 第 前gy 9 夜 li 35 o and 61 聚 kshya 87 哥 ńgł 10 元 li 0 元 li 36 - 62 聚 kshva 98 哥 ńgł 11 更 e 37 S 63 极 kha 89 哥 ńgł 12 T â 38 · 0rthographical 66 取 kha 89 哥 ńgł 13 f i 39 · 0rthographical 66 取 ga 92 元 ch (14 T î 40 - 20 mphical 8	ya	ńkya		81	kra		55	raim	≈	29	i	इ	3
57 15 16 17 17 17 17 17 17 17	sha	ńksh	ङ्ख	82	kla	क्र	56		:	30	î	इ	4
7 刊	ha	ńkha		83	kva	क	57		•	31	u	उ	5
7 刊	hya	ńkhy	ह्य	84	ksha (x)	क्ष	58		૭	32	û	<u>ক</u>	6
10 ल्हें हैं। 36 - 37 S कार्ल 62 स्व kshva 98 झा ngh 11 ए e 37 S कि	a	ńga		85	ksh	8	59	Ac	ı	33		ऋ	7
10 ल्ह 1 35 ° 36 61 स्था 88 क्षा 61 स्था 88 क्षा 62 स्व 88 क्षा 62 स्व 88 क्षा 62 स्व 88 क्षा 63 स्व 88 क्षा 63 स्व 88 क्षा 63 स्व 88 क्षा 63 स्व 88 क्षा 64 स्व 88 क्षा 64 स्व 88 क्षा 65 स्था 88 क्षा 65 स्था 88 क्षा 66 म 68 स 68 स	ya	úgya	ङ्ग	86	kshma	स्म	60	cent	11	34		ॠ	8
11 世 e 37 S	ha	ńgha		87	kshya	स्य	61		0	35	ļi	ऌ	9
18 と ți 44 k 70 U gra 96 U ćma 19 を ți 45 m 71 JU grya 97 U ćya 20 ºº li 46 奇 ka 7º U gha 98 数 ćha	hya	ńghy	झ्य	88	kshva	स्व	62	nd o	-	36	ļi	ल्ह	10
18 と ți 44 k 70 U gra 96 U ćma 19 を ți 45 m 71 JU grya 97 U ćya 20 ºº li 46 奇 ka 7º U gha 98 数 ćha	hra	ńghra	ङ्घ	89	kha	ख	63	ther	S	37	e	ए	11
18 と ți 44 k 70 双 gra 96 亚 ćma 19 を ți 45 m 71 双 grya 97 亚 ćya 20 ºº li 46 奇 ka 72 घ gha 98 藪 ćha	a	ńńa	<u>s</u>	90	kh	Įć	64	or or	2	38	â	T	12
18 と ți 44 k 70 双 gra 96 亚 ćma 19 を ți 45 m 71 双 grya 97 亚 ćya 20 ºº li 46 奇 ka 72 घ gha 98 藪 ćha	ı (ca).	cha (d	च	91	khya	ख्य	65	thog	\	39	i	f	13
18 と ți 44 k 70 U gra 96 U ćma 19 を ți 45 m 71 JU grya 97 U ćya 20 ºº li 46 奇 ka 7º U gha 98 数 ćha	(ċ)	ch (ć)	Ŧ	92	ga	ग	66	rapl	•	40	î	f	14
18 と ți 44 k 70 双 gra 96 亚 ćma 19 を ți 45 m 71 双 grya 97 亚 ćya 20 ºº li 46 奇 ka 72 घ gha 98 藪 ćha	ı	ćća	च	93	g	1	67	iical	_	41	rî	Ŧ	15
18 と ți 44 k 70 双 gra 96 亚 ćma 19 を ți 45 m 71 双 grya 97 亚 ćya 20 ºº li 46 奇 ka 72 घ gha 98 藪 ćha	ıa	ććha	च्छ	94	gna	म	68	sig	i	42	u	૭	16
19 & Îi 45 m 71 JJJ grya 97 ZJ ćya 20 [©] İi 46 南 ka 72 ZJ gha 98 S ćha	a	ćňa	ब्र	95	gnya	ग्यु	69	ns.	•	43	û	•	17
20 °2 li 46 वर्ष ka 72 घ gha 98 छ ćha	a	ćma	च्म	96	gra	य	70		K	44	ŗi	Ł	18
	a	ćya	च्य	97	grya	ग्य	71			45	ŗ i	£	19
21 m i: 47 75 73 73 73 7 mb 00 77 14	a	ćha	छ	98	gha	घ	72	ka	ক	46	ļi	B	20
Trive it at kkg to a far as & cur	ra	ćhra	छु	99	gh	Σ	73	kka	क्	47	ļi	ß	21
22~ e 48 新 kta 74 耳 ghna 100 玩 ja		ja		100	ghna	য়	74	kta	雨	48	e	~	22
23 ~ ai 49 表現 ktya 75 5年 ghma 101 牙 j		j	<u> </u>	101	ghma	घ्म	75	ktya	त्त्य	49	ai	~	23
24 ो 0 50 हो ktva 76 घ्य ghya 102 जा jja			ज	102	ghya	घ्य	76	ktva	क्र	50	0	f	24
25 ~ e(with Acc.) 51 新 kna 77 頁 ghra 103 頁 jùa			র	103	ghra	घ	77	kna		51	e(with Acc.)	~	25
26 ~ re 52 執 kma 78 š ńa 104 š jñ				104	ńa	ङ	78	kma	का	52	re	~	26

SANSCRIT

				- OAIII				
105	ऋ	jjha	133 राड्र	ņḍra	161 E .	th	189 ध्य	dhya
106	ज्य	jya	¹³⁴ एड्डन	ņḍrya	162 घ्य	thya	1 9 0 भ	dhra
107	ज	jra	135 स्ट	ṇḍha	163 द	da	191 ध्व	dhva
108	ज्व	jva	136 स्म	ņņa	164 दु	du	192 ਜ	na
109	रु	jha	137 एय	ņya	165 टू	dû	193 🖚	n
110	भ	jha	138 स्व	ņva	166 ਵ	dŗi	194 न	nta
111	ञ	ña	₁₃₉ ਜ	ta	167 男	dga	195 न्य	ntya
112	5	ñ	140 7	t	168 골	dgha	196 न्त्र	ntra
113	ञ्च	ňća	141 त्क	tka	169 ह	dda	197 न्द	nda
114	ञ्ज	ñja	142 त्त	tta	170 ਵ੍ਹ	ddba	198 न्द्र	ndra
115	5	ţa	143 स्य	ttya	171 ट्रा	ddya	199 न्ध	ndha
116	द्व	ţka	144 न्त्र	ttra	172 蜜	ddha	200 न्ध्र	ndhra
117	ξ	ţţa.	145 स्त	ttva	173 द्धा	ddhya	201 न	nna
118	ख	ţya	146 ਜਿ	tna	174 ਵ	dna	202 न्प्र	npra
119	ठ	ţha	147 त्प	tpa	175 🚡	dba	203 न्यत	npha
120	ठ्य	ţhya	148 त्म	tpra	176 裏	dbra	204 現	nphra
121	ठ्र	ţhra	149 本	tpha	177 🙀	dbha	205 स्म	nma
122	ड	фа	150 13 h	tphra	178 ह्य	dbhya	206 न्य	nya
123	T	ģģa	151 तम	tma	179 स	dma	207 न्स	nsa
124	ड्ड	ффа	152 तस्य	tmya	180 द्य	dya	208 प	pa
125	<u>ੌ</u> ਫ	dha	153 त्य	tya	181 दू	dra	209 L	p
126	ढ्य	dhya	154 軍	tra	182 夏	drya	210 प्र	pta
127	द्र	ḍ hra	155 च्य	trya	183 ह्व	dva	211 . प्र	pna
128	ग्	ņа	156 ह्व	tva	184 द्वा	dvya	212 प्प	ppa
129	Ų	ņ	157 त्स	tsa	185 ध	dha	213 पा	pma
130	ग्ट	ņţa	158 तस्त	tsna	186 %	dh	214 प	руа
131	गुढ	ņţha	159 त्स्य	tsya .	187	dhna	215 प्र	pra
132	गुड	ņḍa	160 घ	tha	188 ध्रम	dhma	216 झ	pla

S	AN	ISI	CR	TT
v.	T = T	יטו	$\sigma_{\mathbf{L}_{t}}$	

		76		- Th			
217 द्व	pva	245 य	ya	273 翌	çra	³⁰¹ स्म	sma
218 प्स	psa	246 Z	y	274 関	çla	³⁰² स्य	smya
219 फ	pha	247 च	y	275 प्रश	çva	³⁰³ स्य	sya
220 ब्	ba	248 य्य	yya	276 रुश्	çça	³⁰⁴ स	sra
221 6	b	249 र	ra	277 घ	sha	305 स्व	sva
222 ब्य	bgha	250 天	ru	278 🕏	sh	306 स्स	ssa
223 न	bja	251 튡	rû	279 E	shţa	307 ह	ha
224 न्ह	bda	₂₅₂ ල	la	280 स्य	shtya	308 ਵ	h
225 ब्ध	bdha	253 ₹	1	281 💆	shṭra	309 €	hŗi
226 च्च	bba	254 स्क	lka	²⁸² प्रुव	shṭrya	310 表	hņa
227 भ	bbha	255 ल्प	lpa	²⁸³ ट्य	shṭrya	³¹¹ 夏	hna
228 ब्र	bra	256 ल्म	lma	284 星	shţva	312 स	hma
229 1	bha	257 ल्य	lya	285 B	shtha	³¹³ ह्य	hya
230	bh	258 स्त्र	lla	286 घ्या	shņa	314 ह	bra
231 भ्य	bhya	259 ट्व	lva	287 च्या	shpa	³¹⁵ 高	bla
232	bhra	260 व	va	288 🖳	shpra	316 ह	hva
233 भ्व	bhva	261 3	v	289 ष	shma	317 æ	¥
234 म	ma	262 વ	v	290 घ	shya	318 द्ध	ł ha
235 T	m	263 व्य	vya	291 モ	sa	319 9	4
236 裏	mna	264 व्र	vra	292 天	s	320 2	2
237 स्प	mpa	265 ब्र	vva	²⁹³ स्क	şka	321 3	3
238 स्प्र	mpra	266 श	ça	²⁹⁴ स्व	skha	322 8	4
239 म्ब	mba	267 ञ	ça	295 स्त	sta	323 4	5
240 3	mbha	268 T	ç	²⁹⁶ स्त	stra	324 &	6
241 स्य	mya	269 Z .	ç	297 स्थ	stha	325 9	7
242 म्न	mra	270 装	çća	298 स्त	sna	326 t	8
243 स्	mla	271 翌1	ç ćy a	299 स्प	spa	327 Q	9
244 स्स	msa	272 署	çna	300 स्फ	spha	328 0	0

TAMIL

The Tamil language was earlier cultivated than the other members of the Drâvidian family. It includes two dialects the (ancient) Shen-Tamil and the (modern) Kodun-Tumil. Tamil is spoken throughout the plain of the Carnatic, below the ghauts from Pulicat to cape Comorin, to the neighbourhood of Trivandrum; also in the northern and western part of Ceylon where in ancient times Tamilians established their settlements. This language has 12 vowels and 18 consonants. It is read from left to right.

SHORT VOWELS. a as in America Ð » full எ eelf ஓ » » long THE CORRESPONDING LONG VOWELS. in ah ГŦ. » feel ഉണ û » foo ê ஏ » they ஓ » sole DIPHTHONGS. ജ ey in eye ஓள OU » foul CONSONANTS. k க் ங் 'n ng in long ச்.**ஞ்**ட்ண்த் ந்ப்ம் ñ as gu in french règne like t d of Sanscrit cerebrals ņ like n of Sanscrit cerebral ŧ n in no p m ற் ŗ rolled, partly like a cerebral, partly like a dental ன் ń as in on LIQUIDS. ய் as in yes » » round ல் வ் ள் 1 hard, it is of cerebral character intermediate between r and l.

The consonants have been divided into rough, soft and intermediate sounds. The first class includes the tenues $(\dot{\mathbf{z}}, \dot{\mathbf{z}}, \dot{\mathbf{L}}, \dot{\mathbf{z}}, \dot{\mathbf{L}}, \dot{\mathbf{p}})$. The second class contains the corresponding Nasals. The third class contains the Liquids. A dot placed at the top of a consonant indicates the absence of a vowel, but is omitted in native MSS.

The following rules are to be noticed in the pronunciation.

- a) Short α , before the soft letters $\dot{\varpi}$, $\dot{\varpi}$, the intermediate letters $\dot{\pi}$, $\dot{\varpi}$, \dot{m} , $\dot{\psi}$, and at the end of polysyllabic words, sounds like e in men.
- b) Combined with a preceding $\dot{\pi}$ it receives the same sound.
- c) The vowels e and \hat{e} as initials are pronounced as if y were placed before them.
- d) The vowels $i(\hat{i})$ and $e(\hat{e})$ before linguals $(\dot{L}, e\bar{\omega})$ and $e\bar{w}, \dot{p}$ and $\dot{p})$ are respectively articulated somewhat deeper than the French u and eu.
- e) The consonants \dot{x} , $\dot{\beta}$, $\dot{\omega}$ are only hardened as initial letters, or when doubled in the middle of a word. The same is the case with $\dot{\omega}$ which does not occur as an initial in pure Tamil words.
- f) When $\dot{\mathbf{s}}$, $\dot{\mathbf{L}}$, $\dot{\mathbf{s}}$, $\dot{\mathbf{L}}$ occur as medials of a word, $\dot{\mathbf{s}}$ sounds like ch, $\dot{\mathbf{L}}$ like b, $\dot{\mathbf{s}}$ like th, and $\dot{\mathbf{L}}$ like the Sanscrit cerebral d.
- g) $\dot{\sigma}$ is always sharply hissed like ss. When the nasal \odot precedes, it coalesces with it and sounds like ng (in angel). When doubled after $\dot{\omega}$, or \dot{p} , it sounds like ch (in church).
- h) e and y at the end of a syllable have an intermediate sound of i (in vine) and ai (in vain).
- i) Double \dot{p} sounds like tt. After the corresponding nasal $\dot{\varpi}$, it may be pronounced like d.

The Tamil Alphabet being syllabic, a word is divisible in any part, so long as the consonant remains united with its vowel. In punctuation the full stop alone is employed.

The vowels, in their separate forms, are only used as initials. The following table shows their mode of coalition whith the consonants. The short a, as in Sanscrit, is not expressed before a consonant.

_										,		
	a	â	i	î	u	û	η e	ê	ey	o	ð	au
	அ	ஆ	2	FF	உ	<u>ഉണ</u>	எ	୍ଷ	æ	ஒ	ஓ	ஒள
k	45	கா	碅	F	கு	∂5n_	கெ	கே	கை	கொ	கோ	கௌ
'n	<i>1</i> 51											
S	Æ	சா	சி	F	Ær		செ	சே	சை	சொ	சோ	சௌ
ñ	ஞ	ஞா	ஞி	ஞ	ஞ	னு	ெஞ	ஞே	ஞை	ஞொ	ஞோ	ஞௌ
ţ	ட	டா	19_	LO	டு	\mathcal{B}	டெ	டே	டை	டொ	டோ	டௌ
ņ	ண	<u></u>	ணி	ணீ	<u>ண</u>	ணு	ணெ	ணே	ഉ ഞ്ഞ	ത്തെ	ത്തേ	ணௌ
t	த	தா	痴	£	து	தூ	தெ	தே	தை	தொ	தோ	தௌ
ń	ந	நா	நி	₽ [®]	நு	ூர	நெ	தே	ைந	தொ	நோ	நௌ
p	Li	பா	பி	பீ	4	Ħ	பெ	பே	பை	்பொ	போ	பௌ
m	ΓD	மா	மி	மீ	மு	E	மெ	மே	மை	மொ	மோ	மௌ
y	LII	யா	யி	மீ	14	யூ	யெ	யே	யை	யொ	யோ	யௌ
r	<u>J</u>	øn '	· n f1	rje i	ரு	ரூ	செ	சே	ചൈ	சொ	சோ	சௌ
l	ຸໜ	லா	ରୀ	லீ	ூ	அ	லெ	லே	දින ·	லொ	லோ	லௌ
v	வ	வா	வி	බ්	வு	ஆ	வெ	வே	തഖ	வொ	வோ	வெள
ļ	$\boldsymbol{\boldsymbol{arphi}}$	மூ	y d	௺	ழ	மூ	செ	மூ	ழை	சு	ழோ	ழௌ
1	ள	ளா	ଗୀ	ଗଂ	ளு	ளு	ளெ	ளே	ଅଳ	ளொ	ளோ	ளெள
ŗ	ற	o	றி		று	ூர	றெ	ேற	றை	ெர	Co	றௌ
n	ன	<u>ණ</u>	னி	னீ	னு	ூ	னெ	னே	2 660	തെ	തേ	னௌ
	l	I	1	I	I	<u> </u>	<u></u>	<u>'</u>	!	L		1

ADDITIONAL LETTERS AND CONTRACTIONS.

ஷ்	ஷ	ஷி	ஷீ	வ்	வ	00	സ്ത	௵	, a
sh	shă	shĭ	shî	s	să	ch	Month	Year	Om a sacred word

NUMERALS.

W **5** 2 (Fin æ எ Ŧn, M Æn 3 5 6 7 9 10 1000 8 100

Examples of compound numbers, $\omega = 11$, $\omega = 12$ etc.

	ZF	END		,	BURN	IESE	
FORM	SOUND	FORM	SOUND		vow	ELS	
N	a	5	z	FORM	SOUND	FORM	SOUND
w	â	, W	ñ	39	a	0	ê
د	i	100	t	392	â	- 39	ey
ب	î	8	ţ	ল্	ie	ထြော	ăŭ
,	u	ું ડ	th	නු	ee	(Q)	au
3	ù	9	d	හ ගෙ ල	иo	39	ăņ
ε	e (e)	9	dh	ရှိ	û öö	390;	âḥ
ξ	è	3	n	6		<u> </u>	
נא	ê	ಶ	P		CONSO	NANTS	
\hat{I}	o	7	f	က	k	3	d
Þ	ô	ر د	b	ခ	kh	o	dh
μω	àο	ę	m	0	g	P P	n
垢	ań	ر	y initial	න	gh	Ų.	P
9	k	دد	y medial	С	ng&gn	೨	рh
ر کک		2		စ	ch	8	b
	kh		r .	90	chh	ဘ	bh
٣	q	\$	v initial	9	j	မ	m
6	g	>>	v medial	ର୍ଥା	jh	ယ	у
و	gh	અ	w	ည	ñ	9	r
کد	ń	ا	ç	Š	ţ	လ	1
b	ć (ch)	ريع	sh	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 7 5 7 5	ţh	0	w
٧	j	10	s	3	ģ	သ	s
olo C	sh	673	h	υ	фh	ဟ	h

က တ

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th

sh

PUNCTUATION.

do

aņ

CANARESE (CARNÂTACA).

This language, belonging to the Dravidian family, is spoken throughout the plateau of Mysore, in some of the western districts of the Nizam territory, and in the district of Canara ou the Malabar coast.

				Malabai	r coast.				
అ	a	S	ê	ఙ	nga	త	ta	æ	ya
Θ	â	ಐ	ai	- చ	cha	ద	tha	ರ	ra
ಇ	i (ee)	ఓ	o	ఛ	chha	ద	da	9	la
र्क	î (ēē)	ಳು	ô	ಜ	ja	భ	dha	వ	va
Ġ	u (00)	ఔ	au	din	jha	ಕ	na	క	sa
భ్య	û (ōō)	0 -	ń	ત્વન	ña	చ	pa	ώχ	sha
m	ŕ	•	h	ඪ	t'a	భ	pha	ર્ય	za
iw	r'	ð	ka	ఠ	t'ha	ಬ	ba	್ವ	ha
ተ	1	ಖ	kha	డ	d'a	ক্	bha	8	ła
ą,	ľ	۲	ga	డ	d'ha	మ	ma	ಱ	sha
ఎ	e	$\widetilde{\omega}$	gha	സ്ക	n'a				
				LIGAT	URES		,		
	ki	(ak)	ñu	వా	dâ	ಕೃ	nna	್ಷವ್	vâ
Fu	ku	ਲੂੰ	d'e	යි	di	పు	pu	গ	vu
200	kô	ಡ್ಡ	d'o	අක	dî	ৰ্	pra	తా	vû
ಕ್ಷ	ksha	දි •	ti	ಸಿ	de	ass	bhu	వ	vŕ
۷٥	ga	98	tî	ھ	dri	<u>ಮ್</u> ಷ	mma	వూ	vr'
Á	gî	త్తు	tu	뒬	n	 ਰਾ	râ	హి	vai
Ŕ	gu	ಕೆ	te	23	nâ	ਰੈ	re	వ్లు	vvu
2	ge	ಶೈ	tai	8	ni	లా	lâ	<i>\$</i>	shâ
ጸየ	gê	B	ttu	98	nî	లూ	l <u>a</u>	85	sht'a
N	gai	, lâ	tte	మ	nu	ಯ	1ô	ಹೊ	hô
লু <u>ন</u> ১	ñâ	త్ర	tra	ಕೆ	ne	S	va		

GUJERATI OR GUZERATTEE.

This Alphabet is derived from the Sanscrit (Devanagari) charactere, from which it principally differs in the omission of the connecting lines. Gujerati is spoken in the province of Gujerat (Guzerat), especially by the Parses inhabitants, and is considered to be the mercantile language of Western India. In modern times various Gujerati publications have appeared in Bombay.

)	ગ્રા)	4 cha	\mathfrak{A} ta	か) bha
૩ ધા }	ઢ યો –ેે °	⇔ chha	21 tha	m } """
2n1)		a ja	€ da	H ma
i (ee)	ઝ્યાું }°™	ા jha	& dha	4 va
6 u (00)	ક્રમો ે ે	Z t'a	ન na	(1 la
E) (1)	% ka	ሪ t'ha	ų pa	2. ra
ą r	U kha	√ d'a	% pha	X sa
an e (ai)	Ol ga	6 d'ha	U ba	XI ça
	& gha	U n'a		€ ha

		LIGATURES		
K l ki	લ છ _{ji}	ul n'i	ત્ર nû	9 vn
& ku	g ju	() n'u	์ ปิ pi	Y vû
火 kû	奴 jû 引 jhi	Ա ո'մ	Ա թս	eA 1i
છ ી khi	jhu	M ti	y pâ	쇬 lu
भु khu भु khû		ŋ tu	X phi	(f) lû
of gi	সু jhû প্র t'i	A tâ	3 phu	A ri
	₹ t'u	થ ી thi	% phû	3 ru
ગ્ર _{ુ gu}	ξ t'û 1 t'hi	થુ thu	on bi	ત્રુ rû સી si
el ghi		4 thû	y bu	34 su
g ghu	3 t'hu	દ્ધી di	bû	भू sû
[ghû	t'hû d'i	g du	bhi	શ્રી çi
ব্দ chi	i	& dû . EN dhi	3 bhu	Ջ Եր
3 chu	पु d'n		A bhû M mi	RI çû
y chu y chû S chhi	√ d'û €1 d'hi	. 5	3 mu	A hi
		a dhû	y ma	& hu
g chhu E chhû	g d'hu	d nu	ر ا vi	5 hû
× omma	₹ d'hû	9		~ ""

TELUGU

one of the branches of the Drâvidian stock, is spoken along the eastern coast of India from the neighbourhood of Pulicat to Chicacole. Inland it extends to the eastern boundary of the Maratha Country and Mysore, including within its range the ceded districts and Kurnool, the greater part of the territories of the Nizam, the Hyderabad Country and a portion of the Nagpore Country. This language is spoken by about 14 millions.

	15 5	ocken by accurate mil		
ප a	₽ ê	2± nga	ණ ta	б ra
ட ு. â	ع ĕ	చ cha	థ tha	ව la
ට i (ee)	ఓ ం	ಧ chha	ස් da	ವ va
ស់ î (ēē)	ئد ô	සු ja	な dha	る sa
₩ u (00)	T uo	τω jha	メ na(soft)	sha
स्र û (ōō)	o ń	T nya	ప pa	ج sa
w i	: h	රා t'a	နှာ pha	a ha
<i>om</i> . i.,	ち ka	ర్ర t'ha	ນ ba	დ ∃a
ن آ	ည္ kha	æ d'a	ಭ bha	_
£ு i'	. X ga	යි d'ha	మ ma	⇔ sha
చి e	လ် gha	pa n'a (hard)	ထာ ya	2 Pause
		LIGATURES		
5° kâ	τίνο jhâ	మా mâ	8 ti	_ లీ 1, li
% ku	, ' 処 で jbî	& mi	ð tî	ல lu
‰ kû		ക്ക് mu	ණ tu	ლ Io
§° ko	ბთ.ihņ	ಮ me	3 te	8 lla
₩ ksha	Qr ñâ		ತ್ತು ttu	ဗ lli
₹ ge	շ Ն ոս	ಮು mo		•
お gê	râ	<u>a</u> mmu	ĕ tra	వా vâ
🥻 gau	ani 🖇	ထာ yâ	ವೌ dâ	र्छ vu
ယ်∽ ^{ghâ}	8 nî	ಯ yi	ධ dî	S ve
1	na 💢	<i>య</i> уе	దు du	ক্স vva
$\widetilde{om}_{\mathrm{ghn}}$	73 ne	$gm_{\lambda 0}$	る de	S vvu
\widetilde{o} wr $^{\mathrm{gh}\hat{u}}$	💫 nna	ਨ râ	කී do	ą si
ස ngâ	⊗r po	ð ri	æ ddu	shâ
യ ngu	పు ppu	Ձ Ծ ñû	罗 ddhâ	sht'a
-a chi	ವಾ bâ	්æ t'e	ಧာ dhâ	•
చు chu	₩ bu	ක් d¹u	ð rî	âe ct g
⊋ che	భూ bhû	డు d'hu	රා ru	ssâ

BENGALI.

This Alphabet is based on the Devanagari character. In some instances the circular shape has been altered into an angular form, in others the form has been entirely changed. The Bengali language is less mixed than the neighbouring idioms.

VOW 図a a f i f i f i f i f i f i f i f i f i	ELS. lri a lrí a e a a a a a a a a a a a a a a a a a a	v kha 対 ga 知 gha ら nga 下 tsha 下 tshha	CONSON That ta tha da dha han ta tha tha tha tha tha tha	ধ dha n na প pa ফ pha ব ba. ভ bha n ma u ya	ল la ব va শ sha স sa য sḥa স ha khya	THE VOWELS sounded after the consonants take their position before, after ahove and below their letters. They receive in such cases the following forms. The follows the constitution of the consonants of the co
The vo inherent in (birán causes moreo to the J denote denote)	wel-sound of all consonan i) subjoined the a to dr wer loses its a following con s y affixed to	OBSERVA I the short a is ts. to a consonant op. A consonant by being attached sonant. a consonant. ced at the top of	r stands pronounce over a co sound. denotes the	ed after it. usonant, repre- be, word Ganes he name of Go s a stop at	sh.	 ri " " ri " " ri " " tai " take the cons. to in the middle. au take the cons. in the middle. ang follows the cons. ah follows the cons.

BÚGÍS

is supposed to be the most ancient of the lauguages spoken in the island of Celebes. The same Alphabet is used in the Macassar language.

~ a	ے ba	ra ادے	∼ la
→ ka	∠ ma	ට cha	→ wa
₹ kha	ي pha	ס ja	= sa
→ ga	∼ ta	≈ a	⇒ ha
🗻 nga	• da	cc chha	🕶 ya
~ pa	🤝 na	= ra	

Every consonant bas an inherent vowel, with which it forms a separate syllable.

The following vowels vary in position:

- l' e before a letter.
- J i over a letter.
- 1 o after a letter.
- · u nnder a letter.
- ung at the top of a letter.

JAVANESE

ORDI	NARY LET	TERS	IN	ITIAL LETT	ERS
Ordin. Form	Pasangans	Sound	Ordin. Form	Pasangans	Sound
· oun · ·	n	hå .	• 0.0.0.0		. Nå
. 60	· · · · ·	nå .		,	Tyå
	(h	tyå	• • • • • • • • • • • • • • • • • • • •	### 	Kå
٠ . ١١٠٠	<u>.</u>	rå .	यू		Tå .
· (KA) · ·	· · · · · ·	kå	UND ox (Felt		. Så
· · « « · · ·		då .	• • (3, • •	٠٠ الم	På.
. (SA) · ·	· · · · · ·	tå	· 15 · ·		Nyå.
621	44	så .	- 1000)		. Gå
• (C)		wå	च्ह		Bå .
. (0.1)	ar.	lå .	UNCO	NNECTED V	OWELS.
· ພາ · ·	٠ - ١٠٠	på	G.Sh. 0	Ā J	c 02
us .	W	dyå	a	i u	e o
	6	y å	ADDIT	IONAL CONS	ONANTS.
· con · ·	٠ الم	nyå	at the top, occur	or letters, with the in words derived onsonants in the J	sign a (Sastrosworo) from the Arabic, as
·ଥା ·		må	which	fully express thes	avanese Alphabet, se sounde.
	i juni .	gå	ណិ chå ៖	tands for the Ar	abie 左 châ
. (210)	a	bå	th få	n n	» ن fe
da	· · ·	tå	ur zå	n n	» j ze
· (CT) · · ·	im	ngå	งกิก ghâ	» » »	ghain غ
•••••	··············	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		NUMERALS	S.
. હા	٠ - کِما ٠	<i>På-tyere</i> ', rĕ	m 9 9	(-	บ แ น แบ o
a		Ngå-letet, lĕ	1 2 3	,	7 8 9 0

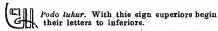
VOWELS AND DIACRITICAL SIGNS,

called Sandangun.

Form	Name	Sound and power
:::::	Pĕpĕt	ĕ
Ω ::::::	Ulu or Wulu	i
. ر	Suku	u
. 9.	Taling	e
. 102 .	Taling-Tarung	o
٠٠ الـ٠	Paten or Pánkon	(deprives a consonant of its vowel)
	Ságnyan or Wîgnyan	h (at the end of a syllable)
::::::	Tyĕty'a	ng (at the end of a syllable)
::::::	Layar	r (at the end of a syllable)
. (or (_	Tyåkrå	r (between a consonant and a succeed- ing letter)
٠٠٠ ئي ٠٠٠	Kĕrĕt	re (after a consonant)
. حل	Pĭnkal	y (after a coneonant)

PODOS OR PADAS.

Under this designation the Javanese writing contains the following eigns:



Podo madyo is used at the commencement of letters by persons of equal rank.

Podo andap, with this superscription an inferior addresses a superior.

Podo-bab etands at the beginning of a new paragraph.

Podo-lingso, the usual stop at the end of a sentence or a detached word. In poetry it marks the end of verses, which are written consecutively like prose. It is doubled at the end of a section.

- Podo andegging lyelatu or dirgo muraras occa-cionally replaces the Podo-lingso; mostly it accompanies numerale, and isolates them from the adjoining words.
- Q Ulu munta. When the vowel of a final syllable is an ulu, this character takes a Tyety'a in the
- Suku mendut. When the vowel of the last syllable is a Suku it takes this form.
- Dirgo mure is the name of the sign placed over the Taling or Taling-Tarung, when this vowel occurs in the final syllable.
- Podo wotyan anglegenno. Under this name the Tarung is employed as a sign of separation.
- Pisetep ingstembarg gede, serves to divide poetry.



63

Wasono-podo at the end of a poem.

Madyo-podo, at the beginning of a song following another, when the melody and the measure are changed.

LIGATURES.

The following ligatures consist of the (Vowel-) sings Suku, Tyokro, Keret and Pinkal combined with the ordinary characters and Pansangans. The diacritical marks are also added.

- The small pasangan Wo is placed below a letter standing in the third row.
- These small discritical marks are placed under auxiliary letters which stand in the third row.
- ! The short Layar is employed when there is no room for the large Layar.
- This mark is placed under the letters Wo and Ngo to form the vowels u and o.

OBSERVATIONS.

The Javanese language has 20 letters which are called Aksoro, Sastro or Tiarakan. They are written from left to right, without being joined together. By the many auxiliary letters, vowels and diacritical signs, the numbers of characters is considerably increased. The Pasangans, employed in the Alphabet, are in close connexion with the sign Paten, which in fact they replace. When a consonant occurs in the middle of a word, and is to be derived of its vowel, a Pater must be employed. To

obviate a disjunction arising from the use of this sign, the Paten is omitted, but the letter, which follows the mute consonant, is changed in form or in position or in both. The substituting sign is then called Pasangan. The Pasangans being nisely placed under the common letters, while some vowels and discritical signs figure above the letters, the Javanese writing runs within three rows. The position of a character in one row or an other is indicated in this Alphabet by the addition of dots:

TIBETAN

Form	Value	Form	Value	VOWELS.
ग	k	3 1	m	The Tibetan language is read from left to right and has five vowels. The vowel a is inherent in the several consonants. When
P	kh	Ş	ts	confusion is apprehended from the absence of a distinct a after the prefixes
2	g	\$	tsh	the sign is inserted to denote a. The remaining vowels are written and named as follows,
T.	ng	Ē	s	ngigu i → zhabs-kyu u
3	ch	2	w	drengbu e naro o
æ	chh	a	j(French)	The yigu drengbu and naro are placed above their consonants, the zhabs-kyu below them. When double, the zhabs-kyu is pronounced uu or ow; double drengbu ay or
Ę	j	∄	z	ie; double naro oo or ou. Gigu is often formed thus Ω
7	nya	æ	ha	is placed below the letters. Ph is changed by it into f ; ss into x . Under the other letters it represents the vowel a ; according to others it denotes u .
5	t	ध	y	o placed over th, a and h denotes with the first of these letters mce with the other two m. According to others it signifies ang and ong.
8	th	エ	r	ACCENTS.
Z,	d	વ	ı	guttural sign palatal n nasal n
न	n	-9	sh	7 sign of the singular number.
ZJ	p	হা	s	PUNCTUATION. is an introductory sign. Besides this figure other varieties are in use.
Z	ph	5	h	Comma. Two such signs are equal to a full stop. Four such strokes, with
	b	(Z)	a	between them, denote "the end". is inserted between the syllables. o mark the stress of a word.

LIGATURES.

	Value		qs	4-2	യ	43	q	ı	m	ch	٠.	'n	K	5 10	${f kh}$ guttural	H
		final	\$	P	:	,	:	17	ኞ	•	:	•	:	J	•	(¢
	Form	medial	\$	ا ا	10	lo	ીજ	' 	Life	ħ	h	r	C	·C	æ	K
	F	l initial	*	¢	4	4	才	l'or	ţ	ħ	ν	r	C	·C	ď	· · ·
		unconnected	\$	F	र्	र्न	र्भ	PT.	ជ	Fi	T	T	ર	. .E	. £	`V
MANTSHU	Name		Sha	Ta	Da	${ m Te}$	De	La	Ma	Cha	Ja	Ya	Ke	Ge	Khe	Ra
MAL	Value		е В	u o		o ni s	e =	• •	an	п	ম	g aspirated	${f kh}$ guttural	b soft	${f p}$ aspirated	Z
MAL	Value	final	•		٠	φ o ni s		· •	an	n ,	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	g aspirated	. kh guttural	e soft	p aspirated	Z Y W
MAN			•	e .	٠	φ	φ		`~	ı n	_	🛨 g aspirated	A . <td></td> <td>en p aspirated</td> <td>* Y</td>		en p aspirated	* Y
MAN	Form	final	•	e .	· · · · · · · · · · · · · · · · · · · ·	° Ф Р	φ φ	þ	<u>۲</u>	~	7,,	· · ·	·	φ	:	* Y
MAN		medial final	· .	1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	 V V	о Ф Р Р	= (\$\psi\$)	6 K	٦- ١ ٤	~	*	· · · · · · · · · · · · · · · · · · ·	4 8¢	φ φ	: Ф	1 1 1 1 V

ACCENTS.	sound.	o changes the letters into gutturals.	PUNCTUATION. equal to semicolon.	** equal to full stop.	THE NUMERALS are composed of letters, as	1 10 100	۹۰۰ ح ر ۲ آ 6	(1 10 -	The Mantshu ohar-	from the top down- wards. The lines	to right, as	√ ∧ a s	sere	ر kher	ĵ√ gen
	Value	bi	po	pa	bo long	pi	od	nd	po long	ki	ku	me	r re	口位	r ve
S	final	4	Ф	۰Ф	\$	S B	8	·₩	\$	`&	Ģ	正	mu init.		
LIGATURES	medial	4	ф	.₿	Ŕ	ě	\$	∙\$	\$	¢	Ģ	华	<u> </u>		ن الإ
<u> </u>	initial	4	Ф	·Φ	\$	\$	8	\$	\$	4	Q	体	₩ ₩	A mi init	P
	unconnected	8	Ф	ф	\$	ý	8	' \$	\$	٤.	C	Ų	 	K gge	8 ત્રુ
Value		4-4	W	qz	tz	j (French)	2 2	chh	dį.					or us	व्या
	final	:			:	:			:		SONANTS.	đ đ		· m	- Ôa
rm	medial	4	v	K	*	:		•	:		FORE CON	Ä	DIPHTHONGS.	1	
Form	initial	ע	v	K	*	ላ	*	পা	ข		CONSONANTS BEFORE CONSONANTS.	t "	DIPHI	of to	:ō
	unconnected	76	6	K	*	7	¥	र्ने	ન		CONSO	u ►			Ь
Name		Fa	Wa	Dze	Tze	Zha	Se	Chha	Jha					a.	, } -

MONGOLIAN

	CONSC	ONANTS			vov	VELS			
Initial	Medial	Final	Value	Initial	Medial	Final	Va	alue	
7	ĭ	1 4	n	-17	•	1 7	a)	
ଚ	ଚ	च	b	-	▼	1 7	е		
2	-	. * .	ch Scotch	~	-	C	i	nan.	
ÿ	11		gh guttural	70	P	ક	0	in German	
C	C	7 1	k		9	6	u	as ir	
C	C		g	-100	P	6	Ö		
Ţ	F	. 4	m	700	9	ক	ū		
7	7	7	1		DIINC	TUATION.	J		
7	7	♠	r	I	s sign divid	es sentences			
4	2	4	t	• • is us	sed at the e	end of a peri	od.	٠	
4	2	A 2	d	_		are not nu ie folio. It		•	
2	2		y		ch folio h	y 🔑 or s			
2	د		z, dz						
コ	=		ts or ch	T.11		VATIONS			
٧	4	# 1	s	racters a	are written	ou the Moning in perpend	icular	r lines	
V ,	٨.		sh	from left to right. The Alphabet con- of seven vowels, together with diphthe derived from them, and of seventeen					
2	2		w	sonants	which var	, and of sev y in form a e heginning,	ccord	ing to	

and the end of a word; or according to the effect exercised upon them by certain orthographical rules. — The consonants are not regarded as isolated sounds, but are always joined to vowels with which they form simple syllables. An exception is made to this rule when a consonant occurs as the final of a syllable or a word. But even such final consonants may be attended by a vowel. A variation of the Mongolian characters is known under the name of Galik.

ARMENIAN

Fo	rm	Name	Value	Num power	Form	Name	Value	Num power.
C	ш	Jpe	a	1	Մա	mien	m	200
ß	æ	pien	p	2	3 J	he or ye	h or y (in toy)	300
Գ	4	kim	k ck	3	Ն ն	noo	n	400
Գ	T	tah	t (soft)	, 4	(ر د	shah	sh	500
b	ŀr	yetch	y (cons.)	5	() <i>"</i>	wo	WO(in word) orO(in move)	600
o,	<u>L</u>	zah	z	6	ع 2	tchah	tch	700
l;	Ļ	è	e (in met)	7	9 4	bé	b	800
ę,	<u>r</u>	yet	e (in paper)	8	9. 2	tché	ch (soft	900
6	P	twoh	t (hard)	9	<u></u>	rah	r (hard)	1000
Ժ	J	zhe	j (French)	10	1) "	sé	s	2000
ŀ	ŀ	inni	i (in ill)	20	પે. 4	viev	v	3000
1,	L	lune	1	30	8 "	dune	d	4000
խ	þ	khe	ch(German)	40	P- P	ré	r (soft)	5000
്ന	f	dzah	Z (Italian)	50	8 8	tzvoh	tz (hard)	6000
կ	4	ghien	g (hard)	60	ኮ ሬ	une	ll (in due)	7000
÷	5	kwoh	h	70	Ф ф	pure	p	8000
\mathbf{Q}	å	tzah	tz (soft)	80	R &	ké	k	9000
4,	L	ghahd	γ(Romaic)	90	O º	0	0	10000
ለ	æ	jé	j	100	\$ \$	pha	f	20000

LIGATURES.

覧 hn	<u>ű</u> ls	₫ ; me	<i>И</i> р mi	# mn
L yes	v E lu	ժիլ mg	<i>d</i> ⊩ mye	⊉ vn

ACCENTS AND PUNCTUATIONS.

acute	,

- ° circumflex
- * rough breathing
- > soft breathing
- apostrophe
- , comma
- : colon or semicolon
- . full stop
- hyphen

- sign of length
 - sign of brevity and abbreviation
- sign of abbreviation, it also converts a letter into a numeral.

GEORGIAN.

The Georgian language is written in two Alphabets. The ancient character, used in the Bible and ecclesiastical works, is called Khūtsūri (i.e.sacerdotal). The character Mkhedrūli (or rather Mkhedrūli khėli i.e. Soldier's hand) is used in ordinary writing and printing.

	KHŪ	rsūri				MKHE	DR	Ŭ ĻI	
Form	Value	Form	Value	Form	Name	Value	Form	Name	Value
ζ _η ,	a	Ьи	s	5	an	a	ขโ	un	00
ч ц	ь	Рę	t	2	barí	b	ΰ	un	w
17 M	g	0ո ալ	00	δ	gan	g	3	vĕ	vĕ
Ծუ	d	ય પ	v	৻৽	don	d	ფ	phar	ph
મ મ	е	Pη	p'h	a	en	e	1	khan	kh
Tr m	w	ተ #	k	3	win	v	ሞ	ghan	(Arab.) gh
ЪЪ	z	U II	gh (Arab.)		zen	z	ป	qar	q (قArab.)
Бfi	h, ě (short)	q_{η}	q	뱮	he	e	3	shin	sh
மு ய	th	9 y	sh	တ	than	th	В	chin	ch
ኘኅ	i	ь þ	ch	ဂ	in	i	ថ	tzan	tz
Կ կ	k'	G-ը	ts	ð	kan	k	9	dzil	dz
ъ _ш	1	Գ դ	ds	200	las	1	8	thzil	thz
ъд	m	Rm	thz	9	man	m	8	jar	j
Rfi	n l	ች _μ	kh	6	nar	n	ß	khan	kh (rough)
50	i (short)	ις Τη	khh	Q	ie	i (sbort)	8	khhar	khh (very rough)
Orm	O (SHOPE)			on .	on	0	3 c	jan	j
ับาเ		Ру п	j 	3	par	р	₹.	hae	h
44	p	Ът	h (mute)	ป้	zhan	j (French)		hoe	hoi
۱ -	j (French)	B.A.	ho	ශි	rae	r	ф	fa	f
Դ դ	r	5 ₅	ch	ŀ	san	s	8	short 6) }
				ð	tar	t			

PUNCTUATION.

- Hyphen

- : Full stop
- : End of a Period
- . Semicolon

, Comma.

GREEK

Form	Name	Value
Αα	Alpha	\mathbf{a}
Вβ	Beta	b
Γγ	Gamma	\mathbf{g}
Δδ	Delta	d
Εε	Epsilon	e short
Ζζ	Zeta	${f z}$
Ηη	Eta	e long
θ τ Θ	Theta	th
Ιι	Iota	i
Kκ	Карра	k
$\Delta \lambda$	Lambda	1
Μμ	My	m
Nν	Ny	n
Ξξ	Xi	x
Oo	Omikron	o short
Π π	Pi	p
Ρρ	Rho	r
Σσς	Sigma	s
\mathbf{T} $\boldsymbol{\tau}$	Tau	t
υ Υ	Ypsilon	u
Φφ.	Phi	f ph
Χχ	Chi	ch
$\Psi \ \psi$	Psi	ps
Ωω	Omĕga	0 long

OBSERVATIONS.

- γ hefore γ and the other palatals (x χ ξ) is pronounced like n, as έγγύς (eng-gus).
- t is a mere vowel and never represents the consonantal sound of y, as Ἰωνία (I-onia). In foreign words the deficient consonant was replaced by t, as Ιούλιος (Julius).
- σ is an initial and medial s. The final is marked by the sign of ς. The latter is, in some modern editions, used at the end of medial ayllables.
- τ before ι. followed by a vowel, retains its proper sound of ti, and is not pronounced like shi, as Γαλατια (Ga-la-ti-a).

SPIRITS OR BREATHINGS.

Accents and Punctuation

Every Greek word, commencing with a vowel, has over this initial either

- (') spiritus lenis, the soft breathing,
- or (') spiritus asper, the rough breathing.

The former is aspirated before a vowel and equal to our h. The spiritus lenis is placed over an unaspirated initial vowel.

When a word commences with a diphthong $(\alpha \iota, \, \epsilon \iota, \, o \iota, \, \iota \iota, \, \alpha \upsilon, \, \epsilon \upsilon, \, \eta \upsilon, \, o \upsilon, \, \omega \upsilon)$, the breathings as well as the accents are placed over the second vowel, as $\alpha \breve{\upsilon} \tau \circ \varsigma$, $\delta \breve{\iota} \circ \varsigma$, $\epsilon \breve{\iota} \star \dot{\omega} \upsilon$. ρ always has the rough breathing at the beginning of a word. In the middle of a word, when this letter is doubled, the first ρ has the soft and the second the rough breathing, as $\dot{\rho}\dot{\rho}$.

ACCENTS.

- acute or sharp sound.
- ' grave or heavy sound.
- circumflex or long and trailing sound.

Accents, combined with either of the breathings or with the diæresis, are marked in the following manner,

PUNCTUATION AND OTHER MARKS.

The point and comma are used in Greek as in English. There is no semicolon. The Colon is denoted by a dot over the line ('). The note of interrogation is (;). In some modern editons the note of exclamation (!) has been introduced.

The Comma is also used to distinguish two words of equal spelling. As $\delta, \tau \iota$, $\tau \delta, \tau \varepsilon$, differing form the particles $\delta \tau \iota$, $\tau \delta \tau \varepsilon$. This sign is termed Diastole or Hyper-diastole.

The following signs are used in connexion with letters and syllables. The Apostrophe (?), the Diæresis (''), over a vowel separated from the sound of a praceding vowel, and the Coronis? in contracted words to denote a Crasis as τοὖναντίον for τὸ ἐναντίον.

Iota subscriptum is the Iota under the vowels α , η , ω , and indicates the etymology of the words. Formerly this t was pronounced, and had its place by the side of the vowel. This lateral Iota is still used in words apelled with capital letters, as THI $\Sigma O\Phi IA$ (for $\tau \tilde{\eta}$ σοφια) "Αιδης ($\tilde{\alpha}\delta \eta \varsigma$).

NUMERALS.

The Greeks employed the letters of the alphabet to denote the numerals, but as these characters were not sufficient for this purpose, the ς ($B\alpha \tilde{\upsilon}$, Vau) or \mathcal{F} (Digamma) was inserted after the ε , the $\frac{1}{2}$ ($K\acute{\sigma}\pi\pi\alpha$) after π , and \mathfrak{P} ($\Sigma\alpha\mu\pi\tilde{\iota}$) after ω . The letters employed as numerals are distinguished by a top line sloping, to the right as α' 1, β' 2, ς' 6, ι' 10, $\iota\alpha'$ 11, ι' 20, $\iota\varsigma'$ 26, ρ' 100, σ' 200, $\sigma\lambda\beta'$ 232 etc. The thousands recommence with α , and have a stroke below on the left, as α 1000, $\beta\sigma\lambda\beta'$ 2232.

GREEK LIGATURES AND ABBREVIATIONS.

These contractions are peculiar to old editions of Greek works. They are no longer used in modern typography.

			modern b	ypography.			
œ	$\alpha\iota$	3	εἶναι	8	ov .	53	στι
av	$\alpha \nu$	ćи	έχ	68/s	$oec{v}\deltaarepsilon$	50	στο
N	αλ	B	ελ	ાં જેગ	$o\vec{v}z$	28	στο
M	αλλ	W	ελλ	क्रें	οὖτοὺ	50	$\sigma \tau v$
\mathcal{L}^{\prime}_{I}	ἄν	# # W				500	στω
L' Sono	άπο	, -	ἔλαττον	<u>ज</u> _4\ \	π	συ	σv
žę	άρ	cu No	έν	જીંટલું.	παρὰ	$\sigma\omega$	σω
aç	ας	沙	εξ	गर्	πει	1 7	τ
άυ	$\alpha \vec{v}$	GAP.	$\dot{\epsilon}\pi\epsilon\imath\delta\dot{\eta}$	æξ	περ	Ca	au lpha
airs	αυ αυτοῦ	4.2	έπευ	· 206;	πεοί	9	ται
		w	$\dot{\epsilon}\pi i$	пlw	πην	7	
ani	αὐτῷ	i In	ἐπι	7500	$\pi\pi$		ταῖς
в Г	β	<i>ी</i> नः	έστι	75	πο	જિલ્લો	ταῦτα
	γ	80				T	$\tau \epsilon \iota$
γα γ8	$\gamma \alpha$	lw .	ευ	75 m	$\pi \varrho o \ \pi au$	Tlw	$ au\eta u$
ર્જ	γὰφ	θ	$\eta \nu$			T T	$ au\dot{\eta} u$
y√ F	77	· ·	$oldsymbol{artheta}$	710	πυ	\$	$ au ilde{\eta}arsigma$
F	22	900	θ_{α}	7576	πω	u	$\tau\iota$
γ ε	$\gamma \varepsilon$	9€	g_{ε}	eg	<i>φ</i> α	7°	το
×	γει	34	<i>9</i> દા	es	$\varrho\iota$	6	au o
W	γελ	9n	g_{η}	09	Q0	გ'	$\tau \grave{o}$
M.	γελλ	9,	g_{i}	CE	σ	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	τὸν
ა.ე	-	90	$oldsymbol{artheta}$ o	σα	σα		
⁄⁄\$ √\$	γεν	90	artheta v	(Gail	σαῦτα	দ্ধ ল	του
	γεο	9w	$artheta\omega$	σε	σε	F F	$ au o ilde{v}_{ ilde{m{z}}}$
M	$\gamma\eta$	२७	$\varkappa \alpha i$	od.	σει		$ au o ilde{v}$
71	$\gamma \iota$	300	zαì	ση	$\sigma\eta$	7	$ au o ilde{v}$
7 33	γίνεται	\ \(\delta\)	zαì	σlw	σην	3	τρο
γv	$\gamma \nu$	KX	κατά	9	$\sigma \theta$	न	au au
y 0	γο	71		ಷ್ಟ	σθαι	עד	τv
H	$\gamma \varrho$	nt	χ ατὰ	a		τω	$ au \omega$
γυ	γv	\$\$ x	εφάλαιον	%	σχ	τω ~	$ au ilde{\omega}$
w	γω	λλ.	.λλ	or.	σι	~~	$\tau \tilde{\omega} \nu$
Ŋ	J	MES.	μάτων	σ κ —	σχ	25	$ au \widetilde{\omega} u$
)	$\delta \dot{\epsilon}$	版.	μέν	σο (-	σο	j	\tilde{v}
<i>J&</i>	$\delta \epsilon v$	μί μίν	μέν	6	σο	y	v_{i}
		μζ	μένος	ær N	$\sigma\pi$	w	$v\nu$
NE	$\delta \epsilon \xi$	149			σπαν	÷	$oldsymbol{\hat{v}}\pi$
Na	$\delta\iota\alpha$	μ_{Y}^{T}	μετά	ΔŢ	σσ	ijan	
2] <i>g</i> .	$\delta\iota\dot{\alpha}$	my.	μετὰ	حر	$\sigma \tau$, A1	ύπο
1		28	μῶν	574	στα	XV	χαν
ĺρ	δ_{Q}	علي ا		SE	στε	2.	$\chi\iota$
4	£L	S S	<i>ο</i> ໂον	5र्ष	στει	25	XQ
	El .	3	os	571	$\sigma \tau \eta$	4	$\psi\iota$

ROMAIC OR MODERN GREEK.

The Alphabet coneists of the following 24 letters, which are the same as in ancient Greck.

A α, B β, Γ γ, Δ δ, E ε, Z ζ, H η, Θ \mathfrak{I} , I ι, K κ, Λ λ, M μ, N ν, Ξ ξ, Ο ο, Π π, P ρ, Σ σ (final ζ), Τ τ, Υ υ, Φ φ, X χ, Ψ ψ, Ω ω.

The vowels are $a, \epsilon, \eta, \iota, \upsilon, \upsilon$ and ω .

PRONUNCIATION.

A a (Alpha) ehort or long as in papa.

- B β (Vita) is represented by bh or v. In sound it differs slightly from the English v, the mouth being comewhat rounded in the articulation of the Romeic letter.
- If γ (Gamma) is an aspirate of g in g0. In $\gamma\gamma$ the first gamma becomes nasal; $a\gamma\gamma\epsilon\lambda\sigma\varsigma$, for instance, is pronounced ang-ye-tos. It receives the same sound before the palatals $x \xi$ and γ , as $ava\gamma\kappa\eta$, (a-nang-ki). Before ε ι and υ it is like y in yes. To produce the sound of our g in grey, the Modern Greeks use l'x as $l'x\rho\dot{s}l'\chi\mu$, (Graham).
- Δ δ (Delta) is aspirated as th in the.
- E e (Epsilon) as the e in pet.
- Z ζ (Zita) like z. Ζωή (20-i).
- 9 8 (Thita) like th in thick.
- It (lota) like i in machine. When t is placed under the vowels as in a η ψ or by the side of capital vowele (At, Ht, Ωt) it is not sounded and only lengthens the principal vowel. This t is known as the lota subscriptum.
- K x (Kappa) like our k. It is softened after the nesal γ hence άγκλιά is pronounced anglia.
- $\Lambda \lambda (Lamvda)$ like t in tong. Before ι it has the sound of tii in William.
- M μ (Mi) like m. Placed before \(\pi, \) these two letters acquire the sound of \(b \) μπαρούτι (barooti). This combination of \(μπ \) takes the sound of \(b \) in words received from foreign languages, but in compound Romaic words, each letter retains its original pronunciation. Example εμπύρευμα (emper-reo-ma).
- N v (Ni) is π . Placed before τ , the two letters coalesce in the cound of d, which is articulated somewhat herder than the δ . For example unifour (dimant). Any conjointly the sound of i; as $v\tau(a\mu, (jam))$. When the letters v and τ form part of two syllables in a compound word, they retain their natural sound of n. For example $ev\tau(\mu, \alpha)$ (e^{n} -timos). Before the vowel v the v is articulated like n in opinion as $v(\pi\tau w)$ (nyipto).
- $\Xi \xi (Xi)$ is X.
- O o (Omikron) like o in dot.
- $\Pi \pi$ (Pi) like p.
- P ρ (Ro) like r in rod. If doubled, it has a sharper sound.
- Σ α (Sigma) like s in so. Before B, Γ , Δ , Z, Λ , M, N, P and in the proclitics (ench as τούς τάς) before the same consonants, the Sigma is sounded like z, as Σμύρνη (Znirni).
- T τ (Taph) is t. $\tau \xi$ sounds cometimes like ts, but generally like ch, as $\tau \xi s \lambda e \pi \eta \varepsilon$ (chetepis). Words with $\tau \xi$ are mostly of foreign origin.
- Υ υ (Ypsilon) lik y in Egypt. For example τρυβλιον (trivition).
- Φ φ (Phi) like f or ph.
- X γ (Khi or Chi) like the German or Scotch ch. Before the vowels a, o, u, it is more hersh than before e and i.
- Ψ ψ (Psi) like ps in gipsy.
- Q w (Omega) is the long o.
- The following are diphthongs at, av, ϵt , ϵv , ηv , or and ov (a). At sounds like e in ethics. The v

of au, εv , ηv sounds like β before a vowel, or the soft and liquid letters β , γ , δ , ζ , λ , μ , ν , ρ . — or is like ee and or like oo in good.

The diæresis over the second vowel of diphthongs restores to each vowel its original sound; $\alpha i, \alpha \nu, \epsilon i, \epsilon \nu$ are pronounced separately $\alpha \iota, \alpha \iota \nu$ &c.

BREATHINGS AND PUNCTUATION.

The Romaic or Modern Greek admits like the ancient language two marks over initial vowels, namely the Smooth breathing Spiritus tenis ('), which is not noticed in reading, and the Rough breathing Spiritus saper ('), which in classical Greek takes the sound of our h, but is not audible in the modern language. The p, as an initial, is invariably marked with the rough breathing. In double p the first has the smooth and the second the rough breathing.

The names of the etops are, τελεια, full stop (.), μισοστιγμή colon ('), υποστιγμή or υποδιαστολή comms (.) and σημείου ερωτήσεως sign of interrogation (;). The mark of exclamation (1) is rarely used.

To these signs must be added the apostrophe and the diæresis. The former (') denotes the elision of one or more vowels. E. g. $\dot{\alpha}n^3$ kµėva, $\dot{\alpha}\phi^3$ ημές instead of $\alpha \omega$ etc. This elision of vowels occurs even before consonants as ${}^3\alpha^3$ instead of $\dot{\alpha}n\dot{\alpha}$ $\dot{\gamma}\dot{\alpha}$.

In κάν (instead of και ἀν) and κανένας (instead of και ἀν ξνας) etc, the mark () denotes the coaleacence of vowels (κράσις) and is called coronis. This mark is often used in contractions as μούκοψαν το χέρι.

The diæresis prevents the union of diphthongs. Ε. g. μποϊαντζής sounds bo-y-an-jis.

Another mark of separation is the diastole (,), which resembles the comma, and is used to distinguish the pronoun %, τ_i and the adverb $\tau\%$, τ_2 from the conjunction $\%\tau_i$ and the adverb $\tau\%\tau_2$.

. ACCENTS.

The tone is indicated by three accents, namely the circumfex (περισπωμένη) or long accent, the acute (όγια) or sharp accent, and the grave (βαρεία) or heavy accent in final syllables. Some monosyllabic words, being unaccented, are called atona. The circumfex can only be placed on the ultimate and penultimate syllable. When the vowel of a final syllable is long, the penultimate vowel cannot take the circumflex. A word is termed peripomenon, when it has the circumflex on its last syllable, or if it is a monosyllable and is marked with this accent. When the oircumflex occurs over the penult, the word is proper spomenon.

The Acute takes ite place in the penultimate and ante-penultimate syllable. Also on the final syllable at the end of a period, or when an enclitic follows (i, e, a word like $\mu \omega_i, \mu \omega_i, \mu \omega_i$ which throws its accent on the antecedent).

When the finel syllable is long, the scuts cannot revert to the ante-penultimate.

When the acute occurs in a monosyllable or in a final syllable, the word is called oxytonon; the penultimate, thus accented, is called paraxytonon; and the ante-penultimate with the acute is proparaxytonon.

OLD-SLAVONIC (CYRILLIC).

Basad on the most ancient MSS, and cut under the direction of the I. R. Aulic Councillor Dr. Paul Jos. Schafarik at the type-factory of Gottlies Habse Söhne in Prague.

F	orm	Name	Value	Form	Name	Value
a	a	Az	a	ФФ	Fert	f, ph
Б	6	Buky	b	XX	Chěr	kh
B	B	Vědi	v	ω ω	Ó	ó
ľ	r	Glagol'	g	Ö ö	Ot	ot
Д	Д	Dobro	d	LJ 14	Ci	ts
E	E	Est'	e	YY	Červ'	ě
Ж	ж	Živěte	ž	W w	Ša	š
S	S	Zělo	z	ի ի	Šta	št, šč
Z	Z	Zemlja	z	A A	Jer	
H	H	lže	i	ार दि	Jery	y
Ï	ï	1	i	Ыы	Jery	y
I	1 3	1	i, y	Ьь	Jerek	_
К	ĸ	Kako	k	# # #	Jeť	ě
Λ	Λ	Ljudi	l	Юю	Ju	yu
М	М	Myslite	nı	M is	Ja	ya
N	N	Naš	n	Н€ не	Je	.ye
0	0	On	0	A A	` Ęs	ę
N	П	Pokoj	р	Жж	Ąs	ą ·
P	ρ	Rci (Reci)	r	HA HA	Jęs	yę
C	C	Slovo	s	M M	Jąs	yą
T	T	Tverdo	t	3 3	Ksi	x
ħ	ħ	Těrv'	ť	1	Psi	ps.
OΥ	ογ	Uk	u	• •	Thita	th
ช่	8	Uk	u	Y v	lžica	y

NUMERICAL LETTERS.

А• •В• •Г• •Д• •Є• etc. •АІ• •ВІ• •ГІ• •ДІ• •ЄІ• etc. •КА• •КВ• •КГ• •КД• •КЄ• etc. 3 11 12 13 14 15 5 24 22 23 24 25 8 = 8 = 6c = r = 90== 4000, E. g. - arca == 6396.

ABBREVIATIONS (IN SLAVONIC TITLY).

- Titla (simple).
- " Glagol'-Titla.
- Oneček.

- Dobro Titla.
- Slovo-Titla.
- Pajerek.
- NOTES.

- 1) The power and pronunciation of the accentad (Roman) characters are sufficiently explained in the Polish and Czechian Alphabets.

 2) The alphabetical names have been rectified and, as regards the nasals, completed according to approved ancient authorities.

 3) The characters are designed to he printed without the abbreviations, which as relice of the

GLAGOLITIC.

According to ancient MSS (sec. XI—XII) designed by Dr. Paul Jos. Schafarik, cut at the type-factory of Gottlieb Haase Söhne in Prague.

For	m ·	Name	Va	lue	Num:	For	m	Name	Va	lue	Num:
			Cyrill.	Latin	value				Cyrill.	Latin	value
ተ	+	Az	a	a	1	39	39	Uk	yo	u	400
& Fi	면 망	Buky Vědi	S	b v	2 3	ф ф	ф (Fert	ф	f, ph	500
%	%	Glagol'	r	g	4	lo	b	Chěr	×	ch	600
& ⊛	љ Э	Dobro Est	A e	d e	5 6	я С	A O	Ó Šta	ω ųı	ú št	700 800
*	36	Živěte	ж	Ž	7	٩V	V	Ci	ц	c	900
&	& 9₀	Zělo Zemlja	s z	z	8 9	Ш 8	Щ &	Červ' Ša	Y	č	1000
8	ም	lže	n,	i	10	-8	-8	Jer	ъ	<u>0</u>	
W	8 M }	l Děrv' o.	լ 	i dj, j	20 30	-828	-	Jery	LI	y y	
þ		Jot Kako	, у, ·	k	4ó	8	8)	Jerck	Ь	<u>e</u>	
ጼ	ሕ	Ljudi	T.	1	50	A	Δ,	Jeť	*	ě, ja	
₩ M	W /	Myslite	м	m	60	₽ €	P €	Ju Es	IO A	ju e	
P	P.	Naš	н	n	70	9€	æ	Ąs	ж.	·aj	
9	9	On	0	0	80	Э€	3€	Jes	tā.	ję	
P	₽°	Pokoj	n	p	90	8€	4€	Jąs	淋	ją	
Ь	Ь	R'ci	P	r	100	0	4	Thita	0	th	
& W	8	Slovo Tvr'do	c _	s t	200 300	8.	₽.	Ižica	Y	y	
U	W	ivruo	. Т	ľ	300						

NOTES.

- 1. The letter Jery is a compound of Jer and Iže.
- 2. The letters $x_0 M$ and $x_0 1$ are duplicate forms. $x_0 1$ and $x_0 1$ are peculiar to Bulgarian MSS; $x_0 1$ and $x_0 1$ are Croatian characters. $x_0 1$ on the other hand is not a real duplicate form of $x_0 1$, which is used instead of $x_0 1$.
- 3. These characters are arranged to be printed without abbreviations, which are confined to liturgical books.
- 4. The numerical power of the letters is indicated by dots on both sides, as
- 5. Further information on the value and the pronunciation of the accented letters is given in the Czechian and Polish Alphabets.

CROATO-GLAGOLITIC.

Designed from Croatian MSS and printed works by Dr. PAUL Jos. SCHAPARIK; cut at the type-factory of GOTTLIEB HAASE SÖHNE in Prague.

Fo	rm	Name	Value	Num: value	Form	Name	Value	Num: value
њ	ъ.	Az	a	4	ER ER	Uk	u	400
ш	삗	Buky	\mathbf{b}'	2	Фф	Fert	f, ph	500
Ш	مم	Vědi	v	3	ka ka	Chěr	kh (ch)	600
%	% a	Glagol'	g	4	O o	Ó	ó	700
Ш	Ш	Dobro	\mathbf{d}	5	W W	Šta	št	800
9	3	Est'	e	6	v v	Ci	ts	900
ďo	ďo	Živěte	ž	. 7	分 公	Červ'	č	1000
æ	æ	Zělo	\mathbf{z}	8	Шш	Ša	š	
Pa	θo	Zemlja	z	9	-B -8	Jer	0	
æ	~	lže	i	10	E ES	Jer	$\frac{o}{e}$	
8	8	1	i	20	-88 -88			
nn		(Děrv')			48 W 48	Jery	У	
IP	ПP	¿č. Jot	dy, y	30	8 &	1	e	
4	Į,	Kako	k	40	Τī	} Jerek	$\frac{e}{i}$	
11 6	ďb	Ljudi	I	50	AA	Jet'	ě, ya	
R	M	Myslite	m	60		Ju	yu	
P	P	Naš	n	70	€€	Ęs	ę	
R	8	On	0	80	३€ ३€	Ąs	ą	
П	П	Pokoj	p	90	3€ 3€	Jęs	уę	
Б	Б	R'ci	r	100	23 -€ 28-€	Jąs	yą	
R	Я	Slovo	s	200	- de - de	Thita	th	
oo	00	Tvr'do	t	300	8 ₽	Ižica	у	

NOTES.

- These characters are designed to be printed without the abbreviations, peculiar to liturgical works.
- 2. The numerical letters are distinguished by dots on both sides, as .m. .e. etc.
- 3. The punctuation is the same as in other languages.
- 4. The letters £, 3£, 3£ and ££, the forms -B and -B, together with the combinations -BB and -B -B, are only found in Bulgarian MSS. The ligature £ instead of 33 only occurs in Croatian MSS.
- 5. The value and pronunciation of the accented Roman characters may be ascertained by referring to the Czechian and Polish Alphabets.

RUSSIAN

For	m	Name	Value	Observations
Straight	Italic			
A a	A a	As	a	The Russian Alphabet consists of 35 letters. Ecclesiasti-
Бб	Бб	Buki	b	cal and Old-Russian works,
Вв	\boldsymbol{B} \boldsymbol{e}	Vyedi	v ff	being written in the ancient Slavonic character, contain the
Гг	Γ ι	Glagol	g gh	following additional letters, σ (Selo) s, δ or δ (Ik) u,
Д д	A 13 0	Dobro	d	$ω(Ot)$ o , $ω(Yuss)$ $ω$, $ω(O)$ \hat{o} ,
E e	E e	Yest	é yé yo o	$(Ksi) x, \Psi (Psi) ps.$ In ecclesiastical books these
жж	Ж ж	Zhivete	zh sh	letters serve as numerals, and are arranged as in Greek. The
З з	З з	Zemla	z	sign - is placed over numeri-
ИЙий	ИЙий	Izhe	i	cal letters.
Iiï :	I i i	I	i	a bas the sounds of bar and bat. 6 like b. Before the strong
Кк	$K \kappa$	Kako	k ck	consonants and as a final letter it sounds like p.
Л л	I I	Lïudi	1	в 1) At the beginning of a syl-
М м	М м	Muislete	m	lable and hefore $\mathbf{A} + \mathbf{p}$ like v . 2) As a final, and before a hard
Н н	H μ	Nash	n	consonant, like ff. r 1) As an initial and medial
0 o	0 o	On	o a	letter nearly like g in $give$, but
Пп	II n	Pokoi	p	with a hard Hibernian aspiration. 2) As a final, or before sh,
P p	P p	Rtsui	r	like k. 3) In ecclesiastical pro- nunciation it is aspirated like
Cc	\boldsymbol{C}	Slovo	s	h. In some words, especially
Ттпп	T r m	Tverdo	t	foreign, it sounds like ch in the Scotch loch. 4) The adjectival
\mathbf{y} \mathbf{y}	\boldsymbol{y} \boldsymbol{y}	U	u	and pronominal ending ro is commonly pronounced vo, and
ΦΦ	Φ ϕ	Fert	ph f	in inferior style it is even spelled
$\mathbf{X} \mathbf{x}$	$oldsymbol{X}^{-}oldsymbol{x}$	Kherr	kh (ch in Ger.)	so. дas our d.
Ц ц	Ц у	Tsui	ts	e 1) At the beginning of syllables like yai. 2) At the end of
Чч	\boldsymbol{y}	Tsherv	ch	syllables like e in met, with a
Шш	III u	Sha	sh	feeble y before it. After sibilants this y is not heard. 3
Щщ	Щщ	Shtsha	shch	When accented it sounds like yeo in yeoman, and after ж ч и
Ъъ	B 8	Yerr	hard suffix	щ ц like o in go. This rule is applied a) before a consonant
Ыы	Ы ы	. Yerui	ui i thick	followed by the vowels a, o, y
Ьь	b b	Yer	soft suffix	LI, L; b) at the end of a word: c) in the instrumental case end
1 5 15	В Ib в	Yat	yé éyo	or en of nouns fem. sing; d) be-
Э э	Ээ	E	è	fore r, k, x, and the sibilants x, m. e) in the present tense
Юю	Юю	Yu	уоо гг.	In improved spelling the sound of yo or o is indicated by \ddot{e} . This
Яя	\boldsymbol{R} \boldsymbol{R}	Ya	ya yè	\ddot{e} also denotes the French sound of eu .
θ ө	$\boldsymbol{\theta}$ θ	Fita	f	ж like j in the French word
V v	V v	Izhitza	y v	jour. u and i sound alike.

RUSSIAN

Observations	CURRENT HAND			
A final, attended by B, sounds very bard. o accented, sounds like	A A T T		A a	M We mm T T
the oin go. When unaccented it is pronounced like the a in far.	II	neb		Y Y y y y y G S S S S S S S D D D D D
x is a stronger guttural than ch in the Scotch lock. ц like tz in Fritz.	\mathcal{J} \mathcal{T}		Гг	$\mathcal{X} \mathcal{X} \mathbf{x} \mathbf{x} \mathbf{x} \mathbf{x} \mathbf{x}$
. To ordinarily like ch in church. In to (what) and before n it takes the sound of sh.	1, 2		Дд	<i>Ц Ц</i> и, и, и и п
in consists of the sounds of sh-ch. A notion of its pro-	8 8		Е е .	U T gryy
nunciation may be formed by a connected articulation	K K	•	жж	<i>Ш</i> Ш ш ш ш ш ш
of the letters sh-chi in the words English children. To after a final consonant	3 3 K U	0	3 3	<i>Ш, Ш, щ,</i> щ <u>щ</u> Б С г в ъ ъ
produces a hard and ringing sound.	J F		Ии	SI 61
ь is placed at the end of words where it softens the preceding consonant, and	K K	-	К к	Bl Ol a 4 H H H
adds to it the sound of ye, such as is heard in the French pronunciation of Charle-	\mathcal{A} \mathcal{A}	Ял	Лл	T A 16 16 16 16 16
nagne. In the middle of a word, mostly between two	M 16	Sn .n	Мм	\mathcal{J} , \mathfrak{d}
consonants, it is uttered with a slight sound of ee. But is identical with the	\mathcal{H}	H H	Н н	<i>FO FO п ю</i> Ю ю
Polish y , and somewhat like the English we , when rapidly	0 0	o o	O o	A Lax A a
articulated. 35 as an initial like yai. The y of this diphthong is	$\mathcal{T}\mathcal{T}$		Пп	
also sounded in the middle of a syllable after n , but is	PZ	P	Рр	T V rov v
carcely audible after the other consonants.	<u>C</u> &	e c	C c	*

a This reversed e is the initial of words commencing with the sound ai. It occurs in foreign words in which it replaces oe.

so sounds like ew. In foreign words it is

similar to the French u.

я when accented, sounds like ya in yard. In unaccented initial syllables it sounds ye. After consonants it is pronounced like e in met. As a final letter it takes the sound of ya in yard.

e represents the same Greek letter but is pronounced like F. In modern derivations from the Greek it is replaced by F.

v only occurs in Greek words. At the beginning of a word or after a consonant it sounds like ee, and after a vowel like v.

The letters h, c, x, f, do not occur in the Russian alphabet. They are represented as follows: 1) h is replaced by г, as in Гамбургъ Hamburg, or it is omitted altogether, especially in Latin words as Анинбаль, Hannibal. 2) с before e, i, y, sounding like the German z or tz, is expressed by ц as Цицеронъ, and before a, o, u by k, as **Kolmeria**. 3) x is expressed by кс, as Алексти (Alexius). 4) f and the German v are changed into Ф, as Фридрихъ Frederick.

DIPHTHONGS.

Proper diphthongs are only formed by the s following a vowel: This letter receives in such a case a characteristic sign at the top (s). The diphthongs are ай ей їй ой уй ый тый ой юй яй.

ACCENTS.

The stress of an accented vowel is indicated by the acute (1) and the grave (1). The former denotes the raising, the latter the depression of the tone. The accents are only then marked in writing, when corresponding forms are to be distinguished from one another. They are placed over the following vowels асијоуы ъэяу.

SERVIAN.

(Modern form, cut by F. Rösch in Leipzic.)

This language is divided into the dialects of the Herzegovina, of Ressava and Syrmia. The Serviana use the Slavonic (Cyrillic), the Croats and Wends the Roman characters.

ILLYRIAN.

Nr. I represents the "organic" orthography now used in Roman-Catholic publications; Nrs. II and III are to some extent current in Slavonia, Croatia and Dalmatia.

Slavonic (Cyrillic), the Croats and Wends the Roman characters.			Croatia and Dalmatia.			
Cyrillic	Latin	Pronunciation	I.	II.	III.	Pronunciation
A a	A a	a	a	a	a	
Бб	B. b	b	b	b	b	The Vowels a, o, u, i,
Вв	V v	v	c	c,	cz	e sound as in German or Italian.
Гг	G g	g	Ć	ch	сh	ě as a medial, follows
	D d	d	č d	cs d	cs d	all the consonants except
Дд ББ Ее	Di di	dy, Hungarian gy	d dj	dj	dy	gutturals. It rarely is o
E e	E e	-	e e	e	e	final letter and never an initial. Its general sound
Жж	Žž	e :	ě	e i	e i	is lika ye (in yes). In
2	- I	j in French	ſ	f	f	the dialect of the Herze- govina it has tha same
TT	Zz	Z	g	g _.	g	pronunciation when not
	I i	i	gj	gj	gy	longthened, otherwise it
Į i	I i	y	h i	h ;	h	sounds like ee combined with ye, as is heard in
J j	Jj	y	j	i j	i j	see yet. Before i, like y
Кк	Kk	k	k	k	k k	in ye. In the Syrmian dialect it varies between
<u>Л</u> л	Li	1	i	i	1	ay and ee. In the Ressava
Љъ	Lj lj	ly, Ital. gl, gli	lj	lj	ly	dialect it almost invariably
Мм	M m	m	m	m	m	sounds like ay (in nay). This ě is now often spelled
Н н	N n	n	n :	n	n	ie.
Њњ	Nj nj	ñ Ital. and Fr. ng	nj o	nj o	ny o	c is like ts in lots.
0 o	0 0	0	p	p	p	ć and tj almost like ts.
Пπ	Рр	р	r	r	r	The difference between these spellings is, that C
$\mathbf{P} - \mathbf{p}$	Rr	r	s	s	ss sz	can be used indiscriminate-
Cc	Ss	s	š	sh	sc	ly, and tj only in derivad
ŤŤ	T t	t	1 .	l t	t	words.
ħħ	Ćć	ly, lj	tj "	ch u	ty	č like j in jar.
y y	Uu	u	u v	v	u	dj and gj are neorly like j in jar.
ΦΦ	F f	f	z	z	z	lj like lli in William.
XX	H h	h	ž	x	s	nj like ni in opinion.
TT	~	ts	dž	dx cx	ds	š like sh.
	Čč	ch	ž lika	s in mea	asure.	
***	Šš	i	dž lik	e j in jan	r .	
Шш		sh	III .	-		f a consonant and a vowel.
Щщ	Šć šć	shch	As a consonant it sounds as in other languages. As			
Ъъ		hardening suffix	a vowel it forms a separate syllable and is pronounced with a very slight sound of e. The orthography of			
Ы	I i	ee, French u	this syllable varies. Some spell it er, the Ragusans			
Ьь	_	softening suffix	ar. Others omit à and è and simply write r, others again write r.			
Ъ ъ	Je je ě ie	yé, ié				
\mathbf{e}	Je je	yé	Accents used in Servian: acute ('); sign			vian: acute ('); sign of
ю Ю	Ju ju	yū	length ('); \cup or \cap sign of brevity.			
я К	Ja ja	yā				
Цų	Dž dž	j				
Θe	Th th	th	1			

WALLACHIAN

			7			
Form	Name	Value		Mode	n Shape	Improved Modern Shape
Яа	As	a		A	a a	Antiqua Current
Бв	Buke	b	Besides the Al- phahet on the left		5 b	$ \mathbf{A} \mathbf{a} \mathbf{A} \mathbf{a} \mathbf{a}$
Вв	Vide	v	there are two va-		_	БББББ
Гг	Glagol	g	rieties of charac- ters.	∥ B	BV	D e D e
Д, д,	Dobro	d	b(pronounced Eer)	$\ \Gamma \ $	r g	B B B b v
& €	Yest	ye e long	is appended to a	∥Д.	a d	$\Gamma \Gamma \Gamma \Gamma g$
Жж	Shivete	zh	consonant at the	-	e y	D d D d d
, 3 s	Zalo	Nr. 6	end of a word without heing		1.	# _ 1
3 3	Zemlia	z	sounded. In mo-	il		1c c
ИЙй	I	i	dern printing it is omitted.	11	3 Z	J J J j (Fr.)
Îĭïi	Ishe	у		I	i i	Z Z Z Z
Кк	Kako	k	H (Yory) is only employed inwords	K	c k	I i I i i
Лх	Lïude	1	of Slavonie origin.	Л.	. 1	
M m	Meslite	m	Y Ishitza, occurs	7.5		K k K k
Нн	Nash	n	in words derived from the Greek.			$\parallel \mathbf{L} \wedge \mathbf{A} \parallel \mathbf{L} \wedge \mathbf{A} \parallel 1$
0 o	On	0	After vowels its	Н	ı n	M m M m m
II n	Pokoi	p	sound is v, after consonants, i (as	0 0	0	DT DT
Pρ Gc	Rtse	r	in Bit).	Пг	q p	
Тт	Tverdo	s t		P	1 -	0 0 0 0 o
8 a	Uk	u	SHORT ACCENTS.	C		ПпПпр
Oy oy	Uniku	u				P P P P r
ФФ	Fert	f ph	an initial vowel	li	1	
Хх	Khir	kh h	and the diph-	y y	u	
ω ω	0	O long	thong 10.	ΦΦ	f	$\left \begin{array}{cccccccccccccccccccccccccccccccccccc$
Цц	Tsi	ts	o stands over a medial and final	\mathbf{X} \mathbf{x}	kh(ch)	Y y Y r n
чч	Cher	ch	H and over a	Цп	ts	Φ Φ Φ φ f
III m	Sha	sh	final 10.	Чч		1
Щщ	Shta	sht		Шш	3.0	()
க கீ	Yor	e short	LONG ACCENTS.			U, u, U, u, ts
5 5	Yaty	éa	" over initial vow-	Щщ	sht	T T Y u ch
à Å	Yus	e (uüh)	els and over 10.	ъ Т	e	W w W w sh
Юю	Yu	yu	over medial vow-	B B	éa	_
M m Ā š	Yako Ia	ya	over the medial	Яя	ya	A . A
m & + + + + + + + + + + + + + + + + + +	ra Ftita	ya ft th	A and the final	ж ж	(uüh)	$\begin{vmatrix} \hat{\mathbf{i}} & \hat{\mathbf{i}} & \hat{\mathbf{i}} \end{vmatrix}$ (ün)
A. A.	Psi	ft th	4, 16, A, N.	_	' '	U u U u j
ž a	Xi	ps x	over abbre-	4	ün	- 12/2
VY	Ishitza	vi*	viations and let- ters employed as	Μů	j	APOSTROPHISED LETTERS.
本本	Ün	üng in Germ.	numerals.	A and Y	are only	ĂăĔĕĬĭĬĭŎŏゞ
μμ	Je	j		used i words.	n foreign	Ŭŭ Dd Sş Ţţ A'A
		J			I	22222

The Alphabet to the left is used in liturgical and ancient works. With the improved cultivation of the language the letters have heen considerably simplified, as is shown in the two Alphabets at the right. No notice has been taken here of the ancient names and the accentuation of the letters.

POLISH

a lil	re a
Ąą -	– ong
е -	– е
é -	– ié
Ęę -	eng eng
i -	– i
0 -	– 0
0 0	– ou
u -	– u – e(n)
J	— е (ü) — b
b - b -	— в — by'
о - с -	– by – ts
Ćć -	— tssh
cz -	– ch
d -	– d
dz -	— dz
dź -	— dzy'
dż -	— j
f ·	— f
g	— g
h -	- h (ch)
	— kh
J	— у
11	— k
1 .	— 1
Kł.	
m m	— m — my'
n ·	— my — n
Ńń	— п — пу'
p	— р
γ̈́ ·	— р
r	_ r
$\mathbf{r}\mathbf{z}$	— rsh
s	— s
Śś	— sy'
SZ	_ sh
t	— t.
W	— v
ý	vy'
Z	— `z
Źź	— zy' ż—j(Fr.)
LZL	ZJ (Fr.)

The marginal column shows the pronunciation of Polish letters in as far as it approximates the English. The vowels $a, e, i, o, ou, u, \ddot{u}$ in the adjoining column are sounded as in German. The following peculiarities must be noticed.

These vowels have a clear and distinct sound, except the i which obtains the consonantal force of y, when it is followed by a vowel and preceded by b, c, dz, m, n, p, s, w, z. In this case the i is merely the medium of softening the consonant, Ex: biodro (loin) sounds byodro. Before e it becomes ie.

The consonants b, c, dz, m, n, p, s, w, z are attended by a slight and rapid articulation of y, as if written by, cy, dzy, my, ny, py, sy, wy, zy. They stand as finals of words, and also of syllables followed by consonants. Of these letters c takes the intermediate sound of our b and ch.

c sounds like ts in wants.

cz is our ch, and sz our sh.

dz sounds like ds in wands.

 $d\dot{z}$ is like j in jar.

h is of rare occurrence, the Slavonic h being represented in Polish by g. It is as guttural as the German ch, Ex: hultaj (a Good for nothing).

If the virgulated l is heavier than the common l. The middle part of the tongue is more raised in the articulation of this letter.

rz is r blended with \dot{z} . The r is softly rolled, and its z is like the French \dot{j} . Ex: przy.

 \dot{z} like j in the French word jour.

SORBIAN OR WENDISH OF LUSATIA.

The vowels are: a, o, u, y, e, i. The union of a and o makes o; o and u form o; e and i coalesce in e. The semi-consonant j is connected with i; h with e; w with a o u.

The consonants are divided 1) into Labials $w,\,f,\,v,\,b,\,p,\,m.$ 2) Palatals and Linguals $n,\,l,\,r.$ 3) Dentals $d,\,t,\,\acute{e}.$ 4) Sibilants $z\,\dot{z},\,s\,\dot{\dot{s}},\,c\,\dot{c}.$ 5) Gutturals $h\,ch\,(g)\,k.$

With regard to their articulation these consonants are divided into broad and slender sounds, according as they are hardened or softened in their utterance.

Broad sounds: w, \acute{w} , b, \acute{b} , z, \grave{z} , d, dz, $d\grave{z}$, h, g. Slender sounds: f, v, p, \acute{p} , s, \check{s} , t, c, \acute{e} , \check{c} , ds, ts, ch, k.

Between these letters nine intermediates take their place: m, m, n, n, n, l', l, l, r, r.

The whole Alphabet thus consists of the following 8 vowels and 32 consonants. A (ò) o, ó, u, y, e, e, i; j, w, ŵ (f, v) b, b, p, p, m, ù, n, n, i, l, l, (l), r, r, z, z, s, š, d, dz, dz, t, c, ć, č, ts, h, ch, g, k.

In combining one consonant or several consonants with a vowel to form a syllable, a distinction is made between hard soft and neutral consonants.

At the same time the following rule is to be observed. In the grammatical combinations of structure, derivation, declension, enumarison and conjugation the vowel y cannot follow a soft consonant, nor can e and i follow a hard consonant, whilst the neutral consonants may be succeeded by either y or i. In conformily with this rule are reckoned as

Soft, j w v b p m n l r z š ć dż č. Hard, ł r z s d dz t c (h ch g k). Neutral, w f b p m n ds ts.

The letters qu and x, in words of foreign origin, are spelled kw and ks, as kwadrat, Aleksander, kwas. Also g occurs only in foreign words. V and f are found in but few vernacular terms.

PRONUNCIATION OF THE CONSONANTS.

The accented characters $\acute{\mathbf{w}}$ $\acute{\mathbf{b}}$ $\acute{\mathbf{p}}$ $\acute{\mathbf{m}}$ $\acute{\mathbf{n}}$ $\acute{\mathbf{t}}$ differ from the unaccented in softness of sound. Before e (acute) $\grave{\mathbf{e}}$ and $\grave{\mathbf{i}}$ this accent is unnecessary, because these vowels are sufficient to soften the preceding consonants.

I sounds like v. In the north-eastern part of the country it is pronounced like a harsh I. For instance čólo.

dz as in English, but without a break between the two letters. Example na fidzy.

dź like g in gentle, as dżera, nadźya.

z as in English, f. i. zuby.

ž like the s in pleasure, f. i. żolty.

š like sh, f. i. šaty, šéry.

c like ts, as cybać.

ć nearly like ch in churn, f. i. ćerń.

č the sharpest sibilant like tch in wretch, f. i. čorny.

ds, ts like ts, f. i. tsihać.

ch is frequently pronounced hard, like c before a, o, u, especially at the beginning of words, for instance chory.

j like y in yes.

s like z.

w like v.

PRONUNCIATION OF THE VOWELS.

a i u as the vowels in are, here, true.

e is acute, grave, or long. After c z s it is often pronounced like y.

o acute grave or lengthened.

ó deep nearly like u.

è like ea in dear.

y deep as ea in dearth.

CZECHIAN OR BOHEMIAN.

Roman.

abc defgh chijklm noprstuvyz — á é í ó ú ý — ů — ě Č č Ď ď D' ď Č ǧ ň Ř ř Š š Ť ť ť Ž ž

German.

abedefghchijklmnoprfstuvnz-áéióúý-ů-ě-Čč ĎďD'8 Gğ ń Řř Šťž Žťi Žž

q and x only occur in foreign words. qu is generally replaced by kv as kvitance (receipt). Some writers use w for v and ou for au.

The accented vowels á é í ú y and û are long; without accent their pronunciation is short.

- ě i i ere termed soft vowels. The others are hard.
- h ch k r are hard consonants.
- cčď jňřšť ž are soft, and
- b d f g l m n p s t v z are called indednite consonants.

THE FOLLOWING SOUNDS DIFFER FROM THE ENGLISH PRONUNCIATION.

- a sounds like the first a in papa.
- á like a in father.
- c even hefore k, sounds like ts, as necky (nets-kü) tha tray.
- č like ch in church.
- d hefore i i or when merked with the liquifying sign (d) is sounded dy. This consonantal y is softly blended with its d, as div or diw (pronounced dyiv).
- e lika e in den.
- é like a in late.
- ě as ye in yet. It can only occur after v, f, b, p, m, n, d, t with which it coalesces. As věk (vyek) a century.
- cy like a in late followed by y in yet, as woley (call thou). This final y forms a distinct sound.
- g as in garnet. It only occurs in foreign words.
- h aspirated at the beginning and in the middle of a word like h in house. At the end of a syllable it partakes of the guttural sound of ch and is somewhat softer than ch in the Scotch loch.
- ch like ch in the Scotch word loch, as chleb (bread).
- i as in grin.
- i like ee in green.

- j like y, as jaro (pr. yaro) springtime.
- n hefore i i, or when marked ň, sounds like ni in opinion.
- o as in of.
- ó as in door.
- ou is a diphthong which blends the sound of o (in pole) with u (in put). These vowels retain their separate pronunciation in verbs with prefixed po, as poubrati (po-u-bra-ti).
- š (in Garman type ff, and as a final, š) like sh in fish.
- t before i 1, or when marked t, sounds like a t with which the semi-vowel y conlesces, as fulipan (pron. tyoo-le-pan) tulip.
- u as in put.
- ù and u long as in blue.
- y like u in the French pure.
- z as in English but.
- ž like s in measure.

ORTHOEPIC RULES.

- 1) The vowels with the long accent (') should not be lengthened to excess,
- 2) The consonants s, š, z, ž, become mute before the affix sky, as vesský.
- 3) The consonant j, as an initial before another consonant, is not pronounced, as jsem. When a syllable ending in a vowel precedes, the j becomes audible.
- 4) The compounds to ds and ts are pronounced like c; $d\tilde{s}$ and $t\tilde{s}$, like \tilde{c} .
- 5) Prepositions consisting of a simple consonant, such as k, s, v, z, although standing by themselves, do not form a syllable, but are sounded together with the first syllable of the next word, for iostence k tobe s námi. These unconnected prepositions cannot be placed by themselves at the end of a line or a page.

- 6) The auxiliary verb. jsem, jsi, jest-jsme, jste, jsou, the conjunctional particles byeh, bys, by, bychom, byste, bý, and the reflective pronouns se, si ottached to an active participle, are blended together in the pronunciation and joined by a hyphen. The same is the case when si, se are postpositions of nouns or adjectives. E. g. shledání-se, modlící-se.
- 7) The soft consonants must be carefully distinguished in articulation from the indefinites, and the i i ĕ must properly coalesce with the latter.
- 8) The sibilants c s z differ from each other as well as from \check{c} š \check{z} .
- 9) h is never mute. Example hrom (thunder) in which the h sounds as the h in the Scotch pronunciation of which.
- 10) The accent always rests on the first syllable, as be-žim, pri-nesu. The accented syllable may at the same time be lengthened, as sná-žim, krá-sa.

DIVISION OF SYLLABLES.

In words which are difficult to pronounce, owing to the complication of consonants, it is of importance to ascertain the component syllables. In this language most syllables end in vowels. The following circumstances must be noticed in applying this rule,

- 1) A consonant placed between two vowels or hetween a vowel and l or r, joins the next syllable. Example: stra-ka, ba-vl-na.
- 2) Of several consonants, followed by a vowel, only the last consonant goes to the next syllable; yet sk, šk, st, št are not separated but join the next syllable. In such instances the preceding syllable is often without a vowef, while 1 or r forms the medial consonant. Example, hrn-číř.
- 3) l, r, ř, with a vowel after, are joined by the preceding consonant in forming one syllable. To this rule n forms an exception. The consonants sk, šk, st, št must without separation be annexed to the syllable which follows. Example, kno-flík, zei-dlik, svě-tlo, han-li-vý.
- 4) Compound words are divided according to their component parts, as ou-voz, ná-dvo-ří.

HUNGARIAN.

The Hungarian language comprises 31 sonants which are expressed by the Roman Alphabet. Owing to the combinations of some letters the Alphabet is formed as follows:

a b cs cz d e f g gy h i j k l ly m n ny o ö p r s sz t ty u ü v z zs.

The vowels $a\ e\ i\ o\ \ddot{o}\ u\ \ddot{u}$, are sounded as in German. With the accent at the top the vowels $\acute{a}\ \acute{e}\ i\ \acute{o}\ \ddot{o}\ \dot{u}\ \ddot{u}$ are lengthened.

The combinations $cs\ cz\ gy\ ly\ ny\ sz\ ty\ zs$ represent single articulations and are inseparable in spelling.

cs sounds like ch as kocsi.

cz » » ts as czukor.

gy » » di in the French word Dieu, as gyar.

ly " il in the French word email, as homály.

ny » » ni in opinion, as anya.

sz " " s as szag.

ty " ti in the French metier as tyuk.

s » » j in the French word jour as $zs\acute{a}k$.

With regard to the consonants is to be noticed that,

j is pronounced like y in yes, and s like the English sh, as sas.

The letters c ch q w x are only found in foreign words, for instance Cato, Achilles.

y does not represent an independent sound, but simply helps to soften the antecedent letter. Nevertheless in Old-Hungarian words y and ch are employed as independent letters. The former then sounds like i in it, and ch as in church. For example $P\'{alffy}$, Forgach.

The compounds cs and cz are often denoted by ts and tz. Modern Orthography rejects this spelling except in words where the t is radical, as barátság (not barácsag).

LETTISH.

The Lets have adopted the following 22 letters of the German Alphabet,

abcdeghijtlmnopristumz.

The c and h are only used in combination with $\mathfrak f$ to express the sounds of $\mathfrak f\mathfrak h$ and $\mathfrak f\mathfrak h$. The h moreover serves to lengthen the vowels. The German consonants $\mathfrak h$ $\mathfrak h$ $\mathfrak h$ $\mathfrak h$ never occur in Lettish. Nor are $\mathfrak v$ and $\mathfrak h$ in use. The $\mathfrak q$ $\mathfrak p$ are represented by $\mathfrak k \mathfrak w$, $\mathfrak k \mathfrak k$, $\mathfrak k$.

By means of the 22 characters the following 34 simple sounds of the Lettish language are formed.

ab bjdeggGjikk Klł&m mjnnRoppjre R • f bf fch bfch f S (8) fch t tfch n w wjz.

PRONUNCIATION OF THE SIMPLE VOWELS.

a e i u are short. When lengthened they are marked thus,

âêîû

The σ is always long, nevertheless it receives the lengthening mark to distinguish the accented σ and σ from the lighter σ .

PRONUNCIATION OF THE DIPHTHONGS.

There are six diphthongs in this language, at an et of ni nee. The first five are pronounced as in German. Although at and et are naturally long they occur with the circumflex at et. The diphthong et only appears in the word wet. When an and ni are to become separate syllables the n and i are marked with the diæresis, an, ni. Peculiar is the sound of ee; it passes from the articulation of ee (such as is heard in the German word See or in the English word say) to an intermediate sound, such as is heard in the second a of advantage.

CONSONANTS.

The following letters have the English sound, bblmnprt. The j is a consonant like our y; we sounds as b, and ble like te. The labials ble mplw may be followed by the modifying j, which like the Russian <math>ble ble like the consonant and causes a slight <math>ble to ring after it. It cannot be separated from the consonant nor uttered as an independent letter. In r are virgulated as ble te like like like letters the following four are virgulated.

a like the German I before e and i; g is like I before a o u.

t hard like k in king, t as c in come, cut.

f, sharp like our s. & is the final of this sharp f.

is soft like our 3.

bf form an inseparable sound like the soft Italian z.

fc sharp like the Russian m and the English sh. The virgula of f and fc does not indicate the sound of an inherent j. It only helps to distinguish the sharply pronounced consonant from the soft f and fc, the latter is pronounced like the Russian x or the French j in jour.

tid is like the English ch and bid like g in gentle.

PRONUNCIATION OF SUCCESSIVE CONSONANTS.

Two or more Consonants, joined together in one syllable or in two syllables, must be so articulated that each should retain its original and independent sound. The n is somewhat modified by the g and f. It being assimilated with these letters, its sound is like that in the English words sing, sink (not as in tingle, tinkle). When g and f are marked with the cross-stroke the n is likewise virgulated, and is then pronounced in accordance with the foregoing rules.

GERMAN

A v	A	a	a	N n	N	n.	n	Et vi	Ű	ä	ä
Lb	\mathfrak{B}	в	b	Ov	ವ	0	0	O "	Ö	ö	ö
L =	Œ	c	c	Rz	Ŗ	p	p	Ü "	ü	ü	ü
	D	b	d	9 7	ຄ	q	q	of	ďŋ		ch
f i	Œ	e	e	Ra	R	r	r	-k	cf		ck
S f	F	f	f	Off	ෂ	Íŝ	s	ff	÷11		ff
g y	ß	\mathfrak{g}	g	21	T	t	t	fi	fi		fi
5 f	Þ	h	h,	Min	u	u	u	fl	fl		fì
"J"	\Im	i	i	W no	\mathfrak{V}	\mathfrak{v}	v	fi	fi		si
Jj	F	į	j	Min	W	w	w	P	ff		ss
a k	R	f	k	26	X	ŗ	x	A	fit		st
\mathscr{L} ℓ	£ ,	ĺ	1	29 -9	Ŋ	ŋ	у	A	ß		$\mathbf{s}\mathbf{z}$
Min	M	m	m	37	3	3	Z	by	ţ		tz

The vowele are: a a e i o o u n. The diphthongs or compound vowels are: ai ci au au cu; all other lettars are consonants.

Simple vowels.

Simple vowels.

Every vowel, followed by two consonants, is short, if followed by only one consonant it is long.

A a is prenounced like a in the English word late.

It is pronounced like a in the English word late.

It is pronounced like a in the English word late.

It is pronounced like a in the English word me.

It is pronounced like a in the English word hope.

It is pronounced like a in the French-word seul.

It is pronounced like a in the French-word roof,

It is pronounced like a in the French-word roof,

It is pronounced like a in the French-word roof,

It is pronounced like the French-word roof. it it is prenounced like the French u. There is no corresponding sound in the English language.

9 h has the sound of the German i, by which it is generally replaced.

Double vowels.

The double vewels an et. or. are no diphthongs, because only one letter is, sounded, and the second serves to indicate that the syllable is long, it is procounced like sa in the English word meat.

In the German diphthonge.

In the German diphthongs, the twe vowels must be sounded one after the other, but so quickly us to form only one syllable.

at and et are proncunced almost alike, and have the sound of the English i in the word fire.

at any proncuoced like on in the English was allowed.

an and en sound almost like oy in the word joy.

Consonants.

The pronuocistion of the consonants differs but little in the two languages; the learner should notice the following peculiarities.

© t before a c and i is pronounced like ts.

Before a v n, before a consonant, and at the and of a ayllable it is pronounced like k, by which in most cases it may be replaced.

© a the beginning of a word is pronounced like k, except in words, derived from the French, in which it retains the French pronunciation.

In the middle or at the end of a word dy has a In the middle or at the end of a word d has a pronunciation quite heculiar to the German language, and more or less guttural, but for which no corresponding sound can be found in English; it is like the Scotch the in the word loch after a o u au, but softer after a e i 3 ü au eu, and after a consonant. The order of is pronounced like when these consonants belong to the root or radicat syllable.

But the dy preserves its guttural prenunciation, when it stands thefore the sor j by contraction or in a compound word.

G a ut the heginning of a syllable is pronounced

G at the beginning of a syllshle is pronounced like the English g in the word good; but between two yowels, in the middle of a word and at the end of a syllable it has a sound like the dt, only much softened.

After n at the end of a word it is pronounced like a very soft k.

5 b is always aspirated at the beginning of a syllable. The aspiration becomes however almost imperceptible before a final t.

After a vowel or s t, the b is not pronounced, but, only indicates that the syllable is long.

3 i only stands at the beginning of a syllable and is pronounced like the English yin the word yet. A dreplaces the double f, and is pronounced short. On qu has the sound of ky in English.

In an ansatic the sound of the in English.

If at the heginning of a syllable is pronounced like the English z, at the end of s syllable however like the English s.

The long its placed at the heginning and in the middle, sonly at the end of syllables. If in an uninflected word there are two fone after another, they are written if, is soly placed at the end or in the middle of syllables, has the sound of the English ss.

Số fố is pronounced like the English sh.

ft and by are pronounced like st and sp in English; but in some parts of Germany they pronounce ft at the beginning of a word like sht, and in like shp. By has the sound of f.
By the is pronounced like the English v.
By ass sounded like ts.

replaces the double ; and is pronounced very hard,

DANISH

 \mathfrak{A} α Aa aa b (§ c હ \mathfrak{g} H h (haa) į j (Jod) f (kaa) Ω M m N D B $\mathfrak Q$ q Rr T t U u v (we) Ŋ ŋ 3 8 **W a** (ä) D 0 (ö)

The Danish language forms part of the great Gothic family and derives its origin from the ancient Norse which once extended over the whole of Scandinavia. Hence it is closely connected with modern Icelandic and Swedish, more distantly with the German, Dutch and English languages. In its further development it has embodied a variety of terms from the French, Latin and Greek.

The Alphabet consists of the adjoining 28 characters.

VOWELS AND DIPHTHONGS.

The simple vowels are

aaaeioubæs

They are long as in Stat (the a as in star) Raab, Beeu, blib, or short as in Stab, Aanb, beb, Bib. The vowels e i o u o s have an open sound as in Ret, Digt, gobt, or a close sound as in free, friib, gob. e i o u, as long middle vowels, are doubled nuless the word ends in o b o v, as Steen, Been, Muns. At the end only the e is doubled, as fee, fee. The other vowels at the end of a syllable are always long, as fo as fo, and often add a mute e, as frage. In inflections the reduplication of the vowel ceases, as Huns, Hufe. The vowels a scannot be spelled as o e, o is pronounced like the French o, not like the English o. Ex: Jube. o a mostly sounds like o in o in modern times o has been adopted for o a, and o for the open o. For the deep pronunciation of this vowel, the mark o has been retained.

As diphthongs are reekoned at etoi si si an en on ui. Some grammarians only admit the following six, at an et en on si. The pronunciation of these vowels consists in a rapid blending of their respective sounds.

CONSONANTS.

The consonants are

bebfghjtlmnparsitbrz.

According to the organs of speech they are divisible into: 1) Linguals bt In r. 2) Labials b p v f m. 3) Palatals g f q j. 4) Sibilants p 3. 5) Aspirate p. In the dialect of the Juts the p is aspirated before p and p. p b b g and p are softened to such a degree as to become frequently inaudible. After a vowel or when placed between two vowels p is pronounced p (like

the Anglo-Saxon δ or the English th in smooth). Double b has a similar pronunciation. It and nb sound like ll and nn. In rb the b has a very soft sound. Also before ϵ the b loses part of its force, and it becomes inaudible before t. isounds like y in yes. v sounds like the English v.

The following letters are peculiar to foreign words. 1) c before a o u or a consonant, is pronounced as in English; before e i p a s, it is like s. a is like b. 2) a, followed by a, sounds like b. 3) a is like a or a and sometimes like the English a. 4) a in the middle and at the end of a word is like a or a b. As an initial it is almost as soft as a.

Combinations of letters, ff fi fi II ff ft ft.

SWEDISH.

The Alphabet consists of the following 28 letters,

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Xx Yy Zz Åå Ää Öö.

PRONUNCIATION OF THE VOWELS.

The vowels $a \circ u \stackrel{\circ}{a}$ are hard, and $e \circ u \stackrel{\circ}{a}$ are soft. The vowels $a \circ u$ sound as in German or Italian. \ddot{a} is like a in bare. $\stackrel{\circ}{a}$ like o in tone. The e sounds as a in ale. 1) when forming an independent syllable, Ex: e-vig (eternal). 2) at the end of a syllable, Ex: ande (spirit). 3) In many monosyllabic words, inflections, derivations and compounds. e sounds like ai in air. 1) before $f \circ u$ in u, when the next syllable of the same word is a consonant, as efter (after). 2) before f as nef (no). 3) in many monosyllables, as elg (elk). These rules have many exceptions. o has two sounds, 1) nearly as in move, when it constitutes a syllable by itself, or at the end of a word; also before the radical m, in nouns and adjectives; in all derivatives of words ending in o; before f and in various other forms of words. 2) f has a lengthened sound before a final f, and a sharp sound (as in f not) before f not f is mostly lengthened (nearly like the French f in f length f as f in f in length f is a dö (to die), or the sound is sharper and quicker, as for (for).

There are no diphthongs in this language.

CONSONANTS.

- b retains its ordinary sound.
- c before k stands for kk. Before h it only occurs in the Swedish word Och (pronounced ock). Before the soft vowels it sounds like s, before the hard vowels like k.
- d sounds like our d. Before t like t. As a final after n almost like n. Before j it is silent.
- f as in English. At the end of a word like v. In the middle of a word before v of the same syllable, also after l and r, it is mute Ex: kalfven (pron. kalven). f and v of separate syllables retain their original sounds. Ex: drifved (= driv-ved).
- g 1) as in good before a hard vowel, before i and e in a sharp unaecented syllable, at the end, and before a consonant of the same syllable. 2) like y in yes, before the soft vowels, and after l and r. Ex: ge (like ya). Of this rule there are some exceptions. 3) like ck when a t follows. Ex: sagt (=sackt). 4) like ng when a syllable ends in gn, as vagn (pronounced vangn).
 before j it is mute. Ex: gjort (pr. jort).
- h is aspirated, before j and v it is mute.

- j like y in yes. After f m n p the j is clearly articulated and the preceding consonant has a very slight pronunciation. As a final letter it is somewhat like the German ch.
- k 1) as in English. It is subject to the same rules as g. 2) before the soft vowels it is like our ch. In kjortel the k sounds like t.
- l before j is mute.
- m as in English. The final m sounds like two m in those radical words which, on being inflected, are spelled with double m. Ex: lam (pron. lamm).
- q with v after, sounds like kv.
- r and s as in English. stj, sj, skj like sh. sk before soft vowels is likewise pronounced as sh.
- t as in English. tj like ch in church. tion, with a hard vowel before it, like schone, and after a consonant like shone.
- v as in English. The word von is pronounced fon as in German from which language it is borrowed.
- x is like ks.
- z is pronounced like s.

ANGLO-SAXON.

The Anglo-Saxon language developed itself from the Low-Germen (Old-Saxon) idiom, which was introduced in England by the Saxons in or before the fifth century. In the ninth century this language was cultiveted in writing, and obtained currency through the agency of laws and translations. In the eleventh century, with the overthrow of the Saxon dynasty and the commencement of the Norman rule, French became the language of the court and of judicial proceedings. The knowledge of the Auglo-Saxon language was confined to the dependent classes and to the residents of convents. In the thirteenth century, when this idiom once more became popular, it had received such an amount of foreign elements, and had lost so many native characteristics, that it could only be considered as a mixed dialect, out of which the modern English language was gradually formed.

Aaa Bb b Ccc D & d Сe Fŗ f C 3 Ьh h **I** 1 k k L1 1 OO m m Νn 0 o0 Pр p Rη r Sr Τz (Iu u V P $\mathbf{X} \propto \mathbf{x}$ Ýўу 7. 7. 49 8 dh b b th

PRONUNCIATION.

- a e i o u have the same sound as in German or Italian.
- y hes the same force as in English.
- as sounds as a in that.
- The Consonants have the following peculiarities of pronunciation,
- c is in all instances hard like k. cw stands for kw.
- f between two vowels or as a final letter is pronounced like v.
- g is always like the modern g in go. Qccasionally 3 accurs instead of g. This letter takes the sound of y in yes.

cg is used instead of gg.

- h is a strong aspirate. As a final of a syllable and before a consonant it resembles the German ch.
- hw answers to the English wh. h is also found before the liquids 1, n, 1.
- w somatimes precedes r and l.
- b (tha) hard, like th in thick.
- δ (eth) soft, like th in this. Usually p is the initial and δ the flual of a syllable.
- I and I stands for and.
- p etands for pæt.
- I stands for obje.

The accent (') over a vowel denotes its length. In words of equal spelling this accent points out the difference of sound and meening. For instance ac (but, eke) ac (onk). The elision of m and n is indicated by a short line (-) over the antecedent letter.

IRISH.

It has been a subject of learned discussions whether the Irish in the Pagan period made use of the ancient alphabets, which are known by the name of Ogham, and are preserved in some sculptured monuments and in various MSS. With the introduction of Christianity and the spreading of conventual education the subjoined Alphabet was formed, which is still employed in antiquarian publications and in some works intended for the Irish people. At the present time the Irish language is frequently written and printed in Roman (English) cheracters.

21 1 a	21) 11 1 m
13 15 b	N 11 n
Сссk	O o o
b c ♠	ppp
e e e	Rpr
FFf	SY s
5 5 g	ፘ ፘ t
1 1 i	Ur u
1 1 1	1) 1յ հ

LIGATURES.

Irish MSS, contain contractions of which the following are the most usual.

中 do de da da da da da b b b b c c c c c c c c c c c c c c c	chd	ร์	gh
ДÖ	adh	10, 15 11	i
1É	e	111	11
4	air	11)0	m
Ā	an	11142	\mathbf{m}
ã	am	11)	W
7	agur'	110	n
4	ar	1)	nn
б	v w	Þ	f
h₁≈	v w	pp	b
hts	b	111	rr
CC.	g	Ť	h
ċ	ch	Ħ	si
C	d	τ̈́	h
	d	$\tau \gamma$	t
00	u	ŧ۲	d
ę.	ea	47	i
est	ea	40	i
15	h	no in the second of the second	ie
3 c	g	พ์ ว ั	i

GOTHIC

Form	Value	Num: power	Ligatures and marks
٠ کر	a	1	LIGATURES
Ŗ	b	2	of frequent oc-
\mathbf{r}	g	3	currence in the Skeireins.
a	d	4	To for ht
6	e	5	<i>м</i> — и
u	q	6	พา — พก
Z	z	7	nk — nk
h	h	8	м — ми ∥
ψ	dh (þ)	9	ы — на
ιï	i	10	NS — NS
ĸ	k	20	к Ф - к Ф
λ	1	30	В — Фк
н	m	40	$\Psi = \Psi \Gamma$
И	n	50	
G	j	60	MONOGRAMS.
n	u	70	T.
π	p	80	for mathaius
K	\mathbf{r}	100	- matpaius
S	s	200	. W.
Т	t	300	for markus.
EL Y	v	400	
1930	f	500	NUMERICAL
X	x	600	FIGURES.
Θ	w .	700	$\mathbf{q} = 90$
. Ω	0	800	↓ = 900

The Gothic language was in ancient times spoken by the eastern Germans who were designated by the collective name of Goths. It belongs to the Indo-Germanic family, and as a dead language, it has been remarkably preserved in the most ancient relic of Germanie literature. It is the first of the sister-languages that was committed to writing, and has thus reached us in its original purity. Although the relics of Gothic literature are very scanty, for beyond the fragmentary version of the Bible and the so called Skeireins, we possess but insignificant remains, there is enough matter extant to afford a perfect insight into the grammatical structure of the language.

Observations

The Gothic Alphabet has the adjoining 25 letters. Their names are not known, as the language was not cultivated by native grammarians. The invention of the Gothic characters is attributed to Ulphilas.

To distinguish the numerical letters from the other characters, the sign or is placed above or below the number. In these cases the diæresis over the i is omitted. Such letters receive a characteristic dot on the right and left. In the Neapolitan copy two dots, in the shape af a colon, are placed on both sides of the letter. Instead of dots the upright circumflex is I sometimes to be found,

B· (2), H: (40), GG (60).

The "catchword" is likewise enclosed between upright circumflexes, as , es.

ORTHOGRAPHICAL SIGNS.

- 1. Diacritical signs only occur in the diæresis over the initial $\ddot{\mathbf{L}}$.
- 2. Punctuation. As a general rule the single stop represents the brief pause, and the double stop a longer pause. Yet this punctuation is not consistently carried out, such signs being often introduced without purpose, and contrary to the sense. After a long pause a branc space is left. In the other parts of the text the words are all strung together without division, and sometimes the new sentence is placed in an other line, in which case the initial letters are preceded by the sign or
- 3. The division of a word, written in two lines, is often made without any rule, and merely to fill the vacant space. The separation is in rare instances indicated by a hyphen, which then is marked at the beginning of the new line, and not at the end of the preceding one.
- 4. Quotations are distinguished from the text by the single upright mark for the double f. This mark is continued in the margin before all the lines which contain the quotation. In the Skeireins, which has single marks of quotation, the sign is superadded in the first line, and the sign in the last.
- 5. Abbreviations. The elision of n is marked by or , and m by or . These signs are generally used at the end of a line, when there is not enough space for the letters, but sometimes they also occur in the middle of a line. Real abbreviations are in some instances indicated by the sign before and after the word, but generally the signs , or are employed.

RUNES

Form	Name	Value	Num: power
ץ	Fé	f	1
n	Ur	u	2
Þ	Thurs	th	3
1	Os	0	4
R	Reid	r	5
Y .	Kaun	k	6
۲ .: *	Hagl	h,	7
K	Naud	n	8
ł	Is	i	9
7	Ar	a	10
4	Sol	s	11
· 1	Tyr	t	12
B	Biörk	b	13
1	Laugr	1	14
Υ	Madr	m	15
*	Yr	у.	16

The adoption of the Norse Runes takes its origin in remote antiquity, and probably belongs to a pre-christian period, as is suggested by a variety of coincidences, although hitherto no positive proofs have been discovered in the Runic stones, by which those monuments might be connected with the prevalence of paganism. As is the case in the Greek, Gothic and other alphabets, the Runic signs represent both letters and numerals. These characters, 16 in number, bear peculiar names, and appear to have been arranged in an arbitrary manner, no attention having been paid to the mutual relation and transition of the several letters.

Observations

The Runic characters were divided into three classes, in which the letter headed the first series, and cach of the other two series. These three divisions were therefore respectively named Freys-aett (Frey's family), Hagls-aett and Tyrs-aett. It is obvious that these letters could but imperfectly express the variety of sounds. There was only one sign for g and k, d and t, b and p, u v and y. It is most curious that the connective e and o are omitted in this system. The latter vowel is replaced by au, and the former by i, a, ia and ai. Instead of g and gh the h is occasionally employed, while u might serve as the substitute of o, of the vowel y, of the diphthongs ae, au and ey, and even of the consonants v and f. Yr as equivalent to final r (of the same value as or

and ur), and as such it was called aur. When the insufficiency of the Runic alphabet was more sensibly felt, four additional letters were adopted, namely e, g, p and v. Their names were no longer in conformity with the 16 archaic characters. Nor were new shapes given to these Runes. The simple expedient of adding one dot or two to the kindred letter was considered sufficient; therefore these sign bear the name of stungnar runir (dotted runes). The old letters adapted to this purpose are i, k, b and f. When the Roman characters, along with the use of paper and parchment were adopted in the North, the Runes were increased by the addition of dh, d, ae, oe, ue, and subsequently by the superfluous letters c, q, x and z. The latter signs may be regarded as spurious augmentations of the Runes. The same criticism scems to hold good in reference to the three double runes, by which the numerals were increased to ninteen, and beyond which the numeral system of the Runes does not extend.

The 3 double-runes are,

al, Arlaugr. 17.

🖟 mm, Tvimadr. 18.

Φ tt, Belgthor. 19.

To express the subsequent numbers, several Runcs were combined.

(= twice ten) denoted 20. | = 21. | = 22 and so on.

RUNES

compared with the Gothic Alphabet of Ulfilas.

	Northern Runes		Golden Bracteates	Ge E	olden Iorn	. A	* Anglo-Sax	on	A	Alphabet of	Ulfilas *
r	fê	f	r	,		۳	feoh	f	F	faíhu	φ
n	ûr	u v	U			υV	ur	u	n	urus *	ου ο
Þ	Purs Porn	Þð	þ			` Þ	Porn	Þ	ψ	Paúrnus	2
‡	ôs	0	۴	F	a	×	os	0	Ą	ans	α .
R	reið	r	R	R	r	R	rad	r	K	raiða	b
Y	kaun	k g		<	c (k)	アヤレ	1	$\mathbf{c}(\mathbf{k})$	ĸ	kaunzama	k c (γ κ)
			X		g	X	gyfu	g	r	giba	Υ
			P _	P	v	P	wen	w	YP	vinja	Vυ
*HH	_	h		ΗН	b	H ≓ ‡	_	h	h	hagls	h
++	nauð	n	+	1	n		nyd	n	ы	náuþs	ν
	ìs	i	1	ı	i	ì	is	i	1	eis	ι (ηυε ει)
11	àr	a	P			ф ф	ger	ge (-y)	1	jêr	le .
(人)	(ŷr)		1				èoh	eo	ZZ	iuja	ζ (σ)
			R		.		peorð	P,	π	paírþr	π
/_			Ψ			IZ 1 · . 1	eolhx				
Н	sôl	s	5	- 1	s	1 1	sigel			sôjil	σ (ζ)
	tŷr	t d	1	1	t		tir	t		tius	τ
₿	biarkan	b p	1 1			1	beorc	b		baírika	β (v)
			M	T T	e l		eh	e	` '	aíhvus	η(ιεαιαε)
•		m	M		m .		man	m			μ
1	lögr	ľ	7	7	I	l i	lagu	$ \mathbf{l} $		lagus	λ
			٥.		gg(ng)		ing	ng	1		χ (k)
			\$		ď,		dæg	đ		~	δ (3)
			(M)	\$	0 . A	1	eðel	é æ	Q	ôþal	ယ (၀ ၀ ນ)
							ac	à			
	,			j			æsc	æ			
							yr	y			r
						·	ear	ea			
							ior	io			
							calc				
	2					X X		st	1		i
				l	.	XX XX	gar	g.		ļ	

