

HANS NORDEWIN VON KOERBER, PH. D.

MORPHOLOGY
OF THE TIBETAN LANGUAGE

MORPHOLOGY OF THE TIBETAN LANGUAGE

A CONTRIBUTION TO
COMPARATIVE INDOSINOLOGY

BY

HANS NORDEWIN VON KOERBER, PH. D.

SOMETIME PROFESSOR OF ORIENTAL LINGUISTICS IN THE UNIVERSITY OF AMOY, CHINA ;
PROFESSOR OF ORIENTAL STUDIES IN THE UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES ;
HONORARY CURATOR OF ORIENTAL ART OF THE LOS ANGELES MUSEUM
MEMBER OF THE ROYAL ASIATIC SOCIETY OF GREAT BRITAIN AND IRELAND

SUTTONHOUSE
LOS ANGELES SAN FRANCISCO

COPYRIGHT 1935 BY SUTTONHOUSE PUBLISHERS

**PRINTED FOR SUTTONHOUSE
BY
J. J. AUGUSTIN, GLÜCKSTADT AND HAMBURG
PRINTED IN GERMANY**

To
Dr. Franz Nikolaus Finck
much beloved friend and teacher
this book is dedicated
in token of affection and gratitude

	Page
E. Verbs with Initial Assibilized Dental Sound	157
F. Tense Formation of Verbs with Initial Assibilized Dental Sound	159
G. Initial Imminution of Assibilized Dentals	169
H. Tense Formation of Verbs with Initial Simple Dental Sibilants	170
IV. Palatalization in Word Formation through the Agency of <i>Ra btags</i>	178—190
V. Words with <i>La btags</i>	191—199
VI. Roots and Stems of the Palatal Groups with Word Analysis of the Palatal Groups	200—207
VII. <i>Wa zur</i>	208—215
Appendices:	
Table of Word-Classes	
List of Tibetan Roots	
The “ <i>h</i> ” in Tibetan	
Glossary	
Index	

INTRODUCTION.

“Morphology of the Tibetan Language” is one of the fruits which ripened while I was a prisoner-of-war at Ahmednagar (British India). The five and one half years which I spent there gave me a rich opportunity rarely accorded to any foreigner to make special studies in the field of the morphological development of the monosyllabic languages. My original intention, at the suggestion of Dr. F. O. Schrader, Adyar Library, Madras (now Professor of Sanskrit in Kiel, Germany), was to undertake an investigation of the Tibetan verbal system. I soon found myself, however, in the course of the undertaking *nolens volens* forced to compile a comprehensive Morphology of the Tibetan Language, for I discovered that the Tibetan verbal system could be made intelligible only by a complete exposition of the morphology of the language itself.

It is now my pleasure to present the fruition of my intensive labors. Only a very limited literature was at my disposal in the prisoner's camp, comprising — so far as the Tibetan is concerned — the following works: Chandra Das, Tibetan-English Dictionary; Jäschke, Tibetan Grammar; Hannah, Grammar of the Tibetan Language; Amundsen, Primer of Standard Tibetan, and a few Tibetan texts, among them Tāranātha and Milaraspa. In the course of a correspondence, limited by the assiduity of the war censors, with Dr. Johann van Manen, Adyar Library, Madras (now Secretary of the Royal Asiatic Society of Bengal, Calcutta), a few recent publications were brought to my attention, which were, however, not accessible to me during the time of my imprisonment. After I had already laid the foundations for a large part of the work (February, 1917), I received from Dr. Berthold Laufer, Field Museum, Chicago, among other things, his monograph Bird Divination amongst the Tibetans, which I found stimulating; however, as will become evident in the course of my presentation, I differ occasionally with Dr. Laufer. In order to arrive at tangible results I devoted about ten months exclusively to the formal compilation of list after list, table after table, out of which I could slowly read the morphological signifi-

cance. An abundance of time permitted me to bring all the words listed in Chandra Das under the scholar's microscope and to view them in their various aspects. Consequently, I hope that nothing has escaped my attention. So that the immense number of lists may be made accessible to others, I have in preparation a Dictionary of Tibetan Roots and their Development, which will, in so far as it is scientifically possible, include crossreferences to associated words in other monosyllabic languages.

After our repatriation in the summer of 1920, I had at hand for the first time since I began this work, the indispensable, if modest, scholarly treatises on the subject, which, however, offered me practically nothing new. I gave particular attention to Conrady's *Eine Indochinesische Kausativ-Denominativbildung*, with which I am largely at variance.

Consequent upon the extraordinarily difficult conditions after the war in Europe, immediate publication of my study was out of the question. And as my regular work in the Dutch Indies, China, and the Philippine Islands, occupied me for years to the exclusion of other interests, the actual typesetting has had to be postponed until a more auspicious moment.

I am happy now to be able to print the "Morphology of the Tibetan Language." I wish to acknowledge the contributions of other recent scholars in this field, whose work, however, has not been closely enough associated with mine to modify in any way my original theories. This work presents not only a morphology, which considers and explains exhaustively all the characteristics of the Tibetan language, but also, as Conrady formulated it in a marginal note on an earlier German version, a "discovery which shows fundamentally new paths to the entire study of Indosinitics."

In this place I should like to express my gratitude to Miss Carol F. Hovious, M. A., Mr. O. E. Becker, M. A., and to Dr. Mary Sinclair Crawford, Professor of French, all of the University of Southern California, for their ready assistance in translating from the German original and for their unceasing concern in the tedious labour of proof reading, without which the final publication of this book would not have been possible.

HANS NORDEWIN VON KOERBER.

Los Angeles, January 20, 1930.

PRELIMINARY NOTES.

In this work as in my forthcoming Dictionary of Tibetan Roots and their Development the following system of transcription is used:

ཀ་	ཁ་	ག་	ང་		
<i>k</i>	<i>kh</i>	<i>g</i>	<i>ŋ</i>		
ཏ་	ཐ་	ད་	ན་		
<i>t</i>	<i>th</i>	<i>d</i>	<i>n</i>		
པ་	ཕ་	བ་	མ་		
<i>p</i>	<i>ph</i>	<i>b</i>	<i>m</i>		
ཅ་	ཆ་	ཇ་	ཉ་		
<i>tš</i>	<i>thš</i>	<i>dž</i>	<i>ny</i>		
མ་	ཙ་	ར་			
<i>ts</i>	<i>ths</i>	<i>dz</i>			
ཤ་		ཞ་			
<i>š</i>		<i>ž</i>			
ས་		ཟ་	ར་		
<i>s</i>		<i>z</i>	<i>h</i>		
ར་	ལ་	ཡ་	ཨ་	ཉ་	ཐ་
<i>r</i>	<i>l</i>	<i>y</i>	'	<i>h</i>	<i>w</i>

Intentionally I transcribed the aspirates ཅ་ and ཆ་ by the letters *thš* and *ths*, since the initial sounds, morphologically viewed, originally divided themselves into *t + h + š* and *t + h + s* respectively, a feature which is not to be overlooked in the initial sounds compounded of palatals and assibilized dentals. Metathesis has entered into present day pronunciation, and it would be, therefore, more correct phonetically to write *t + š + h* and *t + s + h*.

All prefixes and suffixes are separated from the root or stem by a hyphen. Only those suffixes which transformed roots into stems are represented without a hyphen.

The translations of single forms taken over from the dictionaries compiled by Chandra Das, and by Jäschke, and in the *Dictionnaire thibétain-latin-français par les missionnaires catholiques du Thibet* are put in ordinary quotation marks ("....."). When, in order to bring out its inner psychological development, a new translation of a word seemed necessary, this word has been put in small angle quotation marks («.....»).

In the enumeration of the verb forms of whole groups, forms or single letters in round parentheses are those which I have added in accordance with other quotations in the above mentioned dictionaries. On the other hand, brackets have been used to indicate forms or letters not included in them, but which I have added. An asterisk before a form signifies a reconstructed form.

The lists of verbs in paragraphs 26, 32—36, 39—40, 43—47, 50, 52—56, 81—89, 92—97, 105, 107—109, 113—116, and 118 are complete. I have intentionally made them so in order to avoid any possible confusions. In paragraphs 25, 27—30, 37—38, 41—42, 48—49, 51, 57—58, 90, 106, and 117 complete lists were superfluous.

For a better understanding of the separate word groups of paragraphs 1—8, the roots from which they were derived have been added; in the remaining paragraphs this was unnecessary.

Abbreviations arranged alphabetically:

TED Chandra Das, *Tibetan-English Dictionary*. Calcutta, 1902,
The Bengal Secretariat Book Depot.

DTLF *Dictionnaire thibétain-latin-français par les missionnaires catholiques du Thibet*. Hongkong, 1899.

ICDB Conrady, *Eine Indochinesische Causativ-Denominativ-Bildung*. Leipzig, 1896.

JTED Jäschke, *Tibetan-English Dictionary*. Lahore, 1881.

KTED Alex. Csoma de Körös, *Tibetan-English Dictionary*. Calcutta, 1910.

DTR von Koerber, *Dictionary of Tibetan Roots and their Development*. (In preparation.)

I. ROOTS, STEMS, WORDS.

§ 1. In order to understand the Tibetan language it is imperative to trace the various forms of a verb or word to their common original form or root, irrespective of whether in the development of the Tibetan language these roots have served only as mental prototypes of thoughts not yet crystallized into words or whether they have become spoken words, and also irrespective of whether the Tibetan language was from the beginning root-inflecting, or whether the original Tibetan is to be considered as a so-called isolating language like the present day Chinese, etc.

To determine the root of a Tibetan word is generally a comparatively simple matter. Further, every attempt at such a determination must undeniably lead step by step, as will be seen in the course of this treatise, to the conviction that the original element of every Tibetan word is a media + vowel. However, it should not be supposed that in prehistoric times a media + vowel was necessarily the most primitive element of every Tibetan word. It is possible that in pre-Tibetan times a tenuis + media originally existed at the beginning of a word, that then the media was replaced by the tenuis which in turn reappeared in primitive Tibetan transformed into the media, and that finally from this media proceeded the "Stufenwechsel" (series of initial sound mutation). It is also possible that some of the roots listed in DTR which begin with the tenuis will later be considered as prehistoric. But, irrespective of these possibilities, according to the Tibetan *Sprachgefühl*, the most primitive element of every Tibetan word in historical times is unmistakably a media + vowel. On the basis of this theory my whole work has been built up. This element of media + vowel we call the primary root. Where the initial sound appears changed into a tenuis, tenuis aspirate, or a nasal, we speak of it as a secondary root. When a consonant is added to the vowel of the root, a stem results. The Tibetan word may consist of a bare root (primary or secondary); of a bare stem; or of a root or stem plus one of the infixes *ya btags* or *ra btags*, plus a prefix or suffix, (or both) — yes, it may even add several such elements.

Several points concerning the initial sound of the root need still further explanation. From a purely morphological as well as a semi-linguistic point of view, the media form serves as a basis for the various classes of word development. In addition to this, the forms beginning with media are by far more numerous than any others (cf. DTR). On the one hand through the tenuis are formed medial transitives¹, causatives, and completives (see below), and on the other hand denominatives and deverbatives. The tenuis aspirate may form intransitives or passives (see below). It likewise frequently expresses the thing in itself, the action in itself, or the condition in itself. Finally, the nasal, as many roots in DTR demonstrate, becomes an agent in the building up of highly specialized interrelated concepts, particularly of abstract nouns. Palatalization of initial sounds through the addition of the infixes *ya btags* and *ra btags* (one of the means of word formation) makes more difficult or prevents the identification of primary roots; it is, therefore, necessary to deal in a special chapter with all words having initial palatals, including not only the derivatives of initial palatals, but also newly formed words. **Primary roots are under no circumstances palatal** (cf. § 144).

The building up of stems is accomplished through the addition of mediae and nasals, the same mediae and nasals which occur as initial sounds in the primary roots. It must be admitted in our definition of a "stem" that a later comparison of the monosyllabic with other speech families may possibly prove that some of the Tibetan "stems" were in reality "roots" despite the fact that the sonantal as well as the consonantal terminal sounds had long been felt as suffixes. That is to say, apparently in the beginning the inseparable or primary suffixes (cf. §§ 9—22), by means of which the stems are built up, as well as the "infixes" *y* and *r* in the form of *ya btags* and *ra btags* were not, in part at least, genuine formatives of the Tibetan, but rather had been thought of and employed as such from historical times and probably even long before that.

In addition to the means of word building we have already mentioned (mutation of initial sound, prefixes, and suffixes, etc.), the rôle of the *ablaut* must not be overlooked.

¹ I use this term in place of "transitives of the middle voice" because of its greater compactness.

A consideration of the special literature on the subject has called my attention to the fact that Hodgson, Houghton, and Boller were under the impression that Tibetan roots are to be found through mere separation and truncation of the formative elements. Conrady was also originally of this opinion, which on the basis of his *Indochinesische Causativ-Denominativ-Bildung* he later considered erroneous, since every initial sound was suspected of being a prefix. If the Tibetan of historical times be used as the basis for a morphological investigation, the question of whether or not a prefix may be inherent in the initial sound is without appreciable importance. To consider the monosyllabic nature of words as a result of *Lautverschleifung* (word corruption through slovenly pronunciation) is correct; for, this development may be observed in many languages in the monosyllabic group in historical times. On the other hand, time must elapse before we can come to any definite conclusions about the monosyllabic nature of words resultant from *Lautverschleifung* in prehistoric times; but this is for our purposes, I believe, without especial significance.

Schiefner formulates the supposition (Bull. hist-phil. Akad. St. Peterb. VIII, 265) that the vowel-(root-) form arose out of the consonantal, or in other words, that the final consonants were dropped. A similar falling away of the final consonants is frequently observable in other languages, especially in Chinese since the period of the *Shi King*, and in the Tibetan spoken in Central Tibet, which according to my opinion accounts for their loss of feeling for the original value of the final consonants. This loss of final consonants contributes in an alarming fashion to the decomposition of the Chinese, Tibetan, Burmese, etc., affecting a large part of the monosyllabic languages and complicating the scholar's investigation of them. In the following paragraphs special attention will be given to demonstrating the fact that in historical times new concepts and new grammatical functions developed through the addition of consonantal suffixes. We must deal in the historical times of Tibet not only with prefixes which appear with recognized grammatical functions, but also with suffixes in similar functions. These prefixes and suffixes must surely some day throw great light upon the other monosyllabic languages which now show a confusing lack of affixes. The foundation and point of departure in a special study of Tibetan in the historical period is a consideration of roots, stems, prefixes, and suffixes (as formative elements).

Only when their being and purpose have been fully mastered, is it possible to find their analogues in related speeches. The alluring possibility opens up before us to discover, in part at least, the lost prefixes and suffixes in Chinese through analogy with those still extant in Tibetan.

To illustrate the above the following examples will suffice for the present:

Group I. (Guttural initial sound).

Media	Tenuis	Tenuis Aspirata	Nasal
Belonging to $\sqrt{*ga}$ (2) «head» (intellectually, i. e., seat of thinking ability, etc.):			
<i>go ba</i> “to understand, to perceive mentally”			<i>ŋo bo</i> “essence, substance; intrinsic nature”
<i>s-go ba</i> “to say, to speak”	<i>s-ko ba</i> “to select, to appoint”		<i>s-ŋo ba</i> “to design”
<i>ḥ-god pa</i> “to project, to plan”	<i>b-kod pa</i> “to plan, to arrange”	<i>ḥ-khod pa</i> “to be put, to be set down”	

Belonging to $\sqrt{*ga}$ (3) «head» (in the metaphorical sense of “chieftain, leader”):

<i>m-gon po</i> “master, lord”	<i>d-kon</i> “rare, scarce”	<i>m-khan po</i> “professor; head of a monastery”	<i>b-r-ŋan pa</i> “to honour, to worship”
--------------------------------	-----------------------------	---	---

Belonging to $\sqrt{*ga}$ (6) «head» (in the meaning of “enveloping, enveloping”)¹;

<i>ḥ-geb-s pa</i> “to cover up, to conceal”	<i>b-kab pa</i> “to cover”	<i>kheb-s pa</i> “covered, veiled”
---	----------------------------	------------------------------------

¹ The principal meaning of the root only is given here. For a more exact definition see the Appendix: List of Tibetan Roots.

Media	Tenuis	Tenuis Aspirata	Nasal
Belonging to $\sqrt{*ga}$ (7) «to swell = to arch»:			
<i>s-gor mo</i> “ball, globe; disk”	<i>s-kor ba</i> “to revolve”	<i>h-khor ba</i> “to walk all round, circumambulate”	
<i>d-gur</i> “crooked, bent”	<i>b-kur ba</i> «to bend oneself» = “to carry, to convey”	<i>khur</i> “load for men; burden”	

Belonging to $\sqrt{*ga}$ (12) «to fall off, decay, diminish»:

<i>gog pa</i> “to crumble off, to scale off”	<i>kog pa</i> “to splinter off, to chip”	<i>h-khog-s pa</i> “decrepit, decayed”
<i>h-gum pa</i> “to die”	<i>b-kum pa</i> “to kill”	<i>khum-s</i> “diminished”

Group II. (Dental initial sound).

Belonging to $\sqrt{*da}$ (2) «to arrive at, to reach to > to suffice»:

<i>h-dom(-s) pa</i> “to assemble, come together”	<i>g-tam pa</i> “to fill up, make full”	<i>tham pa</i> “full, complete”	<i>nom pa</i> “to be satisfied”
--	---	---------------------------------	---------------------------------

Belonging to $\sqrt{*da}$ (3) «to become connected, tied together»:

<i>s-dom pa</i> “to bind, to fasten”	<i>s-stem pa</i> “to shut or fasten (a door)”	<i>them pa</i> “series, set”	<i>nom pa</i> “to partake of”
--------------------------------------	---	------------------------------	-------------------------------

Belonging to \sqrt{da} (4) «to appear in a place > to move forward»:

<i>h-don pa</i> “to dismiss”	<i>b-ton pa</i> “to expel, drive forth”	<i>thon pa</i> «to be expelled» = “to come out” (DTLF)
------------------------------	---	--

Media	Tenuis	Tenuis Aspirata	Nasal
Belonging to \sqrt{da} (5) «to be transferred»:			
<i>h-deg-s pa</i> “to shift, to remove”		<i>theg pa</i> “vehicle” (DTLF)	
<i>b-dog pa</i> “to take possession of”	<i>g-tog pa</i> “to grab, to pluck”	<i>thog</i> “property”	<i>r-nag-s</i> “ready money” (JTED)
	<i>b-taŋ ba</i> “to give, to send”		<i>g-naŋ ba</i> “to permit, allow”

Belonging to \sqrt{da} (6) «to extend» (horizontally):

<i>dar ba</i> “to be diffused, to be spread”	<i>g-tor ba</i> “to scatter, to strew”	<i>h-thor ba</i> “to be strewn, to be scattered”
--	--	--

Belonging to $\sqrt{*da}$ (10) «to become light (shine)»:

<i>b-de</i> “splendour, prosperity” (DTLF)	<i>l-ta ba</i> «to cause to become light (in one’s own interest)» = “to look for, to search for”	<i>m-no ba</i> “to think over, to ponder”
--	--	---

Belonging to \sqrt{da} (11) «to decay, vanish»:

<i>h-deŋ ba</i> “to vanish”		<i>they po</i> “lame”	<i>naŋ ba</i> “humiliated” (JTED)
<i>l-dad pa</i> “to contaminate”			<i>m-nad m-nad</i> “calumny”
<i>dam pa</i> “deceased”			<i>nem bu</i> “doubt”
<i>l-dam l-dem</i> “dubious, uncertain” (JTED)		<i>h-thom</i> “to be confused, puzzled”	
	<i>s-tor ba</i> “to lose” (DTLF)		<i>nor ba</i> “to err”
<i>dal</i> “slow”		<i>thal ba</i> “to elapse, to be passed”	<i>m-nal</i> “sleep” <i>r-nal</i> “rest”

Media	Tenuis	Tenuis Aspirata	Nasal
Belonging to $\sqrt{*du}$ (6) «passion, agony, pain»:			
<i>h-dul ba</i> “to tame”	<i>b-r-tul ba</i> “to conquer”	<i>thul</i> “taming, conquest” (JTED)	

Group III. (Labial initial sound).

Belonging to \sqrt{ba} (1) «to arch»:

<i>h-boŋ ba</i> “roundness, rotundity”, «arching»		<i>r-moŋ-s pa</i> «round headedness, and therefore stupidity» = “stupidity, ignorance” (DTLF)
—		

Belonging to $\sqrt{*ba}$ (2) «to swell, increase»:

<i>baŋ ba</i> “storehouse, storeroom”		<i>maŋ ba</i> “to be much”
---------------------------------------	--	----------------------------

Belonging to $\sqrt{*ba}$ (3) «to swell, increase» (in the metaphorical sense):

<i>r-bad pa</i> “to incite, to instigate”		<i>r-med pa</i> “to inquire, to study”
<i>h-bar ba</i> “to become ignited”		<i>d-mod pa</i> “to swear, to affirm”
<i>s-bar ba</i> “to kindle, inflame”	<i>s-par ba</i> “to excite, incite”	<i>phor ba</i> “to rave” (JTED)

Belonging to $\sqrt{*ba}$ (4) «to decrease»:

<i>s-boŋ ba</i> “to abstain from”	<i>s-poŋ ba</i> “to abandon, renounce”	<i>phaŋ ba</i> “to use economy, to be thrifty”
-----------------------------------	--	--

Media	Tenuis	Tenuis Aspirata	Nasal
Belonging to $\sqrt{*ba}$ (6) «to appear, to become visible»:			
<i>h-bar ba</i> “to blossom”	<i>s-par ba</i> “to raise, promote”	<i>h-phar ba</i> “to be raised, be elevated”	

Belonging to $\sqrt{*bu}$ (2) «heap, pile»:

<i>buŋ-s</i> “a large heap”	<i>d-puŋ pa</i> “a heap”	<i>phuŋ po</i> “bundle”	
-----------------------------	--------------------------	-------------------------	--

Belonging to $\sqrt{*bu}$ (4) «to proceed from > to move towards»:

<i>h-bur ba</i> “to swell up, rise”	<i>s-pur ba</i> “to make fly, scare up”	<i>h-phur ba</i> “to fly”	
-------------------------------------	---	---------------------------	--

II. ORIGIN OF WORD CLASSES.

A. TENUIS.

§ 2. A. The very earliest means of building up or evolving a root or a stem consisted in the transformation of the initial media to a tenuis, as a result of which medial transitives, causatives and completives, and denominatives and deverbatives developed; this was apparently a weak, tentative endeavour at a definite formation, but the attempt diverged in various directions. The significance of this old tenuis formation for the morphological development of the Tibetan speech is fundamental to a comprehension of further formations.

In the examples given below, the meaning of the prefixes may in this connection be left entirely out of consideration. Later, their meaning will be made clear. They have nothing to do with the tenuis formation, with *ablaut*, etc. Conrady likewise sees in the prefixless perfect tense the fundamental form in tense formation (cf. ICDB, p. 19). Irrespective of whether or not the initial sound may really with justice be suspected of having had a prefix, it is necessary to assume in the study of the Tibetan historical period that a prefixless initial sound¹ was the "basic form" of all words.

Conrady gives the following examples in his causative series (p. 3—18):

<i>gab pa</i>	"to conceal oneself"	: <i>s-gab pa</i>	"to cover",
<i>goŋ po</i>	"a lump, clod"	: <i>s-goŋ ba</i>	"to make balls of dough,"
<i>grib</i>	"shade"	: <i>s-grib pa</i>	"to obscure,"
<i>ñams</i>	"soul, mind"	: <i>s-ñam pa</i>	"to think, consi- der,"
<i>ñil ba</i>	"to trickle down, fall in drops"	: <i>s-ñil ba</i>	"to break, down, destroy,"

¹ Prefixless words with voiced initial sound must be, according to Conrady, (p. 65) adjectives or nouns without verbal capacity; cf. also DTR.

<i>ñog pa</i>	“soiled, dirtied”	:	<i>r-ñog pa</i>	“to trouble, to stir up,”
<i>bug pa</i>	“a hole, crack”	:	<i>s-bug pa</i>	“to penetrate, perforate,”
<i>myur ba</i>	“quickly”	:	<i>s-myur ba</i>	“to be quick, in a hurry,”

or

<i>ḥ-gul ba</i>	“to move, quake”	:	<i>s-gul ba</i>	“to move, put in motion,”
<i>ḥ-gyur ba</i>	“to change” (intrans.):	:	<i>s-gyur ba</i>	“to change, transform,”
<i>ḥ-grol ba</i>	“to be released from”	:	<i>s-grol ba</i>	“to set free, to liberate,”
<i>ḥ-dum pa</i>	“to be reconciled with”	:	<i>s-dum pa</i>	“to make agree,”
<i>ḥ-bag pa</i>	“to defile, pollute oneself”	:	<i>s-bag pa</i>	“to defile, pollute,”
<i>ḥ-brel ba</i>	“to adhere together, to meet together”	:	<i>s-brel ba</i>	“to stitch together”

These examples leave no doubt that the grammatical changes are due to the influence of prefixes. In other cases *ablaut*, which almost certainly served a definite purpose, enters in, as Conrady's examples given below demonstrate:

<i>gad mo</i>	“a laughing, laughter”	:	<i>r-god pa</i>	“to laugh,”
<i>grag pa</i>	“noise, talk”	:	<i>s-grog pa</i>	“to call, shout,”
<i>ñal ba</i>	“to lie down, to sleep”	:	<i>s-ñol ba</i>	“to lay anything down,”
<i>dam</i>	“root of the concept: to bind”	:	<i>s-dom pa</i>	“to bind, fasten,”

or

<i>m-ñam pa</i>	“like, equal”	:	<i>s-ñom pa</i>	“to treat impartially,”
<i>m-nam pa</i>	“to smell of”	:	<i>s-nom pa</i>	“to smell something,”
<i>ḥ-baṅ ba</i>	“to be soaked”	:	<i>s-boṅ ba</i>	“to soak, to drench”

Causatives could, therefore, be built up either through prefixes or through *ablaut*. When in addition to these there appears (as the further examples in Conrady, p. 9ff. (ICDB) show) the transformation of the initial media into a tenuis, we have a third means by which the

causative may have been brought about. As my further studies will show, prefixes as well as *ablaut*, and the transformation of media into tenuis are responsible for the formation of causatives. Let us first turn to a consideration of the tenuis. Through the change of the media into a tenuis the following formations result:

1) Medial Transitives

Ex.:

based on $\sqrt{*da(10)}$:	$\left\{ \begin{array}{l} r-dol\ ba \quad \text{“to come forth, to make its appearance”} \\ h-thol\ ba^1 \quad \text{“to confess”} = \text{«to cause something to appear (in one’s own interest)»} \\ m-thol\ ba^1 \end{array} \right.$
based on $\sqrt{*ga(2)}$:	$\left\{ \begin{array}{l} *grab\ pa \quad \text{«to plan, to design», from which} \\ grab-s \quad \text{“preparation, arrangement”} \\ b-krab\ pa \quad \text{“to choose or select from among many”} \end{array} \right.$
based on $\sqrt{*ga(5)a}$:	$\left\{ \begin{array}{l} h-dzeg\ pa \quad \text{“to ascend, climb up”} \\ r-tseg\ pa \quad \text{“to amass, pile up = to be avaricious”} = \text{«to cause something to rise up in one’s own interest = accumulate»} \end{array} \right.$
based on $\sqrt{*ga(6)}$:	$\left\{ \begin{array}{l} s-go\eta\ ba \quad \text{“to hide, conceal”} \\ s-ku\eta\ ba \quad \text{“to hide in the ground, to bury”} \end{array} \right.$ <p style="margin-left: 100px;">the <i>ablaut</i> change to “u” has nothing to do with the formation of medial transitives, cf. § 4, etc.</p>
based on $\sqrt{*ga(6)}$:	$\left\{ \begin{array}{l} h-džab\ pa \quad \text{“to sneak, creep privily”} \\ h-ṭhšab\ pa \quad \text{“to conceal, keep secret” (for oneself)} \end{array} \right.$

2) Causatives (in the usual sense)²

Ex.:

based on $\sqrt{da(4)}$ or $\sqrt{da(5)}$:	$\left\{ \begin{array}{l} h-doy\ ba \quad \text{“to go, to proceed”} \\ g-toy\ ba \quad \text{«to cause to go»} = \text{“to send”} \end{array} \right.$
---	---

¹ The appearance of the aspirate is due to the prefixes *h* and *m* (cf. § 8 at the end). The aspirate produces, as is shown in the paragraph referred to above, not only phonetic, but also grammatical changes.

² The transitive character of the initial *k*-sound appeared also to Conrady sufficiently assured (ICDB pp. 60 and 67).

based on $\sqrt{*ga(5)a}$:	{	<i>h-dzeg pa</i>	“to ascend, climb up”
		<i>r-tseg pa</i>	“to amass” (in a general sense)
based on $\sqrt{*ba(4)}$:	{	<i>h-dzag pa</i>	“to drop, drip”
		<i>b-tsag pa</i>	«to cause to drop» = “to press out”
based on $\sqrt{*gu}$:	{	<i>h-džu ba</i>	“to melt”
		<i>g-tšu ba</i>	«to cause to melt» = “to squeeze”
based on $\sqrt{*ba(3)}$:	{	<i>h-bar ba</i>	“to catch fire, to become ignited”
		<i>s-par ba</i>	“to excite, incite”
based on $\sqrt{da(11)}$:	{	<i>r-dib pa</i>	“to fall to pieces, collapse”
		<i>r-tib pa</i>	“to break or pull down”
based on $\sqrt{*da(9)}$:	{	<i>r-dol ba</i>	“to come forth, to come up”
		<i>r-tol ba</i>	“to pierce, to perforate”
based on $\sqrt{*ga(6)}$:	{	<i>h-džab pa</i>	“to sneak, creep privily”
		<i>h-thšab pa</i>	“to conceal”
based on $\sqrt{du(1)}$:	{	<i>h-du ba</i>	“to come together, to assemble”
		<i>h-thu ba</i>	“to gather, to collect”
based on $\sqrt{*ba(5)}$:	{	<i>h-bral ba</i>	“to be separated from”
		<i>h-phral ba</i>	“to separate”
based on $\sqrt{*bu(6)}$:	{	<i>h-bri ba</i>	“to diminish, grow less”
		<i>h-phri ba</i>	“to diminish”
based on $\sqrt{*ba(4)}$:	{	<i>h-dzag pa</i>	“to drop, to drip”
		<i>h-thsag pa</i>	«to cause to drop» = “to press out”, etc., etc.

3) Completives¹, a name under which are brought together three frequently overlapping verb classes denoting more or less the completion or perfection of an action.

(a) Iteratives or Continuatives, denoting either an action composed of frequently repeated sub-actions or the duration of an action.

Ex.:

based on $\sqrt{da(1)}$:	{	<i>h-dom-s pa</i>	“to demonstrate, explain”
		<i>h-tham pa</i>	“to scold, to blame”

Ablaut in contrast to the intransitive
h-thom pa.

¹ Class (3) cannot always be clearly distinguished from class (1); similarly classes (a) and (b) are often hard to differentiate.

- based on $\sqrt{*ga(13)}$: $\begin{cases} s-gul\ ba & \text{“to move, put in motion”} \\ s-kul\ ba & \text{“to exhort, admonish”} \end{cases}$
- based on $\sqrt{*ga(5)a}$: $\begin{cases} h-deg-s\ pa & \text{“to lift, raise”} \\ h-theg-s\ pa & \text{“to pack up”} \end{cases}$
- based on $\sqrt{*da(10)a}$: $\begin{cases} r-d\check{z}od\ pa & \text{“to say, recite, pronounce”} \\ h-th\check{s}ad\ pa & \text{“to explain”} \end{cases}$

Ablaut change from *o* to *a* is necessary, because *thšod pa* is a resultative of *r-džod pa* (s. below).

- based on $\sqrt{*ba(3)}$: $\begin{cases} s-bar\ ba & \text{“to kindle, inflame”} \\ s-par\ ba & \text{“to excite, increase”} \end{cases}$

(b) Intensitives, indicating greater force in an action.

Ex.:

- based on $\sqrt{*ba(3)}$: $\begin{cases} h-bur\ ba & \text{“to rise, swell up”} \\ h-phur\ ba & \text{«to rise quickly» = “to fly”} \end{cases}$
- based on $\sqrt{*ga(7)}$: $\begin{cases} gar & \text{“camp”} \\ m-khar & \text{«magnificent, continuous camp»} \\ & = \text{“a castle, a nobleman’s seat”} \end{cases}$
- based on $\sqrt{*da(2)}$: $\begin{cases} l-da\eta\ ba & \text{“to suffice, to be sufficient”} \\ tha\eta\ po & \text{(also } pa\ ?) \text{ “enduring, able to stand fatigue”} \end{cases}$
- based on $\sqrt{*da(2)}$: $\begin{cases} l-deb\ pa & \text{“to bend back, turn round”} \\ l-teb\ pa & \text{“to double down, turn in”} \end{cases}$
- based on $\sqrt{*da(5)}$: $\begin{cases} b-dog\ pa & \text{“to take possession of”} \\ g-tog\ pa & \text{“to grab, pluck”} \end{cases}$

(c) Resultatives, indicating the consequences of an action.

Ex.:

- based on $\sqrt{*ga(2)}$: $\begin{cases} s-gom\ pa & \text{“to meditate, contemplate systematically”} \\ h-khum\ pa & \text{“to comprehend” (v. } Ablaut)} \end{cases}$
- based on $\sqrt{*ga(10)}$: $\begin{cases} s-grun\ pa & \text{“to contend with”} \\ s-krun\ pa & \text{“to produce”} \end{cases}$
- based on $\sqrt{*ba(4)}$: $\begin{cases} s-bo\eta\ ba & \text{“to abstain from”} \\ s-po\eta\ ba & \text{“to abandon = to renounce, reject”} \end{cases}$
- based on $\sqrt{*ba(6)}$: $\begin{cases} h-bar\ ba & \text{“to blossom, to bloom”} \\ h-phar\ ba & \text{“to be promoted”} \end{cases}$

based on $\sqrt{bu(5)}$: $\begin{cases} h\text{-}d\check{z}ug\ pa & \text{“to put into, to plant (KTED)”} \\ g\text{-}t\check{s}ug\text{-}s\ pa & \text{“planted, cultivated”} \end{cases}$

4) Denominatives and Deverbatives, denoting verb forms deriving from substantives and substantive forms deriving from verbs.

Ex.:

based on $\sqrt{*ga(3)}$: $\begin{cases} r\text{-}d\check{z}e & \text{“lord, master”} \\ h\text{-}t\check{h}\check{s}e\ ba & \text{“to attest” = «to make oneself} \\ & \text{an authority»} \end{cases}$

based on $\sqrt{*ga(3)}$: $\begin{cases} m\text{-}dza\check{h}\ ba & \text{“friend, relation”} \\ b\text{-}r\text{-}tse\ ba & \text{“to love, to show affection”} \end{cases}$

based on $\sqrt{da(1)}$: $\begin{cases} don & \text{“sense or signification of} \\ & \text{anything”} \\ s\text{-}ton\ pa & \text{“to show, indicate”} \end{cases}$

based on $\sqrt{ba(1)}$: $\begin{cases} h\text{-}d\check{z}o\check{y}\ po & \text{«arched» = “oval, cylindric”} \\ g\text{-}t\check{s}o\check{y}\ ba & \text{“to excavate, undermine”} \end{cases}$

based on $\sqrt{*bu(2)}$: $\begin{cases} bu\check{y}\text{-}s & \text{“heap, bulk”} \\ d\text{-}pu\check{y}\ ba & \text{“to assemble, collect” (KTED)} \end{cases}$

based on $\sqrt{*ga(6)}$: $\begin{cases} gab\ pa & \text{“to hide”} \\ b\text{-}kab & \text{“a cover, shelter”} \end{cases}$

based on $\sqrt{*ba(3)}$: $\begin{cases} h\text{-}bar\ ba & \text{“to burn with, to glare (in} \\ & \text{reference to passion)”} \\ h\text{-}phar\ ba & \text{“excess in worldly or religious} \\ & \text{matters”} \end{cases}$

based on $\sqrt{*ba(4)}$: $\begin{cases} s\text{-}ba\check{y}\text{-}s\ pa & \text{“to abstain from” (JTED)} \\ s\text{-}pa\check{y}\text{-}s\ po & \text{“renunciation of everything”} \end{cases}$

based on $\sqrt{*ba(3)}$: $\begin{cases} b\text{-}zab\ pa & \text{“to use care, diligence”} \\ b\text{-}zob\ pa & \text{“assiduity”} \end{cases}$

based on $\sqrt{*bu(6)}$: $\begin{cases} h\text{-}brul\ ba & \text{“to crumble, to fall to pieces”} \\ s\text{-}prul\ pa & \text{“a phantom”} \end{cases}$

Compare also:

based on $\sqrt{*ga(6)}$: $\begin{cases} b\text{-}go\ ba & \text{“clothes, clothing”} \\ ko\ ba & \text{“skin, leather” (JTED)} \end{cases}$

Note: It should be noticed here that one and the same means, namely, the suffix *-aya-*, is used in old Sanskrit to build up causative and completive forms. In the classical period of the Sanskrit speech a causative could be built from every root by means of this suffix. In the preceding period, according to Whitney's calculation, a third of all forms with *-aya-* were not causatives, but rather intensives, iteratives, and continuatives, as the following examples show:

\sqrt{stan} , *stana-*, in most cases *stanaya-* "to thunder" (iterative)

\sqrt{snath} , *snath-i* or *snathaya-* "to pierce" (intensive)

\sqrt{vadh} , *vadha-* or *vadhaya-* "to beat, kill, destroy" (intensive)

\sqrt{pat} , *pata-* "to fall, fly," *pataya-* "to fly, fly rapidly" (as an intensification of the act of flying, or perhaps as a repetition of wing strokes = "to flap"; in Tibetan the other way round: "to fly" = "to rise up quickly"); on the other hand *pataya-* "to let fall, let fly."

\sqrt{rac} , *racaya-* "to manufacture, to compose"

\sqrt{rah} , *raha-* "to separate", *rahaya-* "to abandon, to quit" (possibly in the sense of "to put away from oneself")

The intransitives with initial tenuis aspirate listed by Conrady under the causative series (pp. 13—17) are in my opinion not intransitives, simply because they have an intransitive meaning and begin with tenuis aspirate, as Conrady would have us believe. They are rather, as a result of aspiration, intransitives or passives belonging to transitives with initial tenuis sound. As a result of the transformation of the media into the tenuis, these transitives with initial tenuis sound developed from intransitives with initial media (Cf. § 8 below.) Conrady (pp. 21, 54, ICDB) turns his attention next to the original initial sounds of a great many intransitives. I reached the overwhelming conviction that only the media and the initial sounds, developed from them (as found, for instance, in the palatal series and the assibilized dental series), are the original initial sounds of the intransitives. (The nasal initial sound is in a limited way (cf. § 1) sometimes also the "original" initial sound of the intransitive.) Conrady arrives at this conclusion only in the case of the two initial mediae *g* and *d*. Of the first of these, the initial *g*-sound, he says, p. 55: "., dass dem Intransitivum offenbar das *g*-, weil so gut wie niemals in fraglos transitiven Formen vorkommend, als echter Anlaut zusteht." To the *k*- and *kh*- initial sounds he rightly gives the grammatical function of forming causatives. For a further discussion of the aspiration of the initial tenuis sound in transitives cf. §§ 59ff. To complete this, I should like to anticipate and state in this place that in the above case the aspiration is due to phonetical reasons only because of the still present prefix *h*-, which had already disappeared in very rare cases. The initial sound *kh*- is in and for itself in no case an old transitive formation as Conrady (p. 71) thinks. (Cf. § 8 below.) — The second initial sound discussed by Conrady is *d*

with its subsequent derivatives *dž* and *ž*, all three of which are older as intransitive formations than the corresponding transitives with initial *t*, *th*, *tš*, *thš*, and *š* (p. 71).

In this connection I should like also to discuss briefly another point in Conrady. In his ICDB on page 85 he comes to the conclusion, "daß die tonlosen und tonlosen aspirierten Laute der tibetischen Schriftsprache überhaupt erst sekundäre Laute sind," and (p. 84), that "in der Tat die Tenuis aspiratae — wie selbstverständlich die Tenuis und tonlosen unaspirierten Anlaute — in der ganzen Causativbildung aus den präfixhaften Tönenden herzuleiten sind." All the examples given on pp. 79—83 cannot, even "durch den schönen Parallelismus," convert me to his conclusions. Let us take the following examples from Conrady:

<i>s-goŋ ba</i>	"to make round balls"	<i>koŋ</i>	"curved, excavated"
<i>s-gor mo</i>	"round" (ball, globe)	<i>kor</i>	"round"
<i>s-gren mo</i>	"naked"	<i>b-kren pa</i>	"poor, indigent"
<i>b-s-gag pa</i>	"to hinder"	<i>b-kag pa</i>	"hindrance"
<i>s-goŋ ba</i>	"to frighten"	<i>b-koŋ ba</i>	"to threaten"
<i>s-grol ba</i>	"to deliver"	<i>b-kral ba</i>	"to explain, expound"
<i>s-gab pa</i>	"to hide, conceal"	<i>b-kab pa</i>	"to hide," etc.

According to my belief, the tenuis did not develop phonetically in one way or another out of the media with prefixes, but the tenuis formation is, as can no longer be disputed, a second and later formation coequal with the initial media sound in semasiological and grammatical power. The tenuis, therefore, as Conrady rightly perceived, is a secondary development and capable of being augmented by further new formative elements (prefixes, suffixes, etc.). Thus a sort of pleonasm results from the many double forms (or parallel forms), which retain the goal-giving power of the formative elements. As a result we have before us forms with identical aims resulting from different stages of development. The examples given in § 1 illustrate the point sufficiently, although they are meager, selected from a great multitude of others that compose the DTR, which I hope shortly to publish. Let us compare

gog pa "to crumble off, to scale off (of the plaster of a wall)"

with	{	<i>kog pa</i>	“to splinter off, to chip”
		<i>khag po</i>	“bad, spoiled, rotten”
		<i>h-khog-s pa</i>	“decrepit, very infirm from old age”
			or compare
		<i>bun-s</i>	“bulk, heap”
with	{	<i>pun pa</i>	“to pile up”
		<i>phun po</i>	“a bundle”
			or compare
		<i>dal</i>	“slow, leisurely”
with	{	<i>tel pa</i>	«to make vanish, make disappear,» therefore
			also “an instrument for burning”
		<i>thal ba</i>	“to elapse, be passed, to change from”.

These comparisons make the purpose of the original initial sound changes very obvious. Intentionally altering the initial sound for the purpose of reaching a definite goal gives to the individual words their spiritual backbone which is maintained even though other formative elements from other stages of development are added.

Compare:

		<i>h-gum pa</i>	“to die”
with	{	<i>b-kum pa</i>	“to kill”
		<i>h-khum pa</i>	“to shrink”
			or
		<i>d-gur</i>	“crooked, curved”
with	{	<i>b-kur ba</i>	«to crook, to bend (oneself)» = to carry, to
			convey”
		<i>h-khur ba</i>	“to carry”

The two forms *b-kur ba* and *h-khur ba* have exactly the same value. The aspirate is phonetically required by the prefix *h* which, as the sign of the present tense, is interchangeable with the “separable” prefix *b* (cf. §§ 24—62).

Opposites such as *s-grog pa* “to bind, to tie”: *b-tag-s pa* “to tie to, to connect,” and *r-gyud pa* “to connect together, to string up”: *g-tšud pa* “to twine, twist” or *r-džod pa* “to say”: *šod pa* “to say, tell,” which Conrady adduces on pp. 80 and 82 to prove that the tenuis and tenuis aspirate developed from sonants with prefixes, lie on an entirely different road of development. In the first case we are dealing with a sound shift (cf. § 120), in the second and third cases with a degeneration of initial sound (cf. § 79), in no case, however, with parallel forms or even with a saltatory or leaping sound change, which

is unknown in Tibetan. We can speak here only of a gradual sound development. When we recognize, then, that the change of the initial sound plays an important, in fact, the most important, rôle in Tibetan of historical times, and that to this change is added the miraculous building-energy of the formative elements, it is difficult to imagine, how, phonetically, the change from *sg-*: *kh-*: *k-* (etc.) was effected, and how the speech then once more fell back upon using those means of word building which it might have considered outworn and cumbersome. For, the initial tenuis sounds combine with the same prefixes as the initial mediae, a combination from which the simple initial tenuous are said to have arisen, according to Conrady. So far as I can gather, previous investigators have assumed that tenuis and tenuis aspirate arose from the tone system. Opposed to the prefixless, always deep-toned initial media sound in the Tibetan of Central Tibet stand always those which are high-pitched, namely those with initial tenuis sound and those with an initial sound made up of prefix and media. The two latter are of equal value in the tone system. In the most ancient of the Tibetan dialects (West-Tibetan) the tone system is just now coming into being. It follows from Conrady's theories that the tone system must once have existed in this oldest dialect and then have disappeared, a supposition which we, in the light of our knowledge, cannot possibly entertain. Conrady (p. 100, ICDB) perceived the difficulty and confessed himself facing a riddle which he could not solve. We are, indeed, confronted with a problem of the highest importance to the entire science devoted to the investigation of the monosyllabic languages, and one with which we must grapple in an entirely different way. The lines of approach to the question are laid down in this morphology.

So far as sound development and sound change in Tibetan are concerned, a sound change involving grammatical change plays a gigantic rôle, that is, a sound change which in contrast to the gradual or saltatory sound development exists for the purpose of differentiating meaning. The gradual sound development I have just touched upon above. The so called saltatory or leaping sound development or sound change is foreign to the Tibetan. To discover it in the "massenhaften und in jeder Beziehung übereinstimmenden Parallelformen von Prefix + Media- resp. überhaupt tönenden und tenuis- resp. Tenuis aspirata- oder tonlosem Anlaut" seems to me unjustifiable. Such a supposition leads straight to the dilemma in which Tibetology

finds itself when faced with the huge multitude of parallel forms. We pose the questions: Do these parallel forms really have exactly the same meaning? Do they not seem to have been created to express wider or finer shades of meaning? Thus *h-du ba* means simply "to collect," but *thu-ba* only "to gather flowers"; *h-gag* "obstacle" in the widest sense, but *kag* "disturbance, damage, danger," *khag* "section, division," etc. (In the other monosyllabic speeches may be found a great many similarly instructive examples. We need but compare the Siamese *gom* [ḡḡ] "sharp, pointed," *khom* [ḡḡ] "bitter"; *gak* [ḡḡ] "sound of laughter," *khak* [ḡḡ] "group laughter"; *dim*₁ [ḡḡ] "to pierce," *thim*₂ [ḡḡ] "to pierce with a stick," and so forth.) We are under no necessity here of explaining such forms by means of prefixes which have fallen away, particularly where the prefixes in their widest compass are still preserved (as in Tibetan). And if two parallel forms are identical in meaning, it is more probable that we have one and the same word from two different dialects.

On the basis of the facts at hand, I also recognize a regular sound shift, and, indeed, like Conrady, two of them: a spontaneous and a coalescent sound development; only I see evidence of the spontaneous sound development (as the first sound shift) not in the free transformation of the media into mediae aspirates, (through a simple strengthening of the aspiration), but rather into the tenuis. — I doubt very much, if the Tibetan was originally agglutinating (cf. Conrady p. 70). It was rather root-isolating, and accomplished, to my mind, the word-and form-building in the "beginning" also in a dynamic fashion. Agglutination and inflection, which in classical Tibetan appear with the dynamic simple articulating formation, are developments of later periods. If dynamic formations are not found in other languages,¹ at least not in such an impressive measure as appears to be

¹) Dynamic formations, that is intentional sound alternations for the purpose of changing meaning, may also be found in other languages, although not yet perceived and acknowledged as such by philologists. I think, first of all, of the Dravidian languages, which Conrady also mentions on p. 72. He maintained that causative formation through a purely mechanical change of the initial consonants was impossible. Nevertheless, we find such dynamic formations as Tamil *āgu* "to become," *ākku* "to make": *nirambu* "to become full," *nirappu* "to fill." A different form exists likewise, as in Tibetan with certain verbs, especially to differentiate the present and preterit tenses, e.g., *nagugirēñi* "I laugh," *naḡḡkēñi* "I laughed" (cf. Tib. *h-gag-s pa*, *b-kag*, etc); only we must take

in Tibetan, have we then a right because of their singularity to diminish their importance on the basis of "philological attainments"? The hypothesis (provisionally arrived at by analogies, cf. ICDB, p. 91) that the media which formerly began a stem went over to media aspirate through the disappearance of the prefixes which had become spirant, and that the media aspirate then split into a tenuis and tenuis aspirate, seems to me for the Tibetan of the historical and perhaps even earlier times no longer tenable. If we assume, on the contrary, a direct evolution (through intentional sound alternation for the purpose of a changing meaning) of the tenuis and tenuis aspirate parallel with that of the unaspirate media, the great "riddle" of the Tibetan language is solved, and a free road lies before us.

B. ABLAUT.

§ 3. *Ablaut* is a further aid to word building which belongs to the very oldest development of the Tibetan language. It is also instrumental in forming medial transitives, causatives, completives, denominatives and deverbatives as well as in changing subjectives into objectives. *Ablaut* is an older manifestation than any of the other formative elements which we shall discuss later, as is immediately apparent from a consideration of the root, for example in

a) roots which have the same initial sound:

based on $\sqrt{*ga}$ (9): «to extend, spread (horizontally)»
 go "room, space" = «extension, breadth»
 ga na }
 ga ru } "where"

based on $\sqrt{*ga}$ (10): «to increase, extend (in the metaphorical sense)»
 ka "the, all the, the very"
 ko "the same"

into consideration that necessarily the change manifests itself in Tibetan only with the initial root sound, in Dravidian only with the final root sound, because in the Tibetan there existed no final tenuis, and in the Dravidian no initial media. In Dravidian nominal "transitives" are formed as a result of the transformation of the media into the tenuis; thus, for example, a substantive becomes an adjective or attribute adjective. I owe these examples to Dr. F. Otto Schrader of Kiel, who concedes for the Dravidian languages a dynamic, i. e. intentional, sound alternation for the purpose of changing meaning.

- based on \sqrt{ga} (12): «to decrease, vanish»
ka ba “a particular faculty acquired by a mystic process in which the appetites, hunger, thirst, etc., are suppressed”
r-ke ba “lean, meager”
ko in ko thal “cinders, ashes”
- based on $\sqrt{*ga}$ (13): «to walk forward, proceed, go to»
s-ge “opening, outlet”
s-go “door, entrance”
- based on \sqrt{ga} (16): «to become light, to dawn» (physically and symbolically)
d-gah ba “delight, joy”
d-ge ba “happiness, welfare”
- based on \sqrt{da} (1): “now, just, at present” (in a strongly demonstrative sense)
da “now, just”
de “that, that one”
do “this, this one”
- based on $\sqrt{*da}$ (2): «to arrive at, reach to»
r-do “a stone” (cf. *m-dah* “arrow”)
r-de diminutive of *r-do* = “small stone, pebble”
g-tah ma “a pawn, pledge”
g-te pa “a pawn, pledge, bail,” “present” (Schlag-inweit)
m-thah “end, margin, limits”
m-tho “a span from the tip of a thumb to the tip of the middle finger when extended” = «from one end to the other»
- based on $\sqrt{*da}$ (3): «to be added, to be appended»
tha (gu) “a short cord or rope”
the ba “to belong, appertain to”
tho “register, catalogue”

b) roots which substitute one initial sound for another of the same class (guttural, dental, labial, etc):

- based on $\sqrt{*ga}$ (2): «head» (intellectual)
go ba “to understand, perceive (mentally)”
b-kah “word, speech”
kha “language, conversation”
ya “I,” «that which is individual within me»

based on $\sqrt{*ga}$ (3):	«head» (in the meaning of “chieftain”)
<i>go</i>	“chieftain, chief”
<i>kho</i>	“king”
<i>s-ŋa ba</i>	“to be the first”
based on $\sqrt{*da}$ (6):	«to extend, spread» (horizontally)
<i>b-do ba</i>	“to spread, diffuse”
<i>b-r-ta ba</i>	“to expand, grow wide”
<i>na</i>	“meadow, pasture land”
<i>ne ma</i>	“meadow,” etc.

Through *ablaut* the following classes developed:

1) Medial Transitives¹

based on $\sqrt{*da}$ (2):	$\left\{ \begin{array}{l} r\text{-}ten\ pa \\ r\text{-}ton\ pa \end{array} \right.$	“to adhere to, lean on” “to place confidence in a person, rely on”
based on \sqrt{da} (5):	$\left\{ \begin{array}{l} h\text{-}deg\text{-}s\ pa \\ b\text{-}dog\ pa \end{array} \right.$	“to shift, to remove” “to take possession of”
based on \sqrt{da} (5):	$\left\{ \begin{array}{l} dab\ pa \\ r\text{-}deb\ pa \end{array} \right.$	“to give” (DTLF) “to exchange, change”
based on $\sqrt{*ga}$ (14):	$\left\{ \begin{array}{l} h\text{-}grag\text{-}s\ pa \\ h\text{-}grog\text{-}s\ pa \end{array} \right.$	“to bind” “to associate with”
based on $\sqrt{*ga}$ (13):	$\left\{ \begin{array}{l} h\text{-}khel\ ba \\ h\text{-}khol\ ba \end{array} \right.$	“to pack on, load” “to make a person a slave” (= to enslave)

2) Causatives (in the usual sense).

based on $\sqrt{*ba}$ (4):	$\left\{ \begin{array}{l} h\text{-}bab\ pa \\ h\text{-}beb\text{-}(s)\ pa \end{array} \right.$	“to move downward, descend” “to cause to descend, cause to fall down”
----------------------------	--	--

¹ The same note holds good for the prefixes in this section as for those in the *tenuis*-group: for the present the prefixes may be ignored. Their significance is readily perceived from reading §§ 14—22, and 59. Should I be accused of overlooking for example in the opposites *nad* ‘sickness’ and *g-nod pa* ‘to cause sickness’ the causative effect of the prefix *g*, which is supposed to be the real carrier of the grammatical change, I can but refer the accuser to § 14, in which *g* is identified as an iterative. This is not an arbitrary assumption of mine. The weight of countless examples in Tibetan convinced me that this was true for *g*. Just by the weight of those countless examples found in Tibetan I succeeded in finding an explanation for the meaning and function also of all the other prefixes and suffixes — an explanation which is not at all arbitrary. I have found not one single instance in which *g* has a causative function.

based on $\sqrt{*ga}$ (5):	$\left\{ \begin{array}{l} l-da\eta pa \\ g-de\eta ba \end{array} \right.$	“to rise, get up” “to raise, lift”
based on $\sqrt{*ga}$ (8):	$\left\{ \begin{array}{l} s-ga\eta ba \\ h-ge\eta-s pa \end{array} \right.$	“to become full” “to fill up”
based on $\sqrt{*ga}$ (11):	$\left\{ \begin{array}{l} h-gas pa \\ h-ges pa \end{array} \right.$	“to split, crack (intransitive)” “to split, cleave, divide”
based on $\sqrt{*ba}$ (5):	$\left\{ \begin{array}{l} h-byon pa \\ h-byin pa \end{array} \right.$	“to go, set out” “to send forth”

3) Completives.

(a) Iteratives or Continuatives.

based on $\sqrt{*ga}$ (3):	$\left\{ \begin{array}{l} h-dam pa \\ h-dom pa \end{array} \right.$	“to pick out, to choose” “to select, to induce”
based on $\sqrt{*ga}$ (2):	$\left\{ \begin{array}{l} b-sam pa \\ sem-s pa \end{array} \right.$	“to ponder” “to think, fancy, imagine”
based on $\sqrt{*da}$ (10)a:	$\left\{ \begin{array}{l} g-tam pa \\ g-tom pa \end{array} \right.$	“to appoint, commission” “to talk, to speak”
based on $\sqrt{*da}$ (3):	$\left\{ \begin{array}{l} b-tag-s pa \\ g-tog-s pa \end{array} \right.$	“to be bound, tied” “to classify”
based on $\sqrt{*da}$ (3):	$\left\{ \begin{array}{l} dam (pa) \\ s-dom pa \end{array} \right.$	“bound fast” “to add together, sum up”

(b) Intensives.

based on $\sqrt{*da}$ (2):	$\left\{ \begin{array}{l} l-tab pa \\ l-teb pa \end{array} \right.$	“to fold, lay together” “to double down (carefully), to turn in”
based on $\sqrt{*ba}$ (4):	$\left\{ \begin{array}{l} pa\eta pa \\ s-po\eta ba \end{array} \right.$	“to abandon” “renounce, reject”
based on \sqrt{da} (4):	$\left\{ \begin{array}{l} h-de\eta ba \\ h-do\eta ba \end{array} \right.$	“to go, depart” “to go, proceed”
based on $\sqrt{*ba}$ (3):	$\left\{ \begin{array}{l} d-pag-s pa \\ d-pog pa \end{array} \right.$	“to measure, estimate”(JTED) “to measure, apportion”
based on $\sqrt{*ga}$ (13):	$\left\{ \begin{array}{l} b-kal ba \\ b-kol ba \end{array} \right.$	“to load, put a load on” “to bind to service”

(c) Resultatives.

based on $\sqrt{*ba}$ (3):	$\left\{ \begin{array}{l} h-phyar ba \\ h-phyor ba \end{array} \right.$	“to excite, waken” “to speak deliriously”
based on $\sqrt{*ba}$ (4):	$\left\{ \begin{array}{l} h-phrag pa \\ h-phrog pa \end{array} \right.$	“to envy, grudge” (KTED) “to rob, to run away with”

- based on \sqrt{da} (5): $\left\{ \begin{array}{l} h\text{-deb-s pa} \text{ "to offer"} \\ r\text{-dob pa} \text{ "to give"} \end{array} \right.$
- based on \sqrt{da} (5): $\left\{ \begin{array}{l} h\text{-deg-s pa} \text{ "to remove"} \\ b\text{-dog pa} \text{ "to take possession of"} \end{array} \right.$
- based on $\sqrt{*da}$ (3): $\left\{ \begin{array}{l} g\text{-de}\eta \text{ (ba)} \text{ "(to be) certain, confident"} \\ s\text{-do}\eta \text{ ba} \text{ "to join with, enter into part-nership"} \end{array} \right.$

4) Denominatives and Deverbatives.

- based on \sqrt{da} (11): $\left\{ \begin{array}{l} nad \text{ "sickness"} \\ g\text{-nod pa} \text{ "to cause sickness"} \end{array} \right.$
(prefix *g* has nothing to do with the causative; it is iterative.)
- based on \sqrt{da} (1): $\left\{ \begin{array}{l} m\text{-thsan} \text{ "name" = «heading»} \\ m\text{-thson pa} \text{ "to show forth, exhibit"} \end{array} \right.$
- based on \sqrt{da} (3): $\left\{ \begin{array}{l} r\text{-tag-s} \text{ "sign, token, mark"} \\ g\text{-tog-s pa} \text{ "to assign, classify"} \end{array} \right.$
- based on $\sqrt{*ga}$ (10): $\left\{ \begin{array}{l} s\text{-kyar ba} \text{ "again and again"} \\ s\text{-kyor ba} \text{ "to repeat"} \end{array} \right.$
- based on $\sqrt{*ba}$ (3): $\left\{ \begin{array}{l} byad \text{ "shape, form"} \\ byed pa \text{ "to make"} \end{array} \right.$
- based on $\sqrt{*ga}$ (5): $\left\{ \begin{array}{l} h\text{-dze}\eta \text{ ba} \text{ "to stick out, project"} \\ r\text{-dzon} \text{ "castle, fortress"} \end{array} \right.$
- based on $\sqrt{*ga}$ (5): $\left\{ \begin{array}{l} theg pa \text{ "to raise, lift"} \\ thog \text{ "head = top, on the top"} \\ tog \text{ "the top of anything"} \end{array} \right.$
- based on $\sqrt{*ba}$ (3): $\left\{ \begin{array}{l} b\text{-zab pa} \text{ "to use care"} \\ b\text{-zob pa} \text{ "assiduity, perseverance"} \end{array} \right.$
- based on \sqrt{da} (10)a: $\left\{ \begin{array}{l} g\text{-šad pa} \text{ "to tell, relate"} \\ b\text{-šod} \text{ "record, description"} \end{array} \right.$
- based on \sqrt{ga} (16)b: $\left\{ \begin{array}{l} zer ba \text{ "to be named, to say"} \\ zor ma \text{ "hymns, religious songs"} \end{array} \right.$

Compare also:

- $ba\eta$ ba "store-house, magazine" =
«that which swells»
- $bo\eta$ "in capacity, in bulk"

5) Subjectives > Objectives.

based on \sqrt{ga} (12): $\begin{cases} s-kam\ pa & \text{“to be dry”} \\ s-kom\ pa & \text{“to be thirsty”} \end{cases}$

based on $\sqrt{*ga}$ (7) $\sqrt{*ga}$ (8): $\begin{cases} h-khe\eta-s\ pa & \text{“to be full, replete”} \\ h-kho\eta\ ba & \text{“to draw in one’s limbs,} \\ & \text{to squat”} \end{cases}$

§ 4. a) The *ablaut* has a further function in distinguishing the transitive tenuis-form of a verb with initial media from the intransitive tenuis-form. This important fact has been already shown in two examples in § 2, 3a. Eight other examples follow:

based on $\sqrt{*da}$ (10)a: $\begin{cases} r-d\check{z}od\ pa & \text{“to say, recite”} \\ h-t\check{h}\check{s}ad\ pa & \text{“to explain” with } ablaut, \\ & \text{because} \end{cases}$

$t\check{h}\check{s}od\ pa$ “to be decided” is intransitive.

based on $\sqrt{*ga}$ (13): $\begin{cases} s-gyen\ pa & \text{“to be on the move”} \\ s-kyon\ pa & \text{“to put astride upon a thing”} \\ & \text{with } ablaut, \text{ because} \end{cases}$

$s-kyen\ (pa)$ “(to be) quick, swift, hasty” is intransitive

based on $\sqrt{*da}$ (3): $\begin{cases} h-dog-s\ pa & \text{“to bind, fasten, attach”} \\ h-thag\ pa & \text{“to weave” with } ablaut, \\ & \text{because} \end{cases}$

$g-tog-s\ pa$ “belonging to” is intransitive

based on $\sqrt{*ga}$ (3): $\begin{cases} r-d\check{z}ed\ pa & \text{“to honour, reverence”} \\ m-t\check{h}\check{s}od\ pa & \text{“to honour, to worship” with} \\ & \text{ablaut, because} \end{cases}$

$m-t\check{h}\check{s}ed$ “resp. for brother and sister” is of intransitive origin

based on $\sqrt{*ga}$ (2): $\begin{cases} h-d\check{z}ag\ pa & \text{“to establish, settle”} \\ g-t\check{s}ag-s\ pa & \text{“to apprehend, grasp”} \\ l-t\check{s}og-s\ pa & \text{“to be able” with } ablaut, \end{cases}$

• because it is the intransitive form of $g-t\check{s}ag-s\ pa$

based on $\sqrt{*ga}$ (5)a: $\begin{cases} h-dzeg\ pa & \text{“to climb up, ascend”} \\ r-tseg\ pa & \text{“to amass, to pile up”} \\ b-r-tsag-s & \text{“heaped up, earned” with} \end{cases}$

ablaut, because it is the intransitive form of $r-tseg\ pa$.

based on $\sqrt{*ga}$ (5)a:	{	<i>h-deg-s pa</i>	“to lift, raise”
		<i>teg pa</i>	“to put up, pack up”
		<i>l-tag pa</i>	“to be uppermost; the upper part of anything” with <i>ablaut</i> , because it is the intransitive of <i>teg pa</i>
based on $\sqrt{*ba}$ (3):	{	<i>s-bar ba</i>	“to kindle, inflame”
		<i>s-par ba</i>	“to excite, incite”
		<i>phor ba</i>	“to be delirious, to speak deliriously” with <i>ablaut</i> , because it is the intransitive of <i>s-par ba</i> etc., etc.

b) From the above examples it becomes apparent that *ablaut* is called upon for the formation of medial transitives, causatives, completives, etc., when these verb forms must be built up from verbs already beginning with an initial tenuis. The same is true of verbs in which the tenuis-form is impossible, that is, in verbs beginning with nasals (*η, m, n*), with *l, r, z, s*, and with *ž, š, y*.

Examples:

based on \sqrt{ba} (1):	{	<i>g-žan</i>	“the anus”
		<i>g-žon pa</i>	“wooden trough or tub”
based on $\sqrt{*ba}$ (2):	{	<i>b-sag pa</i>	“accumulation of religious merits”
		<i>b-sog pa</i>	“to gather, heap up”
based on $\sqrt{*ga}$ (2):	{	<i>rag pa</i>	“to perceive, see”
		<i>reg pa</i>	“to perceive, feel”
based on $\sqrt{*ga}$ (5)a:	{	<i>sran ba</i>	“to be straight” (KTED)
		<i>sron ba</i>	“to straighten, make straight (that which is crooked)”
based on $\sqrt{*ga}$ (16)b:	{	<i>zer ba</i>	“to say”
		<i>zor ma</i>	“hymns, religious songs”
		<i>lan</i>	“response, answer”
		<i>lon</i>	“news, tidings”

c) An *ablaut* change of the vowel to *u* expresses generally the idea of a diminution or of a change for the worse. The *ablaut* change to *u* produces sometimes a more specialized meaning deviating from the original meaning.

Examples:

- based on $\sqrt{*ga}$ (13): $\left\{ \begin{array}{l} \text{ḥ-khol } ba \text{ "to cause a man to serve"} \\ \text{ḥ-khul } ba \text{ "to make a person a slave"} \end{array} \right.$
- based on $\sqrt{*ga}$ (11): $\left\{ \begin{array}{l} \text{s-kyer } ba \text{ "to be very lonely"} \text{ (DTLF)} \\ \text{b-s-kyur } ba \text{ "to be driven away, be expelled"} \text{ (JTED)} \end{array} \right.$
- based on $\sqrt{*ga}$ (11): $\left\{ \begin{array}{l} \text{b-krad } pa \text{ "to expel spirits"} \text{ (DTLF)} \\ \text{s-krud } pa \text{ "to make another run away by devices"} \end{array} \right.$
- based on \sqrt{bu} (5): $\left\{ \begin{array}{l} \text{g-tsag(-s) } pa \text{ "to thrust in, pierce"} \\ \text{g-tsug-s } pa \text{ "to scoop out, excavate"} \end{array} \right.$
- based on $\sqrt{*ga}$ (8): $\left\{ \begin{array}{l} \text{s-kon } ba \text{ "to fulfil, to fill up"} \\ \text{s-kun } ba \text{ "to hide in the ground, to bury"} \end{array} \right.$
- based on $\sqrt{*ga}$ (7): $\left\{ \begin{array}{l} \text{d-gar } ba \text{ "to confine"} \\ \text{gar} \text{ "camp"} \\ \text{gur} \text{ "tent"} \text{ (along with } m\text{-khar "a nobleman's seat, castle")}\end{array} \right.$
- based on $\sqrt{*ga}$ (7): $\left\{ \begin{array}{l} \text{ḥkhor } ba \text{ "to circumambulate, walk all round"} \\ \text{ḥ-khur } ba \text{ "to carry, drag"} \end{array} \right.$
- based on $\sqrt{*ga}$ (11): $\left\{ \begin{array}{l} \text{ḥ-khyar } ba \text{ "to err, go astray"} \\ \text{ḥ-khyur } ba \text{ "to be engulfed, swallowed"} \text{ (JTED)} \end{array} \right.$
- based on \sqrt{ga} (12): $\left\{ \begin{array}{l} \text{ḥ-kham } pa \text{ "to fall down senseless"} \\ \text{ḥ-khum } pa \text{ "to shrink"} \\ \text{ḥ-khol } ba \text{ "to become insensible, to be asleep"} \\ \text{ḥ-khul } ba \text{ "to be uneasy about something"} \end{array} \right.$
- based on $\sqrt{*ga}$ (13): $\left\{ \begin{array}{l} \text{ḥ-khyog } pa \text{ "to carry"} \\ \text{ḥ-khyug } pa \text{ "to run, move swiftly"} \text{ belongs to } \text{ḥ-kyu } ba \text{ "to run away"} \end{array} \right.$
- based on $\sqrt{*ga}$ (11): $\left\{ \begin{array}{l} \text{r-ka} \text{ «a person or circumstance causing a separation or turning aside»} \\ \text{r-ku } ba \text{ "part, section"} \\ \text{r-ku } ba \text{ "to steal"} \end{array} \right.$

Compare also

based on $\sqrt{*ga}$ (6):	$\left\{ \begin{array}{l} khay \\ khuy \end{array} \right.$	“house” “hole, little cave”
based on $\sqrt{*ga}$ (9):	$\left\{ \begin{array}{l} s-kyom pa \\ yum pa \end{array} \right.$	“to pour out” “to strew salt on food, or ashes on snow”
based on $\sqrt{*ga}$ (6):	$\left\{ \begin{array}{l} khog \\ khog pa \\ khug ma \\ khod \\ khud \end{array} \right.$	“the interior, inside” “trunk of the body” “little bag, small sack” “surface” “any makeshift cloth, wrap- per”
based on $\sqrt{*ga}$ (7):	$\left\{ \begin{array}{l} s-gor \\ s-gur \end{array} \right.$	“round” “hunchbacked”

Note. The *ablaut* change to *u* seems also to have a diacritical effect. Since roots identical in sound formed, with the help of the formative elements, a great number of words with identical sounds, the introduction of an *ablaut* change to *u* in the vowel series *a*, *e*, *o* became necessary in order to avoid confusion. However, even this means proved to be very unsatisfactory. From $\sqrt{*ga}$ (2) is formed, for instance, *s-gom pa* “to fancy, imagine.” For the derivative idea “to be drawn up, to be contracted” we should expect the form **s-kom pa*. We find, however, *s-kum pa*, since the form *s-kom pa* signifies “thirst, thirsty” and is built up on another root. The same is true of *gruy po* “very intelligent, clever,” from which is derived, *s-gruy ba* “to invent, feign,” (based on $\sqrt{*ga}$ (2)) instead of **gray* or **groy*. *gray ba* means among other things “cold” and *groy ba* “to die” and so forth. Again, we have *b-tsun po* “king,” *m-thsun* “ancestor, tutelary deity of a family” (based on $\sqrt{*ga}$ (3)), instead of **b-tsan* and **m-thsan*, since another *b-tsan po* means “mighty, strong” and another *m-thsan* means “name; sign,” etc. (In this connection, *i* stands entirely alone, compare *grin pa*, *s-grin pa* “clever, witty” (based on $\sqrt{*ga}$ (2)), instead of **gran*, **gren*, or **gron*; for *gron pa* “expensive, luxurious,” *s-gren mo* “naked,” and *s-gron pa* “to cover” already existed.) —

In this place I should like to mention an objection which has been made and which can perhaps be made on other grounds by those whose acquaintance with the subject is limited. I indicated above that the

ablaut change to *u* “generally expresses an idea of diminution.” This premise has been thought erroneous, since the diminutive-forming suffix *u* is notoriously considered only a derivative of *bu* “son, child,” which apparently led me to my conclusion. True, the suffix *u* is without doubt a derivative of *bu* “son, child” (based on \sqrt{bu} (1) “to unfold, blossom (flower)”) and affords by its addition to a form certain phonetical changes (cf. Foucaux, *Grammaire de la Langue Tibétaine*, p. 24, or Hannah, *Grammar of the Tibetan Language* p. 61); — *bu* is, however, a syllable-suffix and belongs to the period when Tibetan had a rather strong leaning towards agglutination. Here, on the contrary, we are dealing with the root or stem-vowel itself, which changed to *u* by *ablaut*, a grammatical development of the root-isolating period.

d) Obviously *ablaut* became necessary for those verb forms which could not be obtained by means of the tenuis. Gradually, however, it appeared also in verbs with initial media sound, so that in many cases there exist simultaneously two forms with the same meaning.

Compare:

based on $\sqrt{*ba}$ (4):	$\left\{ \begin{array}{l} h-bab\ pa \\ h-beb-(s)\ pa \\ phab\ pa \end{array} \right\}$	<p>“to descend”</p> <p>“to cause to descend, to bring down”</p> <p>(concerning aspirate s. § 8)</p>
based on $\sqrt{*ga}$ (11):	$\left\{ \begin{array}{l} h-gas\ pa \\ h-ges\ pa \\ b-kas\ pa \end{array} \right\}$	<p>“to split, burst apart”</p> <p>“to split, cleave”</p>
based on $\sqrt{*ga}$ (9):	$\left\{ \begin{array}{l} h-gram-s\ pa \\ h-grem\ pa \\ b-kram\ pa \end{array} \right\}$	<p>“to spread over, scatter”</p>
based on $\sqrt{*ga}$ (3):	$\left\{ \begin{array}{l} h-dam\ pa \\ h-dom\ pa \\ g-tam\ pa \end{array} \right\}$	<p>“to pick out, choose”</p> <p>“to select; induce”</p> <p>“to appoint, commission”</p>
based on $\sqrt{*ga}$ (12):	$\left\{ \begin{array}{l} h-gyer\ ba \\ r-gyor\ ba \\ h-khyer\ ba \end{array} \right\}$	<p>“to throw away = to let fall”</p> <p>“to kill” = «to cause to fall,» «to remove»</p> <p>“to carry away” (aspirate s. § 8)</p>

based on $\sqrt{*ba}$ (2) $\sqrt{*ba}$ (4):

<i>baŋ ba</i>	“corn magazine, store-house” = «that which swells»
<i>boŋ</i>	“in size, in bulk”
<i>d-paŋ-s</i>	“the height”
<i>phaŋ</i>	“to spare, save” (aspirate)
<i>ba</i>	cf. § 8)

cf. *d-puŋ ba* “to collect, gather, assemble!” (DTLF) (based on $\sqrt{*bu}$ (2))

based on $\sqrt{*ga}$ (13):

<i>h-gog-s</i>	“the passing over, transit”
<i>h-gag</i>	“a place that has to be passed by all,” «transit»
<i>l-kog</i>	“yonder”

based on $\sqrt{*ga}$ (13):

<i>r-gal ba</i>	“to ford, travel through”
<i>h-gel ba</i>	“to load, to impose”
<i>h-khal ba</i>	“to send, forward (things)”

based on $\sqrt{*ga}$ (11):

<i>h-gol ba</i>	“to part, separate”
<i>h-gal ba</i>	“to disagree”
<i>h-khol ba</i>	“to keep somebody away” (JTED)

based on $\sqrt{*ga}$ (9):

<i>b-r-gyaŋ ba</i>	“to extend, stretch out”
<i>r-gyoŋ ba</i>	“to extend, spread forth”
<i>r-kyan ba</i>	“extended, spread”

§ 5. A) A further important rôle is played by *ablaut* in the formation of tenses, especially in verbs with the stem vowel *a*, which changes by *ablaut* to *e* or *o* in the present and to *o* in the imperative. For a clearer understanding we must anticipate here a part of a later chapter on tense building, and turn next to the tenuis-verbs of the dental and labial classes, including their tertiary derivatives (cf. §§ 66ff.). The tenuis-verbs of the dental class include verbs with the prefix *g* (iterative, for the purpose of intensifying) and with the prefix *b* (approaching perfection, purpose, goal), such as *g-taŋ ba* “to send, dismiss” (intensive) opposed to *b-taŋ ba* in the same meaning, though more in the aspect of imminent completion, of purpose; or *g-tad pa* “to hand out, deliver” opposed to *b-tad pa*, etc. The tenuis-verbs of the labial class, including their derivative tertiary, etc., forms cover verbs with *d* instead of *g* (iterative) and *d* instead of *b* (imminent completion), such as *d-pag pa*

“to measure,” *d-par ba* “to command, dictate,” and others. Originally the tenses (as in Chinese) were not distinguished by a change in verb form. As the necessity of indicating tense by a change of the verb arose, the verb form with the prefix *g* (iterative) was used for the future and the form with prefix *b* (completion) for the perfect. The latter appears as an intensifier of the form with suffix *s* (cf. § 23). The present retained the form with prefix *g* and *d*, since these interchangeable prefixes served originally to characterize the verb, and prefix *b* was used for the perfect tense. To differentiate the present from the future and to put emphasis on it by “strengthening” the vowel, an *ablaut* change to *e* and more often to *o* took place. Similarly the vowel in the imperative was “strengthened” almost without exception to *o*¹.

The media-verbs of the guttural, dental, and labial classes including their tertiary, etc., derivatives undergo the same change, if the stem vowel be *a*. Later these verbs acquired the prefix *h-* (s. § 59) in the present. They retain, however, the vowel strengthening in the present; in the future and imperative the media forms are largely replaced by the tenuis forms. For further details see “Tense Formation” (§§ 25—58).

Vowel strengthening from *a* to *e* or *o* in the present and to *o* in the imperative takes place, for example, in all verbs with prefixes *s* or *r*. A small number of verbs retain *o*, however, also in the perfect and future².

¹ The *ablaut* change *a* > *o* appears stronger than that from *a* > *e*; compare for instance *r-don* “stone,” to which belongs the diminutive *r-den*! The same peculiarity occurs without doubt in the following examples: *h-dam pa* “to select”; *h-dem pa* “to prove, examine”; *h-dom pa* “to select induce,” or *l-tag pa* “the upper part of a thing”; *teg pa* “to load, pack up”; *tog* “point, extreme end,” or *m-khas pa* “to be learned, wise”; *m-khes pa* “to hit the proper thing (in selecting)” (DTED); *h-khos pa* “mighty, of great influence” or *b-s-kos* “chosen, selected,” and others.

² This *ablaut* change in forming tenses became systematized and binding to an astonishingly high degree and shows very few irregularities. That *ablaut* belonged above all to the very oldest means of word formation is open to no doubt, and certainly it had already played a very definite rôle in tense forming in the root-isolating period of Tibetan. It seems to be absolutely certain that it became more constant as the language began to signify tense by means of affixes. And as the tense affixes got more and more the upper hand, the regularity of *ablaut* change in tense building was gradually shattered, so that we have today an almost hopeless situation in tense formation. The Tibetan grammarians began as early as the middle ages to borrow a verb system or an *averbo* from the Indian grammar, therefore, the many “parallel forms.”

B) We can distinguish verbs with ablaut and without. The group without ablaut comprises those which

1. end in a vowel only,
2. show strengthening of the vowel in the present ($a > e$ or o),
3. have the stem vowel u ,
4. have the stem vowel i and do not end in n .

Examples:

<i>h-dah ba</i>	<i>h-das</i>	—	—	“to go beyond”
<i>r-dže ba</i>	<i>b-r-džes</i>	<i>b-r-dže</i>	<i>b-r-džes</i>	“to barter, exchange”
<i>h-deg-s pa</i>	<i>b-teg-s</i>	<i>g-deg</i>	<i>theg</i>	“to raise, lift”
<i>h-bog-s pa</i>	<i>phog</i>	<i>d-bog</i>	<i>phog</i>	“to bestow, impart”
<i>h-byed pa</i>	<i>phye(-s)</i>	<i>d-bye</i>	<i>phye(-s)</i>	“to open, separate”
<i>h-thšiŋ ba</i>	<i>b-tšiŋ-s</i>	<i>b-tšiŋ</i>	<i>h-thšiŋ-s</i>	“to bind, tie up”
<i>h-džug pa</i>	<i>b-tšug</i>	<i>g-žug</i>	<i>thšug</i>	“to put into,” and others.

To the verbs with ablaut belong those of the vowel series a , e , o , which may be divided into the following classes:

α) Verbs with a in the present and no consonantal mutation of the initial sound.

Examples:

<i>a</i>	<i>a</i>	<i>a</i>	<i>o</i>	
<i>lta ba</i>	<i>b-ltas</i>	<i>b-lta</i>	<i>lto-s</i>	“to see, perceive”
<i>s-kyag pa</i>	<i>b-s-kyag-s</i>	<i>b-s-kyag</i>	<i>s-kyog</i>	“to spend, lay out”
<i>h-thsag pa</i>	<i>b-tsag-s</i>	<i>b-tsag</i>	<i>thsog</i>	“to press out,” etc.

β) Verbs with e in the present and with consonantal mutation of the initial sound.

Examples:

<i>e</i>	<i>a</i>	<i>a</i>	<i>o</i>	
<i>h-geg-s pa</i>	<i>b-kag</i>	<i>d-gag</i>	<i>khog</i>	“to hinder”
<i>h-deb-s pa</i>	<i>b-tab</i>	<i>g-dab</i>	<i>thob</i>	“to throw”
<i>h-beb-s pa</i>	<i>phab</i>	<i>d-bab</i>	<i>phob</i>	“to throw down,” etc.

γ) Verbs with o in the present and no consonantal mutation of the initial sound, i. e., with media throughout or with tenuis throughout (tenuis aspirate).

Examples:

<i>o</i>	<i>a</i>	<i>a</i>	<i>o</i>	
<i>g-toŋ ba</i>	<i>b-taŋ</i>	<i>g-taŋ</i>	<i>thoŋ</i>	“to give”
<i>s-koŋ ba</i>	<i>b-s-kaŋ-s</i>	<i>b-s-kaŋ</i>	<i>koŋ</i>	“to fulfill”
<i>h-džog pa</i>	<i>b-žag</i>	<i>g-žag</i>	<i>žog</i>	“to put, place,” etc.

The vowels *e* and *o* in the present tense of verbs in the groups β and γ weaken to *a* in the perfect and future, as already observed above. The imperative in the groups α , β , γ is formed almost without exception with *o*.

δ) A small group of verbs occupy a special place; namely verbs with the stem vowel *i* and final *n*, which change *i* to *u* in all tenses.

Examples:

<i>i</i>	<i>u</i>	<i>u</i>	<i>u</i>	
<i>h-dzin pa</i>	<i>b-zuŋ</i>	<i>g-zuŋ</i>	<i>zuŋ</i>	“to lay hold of, seize”
<i>h-byin pa</i>	<i>phyuŋ</i>	<i>d-byuŋ</i>	<i>phyuŋ</i>	“to expel, drive out”

In this case a simple change of the vowel and a mixing of two verbs identical in meaning seem to be involved. In Ladakhi, forms such a *biŋ-ste* and *phiŋ-s* are more often used than *byuŋ* and *phyuŋ* and others similar. In this case *u* as a weakening of *i* would be conceivable; if, however, *i* were a “strengthened” form of *u* — which is scarcely imaginable — we should have to have the same *i* in the imperative.

ε) A change of the final sound occurs in connection with the *ablaut*. All *ablaut*-less verbs in *n* retain *n* unchanged.

Examples:

<i>h-don pa</i>	<i>b-ton</i>	<i>g-don</i>	<i>thon</i>	“to drive out, expel”
<i>s-ten pa</i>	<i>b-s-ten</i>	<i>b-s-ten</i>	<i>s-ten</i>	“to adhere to,” etc.

All verbs with *ablaut*, on the contrary, change final *n* into *ŋ*.

Examples:

<i>h-dren pa</i>	<i>draŋ-s</i>	<i>draŋ</i>	<i>dron-s</i>	“to draw, pull”
<i>h-byin pa</i>	<i>phyuŋ</i>	<i>d-byuŋ</i>	<i>phyuŋ</i>	“to emit, send forth”
<i>h-phen pa</i>	<i>h-phauŋ-s</i>	<i>h-phauŋ</i>	<i>phouŋ</i>	“to throw, fling”
<i>len pa</i>	<i>b-laŋ-s</i>	<i>b-laŋ</i>	<i>louŋ</i>	“to take, accept”

Note. After the forms with *ya btags*, *ra btags*, and with the formative elements (prefixes and suffixes) had laid a solid foundation for the language, *ablaut* then turned in new directions. These features belong likewise to this chapter. I present herewith my most important observations which are systematic, or at least copious.

1) Verbs with the stem vowel *a* change *a* > *o* or *o* > *e* through palatalization with *ya btags* and *ra btags*.

Examples:

<i>h-pho ba</i>	“to change place, move oneself away”
<i>phyed pa</i>	“to change”

<i>goŋ</i>	“the above,” «upright»
<i>h-greŋ ba</i>	“to stand”
<i>kraŋ</i> and <i>kroŋ</i>	“standing, upright”

2) Verbs with *u* change occasionally to *o* in order to form substantives and adjectives (cf. also § 4).

Examples:

<i>b-šur ba</i>	“to singe”
<i>b-žob</i>	“the burning, singeing” (DTLF)
<i>r-gyug pa</i>	“racing”
<i>m-gyog-s</i>	“quick, lively”
<i>thsud pa</i>	“to dig”
(cf. <i>h-khyud pa</i>)	“to glide in or into”
<i>g-žob</i>	“spade, shovel”
<i>h-brub pa</i>	“to overflow, gush forth”
<i>h-brum pa</i>	“a pock or pustule,” «that which is swollen up»
<i>r-lom pa</i>	“a boasting, vanity”
	(an <i>anlautsreduzierung</i> of the second grade, cf. § 122).

3) Verbs with *a*, *e*, *o* change frequently to *i*, when they are palatalized by *ya* *btags*.

Examples:

based on	\sqrt{da} (4):	«to appear in a place > to move forward»
along with	<i>thša ba</i> :	“to go away, to leave”
we have	<i>m-thši ba</i>	“to come, to go (elegant)”
based on	\sqrt{da} (11):	«to be transformed > to decay, vanish»
along with	<i>h-džad pa</i>	“to disappear gradually” (DTLF)
we have	<i>h-thši ba</i>	“to die”
based on	$\sqrt{*ba}$ (6):	«to appear, become apparent»
along with	<i>men</i>	“pomp, splendour, magnificence”
and	<i>phyog-s pa</i>	“to become visible,” etc.
we have	<i>byin</i>	“pomp, splendour, magnificence”
based on	$\sqrt{*ga}$ (6):	«head» (in the meaning of “enveloping, enfolding”)
along with	<i>s-kyab-s</i>	“protection, defence”
and	<i>s-kyob pa</i>	“to defend, protect,” etc.
we have	<i>s-kyib-s</i>	“a place giving shelter”

In addition to these compare also the following analogous words:

gyam "a shelter, recess in a rock" *ḥ-khyed pa* "to be sufficient"
khyim "house, residence" *ḥ-phyid pa* "to suffice"
h-byon pa "to go, come"
h-byin pa "to let go, let free"

l-tša "excrements (animals)" *s-pyon pa* "to arrive"
l-tši ba "dung" *phyin pa* "to arrive," etc.

Ablaut change to *i* forms in such a case also substantives, and possibly adjectives and adverbs.

Examples:

s-kyor ba "to repeat"
phyir "again, once more"

ḥ-thšab pa "to hide, conceal"
thšib pa "encompassing, covering all"

s-kyed pa "to bring forth, give birth to"
g-žis ka "one's native place"

nyal ba "to sleep"
g-nyid "the sleep"

d-gyes pa } "to rejoice,
m-nyes pa } to be glad"
šis "good luck, fortune, bliss"

4) Verbs with *a*, *e*, *o* change the vowels frequently to *i*, when they are palatalized by *ra btags*:

Examples:

s-grol ba "to wind up" (JTED) *s-prod pa* } "to send a mes-
s-gril ba "to roll up" *s-priṅ ba* } sage, send word"

5) The change from *a*, *e*, or *o* to *i* occurs occasionally in the transition of the compound palatals to assibilized dentals.

6) Verbs with the vowel *i*, which had been palatalized by *ya btags* and *ra btags* sometimes form substantives through *ablaut* change to *a*, or *o* (or *e*).

Examples:

s-byin pa "to give" *ḥ-gril ba* "to be twisted"
yon pa "a present" *gral* "a rope, cord"

7) Verbs with the vowel *u* frequently change to *i* through palatalization with *ya btags* and *ra btags*.

Examples:

based on	$\sqrt{*du}$ (6):	«passion, agony, pain»
along with	<i>h-dul ba</i>	“to subdue”
and	<i>h-džun pa</i>	“to subdue”
we have	<i>h-džil ba</i>	“to subdue”
based on	\sqrt{bu} (1):	“to become opened (flower), to blossom”
along with	<i>d-buŋ</i>	“middle”
and	<i>g-žun</i>	“middle, centre”
we have	<i>h-džiŋ</i>	“middle,” etc.
based on	\sqrt{bu} (1):	“to become opened (flower), to blossom”
along with	<i>h-bru</i>	“grain, corn, seed”
and	<i>s-prug pa</i>	“splitting, opening”
we have	<i>h-briŋ</i>	“middle”
based on	$\sqrt{*bu}$ (4):	«to appear in a place > to move forward»
along with	<i>h-brug pa</i>	“to overflow, gush forth”
and	<i>h-brub pa</i>	“to overflow, gush forth”
we have	<i>h-brim pa</i>	“to distribute, deal out”
and perhaps	<i>s-priŋ ba</i>	“to give information, send word”

To determine definite rules governing *ablaut* in the building up of new forms in this connection would be a fruitless undertaking.

C. *Ya btags* and *ra btags*.

§ 6. A). In general a root which has been palatalized by *ya btags* remains unchanged in meaning. In only a few cases is *ya-btags* responsible for the formation of causatives and completives, or of deverbatives.

Examples:

1) Causatives (in the ordinary sense)

based on	$\sqrt{*ba}$ (4):	$\left\{ \begin{array}{l} bo\ ba^1 \\ byo\ ba \end{array} \right.$	“to overflow out of a vessel” “to transfer water from one vessel to another”
----------	-------------------	--	---

¹ to *h-bo ba* “to pour out” cf. Table of Word Classes, sub 4.

based on $\sqrt{*ga}$ (10): $\begin{cases} s\text{-kor } ba & \text{“to come again and again”} \\ s\text{-kyor } ba & \text{“to do something repeatedly} \\ & = \text{to repeat”} \end{cases}$

based on \sqrt{ga} (16): $\begin{cases} h\text{-gad } pa & \text{“to laugh”} \\ h\text{-gyed } pa & \text{«to make laugh» = “to give a} \\ & \text{banquet”} \end{cases}$

2) Completives.

a) Iteratives.

based on $\sqrt{*ba}$ (4): $\begin{cases} h\text{-pho } ba & \text{“to change place, migrate”} \\ h\text{-phyo } ba & \text{“to roam about”} \end{cases}$

b) Intensives.

based on $\sqrt{*ga}$ (2): $\begin{cases} d\text{-gon-s } pa & \text{“to think, ponder,” «to belabour one’s brains»} \\ & \text{gyon } po & \text{“difficult to understand,”} \\ & & \text{«to break one’s head»} \end{cases}$

based on $\sqrt{*ga}$ (6): $\begin{cases} b\text{-kab } pa & \text{“to cover, conceal”} \\ b\text{-(-s)kyab } pa & \text{“to defend, protect”} \end{cases}$

c) Resultatives.

based on $\sqrt{*ba}$ (3): $\begin{cases} h\text{-bad } pa & \text{“to endeavour, exert oneself”} \\ & byed } pa & \text{“to manufacture; to cause”} \end{cases}$

based on $\sqrt{*ba}$ (3): $\begin{cases} h\text{-phog } pa & \text{“to influence”} \\ & phyog-s } pa & \text{“to diverge, turn; to make} \\ & & \text{evident”} \end{cases}$

3) Deverbatives.

based on $\sqrt{*bu}$ (2): $\begin{cases} d\text{-pun } ba & \text{“to assemble, to collect”} \\ & & \text{(KTED)} \\ & phyun } ba & \text{“the excess or overflow of a} \\ & & \text{thing in a vessel”} \end{cases}$

Compare also:

based on $\sqrt{*ga}$ (3): $\begin{cases} kho & \text{“king, lama”} \\ & khyo & \text{“husband, man”} \end{cases}$

based on $\sqrt{*ga}$ (5): $\begin{cases} ker } ba & \text{“to raise, lift”} \\ & kyer } ba & \text{“upright, straight”} \end{cases}$

based on $\sqrt{*ga}$ (6): $\begin{cases} s\text{-gam} & \text{“trunk, box”} \\ & gyam & \text{“shelter, refuge”} \end{cases}$

$\begin{cases} s\text{-kog(-s)pa} & \text{“a hard covering, rind, bark”} \\ & s\text{-kyog-s} & \text{“a spoon, ladle”} \end{cases}$

based on $\sqrt{*ga}$ (7): $\begin{cases} s\text{-kor} & \text{“anything round”} \\ & s\text{-kyor} & \text{“the hollow of the hand filled”} \end{cases}$

B) *Ra btags* forms causatives, completives, denominatives, and deverbatives.

Examples:

1) Causatives (only two in number).

based on $\sqrt{*ba}$ (3):	$\left\{ \begin{array}{l} h-phag\ pa \\ h-phrag\ pa \end{array} \right.$	“to be uplifted or raised” “to stir up, spur (a horse, etc.)”
	$\left\{ \begin{array}{l} h-byi\ ba \\ h-bri\ ba \end{array} \right.$	“to be effaced” “to diminish”

2) Completives.

a) Iteratives.

based on $\sqrt{*bu}$ (6):	$\left\{ \begin{array}{l} pu\ ba \\ h-phru\ ba \end{array} \right.$	“to press” “to press = squash, crush” (JTED)
	$\left\{ \begin{array}{l} h-bud\ pa \\ s-brud\ pa \end{array} \right.$	“to blow (either with the mouth)” “to be blown (by the wind)” “to stir, poke up (fire)”

b) Intensives (very numerous).

based on \sqrt{ga} (12):	$\left\{ \begin{array}{l} h-khul\ ba \\ h-khrul\ ba \end{array} \right.$	“to be uneasy” “to be insane, deranged”
	$\left\{ \begin{array}{l} bab-s\ (pa) \\ h-brab\ pa \end{array} \right.$	“to take, seize” “to catch at suddenly, snatch”

c) Resultatives.

based on $\sqrt{*ba}$ (4):	$\left\{ \begin{array}{l} h-bog\ pa \\ d-brog\ pa \end{array} \right.$	“to grow loose” “to forget”
	$\left\{ \begin{array}{l} s-go\ ba \\ s-gro\ ba \end{array} \right.$	“to bid, command” “to debate, discuss” (as the result of the command)
	$\left\{ \begin{array}{l} s-gom\ pa \\ h-gram\ pa \end{array} \right.$	“to fancy, imagine” “to publish, proclaim”

3) Denominatives and Deverbatives.

based on $\sqrt{*ba}$ (5):	$\left\{ \begin{array}{l} ba\ \eta \\ h-bran\ ba \end{array} \right.$	“messenger, runner” “to go after, follow”
	$\left\{ \begin{array}{l} s-ge\ \eta \\ s-gre\ \eta\ ba \end{array} \right.$	“above, on top” “to erect, put up”
based on $\sqrt{*ga}$ (13):	$\left\{ \begin{array}{l} h-khal\ ba \\ khral \end{array} \right.$	“to send, dispatch” “tax, tribute, duty”

based on $\sqrt{*ba}$ (2): $\left\{ \begin{array}{ll} s\text{-bam } pa & \text{“to place together, collect”} \\ s\text{-bram} & \text{“largeness, bulk,” and many} \\ & \text{others.} \end{array} \right.$

Compare also:

based on $\sqrt{*ga}$ (3): $\left\{ \begin{array}{ll} m\text{-gon } po & \text{“master, lord”} \\ m\text{-gron} & \text{“object of invocation} \\ & \text{(Buddh.)”} \end{array} \right.$

based on $\sqrt{*ga}$ (6): $\left\{ \begin{array}{ll} s\text{-go } po & \text{“outward looks, bodily} \\ & \text{appearance”} \\ s\text{-gro } ba & \text{“a leather or hide bag for} \\ & \text{keeping barley-flour, peas,} \\ & \text{etc.”} \end{array} \right.$

§ 7. We have thus seen that certain formations may be obtained through the tenuis. The *ablaut* produces the same results in those cases where the use of tenuis is not possible. *Ablaut* may also occur in verbs with initial media so that two forms with almost the same meaning result. Since through *ya btags* and *ra btags* two verb forms with almost identical meanings are formed, these two means of creating words must be considered as agents for the increase of the number of words rather than for the number of concepts. When from one stem there still exist forms of various kinds, these forms offer a good bird's-eye view of the multiplicity of those forms which belong to the oldest period of the speech, even before the numerous other means of word forming such as *Lautverschleifung*, *Lautverschiebung*, *Anlautsverkümmerung*, etc., created a new era of the language. Two examples may suffice to illustrate the aggregated means of word building mentioned in §§ 2—6:

1) Deriving from $\sqrt{*ba}$ (3):

stem	<i>*bag</i>	«to swell up» (intr.), represented by
	<i>bag-s</i>	“slowly, gradually, step by step”; in addition to this the tenuis stem:
	<i>*pag</i>	«to swell up» (trans.), from which is formed
		by the aspirate (cf. § 8) the intransitive
	<i>h-phag pa</i>	“to be erected, be raised.” From this <i>ablaut</i> produces the transitive
	<i>h-phog pa</i>	“to influence” = «to encourage.» In addition to this we have
	<i>d-pag-s pa</i>	“to measure, fathom” (JTED)
	<i>d-pog pa</i>	“to measure, apportion”

phyog-s pa “to diverge, to turn; to make evident”
(aspiration is due to prefix *h-*, which has
dropped; cf. § 8)

h-phrag pa “to stir up, spur (a horse, etc.).” Further-
more:

bog-s “profit” and
s-pog-s “gain, profit”

2) Deriving from $\sqrt{*ga}$ (6):

stem *gaŋ* “husk, shell”

s-goŋ ba “to hide, conceal” (denominative to *gaŋ*,
produced by *ablaut*, prefix *s* is intensive
(cf. § 17))

khaŋ pa “house, building, residence,” «the interior,»
made by man, therefore tenuis; tenuis
aspirate: the thing in itself, § 1.

khon(-s) “the innermost, middle” (*ablaut* intensive)

khuy “cave, hole” (*ablaut* change to *u* diminutive)

s-kuy ba “to hide in the ground” denominative for-
mation to *khuy* by means of prefix *s-*
(s. § 16).

s-gyoŋ ba “to hide, conceal”

s-kyoŋ ba “to guard, protect” (tenuis intensive)

h-khyoŋ ba “to guard, protect” (aspiration due to pre-
fix *h-* s. § 8)

groŋ “house; village, hamlet” (infix *r* is causative
and *ablaut* intensive or vice versa:
pleonasm).

D. ASPIRATES.

§ 8. A) Intransitives and passives are formed from in-
transitives through tenuis aspirate, that is, as well from verbs
with initial media as from those with initial tenuis.

Examples:

a) Intransitives from transitives with initial tenuis.

based on $\sqrt{*ga}$ (14):

{	<i>g-tšū ba</i>	“to turn round (like the twisting of a screw)”
	<i>h-thšū ba</i>	“to be twisted, distorted”

- based on $\sqrt{*ba}$ (3): $\left\{ \begin{array}{l} s\text{-}pel\ ba \\ h\text{-}phel\ ba \end{array} \right.$ “to augment, multiply”
 “to be augmented, increase”
- based on $\sqrt{*du}$ (6): $\left\{ \begin{array}{l} g\text{-}tšun\ pa \\ h\text{-}tšun\ pa \end{array} \right.$ “to tame”
 “to be tamed, subdued”
- based on $\sqrt{*ga}$ (11): $\left\{ \begin{array}{l} s\text{-}kyur\ ba \\ h\text{-}khyur\ ba \end{array} \right.$ “to throw (away), let loose”
 “to be separated, be abandoned”
- based on $\sqrt{*ga}$ (13): $\left\{ \begin{array}{l} s\text{-}kyol\ ba \\ s\text{-}kyel\ ba \\ h\text{-}khyol\ ba \end{array} \right.$ “to carry, carry away”
 “to be carried, be brought”
- based on $\sqrt{*gu}$: $\left\{ \begin{array}{l} d\text{-}kyu\ ba \\ h\text{-}khyu\ ba \end{array} \right.$ “to wring out, filter”
 «to be wrought, be filtered»
 = “to run away”
- based on $\sqrt{*ba}$ (5): $\left\{ \begin{array}{l} s\text{-}po\ ba \\ h\text{-}pho\ ba \end{array} \right.$ “to change, alter”
 “to move away, change place”
- $\left\{ \begin{array}{l} s\text{-}prod\ pa \\ h\text{-}phrod\ pa \end{array} \right.$ “to pay”
 “to be given, be offered”
- b) Intransitives from transitives with initial media
- based on $\sqrt{*ga}$ (8): $\left\{ \begin{array}{l} h\text{-}geŋ\text{-}s\ pa \\ h\text{-}kheŋ\text{-}s\ pa \end{array} \right.$ “to fill up, satisfy”
 “to be full, be filled”
- based on $\sqrt{*ga}$ (11): $\left\{ \begin{array}{l} s\text{-}grol\ ba \\ h\text{-}khrol\ ba \end{array} \right.$ “to set free”
 “to be set free”
- based on \sqrt{ga} (12): $\left\{ \begin{array}{l} h\text{-}džom\text{-}s\ pa \\ h\text{-}tšom\text{-}s\ pa \end{array} \right.$ “to conquer, subdue”
 “to be conquered, be subdued”
- based on $\sqrt{*ga}$ (2): $\left\{ \begin{array}{l} h\text{-}god\ pa \\ h\text{-}khod\ pa \end{array} \right.$ “to plan, design”
 “to be set down, to be put”
 = «to be designed»
- based on \sqrt{ga} (12): $\left\{ \begin{array}{l} r\text{-}gyor\ ba \\ khyor\ ba \\ h\text{-}khyor\ ba \end{array} \right.$ “to kill”
 “to become dizzy”
 “to reel, stagger”
- based on \sqrt{ga} (16) b): $\left\{ \begin{array}{l} r\text{-}džod\ pa \\ tšod\ pa \end{array} \right.$ “to pronounce, proclaim”
 “to be proclaimed, be decided”
- based on $\sqrt{*ba}$ (5): $\left\{ \begin{array}{l} h\text{-}byin\ pa \\ phyin\ pa \end{array} \right.$ “to let go, set free”
 “to set out, depart”
- based on \sqrt{bu} (5): $\left\{ \begin{array}{l} h\text{-}dzud\ pa \\ h\text{-}thsud\ pa \end{array} \right.$ “to put, insert”
 “to be put inside of”

The building up of intransitives and passives from transitives is always and solely the function of tenuis aspirate¹. If from transitives with initial media sound are formed intransitives or passives through the aspiration of the tenuis, it is to be observed that the aspiration is possible only with the tenuis. If there is also aspiration in the formation of medial transitives, causatives, completives, etc., it is not the aspiration, but the tenuis itself which has formed the kind of verb in question. The aspirate was necessary in such cases on phonetic grounds only because of the prefix *h-*. Very occasional words have lost the prefix *h-*, obviously as the result of carelessness. Laufer finds in the prefix *h-* the sign of the passive and future (Bird Divination, p. 99). Upon the basis of my theories I am forced to take exception with him. There are only three cases, in which intransitives or passives are formed through the prefix *h-*, because the transitive is already aspirated! Those three cases are namely:

based on \sqrt{da} (4):	$\left\{ \begin{array}{l} \underline{th\check{s}ad} \text{ } pa \\ \underline{h-th\check{s}ad} \text{ } pa \end{array} \right.$	“to separate, to free”
		“to be separated, cut off”
based on $\sqrt{*ba}$ (3):	$\left\{ \begin{array}{l} \underline{th\check{s}ar} \text{ } ba \\ \underline{h-th\check{s}ar} \text{ } ba \end{array} \right.$	“to fulfill, finish”
		“to be finished, completed”
based on \sqrt{bu} (5):	$\left\{ \begin{array}{l} \underline{thsud} \text{ } pa \\ \underline{h-thsud} \text{ } pa \end{array} \right.$	“to dig”
		«to be dug» = “to enter, get into”

B) It has already been said that the aspirate often expresses the thing in itself, the action in itself, or the condition in itself. From a great many the following examples may be selected:

based on \sqrt{ga} (12):	<i>khag pa</i>	“bad, spoiled, rotten”
based on $\sqrt{*ga}$ (13):	<i>khag</i>	“means, resource”
	<i>khal</i>	“a caravan”
	<i>khral</i>	“tax, tribute”
based on $\sqrt{*ga}$ (16)b:	<i>kha</i>	“word, speech, conversation”
	<i>thša</i>	“word, sound, news”
	<i>thšod pa</i>	“determined, decided”
based on $\sqrt{*ga}$ (16)a:	<i>khoy ba</i>	“entertainment during the day” (KTED)
	<i>kham pa</i>	“fox colored, brownish”

¹ In Burmese, for example, transitives are formed from intransitives directly by aspiration. Cf. Lonsdale, *Burmese Grammar and Analysis*, § 246, and Judson, *Burmese Grammar*, § 106.

based on $\sqrt{*gu}$:	<i>khru-s</i>	“bath, washing”
based on $\sqrt{*ba}$ (5):	<i>phar</i>	“exchange, interest of money”
	<i>phyin</i>	“that which comes”
	<i>phyis</i>	“that which is late, last”
based on $\sqrt{*bu}$ (4):	<i>phud</i>	“specimen”
	<i>phul</i>	“a handful”
based on $\sqrt{*bu}$ (5):	<i>phug-s</i>	“the innermost”
	<i>phub</i>	“armour”
	<i>phur bu</i>	“thunderbolt”
based on $\sqrt{*bu}$ (6):	<i>phug ma</i>	“dust, chaff”
	<i>phub ma</i>	“chaff or chaff-dust with particles of the husk”
based on $\sqrt{*da}$ (8):	<i>theb-s</i>	“the coming out, issuing”
based on $\sqrt{*da}$ (10)a:	<i>than</i>	“an answer”
based on \sqrt{da} (11):	<i>tha ma</i>	“vile, inferior, poor, humble”
	<i>thar po</i>	“old, worn out”
	<i>ther</i>	“naked”
	<i>thal ba</i>	“dust, ashes”
based on \sqrt{du} (1):	<i>thun</i>	“collector”
based on $\sqrt{*du}$ (3):	<i>thul pa</i>	“garment made of hide”
based on \sqrt{du} (4):	<i>thsug-s</i>	“station, stopping place”
	<i>thug-s</i>	“ghost, soul, heart, mind,” etc.

C) The aspirate is used in the following five cases:

1) Aspiration in building up intransitive or passive concepts from the transitive with initial media or tenuis sound, this latter tenuis sound representing the causative, completive, etc., form of an intransitive or transitive verb with initial media sound.

2) Aspiration made phonetically necessary by the prefix *h-*, occurring before *k*, *t*, *p*, *ky*, *ty*, *py*, *tš*, and *ts*.

3) Aspiration made phonetically necessary also by the prefix *m* before *k*, *t*, *tš*, and *ts*.¹

4) Aspiration for diacritical reasons only in the very earliest stage of the language (cf. roots, stems).

5) Aspiration frequently in the imperative (cf. tense formation).

¹ Some philologists have said that this is a misconception on my part. They doubt if *m* could transform the tenuis into the tenuis aspirate. But who can give a single example of an initial tenuis sound + the prefix *m* which is not aspirated? Obviously no one, since none exists.

Note: I should like to add several comments on the origin of the aspirate, in order to distinguish more clearly my theory from that in Conrady's *Indochinesische Causativ-Denominativ-Bildung*. Conrady is of the opinion that the tenuis aspirate arose from *s* (*r*) + tenuis and also from *s* + media. There seems to be much that is tempting in this theory, especially in explaining pitch, and Conrady has, without doubt, attempted very cleverly to lay out for himself a passable road through a labyrinth of obscurities. I repeat that, when we consider the Tibetan of historical time morphologically, it is in general indifferent whether the initial sound has absorbed an earlier prefix or not. To suspect a word of having had a prefix to its initial sound may well be in place, when we are dealing with primitive Tibetan, which goes hand in hand with the study of the earliest monosyllabic languages. But in this realm we are still groping completely in the dark. Finding the sources of a tenuis aspirate in *s* (*r*) + tenuis and in *s* + media, as Conrady does simply because of their proximity in many cases, is without sufficient foundation according to my belief. There still remains a great number of forms which raise many other questions not answered in ICBD. If, instead of a development of the tenuis aspirate from the tenuis with a prefix or from the media with a prefix, we assume, as I do on page 9, a development of the tenuis aspirate along with the tenuis, we shall have arrived at an answer to the "unsolved" problems. Conrady has rightly observed, "daß die *kh*-Bildungen das weitaus größte Kontingent zu den Intransitiven stellen" (ICDB, p. 60), and is of the opinion that the intransitive prefix *h*- is responsible for it, a belief which I also fostered in my first attempts to write this morphology until, in the course of my work, the *h* turned out to be what I have sketched in §§ 59ff. Intransitivity is really to be explained only through aspiration. And if we agree further that the prefixes *h* and *m* before the tenuis make aspiration phonetically necessary (there is not a single word which does not begin with an aspirated tenuis + prefix *h* or *m*!), there remains not the least difficulty in the aspiration of the transitives (causatives) which begin with the tenuis. In fact, we perceive a regularity of such clarity as we had never dreamed before. The paragraphs on tense formation are an adequate proof of this, but even more convincing is the TDR. Verbs with an aspirated tenuis, which have at the same time a transitive and passive (reflexive) meaning, show the aspirated tenuis, not because they are to be construed within the sentence as grammati-

cally active or passive, but because the transitive or intransitive character has already found expression in the verb form itself. I take the verbs mentioned by Conrady on pages 58 and 59: (1) *h-tham pa* 1) "to seize" 2) "to join together." Here we see the stem *dam* which is still extant today and means "to be bound, fast, obliged" (from $\sqrt{*da}$ (3)). As we have seen, the change of the initial media into the tenuis also produces medial transitives and causatives. The unaspirated tenuis stem itself still exists in *s-tem pa* "to close (a door)," but the forms *tham-s pa*, *h-tham pa*, and *h-them-s pa* point to the unaspirated initial tenuis. In the medial transitive belonging to *dam*, we should expect $*(s-)tam pa$ "to attach oneself to," which acquired the aspirate along with the temporal prefix *h-* and remains today in the form *h-tham pa*. In the causative belonging to *dam* we should expect $*(s-)tam pa$ «to make fast bound» = "to bind fast, to hold fast, to stick fast." Through the adoption of the temporal prefix *h-* aspiration becomes phonetically necessary, and we find again *h-tham pa* and *tham-s pa*. I cannot grant that the aspiration developed in this case from initial *s-t*.

Or (2) *h-thor ba* 1) "to be strewn or scattered," 2) "to scatter." Here we see the stem $*dar$, which remains to-day in *b-dar ba* "to grind, crush," *r-dar ba* "to sharpen, grind," and in *b-dar ba* a grinding up or grating in the figurative sense: "to examine closely." The transitive character of these words, which ought to be intransitive because of their initial media sounds, is the result of the suffix *r* (s. § 13). We also have *h-dal ba* "to sink down."

The change of the initial media into an initial tenuis sound produces among other things completives of various shades. Thus we have *g-tar ba* "to let out blood from a vein" (cf. *b-dar ba* "to examine closely") and *g-tor ba* "to strew" (a completive from *b-dar ba* "to grind, crush" as a result of the tenuis, prefix *g* being iterative (!), and the *ablaut* change to *o* intensive). *g-tor ba* through the adoption of the temporal prefix *h-* becomes aspirated; we have, therefore, *h-thor ba* "to strew." By what means now shall a passive be made from this *g-tor ba*? *Ablaut* and all the formative elements fail here. Only by aspiration do we get the passive form *h-thor ba* "to be strewn, be dispersed," which morphologically appears the same as *h-thor ba* above. Should this intransitive-passive acquire other nuances of meaning, without the aid of palatalization of the initial sounds and of their derivatives, these nuances can be obtained only with the help

of the formative elements (especially of the prefixes). The *ablaut* change in the vowel series *a*, *e*, *o* is not in question in this case, since the highest strengthening to *o* is already accomplished. Only the *ablaut* change to *u* or *i* would be possible here (thus there exists for example *thur* “a slope, steep descent”).

Among the formative elements which create new meanings only *m* may be used to precede the tenuis aspirate. If *h-thor ba* “to be strewn, dispersed” should undergo a change of meaning, not accomplished by the prefix *m*, the tenuis aspirate must be changed back to the tenuis. In other words the aspiration disappears. We have as a consequence comparatively few intransitives which begin with a tenuis. In this case we still find *s-tor ba* “to go astray”, in which prefix *s* functions somewhat as an iterative-intensive (cf. § 13). The other examples (opposites, parallel forms) cited by Conrady (on pages 60ff. and 74ff.) in this connection are to be dealt with in this wise. There is not space within the limits of this chapter to deal with them all.

E. FORMATIVE ELEMENTS (PREFIXES AND SUFFIXES).

a) Inseparable Prefixes and Suffixes.

§ 9. With the introduction of formative elements an enormous possibility of further word building was opened up for the Tibetan. The use of formative elements has already taken its inception in the earliest development of the speech, at a time which has left us no historical fragments. The gutturals *g* and *ŋ*, the labials *b* and *m*, the dentals *d* and *n* along with the sibilant *s*, as well as *l*, *r*, and *h* serve as formative elements for further extension of the vocabulary. They are used interchangeably as prefixes and suffixes, sometimes even with the same meaning. The letter *ŋ* is a suffix only, and in the combination *lr* metathesis has entered in to form *rl*.

These formative elements present a somewhat dark chapter, since their original meaning is much obscured and confused. In any case, however, every prefix and suffix had a special use such as causative, iterative, continuative, etc. Even when the root was already felt as continuative or iterative, they might not infrequently be added to it. Often two (or even three) formative elements — prefix and suffix — of

the same meaning were added to a root, and pleonasm resulted. To determine with certainty from a few examples the exact meaning of the formative elements would be to yield to one's imagination. The examples cited here are intended to be merely illustrative. Only after a long careful investigation of individual cases may one arrive at a comparatively certain conclusion. I have fixed the meanings of the prefixes and suffixes as they were revealed to me in the course of this work and confirmed again and again in the preparation of my DTR.

We begin with the stem building suffixes.

1) Guttural Suffixes (*g*, *ŋ*)¹.

§ 10. *g*. This suffix has an iterative function.

Examples:

based on \sqrt{bu} (5):	(<i>h</i> -) <i>bu</i>	“a worm, insect,” from which is formed
	(<i>h</i> -) <i>bug(-s) pa</i>	“to hollow out, bore”
	(<i>d</i> -) <i>bug</i>	“a hole, cavity”
based on \sqrt{bu} (1):	(<i>h</i> -) <i>bu ba</i>	“to open, unfold (flowers),” from which
	(<i>d</i> -) <i>bug(-s)</i>	“the breath”
based on $\sqrt{*ba}$ (4):	<i>bo ba</i>	“to overflow out of a vessel”
	(<i>h</i> -) <i>bog(-s) pa</i>	“to sink down, fall to the ground”
based on $\sqrt{*ba}$ (3):	<i>*bo ba</i>	«to swell, increase», from which
	<i>bag(-s)</i>	“slowly, gradually”
based on \sqrt{da} (5):	(<i>b</i> -) <i>dah ba</i>	“to bear away,” from which
	(<i>h</i> -) <i>deg(-s) pa</i>	“to change, remove”
based on $\sqrt{*da}$ (10)b:	<i>*(l)-da ba</i>	«to shine, radiate.» from which
	(<i>g</i> -) <i>dag</i>	“day-light”
based on \sqrt{du} (4):	<i>du ba</i>	“smoke,” from which
	(<i>b</i> -) <i>dug pa</i>	“to fumigate”
	<i>dug(-s) pa</i>	“to make warm, to warm”

¹ The other prefixes and suffixes, which appear in the examples in each separate group, may for the present pass without further comment. I put them for this reason in parentheses (in §§ 10—13 only). They will be discussed one after the other later and become intelligible in this present connection.

based on $\sqrt{*du}$ (6):	<i>*du ba</i>	«passion, agony, pain» from which
	<i>dug</i>	“poison”
	<i>(r-)dug pa</i>	“to devastate, destroy,” «to poison»

Note. This final *g* was later separated from the stem in some cases by the added diminutive particle *bu* and taken over by the diminutive particle itself through the elimination of the initial *b*. (Cf. Foucaux, Grammaire de la Langue Tibétaine, p. 24 under “Diminutifs”). For example **s-myig bu* > *s-myi gu* “a pen of any kind” along with *s-myig ma* “bamboo, reed”; **s-myug bu* “a pen” > *s-myu gu* “a pen” and the form *s-myug ma*, still used to-day in the same sense. Compare also *beg ge* = *be ge* “measles.”

η . This suffix indicates emphasis, intensity.

Examples:

based on $\sqrt{*du}$ (6):	<i>*du ba</i>	«passion, agony, pain,» from which
	<i>(g-)duη ba</i>	“to be pained, be tormented”
	<i>(r-)duη ba</i>	“to beat, strike”
based on $\sqrt{*ga}$ (14):	<i>(r-)gyu ba</i>	“to walk or move in a line” (ITED)
	<i>(b-)(r-)gyuη(-s) pa</i>	“the marrow in the backbone”
based on $\sqrt{*ga}$ (2):	<i>go ba</i>	“to perceive mentally, understand”
	<i>(d-)goη(-s) pa</i>	“to think, consider”
based on $\sqrt{*ga}$ (2):	<i>ηa</i>	“I,” «that which is individual within me,» from which
	<i>ηaη</i>	“character, disposition,” «I-ness»
based on $\sqrt{*da}$ (10)b:	<i>(l-)ta ba</i>	“to see,” from which
	<i>(m-)thoη ba</i>	“to see, view”
based on \sqrt{bu} (1):	<i>(h)bu ba</i>	“to open, unfold (flower),” from which
	<i>(d-)buη</i>	“middle”

based on \sqrt{bu} (1):	(<i>h</i> -) <i>bru</i>	“seed, grain,” from which
	<i>gruŋ po</i>	“the corn seed that is not rotten” (as to the change of the initial sound, cf. §§ 130—131)
based on \sqrt{bu} (5):	(<i>h</i> -) <i>bu</i>	“worm, insect”, from which
	<i>bun ba</i>	“a humming and singing insect”

2) Dental Suffixes (*d*, *n*; (*s*))

§ 11. *d*. This suffix forms denominative-causatives.

Examples:

based on $\sqrt{*ga}$ (2):	(<i>b</i> -) <i>kaḥ</i>	“word, speech, command,” from which
	(<i>b</i> -) <i>kod pa</i> }	“to plan, arrange”
	(<i>b</i> -) <i>kad pa</i> }	
based on $\sqrt{*ga}$ (3):	<i>go</i>	“chieftain,” from which
	(<i>h</i> -) <i>god pa</i>	“to rule, govern”
	(<i>r</i> -) <i>dže</i>	“lord, master”
	(<i>r</i> -) <i>džed pa</i>	“to venerate, revere”
based on $\sqrt{*ga}$ (14):	(<i>r</i> -) <i>gyu ba</i>	original meaning: “to be laid out in a line,” from which
	(<i>r</i> -) <i>gyud pa</i>	“to fasten to, tie together”
based on $\sqrt{*ba}$ (3):	<i>bya</i>	“deed, action,” from which
	<i>byed pa</i>	“to do, make”
based on \sqrt{ba} (1):	* <i>baḥ ba</i>	«to arch» (cf. (<i>d</i> -) <i>baḥ bo</i> “cave”) from which
	(<i>s</i> -) <i>bod pa</i>	“a tassel, tuft,” «that which has been made arched»
based on $\sqrt{*ga}$ (2):	<i>go ba</i>	“to perceive mentally, understand,” from which
	(<i>h</i> -) <i>god pa</i>	“to plan, design”
based on \sqrt{bu} (1):	(<i>h</i> -) <i>bu ba</i>	“to open, unfold (flowers),” from which
	(<i>h</i> -) <i>bud pa</i>	“to blow with the mouth,” «to cause to unfold»

n. This suffix produces both the *personae agendi* belonging to the causative formed by suffix *d* and the abstract or concrete noun belonging to the causative formation. Deverbatives may be produced by the same means.

Examples:

based on $\sqrt{*ga}$ (3):	<i>go ba</i>	“to be a chieftain” (cf. <i>b-kod pa</i> “to nominate,” from which
		“lord, master”
based on \sqrt{ba} (1):	(<i>m-</i>) <i>gon po</i>	“to arch,” wherefrom
	<i>*ba ba</i>	“large pitcher”
	<i>ben</i>	
based on \sqrt{bu} (1):	(<i>h-</i>) <i>bu ba</i>	“to open, to unfold,” from which
	<i>byin</i>	“pomp, splendour, magnificence”
based on $\sqrt{*da}$ (2):	<i>*da ba</i>	“to arrive at, reach to,” from which
	<i>don</i>	“aim, goal”
based on $\sqrt{*ga}$ (2):	(<i>b-</i>) <i>kah</i>	“word, speech, command” (cognate to <i>b-kod pa</i> “to plan, design”)
	(<i>m-</i>) <i>khan po</i>	“teacher, professor, head of a monastery”
	(<i>s-</i>) <i>ŋo ba</i>	“to design, to intend”
	(<i>m-</i>) <i>ŋon pa</i>	“manifestation; to be evident”
based on $\sqrt{*ga}$ (11):	(<i>r-</i>) <i>ku ba</i>	“to steal”
	(<i>r-</i>) <i>kun ma</i>	“thief”
	(<i>b-</i>) <i>go ba</i>	“to part, divide” (cognate to <i>b-god pa</i> “to divide, separate”)
	(<i>d-</i>) <i>gon pa</i>	“wilderness, solitary place”

To this group belongs also the suffix *s*, which developed from *d* and carries with it the meaning of the transitive-perfect (“to have been caused”) or more rarely of the intransitive-perfect (“to have become”), for example: *b-s-kos* “elected,” *r-tsi-s* “counting, reckoning,” *g-tše-s* “dear, beloved, precious,” *r-dze-s* “tucked up, trussed up,” *m-khes pa* “learned, wise,” *thšas* “dress, form, shape” and count-

less others¹. In transcribing some of the examples I have separated the *s* from the rest of the word and in some not for the following reason: If the suffix is "inseparable" or stem-building (cf. § 21), it should not be set off in the transcription, e. g., *b-s-kos* is the perfect of *s-kod pa* "to choose, elect." If, however, the suffix *s* is "separable," it is desirable to set it off from the rest of the word, e. g., *r-tsi-s* "counting, reckoning," *g-tše-s* "dear, beloved," and others. These are the perfects of *r-tsi ba* "to count, reckon" and *g-tše ba* "to love, venerate." A special chapter will later be devoted to this perfect suffix *s* (s. § 23). My investigations have been made quite independent of Conrady's and, as one sees, I have arrived at much clearer results, for he writes in his ICDB: "auch *d* scheint sich im Tibetischen als Suffix zu finden," for which he gives three examples (cf. p. 45).

3) Labial Suffixes (*b, m*).

§ 12. *b*. This suffix shows purpose, an approaching of the goal, perfection.

Examples:

based on $\sqrt{*ba}$ (4):	<i>bo ba</i>	"to overflow out of a vessel," from which
	(<i>h</i> -) <i>bab pa</i>	"to move downward"
based on $\sqrt{*ga}$ (6):	(<i>b</i> -) <i>go ba</i>	"to put on something, to cover," from which
	(<i>h</i> -) <i>geb(-s)pa</i>	"to cover, to conceal"
based on $\sqrt{*ga}$ (6):	(<i>s</i> -) <i>gyoŋ ba</i>	"to conceal, hide," from which
	(<i>h</i> -) <i>džab pa</i>	"to sneak, slink" (cf. formation of the fourth degree by means of <i>ya btags</i> , § 71)
based on $\sqrt{*ga}$ (6):	<i>ko ba</i>	"hide, leather made of the yag's skin"
	(<i>b</i> -) <i>kab pa</i>	"to cover"

¹ the suffix *s* may form nomina actionis in some cases:

<i>h-gro ba</i>	"to go"	<i>lob pa</i>	"to learn"
<i>h-gros</i>	"gait, manner of walking"	<i>lob-s</i>	"the learning"
	(<i>blug pa</i>	"to found")
	(<i>blug-s ma</i>	"the cast metal")

and others, cf. Conrady, ICDB p. 43.

based on $\sqrt{*ga}$ (8):	(s-)ka ba	“thick” (of fluids)
	(b-s-)ka	
	khyab pa	“to fill, penetrate”
based on $\sqrt{*ga}$ (10):	(s-)gro ba	“to augment = to exaggerate”
	(s-)grob	“haughtiness, arrogance”
based on \sqrt{da} (5):	(b-)dah ba	“to carry away,” from which
	(r-)dob pa	} “to give”
	(g-)dab pa	
based on \sqrt{bu} (5):	(h-)bu	“bug, insect,” from which
	(h-)bub(-s pa	“to put on a roof” = «to build (make) an arch»
	(cf. (h-)bug(-s) pa	“to hollow out”)
based on $\sqrt{*da}$ (2):	*da ba	«to reach to > to become equalized,» wherefrom
	(r-)dab pa	“to fold, pile one upon another”
based on $\sqrt{*du}$ (2):	(h-)dzu ba	“to catch at, seize on,” from which
	(m-)dzub mo	“claw, paw” ¹
based on \sqrt{bu} (1):	(h-)bu ba	“to open, blossom, unfold,” from which
	*h-bub pa	«to unfold, develop» in the aspect of aim, perfection, from which comes the form of the perfect tense bub(-s) “entirely, completely”

m. This suffix always indicates the *aspectus actionis perfectae*. It also forms at times substantives related to the word forms built up with the suffix *b.* (resultatives).

Examples:

based on $\sqrt{*du}$ (2):	(h-)du ba	“to assemble, accumulate,” from which
	(h-)dum pa	“to be reconciled with; concord”

¹ *dzub pa would mean “to grasp” in the sense of nearing perfection, or “to grasp,” when the grasping was bound up with a definite purpose. Through prefix *m* it becomes a property of man’s body (cf. prefix *m*, § 19).

based on $\sqrt{*du}$ (6):	<i>thu ba</i> (<i>h</i> -) <i>thum(-s)</i>	“poison,” from which “sterile, barren” = «poison- ed»
based on $\sqrt{*ga}$ (2):	<i>go ba</i> (<i>s</i> -) <i>gom pa</i>	“to understand, perceive,” whence “to fancy, imagine”
based on $\sqrt{*ga}$ (2):	(<i>b</i> -) <i>gro ba</i> (<i>h</i> -) <i>gram pa</i>	“to discuss, consider,” from which “to proclaim, publish”
based on $\sqrt{*bu}$ (2):	* <i>bu ba</i> <i>bum pa</i>	«to swell,» from which “water-bottle”
based on $\sqrt{*bu}$ (2):	* <i>bu ba</i> (<i>h</i>) <i>brum pa</i>	«to swell up,» from which “a pock, pustule”
based on $\sqrt{*ba}$ (3):	<i>bya</i> (<i>h</i> -) <i>byem pa</i>	“action, deed,” whence «to carry through, ac- complish,» “to act with good success”
based on \sqrt{da} (5):	(<i>h</i>) <i>dah ba</i> (<i>l</i> -) <i>dom pa</i> (cp. (<i>g</i> -) <i>dab pa</i>	“to change one’s place,” from which “alms” “to give”)

4) The suffixes *l*, *r*, (*h*).

§ 13. *l*. This suffix indicates continuity of action. It has also sometimes a conative function.

Examples:

based on $\sqrt{*ga}$ (2):	<i>go ba</i> (<i>r</i> -) <i>gol ba</i>	“to understand, perceive,” from which “to dispute, combat”
based on $\sqrt{*ga}$ (5):	(<i>r</i> -) <i>tse</i> (<i>r</i> -) <i>tsol ba</i> (cf. assibilized, dental initial sound, §§ 98ff.)	“uppermost place, top, sum- mit,” whence “to endeavour, take pains”
based on \sqrt{da} (11):	<i>na ba</i> (<i>m</i> -) <i>nol ba</i>	“to be sick,” from which “to grow feeble”
based on $\sqrt{*du}$ (6):	* <i>du ba</i> (<i>h</i> -) <i>dul ba</i>	«to have pain.» from which “to tame, bring under right discipline”

based on $\sqrt{*ga}$ (13):	<i>gru</i>	“boat, raft, vessel,” from which
	(<i>h</i> -) <i>grul ba</i>	“to walk, travel”
based on $\sqrt{*da}$ (10)b:	(<i>l</i> -) <i>ta ba</i>	“to take a look at, espy,” from which
	(<i>g</i> -) <i>tol ba</i>	“to discover, disclose”
based on $\sqrt{*bu}$ (6):	<i>*bu ba</i>	«to wither, vanish,» from which
	<i>bul</i>	“slow, lazy”
based on \sqrt{bu} (1):	(<i>h</i>) <i>bu ba</i>	“to open, unfold,” whence
	<i>bul</i>	“valley, ravine”

r. This suffix forms the intensive-causatives of verbs with the suffix *l*.

Examples:

based on \sqrt{da} (4):	(<i>r</i> -) <i>dol ba</i>	“to come forth” to which belongs
	(<i>h</i> -) <i>dor ba</i>	“to cast forth”
based on $\sqrt{*ga}$ (11):	(<i>h</i> -) <i>gal ba</i>	“to disagree” to which belongs
	(<i>d</i> -) <i>gar ba</i>	“to set apart, exclude”
based on $\sqrt{*ga}$ (13):	(<i>h</i> -) <i>khyol pa</i>	“to be brought, (to arrive at),” to which belongs
	(<i>h</i> -) <i>khyer ba</i>	“to take away, bring”
based on \sqrt{da} (11):	(<i>h</i> -) <i>thal ba</i>	“to elapse; to change from,” to which belongs
	<i>thar po</i>	“old, worn out”
based on $\sqrt{*ba}$ (5):	(<i>h</i> -) <i>byol ba</i>	“to give or make way,” to which belongs
	(<i>h</i> -) <i>byor ba</i>	«to remove» = “to acquiesce”
based on $\sqrt{*ba}$ (5):	(<i>h</i> -) <i>byol ba</i>	“to give or make way,” to which belongs
	(<i>h</i> -) <i>byer ba</i>	“to escape by flight”
based on \sqrt{ga} (12):	(<i>h</i> -) <i>gyel ba</i>	“to fall, tumble down,” to which belongs
	<i>r-gyor ba</i>	“to kill”
based on \sqrt{da} (4):	(<i>g</i> -) <i>nyul ba</i>	“to rove about, to step gently,” to which belongs
	<i>myur ba</i>	“to hurry by” (cf. § 74)

Suffix *h*.

§ 13a. *h*. The symbol for the suffix *h* (ཨ་), which indicates the spiritus asper in Tibetan¹, is according to Jäschke's Tibetan Grammar, p. 2, "newly invented" in contrast to the remaining letters of the alphabet, which may all be traced back to Indian originals. It is considered by both Jäschke and Hannah as a suffix with a purely diacritical purpose, in that it is used to draw out the long final vowel *a* preceded by two consecutive consonants, the first of which is a prefix and the second the initial stem-sound, thus avoiding the temptation of placing the vowel between the two consonants (cf. Jäschke, Tibetan Grammar § 8, 11, and Hannah, Tibetan Grammar, p. 13, 4), for example: *b-kah* (བཀཨ་), *m-dah* (མདཨ་), etc., are written with *h* to prevent their being read as *bak*, *mad*, etc. That the vowel *a* becomes long when spoken because of the suffix *h* is correct, since every open *a* inherent in a consonant is half long.² This half-long *a* when not

¹ F. O. Schrader,

	Tib.	Siam.	Burm.
<i>spiritus asper:</i>	ཨ་ (<i>h</i>)	ჱ (<i>h</i>)	—
<i>spiritus lenis:</i>	ཨ་ (')	ჲ (')	ၵ (')
<i>mute spirans:</i>	ჱ (<i>h</i>)	ჳ (<i>h</i>)	ၶ (<i>h</i>)

² Jäschke says on page 4, line 5, of his Tibetan Grammar: "It ought to be specially remarked that all vowels including *e* and *o* are short, since no long vowels at all occur in the Tibetan language, except particular circumstances," which produce long syllables through the falling away of certain final consonants (loc. cit. p. 5, § 5). I see in the "short" vowels half-long vowels, when they stand in open syllables, since short vowels (as for example in Siamese) occur only in closed syllables. In a few Tibetan provinces short syllables exist where certain final consonants have fallen away (Jäschke, T. G. p. 5, line 21). Although Jäschke further on p. 13, line 14, says of the "quantity of vowels," "accentuated vowels, when closing the syllable are comparatively long (though never so long as in the English words *bee*, *stay*; or in Hindi *राजा*, etc.)," these accentuated vowels must nevertheless be considered half-long, as for example in *mi*, *mi la* ("man, to the man"), since the lengthening of the *i* may be accomplished only through the suffix *h*. And that the Tibetans originally knew no long syllables is demonstrated by the fact that the inventor of the Tibetan alphabet, although the Indian symbols for short *i* and *u* as well as those for long *ī* and *ū* were at his disposal (cf. कि, को, कु, कू), never once availed himself of the Indian long *ī* and *ū* in open syllables, and that when he encountered long syllables in Sanskrit and Pāli he felt it necessary to express them by the symbol for length (*h*) — which incidentally is equivalent in this place to the German *h* used to indicate long vowels. For this reason, in accordance with F. O. Schrader "Siamese Mute *h*", I give the name half-long to vowels of an open syllable in contrast to the lengthened vowels and the short vowels of a closed syllable.

have served, like all other suffixes, as an agent to increase the number of concepts, in order to express emphasis, perseverance, and such like. Compare:

based on $\sqrt{*ga}$ (2):	<i>thša</i>	“sound, word; news” (basis)
	$(h^{-1})thša$ <i>ba</i>	“to draw up, prepare” (action)
based on $\sqrt{*ga}$ (3):	$(s^{-2})\eta a$ <i>ba</i>	“to be the first, come first” (basis)
	$(m-)\eta a\dot{h}$	“might, power, sway” (action)
based on $\sqrt{*ga}$ (16)a:	<i>kha</i>	«brightness, light» (cf. DTR) (basis)
	$(m-)kha\dot{h}$	“sky” (action)
based on $\sqrt{*da}$ (2):	<i>da</i>	«to reach to» (basis)
	$(m-)da\dot{h}$	“arrow,” «to obtain» (action)
	<i>tha(na)</i>	“so far as, up to” (basis)
	$(m-)tha\dot{h}$	“end, limit,” «to put an end» (action)
based on $\sqrt{*da}$ (3):	$(s-)na$	«bound, tied together» (basis) “put together”
	$(m-)na\dot{h}$	“to take an oath” (action)
based on $\sqrt{*da}$ (11):	<i>da</i>	«to change into > decay» (basis)
	$(h-)da\dot{h}$ <i>ba</i>	“to pass away, go beyond” (action)

Suffix *h* assists — so to speak — the determinative prefixes. If we then find the suffix *h* in words like *b-kah* “word, speech,” *d-kah* “hard, difficult,” *g-tah ma* “pawn,” *d-pah* “fortitude,” *m-dzah bo* “husband, friend,” *h-dzah* “rain-bow,” *g-dzah ma* “a kind of helmet,” *h-dzah ba* “interest, rent,” etc., a kind of pleonasm, discussed in § 9, results.

Suffix *h* may play the same rôle in *d-gah ba* “joy, splendour,” *g-dah ba* “that is, that means,” *b-dah ba* “to drive, chase away,” *h-bah bo* “cave,” *d-bah* “wave, billow,” etc., that is to say, in words where it was supposed to have only a diacritical use. In this case Jäschke’s term “newly invented” (s. above) may be applied to suffix *h*.

¹ From another point of view *h* is to be considered as the “sign of the present tense” (s. § 59).

² Prefix *s* is intensive (s. § 17). Prefix *m* indicates reference to man (s. § 19). Consequently “emphasis” had to be given to the word in another way in order to express the exercise of power, and this other way was the addition of final *h*. The same is true of the next examples.

Suffix *h* is never found with the other vowels, nor with *ya btags*, *ra btags*, *la btags*, and *wa zur* for obvious reasons. (See the paragraphs in question).

§ 13b. From their division into guttural, dental, and labial suffixes, etc., it is apparent that certain suffixes are related to each other, that is the media with the nasal as *g* and *ŋ*, *b* and *m*, *d* and *n*. There is also a close connection between *l* and *r*. The guttural pair presents the iterative or intensive aspect, the labial the aspect of purpose, an approach to the goal, perfection. The dental pair presents a causative aspect, since, as it appears, the nasal always brings the aspect produced by the media even closer to perfection or indicates the strongest stage of continuity. Let us take as an example \sqrt{da} (11) «to change into > decay, vanish»:

(*h*-)*dah ba* “to pass away, to die”

(*m*-)*dag* “glowing embers” = «continual glowing, to be consumed,» very probably with regard to the dead bodies consigned to the flames, to which the prefix *m* refers (cf. § 19)

(*m*-)*day ba* “place of cremation.” Suffix *ŋ* creates a stronger effect than *g* and points to a longer period of continuity

(*h*-)*dad* “funeral repast”

(*l*-)*dad pa* “funeral anniversary” } suffix *d* causative,

external manifestation of «the causing the dead body to disappear (or to undergo a change)»

(*g*-)*don* would be equivalent with «destroyer»; cf. the corresponding forms *g-non pa* “to subdue, suppress” and *s-ton* «he who causes the change» = “autumn”

(*b-r*-)*dab pa* “to sink, go down” = «approaching the end» (suffix *b*!)

dam pa “deceased, late” (entire completion, suffix *m*!)

b-dar ba “to grind” = «to cause to dissolve» (suffix *r* causative)

h-dal ba “to sink down, disappear” (suffix *l* continuative)

b-dar ba is therefore causative to *h-dal ba*

A further example is $\sqrt{*da}$ (3) «to become connected, to become joined»:

*(*l*-)*da ba* «to become combined, appended,»

(*l*-)*de* “a prefixed tribal title of the earlier kings of Tibet”

(<i>h-</i>) <i>dog-s pa</i>	“to bind, fasten,”
<i>day</i>	“postposition for the comitative: with” (suffix <i>η</i> acts also here stronger and more continuously than the suffix <i>g</i> !)
(<i>h-</i>) <i>ded pa</i>	“to follow, succeed” = «to join oneself to»
(<i>l-</i>) <i>dan</i>	“belonging to, being in possession of” = «tied to, joined to,»
(<i>s-</i>) <i>deb pa</i>	“to fasten together, to unite,”
<i>dam</i>	“bound fast”
<i>dar</i>	“silk” = «that which is spun, tied together» (<i>r</i> causative),

there-

from (<i>s-</i>) <i>tar ba</i>	“to file on a string, to fasten to”
and (<i>b-s-</i>) <i>nal ba</i>	“to spin out, protract” (continuative)

Note. It seems to me that another interesting connection exists between the suffixes *d* and *m*, since the word form with suffix *d* expresses the idea of wish, or desire for something, while that with suffix *m* indicates the idea of the completed act or the consequences, in comparison with the suffix-less form.

Example:

thought	wish	action (result)
<i>go ba</i> “to understand”	(<i>h-</i>) <i>god pa</i> “to plan”	(<i>h-</i>) <i>gram pa</i> “to proclaim”
(<i>b-</i>) <i>dah ba</i> “to carry away”	(<i>b-</i>) <i>tad pa</i> “to entrust”	(<i>l-</i>) <i>dom pa</i> “alms”
* <i>du ba</i> «to have pain»	(<i>h-</i>) <i>thud pa</i> “to subjugate”	(<i>g-</i>) <i>tum pa</i> “wild, furious”
	perf. <i>b-tud pa</i>	
* <i>ba ba</i> «to swell, increase»	(<i>h-</i>) <i>bad pa</i> “to endeavour, exert”	<i>bam po</i> “that which is done”
to which belongs		
<i>d-pah</i> “fortitude, courage”		
* <i>b(r)u ba</i> «to increase»	(<i>h-</i>) <i>brud pa</i> “to fill up”	(<i>s-</i>) <i>brum pa</i> “pregnant”

Prefixes. 5) Guttural prefixes.

§ 14. *g*. 1) Prefix *g* corresponds chiefly to the suffix *g*. It is therefore iterative.

Examples:

based on $\sqrt{*du}$ (6):	<i>*du ba</i>	«passion, agony, pain,» from which
	<i>g-dug pa</i>	“mischievous, vicious, poisonous” (cf. <i>dug</i> “poison”; thus <i>g-dug pa</i> is pleonastic)
	<i>g-duŋ ba</i>	“to be pained, to be tormented”
	<i>h-dul ba</i>	“to tame, bring under right discipline”
	<i>g-dul</i>	future of <i>h-dul ba</i> , thus iterative.
based on \sqrt{du} (5):	<i>du</i>	“inclination, desire”
	<i>g-du ba</i>	“to covet, to hanker after”
	<i>g-duŋ ba</i>	“excessive desire, lust”
	<i>h-dul ba</i>	“to till, cultivate”
	<i>g-dul</i>	future of this, also iterative
based on $\sqrt{*da}$ (6):	<i>*da ba</i>	«to extend, increase»
	<i>b-do ba</i>	“to spread, diffuse”
	<i>g-daŋ ba</i>	“to stretch, open wide”
	<i>g-dal ba</i>	“to diffuse, encompass” (here pleonasm: suffix <i>l</i> continuative, prefix <i>g</i> iterative)
based on $\sqrt{*gu}$:	<i>h-džu ba</i>	“to melt”
	<i>h-thšu ba</i>	“to ladle water”
	<i>g-tšu ba</i>	“to squeeze, strain”
based on $\sqrt{*du}$ (6):	<i>zug</i>	“disease, affliction, torment”
	<i>g-zug pa</i>	“to be able to bear,” and many others.

Prefix *g* occurs with this meaning before *tš*, *ny*, *d*, *n*, *ts*, *ž*, *z*, *y*, *š*, and *s*.

2) Before gutturals and labials *g* changes with *d*.

Examples:

based on $\sqrt{*ga}$ (2):	<i>go ba</i>	“to understand,” from which
	<i>d-goŋ-s pa</i>	“to think, reflect,” «to strain one’s mind»
		(<i>d</i> instead of <i>g</i> iterative; as regards suffix <i>s</i> compare later § 23, 1)

based on $\sqrt{*da}$ (10)a:	<i>d-pyod pa</i>	“to investigate, to test by reasoning”
based on $\sqrt{*ga}$ (3):	<i>d-kri ba</i>	“to conduct one’s pupil from one stage of learning to another”
based on \sqrt{bu} (1):	<i>h-bu ba</i> <i>d-buŋ</i>	“to open, unfold,” whence “middle,” «that which opens gradually»
based on $\sqrt{*bu}$ (2):	<i>d-puŋ ba</i>	“to gather, collect,” «to concentrate»
based on \sqrt{bu} (5):	<i>h-bu</i> <i>d-bug</i>	“worm, insect,” from which “cavern, cavity“ (pleonastic)
based on $\sqrt{*bu}$ (6):	<i>*bu ba</i> <i>d-bul po</i>	«to whither, vanish», from which “poor,” «withering away» (pleonasm)
based on $\sqrt{*ga}$ (3):	<i>d-kon</i>	“rare”
based on $\sqrt{*ga}$ (5):	<i>kan</i> <i>d-kan</i>	“thorn” “steep or up hill”
based on $\sqrt{*ga}$ (7):	<i>gye (gu)</i> <i>d-gye ba</i>	“hump, hunch; curve” “to be crooked”
based on $\sqrt{*ga}$ (8):	<i>kag (ma)</i> <i>d-kag ba</i>	“mischief, danger, accident” “constipation”

With initial *g*, *k*, and *ŋ*, *d* (instead of *g*) works iteratively also in the following examples:

Examples:

<i>d-god pa</i>	“to laugh”	<i>d-kag ba</i>	“constipation”
<i>d-ges pa</i>	“to be delighted”	<i>d-kos</i>	“suffering, affliction”
<i>d-gaḥ ba</i>	“to rejoice”	<i>d-kaḥ</i>	“pain, labour, suffering”
<i>d-gyer ba</i>	“to sing”	<i>d-krog pa</i>	“to trouble, irritate”
<i>d-gyes pa</i>	“to be glad”	<i>d-ŋaŋ ba</i>	“to be afraid”
<i>d-ge ba</i>	“to be happy”	<i>d-ŋom pa</i>	“brightness, splendour”
		<i>d-ŋos po</i>	“virtue”

3) Prefix *g* is also iterative before *y*. The combination *g + y* must be carefully distinguished from *g + ya btags*.

Examples:

<i>g-yab pa</i>	“fan”	<i>g-yur</i>	“sleep, slumber”
<i>g-yob pa</i>	“an oar”	<i>g-yer ba</i>	“passion”
<i>g-yab pa</i>	“to skim”	<i>g-yel</i>	“indolence”
<i>g-yab pa</i>	“to signal, beckon”	<i>g-yel ba</i>	“to be idle, lazy”
<i>g-yuŋ ba</i>	“to cast out”	<i>g-yel pa</i>	“an urgent wish”
(cf. <i>d-byuŋ pa</i>	“to banish, expel”)	<i>g-yel ma</i>	“harlot, prostitute”
		<i>g-yem pa</i>	“incest, adultery”

4) Prefix *g* occurs also before *y* as a substitute for *m* which is here phonetically inadmissible, for the combination *my* could be considered only as *m + ya btags*. In such a case, it indicates (like prefix *m*) specifically the parts of the human body, as well as certain attributes of man or common objects in his immediate environment.

Examples:

<i>g-yod</i>	“the large intestine”	<i>g-yuŋ ba</i>	“a person of very ugly and repulsive appearance”
<i>g-yan pa</i>	“a cutaneous eruption akin to itch”		
<i>g-yon</i>	“the left hand”	<i>g-yer kha</i>	“little bell”
<i>g-yas pa</i>	“the right hand”	<i>g-yor mo</i>	“a sail”
<i>g-yar</i>	“mouth, face”	<i>g-yah</i>	“rust, oxide of iron”
<i>g-yuŋ</i>	“a low caste people of India”		

5) If *g* is used before *y* as a substitute for *m*, it is conceivable that *m* may also be occasionally replaced before gutturals by *d*. Compare, for example, *d-kan* “palate, roof of the mouth.”

6) Dental Prefix *d* and Sibilant *s*.

§ 15. *d*. 1) Prefix *d* occurs now and then in the place of *m* before *k* and before labials (s. Prefix *m* § 19).

2) Prefix *d* occurs as a substitute for iterative *g* before gutturals and labials (s. Prefix *g* § 14, 2).

3) Prefix *d* is, like suffix *d*, causative-forming.

Examples:

<i>h-byuŋ ba</i>	“to come forth”	<i>h-bol po</i>	“overflowing, abundant”
<i>d-byuŋ ba</i>	“to drive out, expel”	<i>d-bol ba</i>	“to draw up water from a tank”

h-phyaŋ ba "to hang down, be suspended" *gar po* "thick, condensed"

d-pyaŋ ba "to let hang down" *d-gar ba* "to confine," etc., etc.

4) Prefix *d* as a causative prefix alternates with *g* before dentals, palatals, and sibilants.

Examples:

h-dam pa "to choose, select" *h-du ba* "to come together, assemble"

g-dam pa "to counsel, advise" *g-du ba* "to mix with one another"

thše ba "to be great"

g-tše ba "to love, esteem, hold dear"

5) Prefix *d* is thus interchangeable on the one hand with iterative *g* before dentals, and, on the other hand, with *g* for the purpose of a causative formation. In some cases, to avoid errors, prefix *b* was used before the media *d* in forming causatives.

Examples:

da ba "to move forward" *du ba* "smoke," whence
b-dah-ba "to drive out, expel" *b-dug pa* "to smoke, fumigate"
 (prefix *b* causative, suffix *g* iterative)

h-dah ba "to go over," from which

b-dan ba "to carry away"

b-dog pa "to take possession of" **du ba* "to have pain, to writhe with pain," from which

h-dal ba "to extend, scatter" (intr.) *b-duy ba* "to bend the bow in order to shoot," and others

b-dal ba "to extend, scatter" (trans.)

Note. With the tenues (*k*), *t*, *tš*, and *ts* the causative-forming *b* cannot be used, since the tenuis is in itself causative-forming. Conrady was also aware of this fact. He says (ICDB, p. 70): "Jedenfalls ist der Gebrauch des *b*- in *bk*-, *bsg*-, *bsk*- einer der stärksten Beweise für die ursprüngliche Transitivität der präfixlosen *k*-, *tš*- usw. Denn wie

man auch das *b* auffasse, so oder so bildet es doch keinesfalls Transitiva aus der Grundform, sondern lediglich einfache Umschreibungen davon." And Conrady still sees a fundamentally transitive meaning in *b*, provided the comparisons he gives on pp. 45—46 with the living verbs of other monosyllabic speeches are substantially correct. This transitive function of *b* he expresses more definitely however on p. 69 in connection with the conjectural relationship (only syntactical however) with *byed pa*. He says, "Denn wenn es (das *b*-) auch ohne allen Zweifel an und für sich ein transitivierendes Vorzeichen ist, so ist doch sein vornehmster Wirkungskreis die (sogen.) Tempusbildung." The latter is certainly true (see the detailed chapters on Tense-formation), but that "das *b*- auch ohne allen Zweifel an und für sich ein transitivierendes Vorzeichen ist," I must emphatically question. Prefix *b* is transitive, and consequently causative-building, only in the few cases where it occurs as a substitute for a causative *g* before dentals or as a *d* before gutturals (s. below, § 16). In the above examples *b-dah ba*, *b-dog pa*, *b-dug pa*, *b-dun ba*, etc., is it possible that *d* is an infix as Conrady assumes on p. 5 of his Article, "Eine merkwürdige Beziehung zwischen den austrischen und den indochinesischen Sprachen." Our opinion of the examples which he gives with infix *d* is clearly expressed in §§ 137 and 139. We admit no infixes in Tibetan other than *ya btags* and *ra btags*. Conrady's supposed infixes are purely hypothetical and collapse when one sees and recognizes the possible means of growth in the not too numerous Tibetan roots which have developed similarly. We wish to discuss this point here only briefly. The grouping together of words on p. 5 in "Eine merkwürdige Beziehung zwischen den austrischen und indochinesischen Sprachen" seems semasiologically justified, but it is morphologically impossible, as a few examples will show.

1) Take for instance, the concepts "to become old" and "to calumniate." The Tibetan equivalents of these two concepts are based on two roots which are related in meaning: $\sqrt{*ga}$ (12) «to decrease, vanish, decay» and \sqrt{da} (11) «to change into > to decay, vanish.» From these are formed *r-ga ba* "to be old," *r-gad pa*, *r-gan pa* "old" (to which also belong *m-γan* "curse" and *m-γan pa* "to curse" with initial nasal sound), and *na ba*, "to be ill," *g-na bo* "old, aged," *nad* "sickness," *s-nad pa* "to wound, hurt, stab," *m-nad·m-nad* "falsehood, calumny." Also among the roots with initial labial sounds there is one with similar meaning, namely $\sqrt{*ba}$ (4) «to come forth out of = to overflow, fall

down > to become less,» with which we must also reckon the following words having initial nasal sound: *d-mad* "calumny," *s-mad pa* "to reprove; the reproach," *d-mod pa* "cursing, malediction," *s-mod pa* "slander, curse." We remember, in this connection that "the nasal became an agent in the building up of highly specialized, interrelated concepts, and particularly of abstract nouns" (s. § 1).

2) Again, take the concepts "profit, advantage" and "to extend." Here we have the roots $\sqrt{*ba}$ (3) «to swell, increase» (in a figurative sense) and $\sqrt{*da}$ (6) «to come forth > to extend, increase» (horizontally). From the first root is formed *d-mar* "profit, gain," and from the second (*g-*)*day ba* "to stretch."

3) Finally, we come to the concepts "joy, happiness." Here we find the two roots $\sqrt{*ga}$ (16)a «to appear = to become visible, to grow» (as light physically and symbolically) and $\sqrt{*da}$ (10)b «to appear = to come forth as light, to become bright» (physically and symbolically) which serve as the basis for the forms *d-ge ba* "joy, happiness" and *b-de* "splendour, happiness," etc., etc.

These few examples will suffice to prove conclusively that the assumption that Tibetan had infixes (other than *ya btags* and *ra btags*) is not tenable. I dare also to question the existence of infixes in Siamese and Burmese, and other monosyllabic languages. Some day, I hope to prepare morphologies of these languages which will also throw light on this subject.

§ 16. s. 1. At a later period, just when is undoubtedly difficult to say, the causative prefix *d*, like the suffix *d*, changed to *s*. (The change of the initial *d* of a root or stem to an initial *s* took place in Tibetan only during the somewhat circuitous transition from the compound palatals to the assibilized dentals. Cf. § 110). So we find for example:

<i>h-phro ba</i>	"to issue, emanate from"	<i>h-grey ba</i>	"to stand"
<i>s-pro ba</i>	"to make go out"	<i>s-grey ba</i>	"to put up"
<i>h-brel ba</i>	"to be connected"	<i>h-byor ba</i>	"to stick, adhere to"
<i>s-lrel ba</i>	"to stitch together"	<i>s-byor ba</i>	"to affix, attach"
<i>h-phur la</i>	"to fly"	<i>h-dum pa</i>	"to be reconciled with"
<i>s-pur ba</i>	"to scare up, let fly"	<i>s-dum pa</i>	"to bring to an agree- ment, to conciliate"

From the last example *s-dum pa* it is clear that causative *s*, developed from *d*, was used also before dentals, even though in this case (according to § 15, 4) causative forming *g* would naturally be expected as a phonetical substitute instead of *d*.

We find a number of initial guttural and labial verbs which likewise show the same alternating usage of *d* and *s*;¹ *d* naturally indicates the older form.

h-phyan ba “to be suspended” *h-phar ba* “to be raised, promoted”

d-pyan ba } “to make hang
s-pyon ba } down” *d-por ba* } “to dictate”
s-por ba }

pad pa “inquiring, inquiry” *bog-s* “profit, gain”

d-pyod pa “to investigate, text” *d-pog pa* “to make increase”

s-pyod pa “to perpetrate, accomplish” *s-pog s* “profit, gain,” «that which was caused to swell»

d-geŋ la } “on, upon” *d-gab pa* } “to cover”
s-geŋ la }

d-kan } “the palate, roof
s-kan } of the mouth” *d-gur* } “crooked”
(*r-kan*) } *s-gur* }
(*r-gur*) }

Compare also

d-pal “abundance” *d-puŋ ba* “to gather, assemble”
s-pel ba “to augment” *s-puŋ ba* “to accumulate, fill up,” and many others.

2. Now, (according to § 15, 5) the prefix *b* in the form of a *g* was used before the media *d* in place of the causative forming *d*. Also in the case of initial guttural verbs prefix *b* occasionally appears as a causative forming agent before the media *g* and the tenuis *k*. Side by side with the causative forms produced by the prefix *b* we may safely place those with prefix *s* which has developed from *d*. Compare

¹ Cf. Laufer, *Bird Divination*, p. 82, note 2.

<i>b-kad</i>	“arrangement”	<i>b-krab pa</i>	} “to beat the ground with one’s feet”
<i>s-kad</i>	“precept”	<i>s-krab pa</i>	
<i>b-go ba</i>	“to put on, anoint”	<i>b-gor ba</i>	“to cause constipation”
<i>s-go ba</i>	“to anoint”	<i>s-gor ba</i>	“to condense, to constipate”
<i>b-gro ba</i>	} “to discuss”	<i>b-kal ba</i>	“to load, burden”
<i>s-gro ba</i>		<i>s-kal ba</i>	“lot, fate, destiny,” «that which loads up» (from <i>h-gel ba</i> “to load up”)

Similar combinations are

<i>h-gril ba</i>	“to be twisted or wrapped round, to be rounded”		
<i>s-gril ba</i>	“to roll, wrap up”		
<i>h-gril ba</i>	“to fall, roll”		
<i>b-gril ba</i>	“to fall down, roll down”		
<i>b-kren pa</i>	“poor, miserable, hungry”	<i>s-go ba</i>	“to say, speak”
<i>s-gren mo</i>	“to be naked, bare”	<i>b-s-go ba</i>	“to order, arrange”

If *b-s-go ba* is not in reality the perfect tense form (without the suffix *s*) of *s-go ba*, it might be an attempt to use the analogous form *b-go ba* together with *s-go ba*. Since, however, *b-go ba* exists in the sense of “clothes, garment,” *s-go ba* was further supplied with *b*, which in this case had a somewhat more intensive effect.

If then, in order to avoid confusion, it actually proved necessary to create a substitute for the iterative and causative *g* or to find a suitable substitute for the causative prefixes *s* and *d*, that is before the media *g* and the tenuis *k*, especially since *s* and *d* could also be iterative — it seemed quite natural in both cases to choose the prefix *b*, which denotes “actions almost completed” (s. § 18). For this reason it was also utilized later as a “loose” prefix for the purpose of forming the perfect tense as indicating the “completed or effected action” (s. § 23).

§ 17. 1. Prefix *s*¹ is also employed in the formation of intensive verbs. Prefix *g* is the original prefix for the purpose of attaining the

¹ Prefix *s* in the form of the *z*, cf. note, § 142.

iterative idea, which is very closely related to the intensives. In accordance with § 14, 2, iterative *g* before gutturals and labials changes with *d*, which has nothing in common with the causative *d*. Compare also:

h-geŋ-s pa “to fill up, satiate” *bo ba* “to expand as a bubble”
d-gaŋ ba “to fill to the brim” *d-baḥ* “wave, billow”
h-brab pa “to beat, scorge”
d-brab pa “to flog with a whip,” etc.

2. This iterative *d*, then, standing in place of *g* before gutturals and labials, also changed to *s* as did the causative forming *d*. This *s* in its iterative-intensive quality served not only with gutturals and labials, but came also largely into general use together with other verbs.

Examples:

<i>gab pa</i> “to cover” (also “to hide oneself”)	<i>h-khum-s pa</i> “to grasp, conceive”
<i>s-gab pa</i> “to cover”	<i>s-kum pa</i> “to contract” «to come to an understanding»
<i>nyan pa</i> “to hear, listen”	<i>h-džom-s pa</i> “to conquer, subdue”
<i>s-nyen pa</i> “to come near, approach”	<i>s-nyom-s pa</i> “to destroy,” etc.

Even here are examples which indicate the use of *s* along with *d*.
 Examples:

<i>h-geŋ-s pa</i> “to fill up, satiate”	<i>d-pyas pa</i> } “to blame, vituperate”
<i>d-gaŋ ba</i> “to fill to the brim”	<i>s-pyos pa</i> }
<i>s-gaŋ</i> “the ridge of a hill,” «filled up»	<i>d-puŋ ba</i> “to gather, assemble”
<i>s-gaŋ ba</i> “to become filled”	<i>s-puŋ ba</i> “to heap up, fill up”
<i>s-goŋ</i> “an egg”	

(The *s* in *s-goŋ ba* “to make round balls of dough” is causative forming).

3. It is worth noting that verbs with stem vowel *a* and prefix *d* tend to change the root vowel *a* to *o* or *e*, when adding the prefix *s* either in the iterative or causative sense. Obviously, it was felt that *s* in place of the original *d* was somewhat too weak and had to be “strengthened” through the *ablaut* of the stem vowel. This feature plays a great part in the formation of the tenses.

Examples:

<i>d-pyan ba</i>	} “to let hang down”	<i>d-pal</i>	“abundance”
<i>s-pyon ba</i>		<i>s-pel ba</i>	“to augment”
<i>d-pyas pa</i>	} “to blame, vituperate”	<i>nyan pa</i>	“to hear, listen”
<i>s-pyos pa</i>		<i>s-nyen pa</i>	“to come, near, approach,” etc.

It is therefore necessary to distinguish carefully between the causative *d* and *s* and the iterative-intensive *d* and *s*. The former functions as an original prefix, while the latter is a substitute for *g* before gutturals and labials, which finally became general in the form of *s*.

The recognition of this point is of immense importance. It is true that so far the intensive transitive function of the prefix *s* was felt, though within somewhat indeterminate limits, as it also clearly appears in Conrady’s ICDB. It had in fact always been impossible to discover a definite principle in the application of *s*, which as yet seemed rather vague. Likewise the development of *s* from *d* appears to some of the Tibetologists as unfounded. Conrady noticed the seemingly arbitrary interchange of the prefixes *d*, *g*, *r*, *s*, *z*, and *l* and says on p. 48 of his ICDB: “Will man den Beweis der Verwandtschaft auf diesen Wechsel gründen, so ist das nur unter der Annahme möglich, daß einer dieser Vorbuchstaben die Grundlage der übrigen, also z. B. *s* aus *d* entstanden sei; denn sonst könnten ja diese Worte als bloße Parallelförmigkeiten angesprochen werden.” And this assumption, as Conrady rightly believes, is not tenable. Quite aside from the development of *s* from *d* the untenability of this idea is clear. In changes of *d*, *g*, *r*, etc., it seems to me, however, that here we are dealing not with “mere” parallel forms of a rather accidental character, but quite decidedly with “intended” parallel forms. As a matter of fact, in such words as *d-gur*, *s-gur*, *r-gur*, and *m-gur*, all meaning “arched, vaulted,” we are confronted with four different aspects. The basis for these is the little word *gur* in the sense of «that which has been brought to swell and to arch itself (suffix *r* causative) on a small scale (*u* = diminutive),» that is “the tent,” the diminutive aspect of “army camp.” *d-gur*, as a result of the addition of *d* to the simple *gur*, indicates rather the causative aspect of arching and bending in general (cf. § 15), while *s-gur* gives the causative > iterative intensive aspect of a more recent date (cf. § 17), *r-gur* the iterative aspect (*r* in place of *g*, where the latter is impossible, cf. § 21, 3) — all

three in the sense of "arched, bent," and *m-gur* denoting that which is arched or vaulted as applied to a part of the human body (cf. § 19) in the meaning of "throat, neck."

This also holds true in connection with the other examples mentioned by Conrady. On the other hand, I see in the transition of *d* to *s* no purposed change, but a phonetical change, exactly as it frequently can be observed within the realm of the Indo-European languages. And the Tibetan clearly shows even today the transition of the prefixed *d* into *s*, without its being indicated in writing. I would remind the reader of the Ladakhi-words *d-gar ba* "to separate, place apart," *d-kan* "palate," *d-mag* "army" and other words which I heard pronounced there as *s-gar ba*, *s-kan*, and *s-mag*. As far as I am concerned the change from *d* to *s* certainly does not appear too improbable.

7. Labial Prefixes.

§ 18. *b*. Prefix *b* is similar in meaning and function to suffix *b*. It indicates purpose, end, action almost completed — like the suffix *m* which as a prefix serves other purposes — and denotes *nomina actionis* (cf. Laufer, *Bird Divination*, p. 103).

Examples:

based on $\sqrt{*ga}$ (2):	<i>go ba</i>	"to perceive mentally, understand," from which
	<i>b-go ba</i>	"to plan, design"
	<i>s-gom pa</i>	"to imagine, to fancy," whence
	<i>b-s-gom pa</i>	"contemplation, reflection"
	<i>s-ŋo ba</i>	"to intend," from which
	<i>*s-ŋo-s</i>	«intended»
	<i>b-s-ŋo-s pa</i>	"resolution"
furthermore	<i>b-r-dže ba</i>	"to be absorbed in thought"
based on $\sqrt{*ga}$ (6):	<i>ħ-go ba</i>	"to stain, sully oneself," from which
	<i>b-go ba</i>	"to put on, paste on"
	<i>sub pa</i>	"to keep shut, to conceal," whence
	<i>b-sub pa</i>	"to obliterate, rub out"
based on $\sqrt{*da}$ (10)a:	<i>r-džod pa</i>	"to say, recite," whence
	<i>b-r-džod</i>	"speech, clear expression"

based on $\sqrt{*ga}$ (5):	<i>h-greŋ ba</i>	“to stand,” « to be upright,» whence
	<i>b-greŋ</i>	“on, upon”
based on $\sqrt{*da}$ (10)a:	<i>*šad pa</i>	“to tell, report”
	<i>b-šad pa</i>	“to explain”
	<i>g-šad pa</i>	“to tell, report”
	<i>b-šod pa</i>	“report, description”
based on $\sqrt{*da}$ (10)b:	<i>l-ta ba</i>	“to take a look at, espy”
	<i>b-l-ta</i>	“view, prospect”
based on $\sqrt{*da}$ (10)c:	<i>šes pa</i>	“to perceive, apprehend”
	<i>b-šes pa</i>	“to be acquainted with”
	<i>sem-s pa</i>	“to think”
	<i>b-sam-s pa</i>	“to ponder,” etc., etc.

Prefix *b* stands before *k*, *g*, *tš*, *dž*, *ny*, *t*, *d*, *n*, *ts*, *ds*, *ž*, *z*, *r*, *š*, *s* and also before prefix *r* and *s*.

Naturally prefix *b* cannot stand before labials. From a large number of examples I have concluded that in such cases *d* is used instead, so that *d* functions for prefix *g* as well as *b* before labials; cf. § 16,2.

§ 19. *m*. Prefix *m* indicates primarily parts of the human body¹, certain attributes of man, and common objects in his immediate environment. It indicates further verbs relative to the ability and peculiarities of man.

Examples:

<i>m-gul</i>	“throat, neck”	<i>m-khas pa</i>	“learned, wise”
<i>m-khrig ma</i>	“wrist of the hand”	<i>m-gon po</i>	“master, lord”
<i>m-grin pa</i>	“neck”	<i>m-gron po</i>	“one newly come, a guest”
<i>m-ŋal</i>	“uterus, womb”	<i>m-ŋag pa</i>	“to send”
<i>m-thšer pa</i>	“milt, spleen”	<i>m-ŋan pa</i>	“to curse”
<i>m-džiŋ pa</i>	“neck”	<i>m-ŋaḥ ba</i>	“to own, possess”
<i>m-daŋ-s</i>	“forehead” (resp.)	<i>m-thšad pa</i>	“grave”
<i>m-thšon</i>	“index (finger)”	<i>m-thšid</i>	“speech, talk”
<i>m-thsal</i>	“blood”	<i>m-thšod pa</i>	“to venerate, wor- ship”
<i>m-thser pa</i>	“milt, spleen,” etc.	<i>m-noŋ ba</i>	“to feel ashamed”

¹ With the exception of *m-dzub mo* “claw, paw”.

<i>m-tšum pa</i>	“pearl”	<i>m-dag pa</i>	“glowing ashes”
<i>m-tšil pa</i>	“a fishing hook”	<i>m-duŋ</i>	“lance, spear”
<i>m-nyan</i>	“skiff, wherry”	<i>m-dud</i>	“a knot”
<i>m-thur</i>	“halter”	<i>m-dzod</i>	“treasure-chest,” etc.

Prefix *m* stands before *kh*, *g*, *ŋ*, *tš*, *dž*, *ny*, *th*, *d*, *n*, *ths*, *dz*.

m changes with *g* before *y*, cf. § 14,4.

m changes occasionally with *d* before *k*: *d-kan* “gums”; cf. prefix *g* § 14,5 (cf. *r-kan* “foot.”)

m changes with *l* before *tš*, cf. prefix *l*, § 20.

m changes with *l* before *t*, cf. prefix *l*, § 20.

m changes with *l* before labials, cf. prefix *l*, § 20.

m changes with *r* before *t*, cf. prefix *r*, § 21.

m changes with *r* before *ts*, cf. prefix *r*, § 21.

My lists show further examples in which prefix *m* is substituted for other prefixes on phonetical grounds. These examples are, however, so rare that they may be disregarded.

8. Prefixes *l* and *r*.

§ 20. *l*. Prefix *l* denotes parts of the human (or animal) body, common objects used by man in daily life, and qualities and actions peculiar to man.

In this function it stands in place of prefix *m*, before *k*, *p*, *tš*, *t*, and *l*.

Examples:

<i>l-kog</i>	“throat”	<i>l-tšog</i>	“pot”
<i>l-pag-s</i>	“epidermis”	<i>l-tšib-s</i>	“shield, gloves”
<i>l-tšag</i>	“stick, whip”	<i>l-tšeb pa</i>	“to commit suicide”
<i>l-tšag-s</i>	“iron”	<i>l-tog-s pa</i>	“to be hungry; to regret”

In the combination *m-l*, *l* might be considered as *la btags* by analogy with *r* which always functions as *ra btags* in the combination *m-r*. For this reason, *l* is here used for *m*, except before initial *l* when it is obviously impossible. In conjunction with initial *r*, *l* causes metathesis (cf. § 122).

Examples:

<i>rlig pa</i>	“testicle”	<i>rlud bu</i>	“a leather bag”
<i>rlaŋ-s po</i>	“the lowest social grade”	<i>rlag pa</i>	“to become bodiless”

<i>b-rlaŋ mo</i>	“a fierce woman, an amazon”	<i>rlaŋ po</i>	“stupid, foolish (as a child)”
<i>rlom pa</i>	“conceit, vanity”	<i>rlog pa</i>	“to destroy; to seduce”
		<i>rlab pa</i>	“to remove, clear away”
		<i>rlab-s pa</i>	“to give, present,” etc.

Forms like the following do not belong here.

<i>lhog pa</i>	“a large ulcer or sore”	<i>lham</i>	“a felt boot, a shoe”
<i>lhen pa</i>	“the part of the belly below the breast”	<i>lha ba</i>	“to slough, to suppur- ate”
<i>lhum-s</i>	“womb” etc.	<i>lhon pa</i>	“to give back, return”

These forms are not pertinent here, because *l* is an aspirated initial sound instead of a prefix; cf. “Palatalization with *ra btags*, New Formations,” § 124.

Prefix *l* stands like *m* before *g*, *dž*, and *d* indiscriminately.

Prefix *l* stands in place of *m* before *b*. Traceable in only two cases: *l-bra* “tumor,” *l-bu* “tumor, blister.”

Prefix *l* stands also before *ŋ*; however, only in two cases which have no connection here: *l-ŋa* “five,” and *l-ŋa ba* “flash (of lightning)”.

§ 21. *r*. 1) As suffix *r* forms the intensive-causatives for verbs with final *l*, so prefix *r* sometimes forms causatives, if it stands in place of *d* (s. § 15,3) before medial and nasal dentals, or (seldom) before medial assibilized dentals. Two similar cases may be recorded for initial gutturals.

Examples:

<i>g-duŋ ba</i>	“to be pained”	<i>g-dug pa</i>	“to be deleterious, mischievous”
<i>r-duŋ ba</i>	“to beat”	<i>r-dug pa</i>	“to devastate, de- stroy”
<i>g-nyil ba</i>	“to crumble away, to thaw”	<i>*(h-)dzog pa</i>	«to come to, reach to»
<i>r-nyil ba</i>	“to break, down, destroy”	<i>r-dzog-s pa</i>	“to finish, com- plete”

(s. DTR sub $\sqrt{*ba}$ (3))

**(h-)dze ba* «to project, stand out» } (s. DTR sub $\sqrt{*ga}$ (5))
r-dze ba “to tuck up, truss up” }

h-gyel ba “to fall, tumble
down” **(h-)gyag pa* «to move forward»

r-gyal ba “to subdue, over-
power” — «to
cause to fall» *r-gyag pa* “to throw, cast,
fling”
(s. DTR sub $\sqrt{*ga}$ (13))

cf. *r-gyor ba* “to kill,” «to cause to fall = to remove»

2) Prefix *r* forms intensives in most cases as well with initial media and initial nasal as with initial tenuis. In the first case (s. (a) below) it joins readily with words ending in *g*, *ŋ*, *d*, *n*, *s*, and *r* and produces pleonasm. These formations are largely denominatives. In the second case (s. (b) below) pleonasm is again brought about, since prefix *r* coincides with the tenuis-formation, which itself produces intensives, causatives, etc.

(a) Examples:

<i>gur</i>	“tent”	<i>s-ŋa ba</i>	“to be first”
<i>r-gur</i>	“bent, curved”	(b-) <i>r-ŋan pa</i>	“to venerate, wor- ship” «repeat- edly (<i>r</i> -) to cau- se somebody to be first (<i>-n</i>)»
<i>b-gyaŋ-s pa</i>	“spread forth”	<i>mug pa</i>	“a moth”
<i>r-gyaŋ pa</i>	“spread forth”	<i>r-mug pa</i>	“to bite, to sting (insect)”
<i>*h-gyag pa</i>	«to swell up, in- crease»	<i>*ga ba</i>	«to become less, decrease»
<i>r-gyag-s pa</i>	“arrogance, pride” (see DTR sub $\sqrt{*ga}$ (10))	<i>r-gad pa</i>	“to be old, to be aged,” etc.

(b) Examples:

<i>r-tsi ba</i>	“to count, reckon”	<i>r-tseg pa</i>	“to pile up”
<i>r-tog pa</i>	“to consider, examine”	<i>r-tag pa</i>	“eternal”
<i>r-tsog pa</i>	“a pioneer”	<i>r-ten pa</i>	“to lean”
<i>r-tsom pa</i>	“to begin, under- take”	<i>r-tab pa</i>	“confused, frightened,” and a few others.

3) Prefix *r* instead of *g* may also form iteratives in those cases where *g* is a phonetic impossibility (cf. § 14,1).

Examples:

b-r-dže ba “to be absorbed in thought”
r-džed pa “to venerate” (cf. $\sqrt{*ga}$ (3))
r-džed pa “to forget” (cf. \sqrt{ga} (12) and others.)

4) In addition, prefix *r* signifies a few animals (cf. Laufer, *Bird Divination*, p. 39) and parts of the animal body (very rarely of the human body). According to Laufer this *r* is supposed to come from an earlier prefixed *ri* "mountain."¹

Examples:

<i>r-gaŋ</i>	"hedge-hog"	<i>r-nog</i>	"the mane"
<i>r-kaŋ</i>	"marrow, pith"	<i>r-men pa</i>	"a goitre"
<i>r-kaŋ pa</i>	"foot"	<i>r-mon pa</i>	"a plough-ox"
<i>r-kon pa</i>	"ringworm, itch"	<i>r-mig-s pa</i>	"a lizard of a small kind"
<i>r-kub</i>	"anus, back side"	<i>r-tsaŋ-s pa</i>	"a chameleon"
<i>r-kyan</i>	"wild ass"	<i>r-tsid pa</i>	"coarse hair of the yag"
<i>r-ta</i>	"horse"	<i>r-tsib pa</i>	"a rib," etc.

Prefix *r* stands before *g*, *k*, *ŋ*, *dž*, *ny*, *d*, *t*, *n*, *b*, *m*, *dz*, and *ts*.

5) In all remaining cases *r* stands as a substitute for *m* and *l*. It stands for *m* (1) before *k*, *t*, and *ts*, where *m* causes aspiration, (2) and before *k*, *t*, and *ts* to avoid aspiration for diacritical reasons.

Examples:

<i>r-kon pa</i>	"a fowler's net"	<i>r-tul pa</i>	"to blunt, dull"
<i>r-kod pa</i>	"an engraving"	<i>r-tsub pa</i>	"a javelin"
<i>r-kyan</i>	"brass vessel"	<i>r-tsol ba</i>	"to endeavour, take pains"

r-kyal ba "sac or leather bag"

r stands for *l* in

<i>r-gyan</i>	"ornament"
<i>r-bad</i>	"crutch"
<i>r-mog</i>	"helmet"
<i>r-nam pa</i>	"form, figure, shape"

§ 22. Frequently it is still possible to contrast forms of the completive-causative type, which show on the one hand the earliest means of formation by tenuis, and on the other hand the equivalent means by formative elements.

Compare

based on \sqrt{du} (1):	<i>*du ba</i>	«to be accumulated, to assemble»
	<i>h-thu ba</i>	"to pick up, collect"
	<i>g-du ba</i>	"to mingle, mix-up"

¹ Applicable apparently only to a few examples.

based on $\sqrt{*du}$ (3):	<i>ḥ-thud pa</i>	“to add on, prolong”
	<i>s-dud pa</i>	“to unite, join”
based on $\sqrt{*du}$ (2):	<i>ḥ-thum pa</i>	“to cover, lay over”
	<i>s-dum pa</i>	“to make agree”
based on $\sqrt{*ga}$ (6):	<i>ḥ-kheb pa</i>	“to cover”
	<i>s-gab pa</i>	“to cover”
based on $\sqrt{*ga}$ (2):	<i>ḥ-khum pa</i>	“to grasp, conceive”
	<i>s-gom pa</i>	“to meditate systematically”
based on $\sqrt{*ga}$ (7):	<i>s-goḡ-s</i>	“ball; disk”
	<i>koḡ</i>	“concave, bent, crooked”
	<i>khōḡ-s</i>	“concave, bent, crooked,” and many others.

In concluding our discussion of the suffixes we added two examples based on different roots illuminating their formative capacity (cf. § 13 b). It is advisable to do the same for the prefixes.

Examples:

based on $\sqrt{*ga}$ (2):	«head» (psychological, i. e. seat of thought, etc.):
<i>go ba</i>	“to perceive, understand” (<i>ablaut</i> perhaps intensive-causative s. § 3.) Whence are formed
1) <i>d-goḡ-s pa</i>	“to think, to ponder” (<i>d-</i> is iterative cf. § 15, <i>-ḡ</i> is intensive s. § 10, <i>-s</i> nearing perfection (aim) s. § 23).
2) <i>s-go ba</i>	“to order” (<i>s-</i> is causative cf. § 16).
3) <i>b-god pa</i>	“to design > to divide” (<i>b-</i> denoting purpose s. § 18, <i>-d</i> is causative see § 11)
4) <i>r-gol ba</i>	“to dispute, combat” (<i>r-</i> is causative s. § 21, <i>-l</i> is continuative s. § 13)
the forms <i>m-khan po</i>	“teacher, professor”
<i>l-tšog-s</i>	“to be able” alike belong to this root (s. § 63, Analysis of Words). They have the prefixes <i>m</i> and <i>l</i> in order to show qualities which are characteristic of men, cf. §§ 19—20.

The formative elements treated in §§ 9—22 lend to each root or each stem a certain definite aspect. They are characteristic of the word form and cannot be separated again without damaging the concept which has been built up by them. Prefixes *b*, *g*, and *d*, which may

change with the present tense sign *h*, (cf. § 59), are exceptions to this rule. We must call them inseparable, formative elements in order to differentiate them from those which are separable and form the tenses. From the time of the introduction of the formative elements, the speaker's consciousness of their meaning and their effects has been vitally preserved over long periods of time — probably over several thousand years — and has given to the speech a compact, well constructed mould. Even when the transition from the compound palatals to the assibilized dentals was taking place (that is, in a comparatively recent period), the value of the inseparable, formative elements remained unchanged (cf. §§ 98—103). Only when decomposition of the language began, in the ninth century after Christ according to Laufer's Bird Divination, did the formative elements give up their function as suffixes (not as prefixes). The words, thus freed from their iron chains, took on suffixes of all kinds to create one and the same concept or aspect (cf. the chapter on the Exchange of Suffixes, § 133).

b) Separable, Formative Elements.

§ 23. It is still necessary to discuss the separable formative elements which form the tenses. These are: the suffix *s* and the prefixes *h*, *b*, and *g* or *d*. Let us first consider the suffix *s*.

1) Suffix *s*.

Certain words like *lus* "body," *thšos* "religion," *g-nyis* "two," and others point to a suffix *s*, which was used only in word formation. The effect originally attached to this *s* has been impossible for me to determine. I can only surmise. Laufer in his Bird Divination on p. 87, note 1, points out the necessity of differentiating between the final *s* as an agent of word formation on the one hand, and final *s* as a means of instrumentalis as well as tense formation on the other. Thus, we should distinguish between an "inseparable" and a "separable" element.

As an example of the inseparable, Laufer mentions *d-bu-s*, "middle" and of the separable *ya-s* as the instrumentalis for *ya*¹. We ask, could not the *s* in *d-bu-s* have been derived from *d-bud*? *d-bud* belongs to *√bu* (I), from which has been formed *h-bu ba* "to open, unfold (like a

¹ Laufer evidently bases his opinion upon his teacher Conrady, who mentions these instances in his ICDB on pp. 43—44.

flower).” *d-bu* is «a repeated unfolding,» **bud* implies the sense of «caused to be unfolded»: hence **d-bud* in the meaning of «caused to have become gradually unfolded,» all of which results in the final form of *d-bus* “middle.” — It is very likely that the final *s* of the instrumentalis *ya-s* arose from the final *d* which usually produce the causative aspect.

The suffix *s* of the perfect tense is preferably deduced from *yod pa*. In the oldest literature two perfects appear side by side, the verb + *yod* and the verb + suffix *s*. The formation of the perfect with *yod*, however, is relatively recent. We find very old forms like, e. g., *g-san-d pa* “he heard,” *gyur-d* “he became,” and *g-sol-d pa* “he bade,” which seem to point to a former *yod*. One should remember that this *yod pa* “to be present, to exist” is a form which developed through *anlautsverkümmerung* or imminution of the initial sound (cf. § 75) and completely displaced the original verb. Therefore, *yod pa* must be regarded as a tertiary formation. This *d* of the perfect tense soon became lost after final *n*, *r*, and *l*; after a final vowel and after the consonants *g*, *ŋ*, *b*, and *m*, it changed, however, to *s*¹. When *d* was suffixed to a word already ending in *d*, the two final *d*’s, after an intermediary step, fused and changed to *s*. Suffix *s* of the perfect tense, developed from *d*, must evidently have arisen very recently, after (1) all tense formation had already long existed, and after (2) *yod* had not only developed through imminution of the initial sound, but had also become shortened to final *d* or *s*. This *s*, if also found with many verbs in tenses other than the perfect, must be considered as a later generalization applied to the remaining tenses.

In the more recent development of the language there arises the necessity of characterizing the perfect tense through *yod pa* and similar verbs, even when the suffix *s* is still found with the principal verb. *Yod pa*, as we know, denotes completed action or condition. According to Laufer in his *Bird Divination*, p. 63, the final *d* is to be so regarded in connection with certain words, e. g., *r-gad pa* “old man” derived from *r-ga ba* “to be old”; *nad* “illness” from *na ba* “to be sick,” etc.

A different *d*, of course, is the causative forming *d* (cf. § 11). According to Jäschke, p. 33,3 and Chandra Das, sub voce *byed pa*, *byed pa* is used in the formation of an intensive or causative aspect, as for example *g-toŋ byed* or *g-toŋ bar byed pa*, etc. Quite obviously we have

¹ In Ladakhi *d* became *s* also after *r*, as in *khyer-s*, *zer-s*, etc.

such a causative *d* in verbs like *s-kyed pa* "to procreate" derived from *s-kye ba* "to be born," and *nud pa* "to suckle" from *nu ma* "breast," much like *byed pa* in the following expressions of a later period: *d-gra byed pa* "to act in a hostile manner," *gros byed pa* "to consult," *byi byed pa* "to ravish" (cf. *h-byid pa* "to glide, to slip"), etc., etc. — In Laufer's opinion *byed pa* has developed from *bya + yod pa*. I, however, see in *byed pa* a form of the $\sqrt{*ba}$ (3) «to swell, increase,» palatalized by *ya btags*, + the causative forming *d* and *ablaut*, which latter can be completive-causative; thus we have *byed pa* «to cause to extend» = «to cause to swell» in the meaning of "to bring forth, produce." Such forms as *s-kyed pa* derived from *s-kye byed pa*, *h-byed pa* "to open" from *h-bye byed pa* appear impossible alongside of *r-gad pa* from *r-ga yod pa* and *nad pa* from *na yod pa*, since in the case of the last two the *d* has preserved the concept of *yod pa* "to be present" while the *d* in *s-kyed pa*, *h-byed pa*, etc., also in *yod pa*, is absolutely causative forming. If now on the one hand the *d* in *yod pa* is the old, causative forming *d*, and on the other hand *yod pa* itself is not only a tertiary formation produced by *anlautsverkümmerng*, but, in addition, the final *s* also a development from this *d*, it naturally follows that the interval which elapsed between the introduction of the "separable" tense-suffixes *b*, *g*, or *d* and the later suffix *d* or *s* is so great that the assumption that the final *d* or *s* of the perfect is to be deduced from *yod pa*, is **no longer tenable**. Upon a close examination of the temporal suffixes we cannot help feeling convinced that suffix *s* was not merely introduced along with the others, but was very probably first in point of time, and that in a comparatively short period it developed from *d*. Thus it is also clear that final *d* > *s* is added in the perfect, as the tense of the finished or effected act, in the imperative¹, as the tense of the emphasized action, and even at times in the present tense as an intensive formation.

2) Prefixes *b*, and *g* or *d*.

§ 24. At first glance, the following chapter appears to the investigator as a veritable labyrinth of forms and irregularities. Certain forms show the temporal suffixes; some have lost them; others seemingly call forth the change of the media to the tenuis. In fact, a multitude of minute details disconcerts the investigator, almost forcing him to

¹ Conrady has felt this also, cf. his ICDB, p. 43.

renounce his attempts to solve the problem. In order to arrive at a definite decision, it is necessary to discuss separately the several classes of verbs. We shall begin with verbs having initial guttural, dental, and labial sounds. In later chapters, we shall discuss verbs with initial *tš*, *thš*, *dž*; then verbs with *ts*, *ths*, *dz*; following these, verbs with initial *š*, *ž*, *y*, *h*, *h*; and finally verbs with *s*, *z*; and those with initial *r* and *l*.

A. Gutturals.

α) Tenuis.

§ 25. In the chapter dealing with the investigation of roots, we said that verbs with initial tenuis-sound are derived either from a medial stem or from a medial root. In so far as it is possible to trace stems back to a root which still exists or may be deduced with relative certainty from the related word groups, we are dealing with a medial root as the primitive element. Consequently, we must view a stem with initial tenuis and unidentified root as a secondary form of a medial root, of which it represents a completive-causative formation. Every root or every stem takes on inseparable formative elements as prefixes or suffixes and builds up therefrom concepts or words in definite aspects. If these words were verbs, they were originally used indiscriminately for all tenses until certain "inseparable" formative elements (*b*, *g*, *d*, *s*) and the "separable" prefix *h* were employed in forming tenses.

Tenuis verbs with initial guttural sound fall into two groups:

- 1) Verbs without prefix or with the prefixes *d* and *b*;
- 2) Verbs with the prefixes *r* and *s*.

Group 1) still bears distinct traces of its old character in that it does not distinguish tenses through verb forms, thus making present, perfect, and future alike in form.

Examples:

<i>ker ba</i>	<i>ker</i>	<i>ker</i>	"to raise, lift up"
<i>d-kyu ba</i>	<i>d-kyu</i>	<i>d-kyu</i>	"to wring out, filter"
<i>d-krog pa</i>	<i>d-krog</i>	<i>d-krog</i>	"to agitate, trouble"
<i>b-kag pa</i>	<i>b-kag</i>	<i>b-kag</i>	"to hinder, forbid"
<i>b-kod pa</i>	<i>b-kod</i>	<i>b-kod</i>	"to build, arrange, plan," and others.

§ 26. The perfect tense in this group was originally formed through the addition of *d* > *s* (cf. suffix *s*, § 23). The future remained unchanged.

Examples:

d-kri ba d-kri-s d-kri "to wrap up, wind up"
d-krug pa d-krug-s d-krug "to disturb, trouble"
d-krog pa d-krog-s d-krog "to mingle, to churn milk"
b-krab pa b-krab-s b-krab "to choose, select"
b-kram pa b-kram-s b-kram "to spread, scatter," and others.

§ 27. The verbs of group 2), that is verbs with the prefixes *r* and *s*, formed the perfect tense at first only through the addition of *d > s*.

Examples:

s-kyug pa s-kyug-s "to vomit"
s-kye ba s-kye-s "to be born"
s-kraŋ ba s-kraŋ-s "to swell," and others.

§ 28. Since the perfect suffix *d > s* became subject to loss after final *n*, *r*, and *l* and to assimilation to *d* after final *d*, or more often to *s*, a new means had to be found as an indubitable sign of the perfect, the tense of completion or aim. Admirably suited to this purpose was the "inseparable" prefix *b*, which is now "separable" as a temporal prefix. Thus prefix *b* was employed to strengthen suffix *d > s*. It stands before guttural and dental verbs, but was probably replaced by *d* before labials. In many cases the vowel *o* or *e* of the stem was weakened again to *a* in the perfect, since *a* is the original vowel of the stem or root, which in the present tense is strengthened to *o* or *e* (cf. § 5).

Examples for guttural tenuis-verbs:

s-kem pa b-s-kam-s "to dry up, to make dry"
s-kum pa b-s-kum-s "to contract"
s-ko ba b-s-ko-s "to appoint, nominate"
s-kyuŋ ba b-s-kyuŋ-s "to lay aside," and others.

§ 29. When once the perfect had been distinguished from the present, the creation of a sign for the future tense was only one step further. In this case nothing was more simple than to make use of the iterative *g*, which may stand before dental verbs and, in the form of *d*, before guttural and labial verbs. However, before verbs with prefix *r* and *s*, prefix *g* seems to have been found phonetically too difficult of pronunciation (*grk*, *gsk*, *grb*, *gsb*, etc.) and semasiologically superfluous. *d* as a substitute for *g* (cf. § 14.2) appears before *r* + a subsequent consonant equally difficult of pronunciation. Before *s* it threatened

to fuse with the *s* and become an *s*. The saving *b* was once again called upon. This *b*, as we have already seen with prefix *d* (cf. § 16,2), was of the same nature as causative *s*, derived from *d*. Thus, in the case of verbs with final *g*, *ŋ*, *b*, *m* (and also *d*) the future is distinguished from the perfect only through the natural absence of the perfect suffix *s*. In the case of a few verbs the "weakening" of the stem vowel *o* or *e* to *a* is continued also in the future.

Examples:

<i>s-kum pa</i>	<i>b-s-kum-s</i>	<i>b-s-kum</i>	"to contract"
<i>s-kem pa</i>	<i>b-s-kam-s</i>	<i>b-s-kam</i>	"to dry up" (trans.)
<i>s-kyag pa</i>	<i>b-s-kyag-s</i>	<i>b-s-kyag</i>	"to expend"
<i>s-kyoŋ ba</i>	<i>b-s-kyeŋ-s</i>	<i>b-s-kyan</i>	"to guard"

Note. No verb with the prefixes *r*, (*l*), and *s* may ever take prefix *h* in the present.¹ Prefix *h* may interchange with prefixed *b*, *g* or *d* only (cf. § 59).

§ 30. The imperative was originally identical in form with the present, perfect, and future tense. Besides the sign of the perfect and future in distinction to the old present tense, other aids were made use of in building up the imperative. They are as follows:

- 1) Vowel strengthening to *o* (*r-gal ba*, *r-gol*; *r-gyab pa*, *r-gyob*, etc.)
- 2) Aspiration (*h-gog pa*, *khog*; *h-god pa*, *khod*, etc.)
- 3) Addition of causative, final *s* (*r-ko ba*, *r-ko-s*; *s-kyob pa*, *s-kyob pa*, *s-kyob-s*, etc.)

Several aids may be utilized at the same time, e. g., *s-kem pa*, *s-kom-s*; *h-geg-s pa*, *khog*; *h-grem-s pa*, *khrom-s*, etc.

If a verb admits of neither vowel strengthening, nor aspiration, nor the addition of causative final *s*, prefix *b* may be resorted to as a welcome sort of stop-gap (cf. §§ 29 and 16, 2), e. g., *s-kur ba*, *b-s-kur*; *g-tod pa*, *b-tod*; *h-džig pa*, *b-šig*, and a few others. Finally belong here also *s-kyoŋ ba*, *b-s-kyoŋ-s*, and *h-thum pa*, *b-tum-s*.

Examples for guttural tenuis verbs:

<i>s-kem pa</i>	<i>b-s-kam-s</i>	<i>b-s-kam</i>	<i>s-kom-s</i>	"to dry up"
<i>s-ko ba</i>	<i>b-s-ka-s</i>	<i>b-s-ko</i>	<i>s-ko-s</i>	"to appoint"
<i>s-kyag pa</i>	<i>b-s-kyag-s</i>	<i>b-s-kyag</i>	<i>s-kyog</i>	"to expend"
<i>s-kyob pa</i>	<i>b-s-kyab-s</i>	<i>b-s-kyab</i>	<i>s-kyob-s</i>	"to protect"
<i>(b-krol ba)</i>	<i>b-krol</i>	<i>b-krol</i>	<i>khrol</i>	"to make something sound," and others.

¹ With the exception of a few verbs with initial labial tenuis, see § 53.

§ 31. The perfects must often serve as substantives (sometimes omitting prefix *b*), or more rarely as adjectives with a special meaning. Similarly, the future stems sometimes occur as substantives, and very rarely also as adjectives.

Examples:

Substantiva perfecti:

<i>s-kur ba</i>	“to send, give”
<i>b-s-kur</i>	“sending, granting”
<i>s-kyed pa</i>	“to give birth, produce”
<i>b-s-kyed</i>	“production, generation, formation”
<i>s-kyin pa</i>	“to borrow”
<i>(b-)s-kyin pa</i>	“a loan, money borrowed”

Adjectiva perfecti:

<i>s-krum pa</i>	“to bring forth, produce”
<i>b-s-krum pa</i>	“grown up”
<i>s-kyug po</i>	“to lose colour”
<i>s-kyug-s po</i>	“clear”

Substantiva futuri:

	<i>s-ŋo ba</i>	“to bless; to intend”
	<i>b-s-ŋo ba</i>	“a bliss”
in addition	<i>b-s-ŋo-s pa</i>	“a resolution”
	<i>r-tsi ba</i>	“to tell, count”
	<i>b-r-tsi</i>	“arithmetic”
	<i>sog pa</i>	“to collect, accumulate”
	<i>b-sag pa</i>	“accumulation of religious merits,” etc.

β) Aspirate.

§ 32. In the chapter on aspiration (§ 8) we said that on the one hand verbs with initial tenuis are destined to aspiration through the addition of the prefix *h*; while on the other intransitives are obtained from transitive verbs with initial media or tenuis sound by means of the aspiration of the tenuis. The two cases must indeed be carefully distinguished. In the case of intransitives formed from transitives, aspiration is, of course, maintained in the perfect (as well as in other tenses), omitting however, the prefix *h* of the present tense and occasionally also adding suffix *s* (after *g*, *ŋ*, *b*, and *m*) in the perfect tense.

Examples:

Initial tenuis sound:

trans. <i>b-kum pa</i>	“to kill”
intr. <i>ḥ-khum pa</i>	“to shrink” perf. <i>khum(-s)</i>
trans. <i>s-kyor ba</i>	“to turn around repeatedly”
intr. <i>ḥ-khyor ba</i>	«to be turned around» = “to reel” perf. <i>khyor</i>
trans. <i>s-kyel ba</i>	“to carry away, send”
intr. <i>ḥ-khyol ba</i>	“to be brought, be carried” perf. (<i>ḥ-</i>) <i>khyol</i>
trans. <i>g-tšod pa</i>	“to cut off, chop off”
intr. <i>ḥ-tšad pa</i>	“to be cut off” perf. <i>tšad</i>
<i>ḥ-khyed pa</i>	“to be acquitted” perf. <i>khyed</i>

Initial media sound:

trans. <i>ḥ-geṅ-s pa</i>	“to fill up, satiate”
intr. <i>ḥ-kheṅ-s pa</i>	“to be full, filled” perf. <i>kheṅ-s</i>
trans. <i>ḥ-gem-s pa</i>	“to confound, subdue”
intr. <i>ḥ-kham pa</i>	“to fall down senseless” perf. <i>kham(-s)</i>
trans. <i>ḥ-god pa</i>	“to build, form”
intr. <i>ḥ-khod pa</i>	“to be built, formed” perf. <i>khod</i>
trans. <i>ḥ-gyel ba</i>	“to load up, impose”
intr. <i>ḥ-khyol ba</i>	“to be brought, carried” perf. <i>khyol</i>

§ 33. In dealing, however, with tenuis-verbs which have been aspirated only by means of the prefix *ḥ* of the present tense, we find as a rule two perfect tenses (and sometimes also two future tenses). These are represented either by the regular non-aspirated stem (which also, by the way, answered for the present tense in earlier times, when the prefix *ḥ* did not yet exist) or, by the aspirated form of the stem without prefix *ḥ*, which is analogous to the perfect tense of the intransitives formed from the transitives.

Examples:

<i>ḥ-khal ba</i>	“to send”
perf. <i>b-kal ba</i>	in the meaning of “to put a load on”
<i>khal</i>	extant in <i>khal</i> “a load”
<i>khal r-džes</i>	“he who conducts a caravan”
<i>khal ban</i>	“a jug to hold wine,” etc.

- h-khal ba* "to spin"
 perf. *b-kal ba*
khal extant in *khal tšag* "the best sort of wool for manufacturing shawls"
- h-kheg-s pa* "to hinder, obstruct"
 perf. *b-kag*
kheg-s
- h-kheb pa* "to spread over, cover"
 perf. *kab* extant in *kab kob* "skin" (cf. *s-kyab-s* "protection, defence")
kheb(-s) pa "to spread over, cover"
- h-khon pa* "to bear a grudge against a person, to be dissatisfied with"
 perf. *b-kon*
khon extant in *khon* "enmity, anger"
- h-khrid pa* "to lead, conduct"
 perf. *b-krid* extant in *b-krid dra* cf. Ch. D. p. 71.

Note. Instead of *b-krid* sometimes *b-kri ba* is used. It is a verb employed in the aspect of purpose (cf. § 18) along with the iterative *d-kri ba* "to conduct one's pupil from one stage of learning to another stage" (cf. § 14, 2) and the intensive *s-kri ba* "to conduct" (cf. § 17).

Forms as *b-kal*, *b-kag*, *kab*, *b-kon*, and *b-krid* have thus developed from a form with initial media (cf. § 2). In the present tense they became aspirated only in consequence of the addition of the prefix *h*. The corresponding stems with initial media are the following:

- b-kal ba* "to load" *h-gel ba* "to load"
b-kag pa "to hinder" *h-geg-s pa* "to hinder"
kab in contrast to *gab pa* "to hide (oneself)"
t-krid is a tertiary formation of the $\sqrt{*ga}$ (3) «head,» formed by means of *ra btags*, in connection with which we have *ablaut* (cf. § 5, note 4).
b-kal ba "to spin" originally also had a media stem, which is indicated by the form *gal* "trap, snare; constraint, compulsion"
b-kon the media stem is traceable only by means of the following words: *h-khon pa* "to be dissatisfied with, to dissent," *h-khon po* "discord, dissension," *d-gon pa*

“solitude, separation,” *d-gon pa pa* “one residing in the wilderness, hermit,” *b-god pa* “separation, to separate,” etc. (As regards substantive nouns cf. § 31).

γ) Media.

§ 34. In this group we distinguish four classes:

- 1) Verbs with the prefixes *d* and *b*;
- 2) Verbs with the prefix *h* and “old” perfect formation;
- 3) Verbs with the prefix *h* and “substitute” perfect formation;
- 4) Verbs with the prefixes *r* or *s* and perfect formation produced by “loose” (separable) formative elements.

The first group is comprised of verbs with the inseparable prefixes *d* or *b*. Verbs with the prefix *d* remain unchanged¹. Verbs with the prefix *b* form their perfect only by adding the suffix *s*. The strengthening of the perfect tense by means of the separable prefix *b* is quite impossible here. The future is the same in form as the present; verbs with final *d* lose this *d* to distinguish the future from the present. The imperative is formed by adding the suffix *s* (cf. § 30).

Examples:

<i>b-go ba</i>	<i>b-go-s</i>	<i>b-go</i>	<i>b-go-s</i>	“to put on clothes”
<i>b-god pa</i>	<i>b-go-s</i>	<i>b-go</i>	<i>b-go-s</i>	“to divide”
<i>b-gom pa</i>	<i>b-gom-s</i>	<i>b-gom</i>	[<i>b-gom-s</i>]	“to step, walk”
<i>b-gyid pa</i>	<i>b-gyi-s</i>	<i>b-gyi</i>	[<i>b-gyi-s</i>]	“to do” (elegant)
<i>b-graη ba</i>	<i>b-graη-s</i>	<i>b-graη</i>	[<i>b-graη-s</i>]	“to count, calculate”
<i>b-gruη ba</i>	<i>b-gruη-s</i>	<i>b-gruη</i>	(<i>b-gruη-s</i>)	“to strain, depurate”
<i>b-grud pa</i>	<i>b-gru-s</i>	<i>b-gru</i>	—	“to clear of husks”
<i>b-gre ba</i>	<i>b-gre-s</i>	<i>b-gre</i>	—	“to be old”
<i>b-gro ba</i>	<i>b-gro-s</i>	<i>b-gro</i>	(<i>b-gro-s</i>)	“to argue, discuss”

§ 35. The second group comprises verbs, whose originally inseparable prefix *b* (or sometimes *d*) was forcibly displaced by the prefix *h* of the present tense. As in the preceding group, the form with prefix *b* was employed also for the present tense, in contrast to which suffix *s* indicates the perfect tense. The original present tense form with prefix *b* is then replaced by the form with prefix *h*. In the perfect tense it may take suffix *s* and even lose the inseparable prefix *b*. In the future tense the form with iterative *d* (instead of *g*) is usually

¹ For this reason we do not enumerate them here.

employed. To form the imperative in this group aspiration is resorted to almost exclusively.

Examples:

<i>h-gom pa</i>	“to tread”	
perf. <i>b-gom-s pa</i>		(occurs also in the meaning of the present tense “to step, to walk”)
	<i>b-gom</i> in <i>b-gom bya</i>	“way, road”
[<i>b-</i>] <i>gom[-s] pa</i>		(a substantive noun of the perfect tense) “a step”
	<i>gom-s pa</i>	(an adjective noun of the perfect tense) “practised, skilled, wont”
fut. <i>d-gom</i>		imper. — —

The form *b-gom* (-s) is the older present tense form along with *h-gom*.

<i>h-geg-s pa</i>	“to hinder”	
perf. <i>b-geg-s pa</i>		} extant as substantive nouns of the perfect tense in the meaning of “hindrance, obstacle”
<i>b-gag-s</i>		
<i>gag-s</i>		
fut. <i>d-gag</i>		imper. <i>khog</i>

The forms *b-gag* (-s) or *b-geg* (-s) are the older present tense forms along with *h-geg-s pa*.

<i>h-geb-s pa</i>	“to hide, cover”	
perf. [<i>b-</i>] <i>gab pa</i>		(occurs also in the meaning of the present tense “to hide (one-self).”)
fut. <i>d-gab</i>		imper. <i>khob</i>

The form [*b-*]*gab* is the older present tense form along with *h-geb-s pa*.

<i>h-gud pa</i>	“to destroy, annihilate”	
perf. [<i>b-</i>] <i>gud</i>		
fut. — — —		imper. — — —

If the substantive iterative form *d-gun* “winter” can be brought into very close relationship with *h-gud pa*, as I firmly believe it can be, the postulation of a perfect form *b-gud* is fully justified.

<i>h-gol ba</i>	“to deviate, go astray”	
perf. * <i>[b-]gol</i>		is no longer traceable
fut. <i>d-gol</i>		imper. — — —

h-gyer ba “to let fall, throw down”
 perf. *b-gyer*
 fut. — — — imper. — — —

The form *b-gyer* is the older present tense form along with *h-gyer ba*.

§ 36. The third group is composed of verbs which have prefix *h* in the present tense and a “substitute” form for the perfect tense. In the older stage of the language, as already mentioned in §§ 34—35, the present tense of verbs with the inseparable prefixes *b* and *d* (instead of *g*) was not especially differentiated. Only the perfect and imperative forms were given diacritical elements; the future tense was rarely indicated (as for example in the case of verbs with a final *d* as in § 34 and the verbs in § 35). After the prefix *h*, characteristic for the present tense, had been introduced, and the verbs with “inseparable” prefix *b* had been stamped as belonging to the perfect, even though they still maintained their original function of the present tense, the exclusive use of such forms as *b-gom(-s) pa*, *b-geg(-s) pa*, *b-gyer ba*, etc., both for the present and the perfect was bound to produce doubt and uncertainty as to the tense. In fact, it became necessary to look for a suitable substitute which might indicate or stamp more precisely the perfect forms *b-gom(-s) pa*, *b-geg(-s)*, etc. This substitute was found in the tenuis form which corresponded to that of the media (cf. § 2). This tenuis form with inseparable prefix *b* was then “substituted” for the media form in the case of a number of verbs with initial media and prefix *b*. As a result we actually find side by side two perfect forms which are still markedly traceable. This same “substitute” perfect appeared also in the case of verbs which seemed to have no “inseparable” prefix *b*, but took prefix *h* nevertheless in the present tense. Future and imperative appear as in the former group (cf. § 35).

Examples:

h-god pa “to plan, design”
 old perfect: *b-god pa* “to divide” (s. § 34)
 subst. perf.: *b-kod pa* “to plan, build” (s. §§ 25—26)
 fut.: *d-god* imper.: *khod*

b-god pa originally was the form of the present tense, which had developed special forms for the perfect, future, and imperative as shown in § 34; *b-kod*

remained unchanged in all the tenses (s. § 25). Compare the above with *h-khod pa* in § 32, and the perfect substantive noun *b-kad pa* “placed in order, arrangement” in § 31, etc.

h-grem-s pa “to spread out, scatter”

old perfect: *b-gram pa* “separated, spread out”

subst. perf.: *b-kram pa* “to spread over, scatter”

(cf. § 4)

future: *d-gram* imper. *khrom-s*

b-kram pa has also the perfect form

b-kram-s (s. §§ 25—26)

h-gog pa “to take away, tear away”

old perfect: [*b-*]*gog pa* “to scale off (of the plaster of a wall)”

subst. perf.: *b-kog pa* (in accordance with §§ 25—26)

future: *d-gog* imper. *khog*

Compare here *h-khog-s pa* “decrepit, very infirm from old age” (s. § 32).

h-gel ba “to load, to lay on a burden”

old perfect: [*b-*]*gel ba* “to impose on” (s. § 35)

subst. perf.: *b-kal ba* (in accordance with §§ 25—26)

future: *d-gal* imper. *khol*

Compare here *h-khel ba*, perf. tense *khel*, “to load,” the later present tense form of *b-kal ba* (s. § 33), furthermore *h-khol ba* (s. § 3, 3 and § 4) “to make a person a slave” with its two perfect forms *b-kol* and *khol* (s. § 33), the latter still being extant in *khol po* “servant.”

h-grol ba “to make loose, set free”

old perfect: [*b-*]*grol ba* “to set free”

subst. perf.: *b-krol ba* “to untie, loosen” (in accordance with §§ 25—26)

future: *d-grol* imper. (*khrol*)

Compare *h-khrol ba* in § 32 and the future tense substantive noun *d-grol ba* “free will” (s. § 31).

Note. Substitution in the perfect tense of verbs with initial guttural media never occurs when these verbs are palatalized by *ya btags*. The following seems to be an exception:

present	perfect	future	imper.	
<i>ḥ-gye ba</i>	<i>gye-s</i>	—	<i>gye-s</i>	“to be dispersed, divided”
<i>ḥ-gyed pa</i>	<i>b-gye-s</i> (Ch. D)	<i>b-kye</i>	(<i>gye-s</i>)	“to disperse, divide”
	<i>b-kye-s</i> (A. H. Francke)			

The irregular future form *b-kye* of the causative *ḥ-gyes pa* is only comprehensible, if we surmise that *b-gye* really existed as a future form of *ḥ-gye ba*, derived from an original present form **b-gye ba*, which was finally forced to yield to the later present form *ḥ-gye ba*. Chandra Das mentions of *ḥ-gyed pa* only the perfect form *b-gye-s*; A. H. Francke is familiar with the form *b-kye-s*. This form may be the perfect of **b-kyed pa* or *b-kye ba*, probably of the latter, since *ḥ-gye ba* in West Tibetan means “to send somebody away.” The form *b-kye ba* is then the completive to *ḥ-gye ba*. It is not justifiable to regard *b-kye-s* as the perfect of a form **b-kyed pa* “to scatter,” since *ḥ-gyed pa* is already the causative of *ḥ-gye be*. Thus we have here also a “substitute” future:

§ 37. The fourth group comprises verbs with prefixes *r* and *s*. With reference to the tense formation of these compare §§ 27—30.

δ) Nasal.

§ 38. The verbs with initial nasal guttural sound are divided into two groups. The first class has as prefixes only *d* and *m*, while the other has *r* and *s*. The former indicate the perfect by means of the suffix *s*, and the latter are governed by the rules mentioned in §§ 27—30.

B. Dentals.

α) Tenuis.

§ 39. In the tenuis group we distinguish the following classes:

- 1) Verbs with the prefix *g*;
- 2) Verbs with the prefix *b*;
- 3) Verbs with the prefixes *r* or *s*;
- 4) Verbs with the prefix *l*.

If the tenses are distinguished at all by special characteristics, verbs with the prefix *g* in most cases employ the form with prefix

b for the perfect tense. In the future, the vowel *o* may be “weakened” to *a*, and the means mentioned in § 30 are utilized to form the imperative.

Examples:

<i>g-ton ba</i>	<i>b-taη</i>	<i>g-taη</i>	<i>thoη</i>	“to dismiss, send”
<i>g-tod pa</i>	<i>b-tad</i>	<i>g-tad</i>	<i>g-tod</i> <i>b-tod</i>	“to deliver up, hand over”
<i>g-tig-s pa</i>	<i>b-tig</i>	—	—	
<i>g-tug pa</i>	<i>b-tug</i>	—	—	“to reach, to meet with”
<i>g-tum pa</i>	<i>b-tum</i>	—	—	“to veil, cover”
<i>g-tor ba</i>	<i>b-tor</i>	—	—	“to scatter, strew”

Some verbs add the suffix *s* only as the sign of the perfect.

Examples:

<i>g-taη ba</i>	<i>g-taη[-s]</i>	<i>g-taη</i>	<i>(thoη)</i>	“to send”
<i>g-tad pa</i>	<i>g-tad</i>	<i>g-tad</i>	<i>(g-tod)</i>	“to give”
<i>g-tam pa</i>	{ <i>g-tam-s</i> <i>g-tom-s</i>	—	—	“to fill”
<i>g-tib pa</i>		<i>g-tib-s</i>	—	—
<i>g-tug pa</i>	<i>g-tug-s</i>	—	—	“to reach, meet with”
<i>g-tub pa</i>	<i>g-tub-s</i>	—	—	“to cut to pieces”

Still other verbs form the perfect only by means of *ablaut*.

Examples:

g-tor ba “to scatter, strew, throw away” with the perfect form *g-tar ba* in the sense of “to bleed human beings or animals”

g-tod pa “to direct, turn” with the perfect form *g-tad pa* in the meaning of “to press, urge”

§ 40. Verbs with prefix *b* only add the suffix *s* in the perfect tense.

Examples:

<i>b-tig pa</i>	<i>b-tig-s</i>	—	—	“to fall in drops” (cf. above <i>g-tig-s pa</i>)
<i>b-tig pa</i>	<i>b-tig-s</i>	<i>b-tig</i>	—	“to cause to fall in drops”
<i>b-tum pa</i>	<i>b-tum-s</i>	<i>b-tum</i>	—	“to wrap round, envelope” (cf. above <i>g-tum pa</i>)

§ 41. Verbs with the prefixes *r* and *s* are subject to the rules mentioned in §§ 27—30.

§ 42. Verbs with the prefix *l* are treated exactly like those with the prefix *r*.

Exception: *l-tuη ba l-huη* “to fall”

Note. In this entire group it is possible to use the perfect and future stems as substantive and adjective nouns (cf. § 31).

β Aspirate.

§ 43. Aspiration is maintained throughout the tenses, if it used to form intransitives from transitive verbs which have initial tenuis and media sound (cf. § 33).

Examples:

tenuis initial sound:

trans. *s-tib pa* "to offer (sacrifice)" = «to accumulate»

intr. *h-thib pa* "to be covered, darkened" (said of accumulating clouds) perf. *thib-s*

trans. *g-tor ba* "to scatter"

intr. *h-thor ba* "to be scattered" perf. *thor*

media initial sound:

trans. *h-deb-s pa* "to throw"

intr. *h-theb-s pa* "to be thrown" perf. *theb-s*

trans. *h-don pa* "to cause to go out"

intr. *h-thon pa* "to come forth" perf. *thon*

Note. In this group of verbs I have discovered two "form shifts." Beside the perfect form *thor* there exists another perfect *b-tor*, now used almost exclusively. For the future we have *g-tor* (cf. § 39). Chandra Das mentions *thor* on p. 595. If we take into consideration the subject matter presented in § 25, the form *thor* leads us to the assumption that all three tense forms sounded alike: present *thor*; perfect *thor*; future *thor*. — The second "form shift" appears in connection with *h-thib pa*. Here, instead of the perfect *thib-s* we sometimes find *g-tib-s*, which in reality belongs to *g-tib pa* (cf. § 39).

§ 44. If aspiration was added to the verbs merely for phonetical reasons we find two forms in the perfect tense, (cf. § 33).

Examples:

h-thag pa "to weave"

perf. *b-tag-s* (according to § 40)

thag(-s) extant in *thag pa* "rope, cord" and
thag-s "texture"

fut. *g-tag* imper. *thog*

h-thig pa "to cause to fall in drops, to distil"

perf. *b-tig-s* (according to § 40)

thig-s (pa) "to sprinkle; a drop"

fut. *b-tig* (according to § 40) imper. — — —

The verb *r-dib pa* "to crumble, fall to pieces, collapse" suggests itself as the medial predecessor of *h-thig pa* "to drop, to fall in drops" (cf. *h-dzig pa* "to decay, perish"), and with *h-thuŋ ba* "to drink" we may probably associate *du* "shell (used as a vessel of sacrifice)" or *du* "desire, lust."

With regard to substantive and adjective nouns in this connection again refer to § 31.

γ) Media.

§ 45. As was the case with the media class of the verbs with initial guttural sound, here we also have four groups:

- 1) Verbs with the "inseparable" prefix *g* or *b*;
- 2) Verbs with the prefix *h* and the "old" perfect formation;
- 3) Verbs with the prefix *h* and "substitute" perfect formation (cf. § 36);
- 4) Verbs with the prefixes *l* or *s*.

For the formation of the perfect and future tense of verbs belonging to the first group compare § 34.

Examples:

<i>g-daŋ ba</i>	<i>g-daŋ-s</i>	<i>g-daŋ</i>	—	"to open wide (the mouth and nostrils)"; "to stretch"
<i>g-dab pa</i>	<i>g-dab(-s)</i>	<i>g-dab</i>	—	"to put, plant"
<i>g-dam pa</i>	<i>g-dam-s</i>	<i>g-dam</i>	—	"to advise"
<i>g-du ba</i>	<i>g-du-s</i>	<i>g-du</i>	—	"to mingle"
<i>g-duŋ ba</i>	<i>g-duŋ-s</i>	<i>g-duŋ</i>	—	"to be pained by physical causes," "to long for"
<i>g-deŋ ba</i>	<i>g-deŋ-s</i>	<i>g-deŋ</i>	—	"to raise, lift"
[* <i>g-dum pa</i>	<i>g-dum-s</i>	* <i>g-dum</i>	—	"to become reconciled with"]
<i>b-daḥ ba</i>	<i>b-da-s</i>	<i>b-daḥ</i>	—	"to drive out"
<i>b-daḷ ba</i>	<i>b-dal</i>	<i>b-dal</i>	—	"to expend, to spread forth"
[* <i>b-du ba</i>	<i>b-du-s</i>	* <i>b-du</i>	—	"to gather, collect"]
<i>b-dug pa</i>	<i>b-dug-s</i>	<i>b-dug</i>	—	"to fumigate"
<i>b-duŋ ba</i>	<i>b-duŋ-s</i>	<i>b-duŋ</i>	—	"to bend the bow in order to shoot an arrow"

§ 46. With reference to the second group compare §§ 39—40. This group comprises a number of verbs (*h-deŋ ba*, *h-ded pa*, *h-doŋ ba*, *h-dor ba*, see examples below) which originally had no prefix. This also refers without exception to the verbs palatalized by *ra btags*. Therefore, we find no prefixes in the perfect nor in the future. Only

in the present do we have the tense sign prefix *h*. In connection with the verbs *h-dam pa*, *h-du ba*, and *h-dum pa* we find tense forms borrowed from the verbs mentioned in § 45.

Examples:

<i>h-dam pa</i>	}	<i>g-dam-s</i>	<i>g-dam</i>	<i>(h-)dom-s</i>	“to choose; to come together” (cf. <i>g-tam pa</i> in § 39)
<i>h-dom pa</i>			<i>(dam)</i>		
<i>h-du ba</i>	}	<i>b-du-s</i>	—	—	“to collect, accumulate” (cf. <i>h-thu ba</i> in § 44)
			<i>h-du-s</i>		
<i>h-dum pa</i>		<i>g-dum-s</i>	—	—	“to become reconciled with” (cf. <i>g-tum pa</i> in § 39)
<i>h-deŋ ba</i>		<i>deŋ</i>	<i>deŋ(-s)</i>	—	“to go, depart”
<i>h-ded pa</i>		<i>ded</i>	<i>ded</i>	—	“to pursue”
<i>h-doŋ ba</i>		<i>doŋ</i>	<i>doŋ</i>	—	“to go, proceed”
<i>h-dor ba</i>		<i>dor</i>	<i>dor</i>	—	“to cast forth”
<i>h-dral pa</i>		<i>dral</i>	<i>dral</i>	—	“to rend asunder”
<i>h-drub pa</i>		<i>drub(-s)</i>	<i>drub(-s)</i>	—	“to sew, embroider”
<i>h-drud pa</i>		<i>drud</i>	<i>drud</i>	—	“to rub,” and others.
cf. <i>h-dri ba</i>		<i>dri-s</i>	<i>dri-s</i>	(according to Conrady)	} (cf. § 26)
				“to ask, inquire”	
<i>h-dre ba</i>		<i>(h-)dre-s¹</i>	—	<i>(h-)dre-s¹</i>	“to be mixed up”

Exception:

<i>h-daḥ ba</i>	<i>h-da-s¹</i>	—	—	“to go beyond, pass away”
-----------------	---------------------------	---	---	---------------------------

as distinguished from *b-daḥ ba* *b-da-s²* “to put to flight”

§ 47. In connection with the third group compare § 36.

Examples:

<i>h-diŋ ba</i>	“to lay out (a mat)”
	old perf. <i>g-diŋ</i> (Ch. D. p. 660)
	subst. perf. <i>b-tiŋ</i>
	fut. <i>g-diŋ</i> imper. <i>thiŋ-s</i>
<i>h-dud pa</i>	“to bend, make a bow”
	old perf. <i>dud</i> (Ch. D., p. 629) (according to § 46)
	subst. perf. <i>b-tud</i>

¹ Here, prefix *h* has only been “carried over” from the present tense; compare later end of § 59.

² Concerning prefix *b* cf. § 16.2.

- old fut. *g-dud* (Amundsen p. 166)
 subst. fut. *b-tud* (cf. note to § 36) imper. *thud*
 also *dud* (Jäschke)
- h-dul ba* “to subdue”
 old perf. *dul* (Ch. D., p. 631) (according to § 46)
 subst. perf. *b-tul*
 fut. *g-dul* imper. *thul*
- h-deg(-s) pa* “to lift, raise, hoist”
 old perf. *deg* (according to § 46; extant in
deg go Ch. D., p. 638)
 subst. perf. *b-teg(-s)*
 fut. *g-deg* imper. *theg*
- h-deb-s pa* “to cast, throw (prayers)”
 old perf. *deb* (according to § 46; cf. Ch. D., sub
 voce *deb*, p. 639)
 subst. perf. *b-tab*
 fut. *g-dab* imper. *thob*
- h-dog(-s) pa* “to bind, fasten”
 old perf. *dog* (according to § 46; cf. Dh. D.,
 sub voce *dog*, p. 641, 2 and 3.)
 subst. perf. *b-tag-s*
 fut. *g-dag-s* imper. *thog-s*
 cf. *h-thag pa* and *h-thog pa* § 44.
- h-don pa* “to cause to go out, expel”
 old perf. *don* (according to § 46; cf. Ch. D., sub
 voce *don*, p. 643, II. 4)
 subst. perf. *b-ton*
 fut. *g-don* imper. *thon*

Note. We never find a “substitute” perfect with verbs which have initial media dental sound and are palatalized by *ra* *btags*.

§ 48. The rules mentioned in §§ 27—30 also apply to the fourth group.

δ) Nasal.

§ 49. The verbs with initial nasal dental sound, like those with initial nasal guttural sound (cf. § 38) are divided into two groups. The one class has as prefixes *g* or *m*, the other *r* or *s*. The former indicates the perfect by means of the suffix *s*, while the latter is governed by the rules mentioned in §§ 27—30.

C. Labials.

α) Tenuis.

§ 50. In the tenuis group only two classes need to be differentiated:

- 1) Verbs with prefix *d* (as substitute for *g* or *b*);
- 2) Verbs with prefix *s*.

If tense is indicated at all in the first group above, the perfect tense is shown by the suffix *s*. "Weakening" of the vowels takes place in the perfect and future.

Examples:

<i>d-pag pa</i>	<i>d-pag-s</i>	<i>d-pag</i>	—	"to measure"
<i>d-par ba</i>	<i>d-par</i>	<i>d-par</i>	—	"to order, command"
<i>d-pog pa</i>	<i>d-pag-s</i>	<i>d-pag</i>	—	"to measure, apportion"
<i>d-por ba</i>	<i>d-par</i>	<i>d-par</i>	—	"to prescribe, order"
<i>d-pyad pa</i>	<i>d-pyad</i>	<i>d-pyad</i>	—	"to investigate"
<i>d-pyaη ba</i>	<i>d-pyaη-s</i>	<i>d-pyaη</i>	<i>d-pyoη-s</i>	"to dangle, to make hang down"
<i>d-pyod pa</i>	<i>d-pyad</i>	<i>d-pyad</i>	—	"to investigate, to ex- amine into"

§ 51. Verbs with prefix *s* take only the suffix *s* as a sign of the perfect tense. Prefix *b* is never used.

β) Aspirates.

§ 52. Intransitives formed through aspiration retain, as do gutturals and dentals, the aspirate in all tenses (cf. § 32).

Examples:

Initial tenuis sound:

trans.	<i>s-pel ba</i>	"to augment"
intr.	<i>h-phel ba</i>	"to become more, increase" perf. <i>h-phel</i>
trans.	<i>d-pog pa</i>	"to measure" = «to make expand»
	<i>s-pog-s</i>	"profit, gain" = «that which was made to swell» based on $\sqrt{*ba}$ (3) «to swell, increase»
intr.	<i>h-phag pa</i>	"to ascend, to rise up" perf. <i>(h-)phag-s</i>
trans.	<i>s-pur ba</i>	"to make fly, to scare up"
intr.	<i>h-phur ba</i>	"to fly" perf. <i>phur</i>
trans.	<i>s-po ba</i>	"to change, remove (residence)"
intr.	<i>h-pho ba</i>	"to wander about" perf. <i>(h-)pho-s</i>
trans.	<i>s-pom</i>	extant in <i>s-pom s-pod</i> cf. Ch. D., p 803
intr.	<i>h-pham pa</i>	"to be defeated, subdued" perf. <i>pham</i>
trans.	<i>s-prod pa</i>	"to give, deliver"

intr. *ḥ-phrod pa* “to be given, delivered” perf. *phrod*

trans. *d-pyo ba* “to change”

intr. *ḥ-phyo ba* “to flow forth (of fluids); to float” perf.
(ḥ-)phyo-s

trans. *s-pro ba* “to make go out, disperse” (Jäschke)

intr. *ḥ-phro ba* “to emanate from, to diffuse” perf. *(ḥ-)phro-s*

For the following verbs the corresponding transitives are no longer to be found:

phēb pa *phēb-s* “to go, to come”

ḥ-phuṅ ba *phuṅ* “to degenerate, decay”

ḥ-phye ba *(ḥ-)phye-s* “to crawl, creep”

In this class there are no intransitives corresponding to transitives with initial media sound.

§ 53. Verbs which have aspiration for phonetical reasons have, like the gutturals, two perfect tenses.

Examples:

ḥ-phāṅ ba “to spare”

perf. $\left\{ \begin{array}{l} s-pāṅ-s \quad \text{“to give up, abandon”} \\ (ḥ-)phāṅ-s \end{array} \right.$

ḥ-phēn pa “to throw” (instead of former **d-pāṅ ba*)

perf. $\left\{ \begin{array}{l} d-pāṅ-s \quad \text{used as a noun of the perfect} \\ \quad \quad \quad \text{tense in the sense of “the} \\ \quad \quad \quad \text{height”} \\ (ḥ-)phāṅ-s \quad \text{also occurs as a substantive noun} \\ \quad \quad \quad \text{of the perfect tense in the} \\ \quad \quad \quad \text{meaning of “the height”} \end{array} \right.$

ḥ-phig(-s) pa “to pierce into, bore”

perf. $\left\{ \begin{array}{l} *s-pig, \quad \text{perhaps preserved in } s-pig \text{ rdzong} \\ \quad \quad \quad \text{cf. Ch. D., p. 798} \\ phig-s \end{array} \right.$

ḥ-phya ba “to blame, chide”

perf. $\left\{ \begin{array}{l} d-pya-s, \quad \text{extant in } d-pya-s \text{ po “fault,} \\ \quad \quad \quad \text{blunder” from } d-pya \text{ ba “to} \\ \quad \quad \quad \text{blame”. Ch. D. supposes } d-pya \\ \quad \quad \quad \text{to be of Indian origin (p. 793).} \\ ḥ-phya-s \end{array} \right.$

ḥ-phub pa “to pitch (a tent)”

perf. $\left\{ \begin{array}{l} s-pub(-s) \quad \text{“to reverse, turn upside down”} \\ phub-s \quad \quad \text{“to put on a roof”} \end{array} \right.$

ḥ-phyaṅ pa “to sweep”

perf. $\left\{ \begin{array}{l} s\text{-}pag\text{-}s \quad \text{“to shift, remove” The form with} \\ (\text{h-})phyag\text{-}s \quad ya \text{ } btags \text{ does no longer exist.} \end{array} \right.$
h-phyay ba “to hang on to, to cling to”

perf. $\left\{ \begin{array}{l} s\text{-}pyay\text{-}s \text{ } pa \quad \text{“having seized” (Ch. D., p. 804)} \\ \text{h-}phyay\text{-}s \end{array} \right.$
h-phyay ba “to hang down, be suspended”

perf. $\left\{ \begin{array}{l} d\text{-}pyay \text{ } ba \text{ (cf. § 50)} \\ \text{h-}phyay\text{-}s \end{array} \right.$
h-phyar ba “to hoist, lift up; to show, represent”

perf. $\left\{ \begin{array}{l} s\text{-}por \text{ } ba \\ d\text{-}por \text{ } ba \text{ (cf. § 50)} \\ \text{ } phyar \quad \text{imper. } \text{h-}phyor \end{array} \right.$
h-phral ba “to separate, divide”

perf. $\left\{ \begin{array}{l} d\text{-}bral \quad (d\text{-}bral \text{ } ba \text{ “taking off, flaying”}; \\ \quad \quad \quad \text{prefix } d \text{ causative. cf. } \text{h-}bral \text{ } ba \\ \quad \quad \quad \text{in § 55.} \\ \text{ } phral \end{array} \right.$

d-bral is usually considered only as a form of the future tense. However, originally it indicated all tenses (cf. § 54, end). Through the introduction of the present prefix *h* it became necessary to replace the form *h-bral*, which had the meaning of “to be separated,” by *h-phral* — hence the two perfect forms *d-bral* and *phral*.

h-phrad pa “to interview, meet together”

perf. $\left\{ \begin{array}{l} s\text{-}prad \\ \text{ } phrad \quad \text{fut. } phrad \end{array} \right.$

h-phri ba “to diminish, take away from”

perf. $\left\{ \begin{array}{l} d\text{-}pri\text{-}(s) \\ \text{ } phri\text{-}s \end{array} \right.$

fut. *d-pri* (cf. Ch. D., p. 854) Imper. *phri-s* compare with this the corresponding intransitive *d-bri ba*, perf. *d-bri(-s)*, and the verb *h-bri ba*, perf. *(d-)bri(-s)*, fut. *d-bri* “to be diminished.”

h-phrog pa “to rob”

perf. $\left\{ \begin{array}{l} d\text{-}brog \\ \text{ } phrog\text{-}s \end{array} \right.$

fut. *d-brog* imper. *phrog-s*

d-brog indicated originally all tenses (cf. § 54,

end). The present tense form *h-brog* must have been exchanged with *h-phrog*, because *h-brog* already existed in the sense of “solitude, uncultivated land”, cf. *d-brog pa* “to forget.”

We should note that in this group there are perfect forms with the prefix *s* for the verbs *h-phay ba*, *h-phig-s pa*, *h-phub pa*, *h-pyag pa*, *h-phyay ba*, *h-phyar ba*, and *h-phrad pa*. — In § 29, note, and § 60 it is expressly stated that verbs with prefix *r*, *l*, and *s* never form the present tense with *h*. The two verbs *h-phel ba* and *h-phyar ba* have the double perfect tense forms *s-pel* and *s-por*, and *d-pal* and *d-por*. *d-pal* and *d-por* are older forms than *s-pel* and *s-por*, cf. prefix *d* and *s* before labials in §§ 15—17. If the forms *h-phay ba*, *h-phig-s pa*, etc., can be identified in the old present tense forms **s-pay*, **s-pig*, etc., we cannot go far wrong in assuming the existence of lost forms with prefix *d*.

Note. The media origin of this group of verbs (cf. § 53) is also traceable.

Compare:

<i>h-phay ba</i>	“to spare”	<i>s-bon ba</i>	“to abstain from”
<i>h-phig-s pa</i>	“to pierce into”	<i>h-big-s pa</i>	“to pierce into”
<i>h-phub pa</i>	“to pitch (a tent)”	<i>h-bub-s pa</i>	“to put on a roof”
<i>h-phyag pa</i>	“to sweep”	<i>h-bag pa</i>	“to take away”
<i>h-phri ba</i>	“to diminish”	<i>h-bri ba</i>	“to diminish”
<i>h-phyay ba</i>	“to cling to”	<i>h-thšay</i> < <i>g-deŋ</i>	“confidence” (see $\sqrt{*da}$ (3))

<i>h-phen pa</i>	“to throw” based on $\sqrt{*ba}$ (5), to which also belongs	<i>h-bor ba</i>	“to throw”
<i>h-phel ba</i>	“to augment” based on $\sqrt{*ba}$ (3), to which also on belongs	<i>h-bar ba</i>	“to become ignited”
<i>h-phyal ba</i>	“to chide” based on $\sqrt{*ba}$ (4)		«to diminish»
<i>h-phyay ba</i>	“to hang down” based on $\sqrt{*ba}$ (4)		
<i>h-phral ba</i>	and <i>h-phrog pa</i>		see above
<i>h-phrad pa</i>	“to meet together” . . . ?		

For substantives and adjectives cf. § 31.

γ) Media.

§ 54. We distinguish here four groups (cf. also §§ 39—46):

- 1) Verbs with the “inseparable” prefix *d* or without prefix;
- 2) Verbs with prefix *h* and the “old” perfect tense:

3) Verbs with prefix *h* and the "substitute" perfect tense;

4) Verbs with prefix *s*.

For the tense formation of the first group cf. § 34.

Examples:

<i>byab pa</i>	<i>byab-s</i>	<i>byab</i>	[* <i>byob-s</i>]	"to cleanse, wash"
<i>byib pa</i>	<i>byib-s</i>	<i>byib</i>	[* <i>byib-s</i>]	"to hide, envelop"
<i>byil ba</i>	<i>byil</i>	<i>byil</i>	(<i>byil</i>)	"to pat (a person's head)"
<i>byed pa</i>	<i>bya-s</i>	<i>bya</i>	<i>byo-s</i>	"to make, do"
<i>byer ba</i>	<i>byer</i>	<i>byer</i>	(<i>byer</i>)	"to separate, disintegrate"
<i>bran pa</i>	<i>bran</i>	<i>bran</i>	(<i>bran</i>)	"to saturate with water"
<i>brug pa</i>	<i>brug(-s)</i>	<i>brug</i>	[* <i>brug-s</i>]	"to stream out, gush forth"
<i>brul ba</i>	<i>brul</i>	<i>brul</i>	(<i>brul</i>)	"to crumble, fall to pieces"
<i>bred pa</i>	<i>bred</i>	<i>bred</i>	(<i>bred</i>)	"to be alarmed, depressed"
<i>brel ba</i>	<i>brel</i>	<i>brel</i>	(<i>brel</i>)	"to be busy, engaged"
[<i>blag pa</i> ¹	<i>blag-s</i>	<i>blag</i>	—	"to hearken to"
[<i>blu ba</i> ¹	<i>blu-s</i>	<i>blu</i>	[* <i>blu-s</i>]	"to ransom, redeem"
<i>d-bur ba</i>	<i>d-bur</i>	<i>d-bur</i>	—	"to smooth"
<i>d-bol ba</i>	<i>d-bol</i>	<i>d-bol</i>	—	"to draw up water from a tank"
<i>d-byuŋ ba</i>	<i>d-byuŋ(-s)</i>	<i>d-byuŋ</i>	[* <i>d-byuŋ-s</i>]	"to turn out, banish"
<i>d-byug pa</i>	<i>d-byug-s</i>	<i>d-byug</i>	[* <i>d-byug-s</i>]	"to shake" (Amundsen)
<i>d-bye ba</i>	<i>d-bye-s</i>	<i>d-bye</i>	[* <i>d-bye-s</i>]	"to differentiate"
<i>d-bral ba</i>	<i>d-bral</i>	<i>d-bral</i>	[* <i>d-brol</i>]	"to separate"
<i>d-brog pa</i>	<i>d-brog</i>	<i>d-brog</i>	[* <i>d-brog</i>]	"to rob"
<i>d-brog pa</i>	<i>d-brog[-s]</i>	<i>d-brog</i>	[* <i>d-brog</i>]	"to forget"

§ 55. For the second group cf. § 40. The few verbs of this group, which have a prefix at all in the perfect or future, have prefix *d*.

¹ Conrady, as he told me, is of the opinion that "b" is a prefix in *blag pa* and *blu ba*.

Examples :

<i>h-bag pa</i>	<i>d-bag-s</i>	} <i>d-bag</i>	—	“to defile, pollute oneself”
	(<i>h-</i>) <i>bag-s</i>			
<i>h-bad pa</i>	(<i>d-bad</i> ?)	—	(<i>h--</i>) <i>bod</i>	“to try, make effort”
<i>h-bab pa</i>	<i>bab(-s)</i>	—	{ (<i>h-</i>) <i>bob</i> (<i>h-</i>) <i>bob-s</i>	“to descend, fall down”
<i>h-bal ba</i>	(<i>h-</i>) <i>bal</i>	} <i>d-bal</i>		
	(<i>d-bal</i> ?)			
<i>h-bu ba</i>	<i>h-bu-s</i>	—	—	“to open, unfold”
(original <i>d-bu-s</i> and <i>d-bu</i> is still preserved in numberless examples.)				
<i>h-bud pa</i>	<i>bud</i>	—	—	“to fall down”
<i>h-bub pa</i>	<i>bub</i>	—	} <i>bub-s</i> <i>bib-s</i>	“to be turned over upside down”
<i>h-bib(-s) pa</i>	<i>bib</i>	—		
<i>h-bur pa</i>	(<i>bur</i>)	<i>bur</i>	—	“to rise, swell up”
(<i>h-</i>) <i>bod pa</i>	<i>bo-s</i>	—	<i>bo-s</i>	“to call; to invite”
<i>h-bor ba</i>	<i>bor</i>	(<i>bor</i>)	<i>bor</i>	“to throw, fling”
<i>h-byan ba</i>	<i>byan(-s)</i>	<i>byan</i>	[* <i>byon-s</i>]	“to clean, purify”
<i>h-byam pa</i>	(<i>h-</i>) <i>byam-s</i>	—	—	“to flow over”
<i>h-byin ba</i>	<i>byin(-s)</i>	<i>byin</i>	[* <i>byin-s</i>]	“to sink down”
<i>h-byug pa</i>	<i>byug(-s)</i>	(<i>byug</i>)	<i>byug-s</i>	“to wet, moisten”
(cf. <i>d-byug pa</i> in § 54)				
<i>h-byun ba</i>	<i>byun(-s)</i>	<i>byun</i>	<i>byun(-s)</i>	“to come forth”
(cf. <i>d-byun ba</i> in § 54)				
<i>h-byer ba</i>	<i>byer</i>	(<i>byer</i>)	<i>byer</i>	“to escape by flight”
<i>h-byog pa</i>	<i>byog-s</i>	(<i>byog</i>)	(<i>byog-s</i>)	“to lick”
<i>h-byon ba</i>	<i>byan</i>	<i>byan</i>	[* <i>byon-s</i>]	“to be cleansed”
<i>h-byon pa</i>	<i>byon</i>	—	<i>byon</i>	“to arrive”
<i>h-byor ba</i>	{ <i>h-byar</i> <i>byar</i> or	—	—	“to be prepared, be ready”
	<i>byor</i> (?)			
<i>h-byol ba</i>	{ <i>byol</i> <i>d-byol</i>	<i>d-byol</i>	<i>byol</i>	“to give or make way”
<i>h-bran ba</i>	} (<i>h-</i>) <i>bran-s</i>	—	(<i>h-</i>) <i>bron-s</i>	“to follow, go after”
<i>h-bren ba</i>				
<i>h-brad pa</i>	{ <i>brad</i> <i>d-brad</i>	—	<i>brod</i>	“to tear with the claws”

<i>ḥ-brab pa</i>	$\left\{ \begin{array}{l} \textit{brab} \\ \textit{d-brab} \end{array} \right.$	—	<i>brob</i>	“to beat, scourge”
<i>ḥ-bral ba</i>		<i>bral</i>	(<i>bral</i>)	<i>brol</i>
<i>ḥ-bri ba</i>	<i>bri-s</i>	(<i>bri</i>)	<i>bri-s</i>	“to write”
<i>ḥ-bri ba</i>	$\left\{ \begin{array}{l} \textit{bri} \text{ (cp. perf. } \textit{bri-s} \text{ of } \\ \textit{d-bri} \text{ } \textit{ḥ-bri ba} \text{ “to write”)} \end{array} \right.$	—	—	“to grow less”
<i>ḥ-brid pa</i>		<i>brid</i>	—	—
<i>ḥ-brim pa</i>	<i>brim-s</i>	—	—	“to distribute”
(<i>ḥ</i> -) <i>bru ba</i>	<i>bru-s</i>	—	<i>bru-s</i>	“to pry into”
<i>ḥ-brud pa</i>	<i>brud</i>	<i>brud</i>	—	“to rub”
<i>ḥ-brub pa</i>	<i>brub(-s)</i>	<i>brub</i>	—	“to overflow”
<i>ḥ-bre ba</i>	<i>bre-s</i>	(<i>bre</i>)	<i>bre-s</i>	“to screen off, spread over”
	(cf. <i>d-bre-s pa</i> “dirt, filth”)			
<i>ḥ-breg pa</i>	<i>breg(-s)</i>	(<i>brog</i>)	<i>brog(-s)</i>	“to amputate”
<i>ḥ-brel ba</i>	<i>brél</i>	—	—	“to adhere together”
	(according to Jäschke <i>brél ba</i> is not the same as <i>ḥ-brel ba</i> ; I consider, however, both the same.)			
<i>ḥ-broy pa</i>	<i>broŋ</i>	—	—	“to wait upon, serve”
<i>ḥ-bro-s pa</i>	(<i>ḥ</i> -) <i>bro-s</i>	<i>ḥ-bro-s</i>	—	“to run away, escape”

In the “Preliminary Notes” a complete list of certain verb classes was promised. I have made these lists purposely in those classes in which difficulties might possibly arise that could be avoided by a complete enumeration of the verbs in consideration. The lists of verbs with initial media sound serve to strengthen the original assumption that the media vowel is the most primitive element of a word. Of the many verbs in this group there are only a few, in which prefix *ḥ* has replaced another prefix. The greater part of them had originally no prefix at all and could be used indiscriminately for all tenses (cf. § 25).

§ 56. For the third group cf. §§ 36 and 53.

ḥ-bub-s pa “to put on a roof or something for a roof”

old perf. *bub-s* “something entire,” «that which is rounded up» (cf. *ḥ-bub pa* in § 55).

subst. perf. *phub-s* (cf. *ḥ-phub pa*)

fut. *d-bub* imper. *phub-s*

- h-bul ba* “to give, proffer, send”
 old perf. *d-bul* (cf. Ch. D., sub *h-bul ba* as syn.,
 p. 921)
 subst. perf. *phul* (according to § 53)
 fut. *d-bul* imper. *phul*
- h-big(-s) pa* “to pierce into, bore”
 old perf. **big-s* (no more extant)
 subst. perf. *phig-s* (cf. *h-phig(-s) pa* in § 53)
 fut. *d-big* imper. *phig-s*
- h-beb-s pa* “to cause to descend, throw down”
 old perf. *d-bab (pa)* “devotedness”
 subst. perf. *phab* (according to § 53)
 fut. *d-bab* imper. *phob*
- h-bog-s pa* “to bestow, impart”
 old perf. *bog-s*, a perfect noun: “benefit, ad-
 vantage”
 subst. perf. *phog* (according to § 53)
 fut. *d-bog* imper. *phog* (cf. *d-pog* in § 50
 ad 1)
- h-byin pa* (substituted for **h-phyun ba = d-byun ba*, cf. § 22)
 “to let proceed”
 old perf. *d-byun ba* (cf. *d-byun ba* in § 54)
 subst. perf. *phyun* (according to § 53)
 fut. *d-byun* imper. *phyun*
- h-byed pa* “to open, unloose”
 old perf. *d-bye-s*, a perfect noun: “magnitude,
 dimensions”
 subst. perf. *phye-s, phyed, phye* (according to § 53)
 fut. *d-bye* imper. *phye-s*
- h-byo ba* “to pour into another vessel”
 old perf. *byo[-s]*
 subst. perf. *phyo(-s)* (cf. *h-phyo ba* in § 52)
 fut. *byo (?)* imper. *phyo*

Note: Verbs with initial media labial sound, which have been palatalized by *ra btags* do not have a substitute perfect.

§ 57. The fourth group comprises verbs with prefix *s*, which are subject to the rules in §§ 27—30. There is in this group but one verb with prefix *r* (namely *r-bad pa* “to irritate”) and none at all with prefix *l*.

δ) Nasal.

§ 58. A. Verbs with initial nasal labial sound may be divided into three groups:

- 1) Verbs without prefix;
- 2) Verbs with prefix *d*;
- 3) Verbs with prefix *r* or *s*.

The verbs of group 1) and 2) indicate the perfect by means of the suffix *s*. Verbs of the third group are governed by the rules given in §§ 27—30.

B. The verbs with initial guttural, dental and labial sound afford an adequate sketch of tense formation. The palatal verbs represent a much later period and also offer many more difficulties. We shall take up the tense formation of the palatal verbs a little later (cf. §§ 81 seq.), following a discussion of the origin, development, and the characteristic features of all palatal verbs and their derivatives.

As far as the temporal suffixes are concerned, we have seen that the perfect tense makes use of the suffix *s* and prefix *b* (or *d* before labials), while the future employs the prefix *g* (or *d* before gutturals and labials), especially in cases where no phonetical changes or difficulties arise from these affixes, and in those instances where the tenses are formed by means of a shifting of classes (substitution). All that remains now is to devote a chapter to the prefix *h*.

3) Prefix *h*.

§ 59. I have hesitated considerably in offering a definite opinion on the prefix *h* in its relation to the verb. Aided by the discovery of the psychology involved, as it manifests itself in the use of the temporal suffixes *b*, *g*, or *d*, and by the observations made by F. O. Schrader, discussed in his article "Siamese Mute *h*" (Asia Major, January, 1926), I have come to the conclusion that in Tibetan prefix *h* plays practically the same part as prefixed *h* (ḥ) in Siamese. It does not, however, stand out as a tone-sign with the same definiteness as in Siamese, but, like all other Tibetan affixes, functions rather as a concept-and word-forming prefix, having exactly the same meaning as suffix *h*, i. e. "emphasis, perseverance" (cf. § 13a). In contrast to the iterative *g* or *d*, which was especially adapted to form the future, the prefix *h*

was used to show an action going on in the present, thus indicating the present tense.

In most cases, the words with prefix *h* in reality are present tense forms, which at the same time appear as substantive nouns, e. g. *h-khor ba* "to turn around; rotary existence"; *h-gyur ba* "to become, grow," *h-gyur* "change, alteration"; *h-gyiṅ ba* "to assume air of greatness," *h-gyiṅ pa* "an appearance of greatness"; *h-khyom pa* "to reel; giddiness," etc. — In this case prefix *h* is a so-called "loose" prefix and apparently the most recent of the temporal suffixes.

We find, in addition, a number of substantive nouns which in no sense may be taken as formations of the present tense, such as *h-go* "the beginning," *h-gaṅ* "hedge-hog," *h-di* "this," *h-tho* "a span," *h-bog* "an upper-garment," *h-boṅ* "roundness," *h-džiṅ* "expanse, the whole bulk," etc. — From such examples it is evident that we are dealing with an "inseparable" prefix *h*, likewise having the effect of emphasis or continuity, thereby in a sense crystalizing the effect previously obtained by means of the suffix or other word forming elements. No doubt, "inseparable" prefix *h* must have served a specific function: that of producing emphasis. Compare *go* "position, rank," *h-go* "foremost, in front"; *gaṅ* "rounded, vaulted," *h-gaṅ* and *r-gaṅ* "hedge-hog"; *tha* > **tho* "reaching to" with *h-tho* or *m-tho* "a span, between thumb and middle finger," etc. — In fact, it would seem that prefix *h* was very closely related to prefix *s*, as we may conclude from *h-go* and *s-go* "the beginning." This corresponds to the above observation that Tibetan prefixed *h* (there is no prefixed *h* in Tibetan) is equal to Siamese prefixed *h*. The latter, undoubtedly, serves the same purpose as Tibetan *s*. Compare the following examples mentioned in F. O. Schrader, "Siamese Mute h":

Siamese		Tibetan	
<i>hna₂</i>	"face; opposite to"	<i>s-na</i>	"nose, top, summit"
<i>hṅōn</i>	"tuft, comb, crown"	<i>s-ṅon du</i>	"at the head, in front of"
<i>hnäṅ</i>	"to suspect"	<i>b-s-ñeṅ-s pa</i>	"to fear"
<i>hnun</i>	"to strengthen"	<i>s-nun pa</i>	"to multiply"
<i>hṅap</i>	"hasty, quick"	<i>s-ñab-s pa</i>	"to stretch out the hand in order to grasp," etc.

Now, in certain dialects this prefix *h* has a sound similar to *h* + svarabactic *a*¹, or the sound of a plain *a*. This fact led many a Tibetologist to transcribe prefix *h* by *a*. But in agreement with Siamese and Burmese², this prefix must be represented by *h*, which really is a *spiritus asper*. This transcription by *a* may suggest that the present tense prefix *h* (*a*) is identical with the old Tibetan demonstrative pronoun *a*, but this theory cannot be substantiated, because the demonstrative *a* is represented by ཨ and not by ར. Concerning the demonstrative pronoun as such compare B. Laufer, "The prefix *a*- in the Indo-Chinese Languages" in J. R. A. S. October 1915, p. 775, and see also in the T'oung Pao 1914, note on p. 56.

Prefix *h* stands before *g*, *kh*, *d*, *th*, *b*, *ph*, *dž*, *thš*, *dz*, and *ths*.

Prefix *h* necessitates for phonetical reasons the aspirate before the tenuis (cf. § 8,2). It never serves as a present tense sign in verbs with the prefixes *r*, *l*, or *s*³. It is interchangeable only with the truly "inseparable" prefixes *b*, *g*, or *d*.

In certain cases prefix *h* is found in the perfect of guttural, dental, and labial verbs, and in the imperative of dental and labial verbs.

¹ This probably also explains the singular form *ha og ba* "to understand, perceive." Due to the fact that in Tibetan script a dot (Tib. *thseg*) is placed after the *h* in *ha go ba*, the *h* must not be taken as a prefix, but as an independent syllable. It may be, however, entirely possible that this *h* occurred in place of the original *h*, which in this case undoubtedly was especially emphasized in order to differentiate it from the other three words *h-go*: *h-go* "the beginning," *h-go* "foremost, in front," *h-go ba* "to dirty, sully oneself." Compare also § 77.

² As in Siamese, there exists also in Burmese the prefixed *h* which corresponds to *h* in Tibetan. In Burmese, this *h* (pronounced nasally) can be prefixed (in pronunciation, but in writing, subfixed) to such consonants as have no special aspirate forms (as is the case with the gutturals *k*, *kh*, the dentals *t*, *th*, etc.) Aspiration produces causatives in Burmese, as already indicated in § 8. Prefixed (or subfixed) *h* arises in the same or similar relation.

Compare:

<i>lä</i>	"to fall"	<i>hlä</i>	"to fell"
<i>lwä</i>	"to err"	<i>hlwä</i>	"to exchange"
<i>lwat</i>	"to be free"	<i>hlwat</i>	"to set free"
<i>nwam̥</i>	"to be tiresome"	<i>hnwam̥</i>	"to tire someone"
<i>naiu̥</i>	"to awake"	<i>hnaiu̥</i>	"to wake"
<i>mray</i> ◦	"to be high"	<i>hmray</i> ◦	"to lift"
<i>mr̥</i>	"to be afloat"	<i>hmr̥</i>	"to let float" etc.

(In regard to a suitable system of transcribing Burmese, let me refer to my article "Transcription of the Burmese Language," now in preparation).

³ For a few exceptions see § 53).

It does not seem to me necessary in either case; it has only slipped over into these tenses in the same way as perfect suffix *s* slipped into the present (cf. § 23). Furthermore, we are not entirely justified in considering prefix *h* as a means of forming the imperative, since, except in the case of verbs with the vowel *u*, only those means listed in § 30 come into consideration. Verbs with the vowel *u* may perhaps attract prefix *h* for the formation of the imperative.

Lepsius sought to find the source of *h* in *g* and *d* (s. "Über chinesische und tibetische Lautverhältnisse," Abh. d. Berl. Ak. (1861), p. 482) and Conrady classified it together with *m* (s. ICDB, p. 23). Both attempts at explaining the *h* are untenable on the basis of the present position of our investigation. The first completely mangles unassailable evidence and the proof for the latter is very insecure. Conrady bases his opinion on the fact that in Central Tibet *m* is pronounced like *a*, while "in Khams durchweg, im übrigen Tibet wenigstens in Compositis, die nasale Artikulation des Präfixes gehört wird, z. B. *kam-bum bka-abum* und die Tibetisierungen *kha ada* (neben *khan-da*) für skr. *khaṇḍa*, *abi-abi* für skr. *bimbi*, etc." We are dealing here, however, only with a sort of assimilation of *h* in two words or syllables, the first of which ends in a vowel and the second of which begins with *h*, which becomes nasalized, the nasal being always of the same class as the following consonant. This process is not an adequate basis for making *h* of equal value with *m*, nor for constructing with the help of parallel forms in Singpo, Katšari, etc., a basic form **ma* for the Tibetan.

Furthermore, in respect to the meaning of prefix *h*, I perceive in the ICDB that Conrady's feeling for the *h* is similar to mine in that he gives it a durative character especially with intransitives (p. 20ff.), through which the copulative verb "to be" is possibly expressed. For this reason Conrady arrived at the opinion (now regarded as fallacious) that by far the greatest number of the *kh*-formations were intransitives as a result of the intransitive *h*. The aspiration of *k*-formations is, as we have already seen in detail, semasiologically and phonetically obligatory, semasiologically absolutely without the influence of the prefix *h*, and phonetically only through its influence.

§ 60. We are here at the end of our discussion of the formative elements. There follows a brief summary of the most important points. The "inseparable" and "separable" formative elements must be differentiated. The inseparable formative elements serve for the **building up of the words** and cannot be separated from

the word as a whole. Only the prefixes *b*, *g*, or *d* and sometimes *m* (cf. *m-thšad pa* and *h-thšad pa* "killed, slain," etc.) may be displaced by the "separable" prefix *h*. The "separable" formative elements serve only for the building up of tenses and are, with the exception of prefix *h*, borrowed from the "inseparable."

§ 61. To trace the origin of the prefixes is for the time being, considering our present knowledge of the monosyllabic languages, a formidable, if not altogether hopeless undertaking. Even the very earliest roots avail themselves of the prefixes, compare *go* "chieftain," *m-go* "head," *h-go* "beginning," *b-go* "dress, garment," *d-go* "antelope," *r-go* "antelope," *s-go* "door, entrance;" or **da* «to be transferred,» *h-dah* "to go over," *b-dah* "to carry away," *m-dah* "arrow"; or *bo ba* "to expand as a bubble" *h-bo ba* "to swell up," *d-bo ba* "to swell up repeatedly," etc.

It seems possible at present to unravel the meaning of prefixes in certain substantives. B. Laufer conjectures in his "Prefix *a-* in the Indo-Chinese Languages" that *l-tše* "tongue" is a combination of the two elements *le* + *tše*, since the former has remained above all in the Gurung-dialect as well as in many other Indo-Chinese and Austro-Asiatic languages and survives as *la* in Si-hia; the second corresponds to Chinese *shê*². He conjectures further that *g-ser* "gold" developed out of *ge* (*ke*) + *ser*, as the comparison with Mo-so *k-se*, Miao-tse *ko* and Si-hia *k'ä* confirms, and that prefix *r* in *r-ta* is to be traced back to *rö-tà*, as the two forms *mo-ró* (Jya ruñ) and *riñ-ro* (Si-hia) seem to indicate. Such examples may refer only to substantive nouns, especially to those which were originally synonym compounds. On the other hand, words such as *mi* "man", *lus* "body," etc. functioned as numeratives and then developed into the corresponding prefixes of substantives. B. Laufer also came to this conclusion in his *Bird Divination amongst the Tibetans*, p. 109. In the same monograph Laufer also demonstrates that certain prefixes, for example *s* and *l* were used as graphical signs for tone-pitch (pp. 79, 83, and 105). Such an explanation for the prefixes of verbs is applicable but rarely.

Apparently the greater part of the formative elements are to be explained neither from the Tibetan nor even from the Indo-Chinese itself, for the problem of their origin implies nothing less than that of the origin of the Tibetan language. We know no stage of the language where, for example, a full syllable or word stood in the place of prefix *d*, and only through comparison with other speech families may such a

reconstructed form be obtained, provided the reconstruction is possible and permissible. The time has not yet come for this comparison. The ways, however, which it must follow, we claim to perceive. There are, it seems, three ways.

The first Laufer indicated in his *Bird Divination* (as already mentioned above), where he says on p. 109: "In all Indo-Chinese languages the original significance of the majority of them (numeratives) can no longer be made out, and will probably remain obscure." He maintains that the suffixes *m*, *l*, and *r* occur in connection with words referring to parts of the body (a fact with which not much can be done.) It is clear that we have here to do with the same peculiarity which is characteristic for example in the Bantu languages — classification of nomina by means of certain fore-syllables. So far as the Bantu speeches are concerned, there is no doubt that the fore-syllables which grew out of independent words such as "man," "animal," "implement" still imperfectly indicate the ever expanding classes of words. Thus there exist Tibetan prefixes which are to be viewed as the surviving first member of a former compound of noun + noun or noun + verb (as possibly in *l-dad pa* "to chew," *l-dag pa* "to lick," etc.).

The second case, to which we wish to draw attention, does not deal with composites, but with uncompounded, originally two-syllabled words, whose first syllable has atrophied as a result of heavy stress on the last syllable. End-stress is a recognized characteristic of the Turkish languages. If one compares, for example, the Osmanli-Turkish *doquz* "nine" with the Tibetan *d-gu* "nine" it is clear what has happened (the identity of the two words has not yet been proved, although it is scarcely open to doubt). This obviously does not mean that Tibetan is only a decadent dialect of an original primitive Altaic speech (for *d-gu* or *doquz* might have been foreign words), but that the present one-syllabled words of the Tibetan may perhaps be traced in part to original two-syllabled words with end-stress. Out of these one-syllabled words were then abstracted the prefixes as formative elements¹.

The third case is perhaps applicable to the greater part of Tibetan words. It seems to me highly possible that already in primitive Tibetan the prefixes were added to the root or stem as originally independent single letters with semasiological and grammatical power, but without

¹ Conrady is also somewhat of this opinion. He attempts to prove that all Tibetan prefixes were originally syllabic. (Cf. ICDB, p. 53).

any sort of inherent vowel. Even to the present day there exist in certain eastern dialects of Tibetan but few words¹ where a vocalic sound is found after the supposed prefix. Also in the remaining languages of the Tibetan-Burmese group are such cases very rare. On the contrary, in the Siamo-Chinese languages and dialects we find the peculiar tendency to insert a vowel between the prefix in question and the root or stem. This vowel seems to me inserted for physiological reasons, since it is usually rather difficult for the Siamese, Chinese, and related peoples to pronounce even the most simple compound of initial consonants without difficulty. The simplest experiment is adequate to convince one of the truth of this statement. The experiments which I had ample opportunity to make in the Far East, using the most simple Tibetan words, culminated in the theory (which so far as I personally am concerned has become a certainty) that in Tibetan and even in primitive Tibetan the prefixes existed originally without any sort of subsequent vowel, and that this vowel was later inserted in single words of a few dialects.

§ 62. Even more difficult it is to ascertain the origin of the suffixes. They can be either the initial sounds or the final consonants of the following word. Both are highly improbable. It is apparent in Tibetan that modal auxiliaries such as *yod pa*, *byed pa*, etc., were employed in the formation of verb classes and tenses at a time when the language was beginning to change from a root-isolating monosyllabic stage to an agglutinating stage. Attempts to trace for example final *d* > *s* to this process are inadmissible. What is true of the prefixes may be true of the suffixes; even the infixes (*ya btags*, etc.) may be explained analogously. For infixes compare §§ 66ff., §§ 120ff., and §§ 146—147.

In this connection the possibility is obviously not excluded that one or the other formative element (after, if not before, the above mentioned process had once set in) developed directly as such, and not through any sort of "abstracting process." This may be the case with prefixed *s*, and possibly even with suffixed *s*.

Note. The prefixes of the Tibetan numerals (*g-tšig*, *g-nyis*, *g-sum*, *b-ži*, *l-ŋa*, etc.) seem especially incomprehensible and evasive. I believe that I have found an approximately exact explanation, but I reserve its publication for another place.

¹ Which are no longer so archaic as for instance those in Ladakhi.

4) Analysis of Words.

§ 63. In connection with the discussion of word and tense formation (s. §§ 1—62), we shall add for illustrative purpose in each case an example of the guttural, dental and labial classes.

α) Guttural.

- 1) *gab pa* “to hide, hide oneself”
based on $\sqrt{*ga}$ (6) «head» = «enveloping» +
suffix *b* as the sign of goal or aim (s. § 18).
- 2) *h-geb-s pa* “to hide, cover”
ablaut to form the present tense (s. § 5 β);
prefix *h* is to characterize the present tense
(s. § 59); suffix *s* adds intensity to the
present tense (s. end of § 23).
- 3) *s-gab pa* “to cover”
by means of prefix *s* it is intensive to 1)
(s. § 17); no *ablaut* in the present tense
(s. § 5).
- 4) *s-gam* “box, trunk”
substantive noun to *s-gab pa*, produced by
suffix *m* (s. § 12), *aspectus actionis perfectae*.
- 5) *b-kab pa* “to cover”
intensive by means of tenuis (s. § 2); prefix *b*
denotes aim, purpose (s. § 18); it functions
as a “substitute” perfect of *gab pa* sub 1)
(cf. § 36).
- 6) *kab kob* “hide; untanned skin”
kab ša “leather shoe”
completive form of *gab pa* sub 1) by means of
tenuis (s. § 2).
- 7) *h-kheb pa* “to cover, spread over”
ablaut in connection with the present tense
formation (s. § 5); later present tense form
of *b-kab pa* sub 5) (s. § 59), wherefore aspiration
for phonetical reasons (s. § 8,2).
- 8) *kheb-s pa* “covered, veiled”
a perfect tense form of 7) (s. § 33).
- 9) *kheb-s* “a cover, lid”
substantive of the perfect tense belonging to 7)
(s. § 31).

- 10) *khom* "leather trunk"
ablaut is intensive (s. § 3,3a); through suffix *m aspectus actionis perfectae* (s. § 12), belonging to *h-kheb pa*.
- 11) *gyam* "a shelter, recess in a rock"
a form of 1) palatalized by *ya btags*; through suffix *m* a substantive form of 1) (s. § 12).
- 12) *s-kyab-s* "protection, defense"
a substantive of the perfect tense, palatalized by *ya btags*, belonging to 13) and 15), built up in accordance with *b-kab pa* ad 5) (s. § 6).
- 13) *b-s-kyab-s* "protected"
perfect tense of 15) (cf. §§ 27—28).
- 14) *b-s-kyab* future tense of 15) (cf. §§ 27—28).
- 15) *s-kyob pa* "to protect, defend"
ya btags see § 6; *ablaut* in connection with the present tense (s. § 5β); prefix *s* is probably intensive (s. § 17) in this case.
- 16) *s-kyob-s* "assistance"
a substantive noun of the perfect tense, belonging to 15), yet without *ablaut*; suffix *s* is causative with the effect of producing the perfect tense (s. § 23).
- 17) *khya b pa* "to embrace"
a form pertaining to 7), palatalized by *ya btags*; this form is associated with the perfect tense, though it has not prefix *s* (s. § 33).
- 18) *khieb-s* "a cover"
substantive noun of the perfect tense pertaining to 17); *ablaut* intensive (§ 3,3b); it corresponds to *kheb-s* sub 9).
- 19) *s-kyib-s* "a place giving shelter"
alike a substantive noun of the perfect tense belonging to 15); as regards *ablaut* compare note 3 to § 5.
- 20) *khym* "a home, dwelling-place"
formation of a substantive noun by means of

- suffix *m* (s. § 12), belonging to *khyab pa*; as regards *ablaut* compare note 3 to § 5.
- 21) *h-grib pa* “to grow dim, get dark”
a form of *gab pa* sub 1) palatalized by *ra btags*; prefix *h* is the sign of the present tense; as regards *ablaut* compare note 4 to § 5.
- 22) *s-grib pa* “to obscure, cover; obscuration, sin”
prefix *s* acts causative (s. § 16).
- 23) *b-s-grib-s* perfect tense of *s-grib pa* (cf. §§ 27—28).
- 24) *b-s-grib* future tense of *s-grib pa* (cf. §§ 27—28).
- 25) *grib* “shade, stain”
modified stem of *gab pa*; original present tense of 21).
- 26) *krab (pa)* “shield, buckler”
substantive noun of the perfect tense, yet without suffix *s* (cf. §§ 31 and 33).
- 27) *klub pa* “to cover the body with ornaments”
concerning subfixed *l* compare §§ 135ff.; *tenuis* is intensive (§ 2); as regards *ablaut* to *u* cf. § 4.

In addition compare the palatal forms and others in § 145a).

§ 64. b) Dental.

- 1) *h-dom (pa)* “a lineal measure”
based on $\sqrt{*da}$ (2) «to arrive at, reach to > to be become equalized, to suffice»; by means of suffix *m* (s. § 12) it is put under the *aspectus actionis perfectae*; prefix *h* crystallized the effect of suffix *m* (cf. § 59); *ablaut* is intensive (s. § 3,3a).
- 2) *h-dom(-s) pa* “to assemble, come together”
ablaut in connection with the present tense formation (s. § 5 β); concerning suffix *s* in the present tense compare § 23.
- 3) $\left. \begin{array}{l} \textit{dam-s} \\ \textit{g-dam-s} \end{array} \right\}$ perfect tense of *h-dom pa*.
the stem of *h-dom-s pa* is **dam* which appears in the perfect forms *dam-s* and *g-dam-s* (s. § 23); *g-dam-s* is more correctly the perfect of *g-dam pa* (s. § 45), where prefix *g* functions iteratively (s. § 10); cf. also § 46.

- 4) *g-dam* future tense of *h-dom(-s) pa*.
g-dam was the proper future of archaic *g-dam pa* (s. § 45).
- 5) *h-dom-s* imperative of *h-dom(-s) pa*.
 cf. § 30.
- 6) *m-dom(-s)* "a measure"
 see above number 1); here, suffix *s* has possibly developed from causative forming suffix *d*, which was applied for the formation of the perfect tense (s. § 23).
 Concerning prefix *m* s. § 19.
- 7) *g-tam pa* "to fill up"
tenuis is intensive (cf. § 2, 3b); prefix *g* iterative (§ 10).
- 8) *g-tam-s pa* "filled up"
 perfect tense of 7) because of suffix *s* (s. § 23); compare also § 39.
- 9) *g-tom-s pa* "filled up, full"
 another perfect form of 7) with *ablaut* which acts intensively (s. § 3,3a).
- 10) *l-tam-s pa* "to be full"
 original perfect form of a present tense **l-tam pa*, built up analogous to number 8); as regards prefix *l* s. § 20.
- 11) *b-l-tam-s* perfect form of 10).
 proper perfect of **l-tam pa* (s. number 10), characterized by suffix *s* (s. § 23) and prefix *b* (s. § 28).
- 12) *b-l-tam* future tense of 10).
 the simple form **l-tam* should have been sufficient in the future tense; prefix *b* might, in this case, point to "aim, goal" (s. § 18).
- 13) *l-tem pa* "the state of being full"
ablaut is intensive (s. § 3,3a).
- 14) *tham pa* "complete, full"
 since *g-tam pa* means "to fill up" (see number 7), *tham pa* is the corresponding intransitive (cf. § 8a); compare also § 43.

- 15) *them pa* "to be complete, full"
the same intransitive with "strengthening of the present tense" (cf. § 5β).
- 16) *h-them-s pa* "to suffice"
the same as number 15), only showing the present tense prefix *h* (s. § 59) and suffix *s* (s. end of § 23).
- 17) *h-them-s pa* "completion of a specified number"
ablaut is intensive (s. § 3,3a).
- 18) *r-nam pa* "manner, way, form, shape," «having measure,» wherefore *r-nam par* "complete"; concerning nasal initial sound s. § 1, and concerning prefix *r* see § 21,5.
- 19) *nom pa* "to be satisfied"
formation in the metaphorical sense (metaphorical because of nasal initial sound), belonging to *g-tom-s pa* (s. number 9) and *h-thom-s pa* (s. number 17).
- 20) *nom-s* perfect tense of number 19).
suffix *s* sign of the perfect tense (s. § 23).

In addition compare the palatal forms and others in § 145b).

§ 65. Labial.

- 1) *baŋ ba* "store-room, store-house"
stem *baŋ* developed from $\sqrt{*ba}$ (2), extant in *bo ba* "to expand (as a bubble)"; suffix *ŋ* is intensive (s. § 10).
- 2) *boŋ* "in size, in capacity"
ablaut is intensive (s. § 3,3b).
- 3) *braŋ* "the chest, breast"
ra btags acts intensively (s. § 6).
- 4) *h-braŋ ba* "to give birth to (of animals)"; «to swell up strongly;»
denominative formation of 3); prefix *h* stands for the present tense (s. § 59); the function of *ra btags* is intensive-causative (s. § 6).
- 5) *h-broŋ* "wild yak"
ablaut is here completive (s. § 3,3).

- 6) *dray* “beer” — «that which is swollen»
 a tertiary formation produced by *ra btags* and
 initial sound shift (s. §§ 130—131); cf. also
 DTR sub $\sqrt{*ba}$ (2).
- 7) *may ba* “to be much, become much, increase”
may po “much,” «that which became much»
 concerning the nasal initial sound s. § 1.
- 8) *d-may-s* “the populace; mob”
 prefix *d* instead of iterative *g* (s. § 14); as
 regards suffix *s* s. § 23.
- 9) *myay-s* “united”
 as regards *ya btags* s. § 6; suffix *s* in the perfect
 tense (s. § 23).
- 10) *r-moy-s pa* “stupidity, ignorance”
 a kind of completive-resultative form to
d-may-s “common folk,” *Ablaut* resultative
 (cf. § 3,3c); prefix *r* possibly intensive
 (s. § 21,2); suffix *s* causative in the for-
 mation of the perfect (cf. § 23). In the
 forms *may* and **moy* lies the concept
 “much, accumulated” in connection with
 the resulting idea “obscure, dark” similar
 to the case of *gab pa*, etc., based on $\sqrt{*ga}$ (6).
 In this connection compare also the Chi-
 nese words 氓 *mêng²* “people,” 盲 *mang²*
 “blind,” 曄 *mang³* “the sun obscured,”
 蒙 *mêng²* “to cover; foolish, stupid,” 朦
mêng² “dim, indistinct,” 瞢 *mêng³* “stupid,
 doltish,” 暝 *ming²* “dark,” 溟 *ming²* “mist,
 fog,” 瞑 *ming²* “to close the eyes,” etc.,
 furthermore Burmese ၵၵၵ *hmauy* “dark,”
 ၵၵၵၵ *hmoṅ* and ၵၵၵ *hmun* “dark,” ၵၵၵၵ
mok “blind,” ၵၵၵ *myā* “much” and Siamese
 𑄆𑄇𑄈 *mag* “much,” 𑄆𑄇𑄉 *māi* “many, in a
 great number,” 𑄆𑄇𑄊 *muā* “dark,” 𑄆𑄇𑄋 *mang*

“dark,” ᠮᠠᠨ_1 *mān*₁ “curtain,” ᠮᠡᠬᠬ *mekh*
 “cloud,” ᠬᠮᠣᠨ *hmon*, “dark,” and others.

Since the palatal forms derived from $\sqrt{*ba}$ (2) (to which belong also the above examples) are few in number, we shall add here two additional forms of \sqrt{ba} (1) «swelling, arching» as a basis for further derivatives:

- 1) *ḥ-boṅ ba* “roundness, rotundity”
ablaut intensive-completive (cf. § 3,3); suffix
ṅ intensive (cf. § 10); prefix *ḥ a* means of
 crystallizing the effect of the suffix (cf. § 59).
- 2) *droy ma* “a large basket provided with a lid and carried
 on the back”
 tertiary form by means of *ra btags* and initial
 sound shift (s. §§ 130—131); cf. also DTR
 sub \sqrt{ba} (1).

In addition compare the palatal forms and other in § 145, c).

III. WORD FORMATIONS PALATALIZED BY *ya btags*.

A. GENERAL INTRODUCTION.

§ 66. We distinguish two groups of initial palatal sounds. In addition to the compound palatal initial sounds *dž*, *tš*, *thš* the first group comprises words, the initial sound of which was palatalized by *ya btags*, as *g + ya btags*, *k + ya btags*, *kh + ya btags*, *b + ya btags*, *p + ya btags*, *ph + ya btags*, etc. The second group includes the simple palatal initial sounds *ž*, *š*, and *y*. The following table will serve as a general survey.

		Tenuis	Aspirata	Media	Nasal
compound palatal initial sounds	{ Guttural	<i>ky</i>	<i>khy</i>	<i>gy</i>	—
	{ Labial	<i>py</i>	<i>phy</i>	<i>by</i>	<i>my</i>
	{ in addition	<i>tš</i>	<i>thš</i>	<i>dž</i>	<i>ny</i>
substitutable simple initial sounds		<i>y</i>	<i>š</i>	<i>ž</i>	—

We are already familiar with the compound palatal initial sounds *ky*, *khy*, *gy*, and *py*, *phy*, *by* (cf. § 6). These appear as palatalized forms of the gutturals and labials showing little or no change of meaning. It is quite certain that formerly a sharp differentiation was made between the *tenuis*, *aspirata*, *media*, and *nasal* forms of the guttural and labial palatalizations. Yet, as a result of the ease with which the palatal sounds tended to mix with one another, they actually became intermingled both phonetically and orthographically, especially in the earlier period of the language. Furthermore, they even developed into the compound palatal sounds *tš*, *thš*, and *dž* sometime after the ninth century A. D. according to Laufer's Bird Divination. At any rate, through Laufer we know that for instance the transition from *phyi* to *thš* had not yet been established in the first half of the ninth century (op. cit., p. 86). Thus, today we find side by side the forms *d-pyod pa*, *h-thšad pa*, *r-džod pa*, *s-nyod pa*, and *myad pa*, all having the original meaning of speaking or communicating; and likewise *s-kyed pa*, *byed pa*, *b-gyid pa*, and *s-pyod pa* in the sense of fabricating, producing, etc. (concerning *ablaut*, cf. § 3). Such a multiplicity of forms at first

impedes the investigation of the stem or root to such an extent that it appears almost impossible. That forms like *s-kyab-s*, *s-kyob pa*, *s-kyib-s*, *khyab pa*, *khyeb-s*, and *gyam* are to be derived from the stem *gab*, is obvious. However, that forms as *b-thšab-s pa*, *h-thšab pa*, *l-tšib-s*, *thšib pa*, *žub pa*, *šub-s*, and *yib pa* should also be formations of the same stem *gab* is not quite so clear. An investigation into the phonetical changes in the palatal word group will clarify this point.

§ 67. The question now arises, if the guttural and labial series of words show palatalizations by *ya btags*, should we not then also expect to find dentals palatalized by *ya btags*? A thorough study of Tibetan leaves no doubt that the question really exists and that the assumption is justifiable. Let us take $\sqrt{*da}$ (3) «to become connected.» Here we find beside *h-tham pa* “to attach oneself to,” also the form *h-thšam pa* “to accord, agree,” which is the palatalized *aspirata*; hence *h-th + ya btags (+ a) + m > *h-thyam > h-thšam*. The dental immediately turns palatal before *ya btags*. — Based on \sqrt{da} (4) «to move forward» we find besides *h-dor ba* “to cast forth, throw out” also the form *h-thšor ba* “to pursue, chase,” where we again have the palatalized *aspirata*, developed from *h-th + ya btags (+ o) + r > *h-thyor > h-thšor*.¹ — Or let us take \sqrt{du} (1) «to become accumulated.» On this is based for instance the form *g-du ba* “to mingle, mix up”; from this again we have the perfect tenuis form *b-tu-s pa* “to accumulate, to gather,” which corresponds to the later form *g-tšu-s pa* “to meddle with, interfere,” developed from *g-t + ya btags (+ u) + s > *g-tyu-s > g-tšu-s pa*. — Based on \sqrt{du} (5) “desire, inclination” we have for instance *g-duŋ* “excessive desire, passion,” to which corresponds the palatalized form *h-džuŋ-s* “avarice,” developed from *h-d + ya btags (+ u) + ŋ (+ s) > *h-dyuŋ-s > h-džuŋ-s*. From the related $\sqrt{*du}$ (6) «passion, agony, pain» arises *h-dul ba* “to subdue, tame” together with the later palatalized form *h-džil ba* “to subjugate,” developed from *h-d + ya btags + u > i* (cf. § 5, note 3) *+ l > *h-dyil ba > h-džil ba*.

A number of other words also point clearly to palatalized dentals

Examples:

<i>g-tšer</i>	“bare, uncovered”	<i>b-tšer ba</i>	“to heap, pile up”
<i>ther</i>	“bare, denuded”	<i>g-ter</i>	“store-place”

¹ The initial sound *thš* has not, of course, developed directly from *d*. It was necessary that *d* first change to a *tenuis*, namely **tor*.

h-džar ba “to stick together, cohere” *s-nyen pa* “to come near, approach”

s-tar ba “to tie, fasten” *s-ten pa* “to keep close to”

§ 68. In most cases, the original prefixes are not carried over into the palatalized form. The palatalized stem as such takes new prefixes in accordance with the psychological and phonetical principles previously discussed in §§ 14—22.

§ 69. In the case of gutturals and labials, palatalization produced by *ya btags* is indicated in writing by *g + ya btags* (᳚), *k + ya btags* (᳛), etc., which, however, is not the case with dentals. The latter correspond exactly to the Sanskrit compound sounds *ch*, *c*, *j*, which in writing are each represented as a single character and as such taken over into Tibetan.

For all further investigations it is of fundamental importance to regard *dž*, *tš*, and *thš* also as *d + ya btags*, *t + ya btags*, and *th + ya btags*, in accordance with the palatalizations of the gutturals and labials.

§ 70. We shall call a root palatalized by *ya btags* (or *ra btags*) a tertiary root, since the secondary root formation by means of *tenuis*, *aspirata*, and *nasal* (cf. § 1), was prior in point of time. Thus, based on $\sqrt{*ga}$ (6) «head, enveloping,» the form *gon pa* “coat; to put on clothes” must be considered as primary, the form *s-kon pa* “to dress” as secondary, and the form *gyon pa* “to put on clothes” as tertiary. So also from $\sqrt{*bu}$ (2) «mass, pile» the form *bun-s* “great heap” is primary in character, *phun po* “bundle” secondary, and *phyun ba* “the overflow of a thing in a vessel” tertiary. Likewise from \sqrt{du} (1) «to become accumulated» was derived *g-du-s*, the perfect tense form of *g-du ba* “to mingle,” which should be considered as primary, *b-tu-s*, the perfect form of *h-thu ba* “to pluck” as secondary, and *g-tšu-s pa* “to interfere” as tertiary in nature.

§ 71. When the initial guttural or labial sounds palatalized by *ya btags* became in the course of time phonetically identical with the dentals palatalized through *ya btags*, it followed easily that the combinations *ky*, *khy*, *gy*, *py*, *phy*, *by* should be written as *tš*, *thš*, and *dž*. Such formations we call quartary. Similar dental formations must also be called *quartary* (cf. § 70). The third stage in dental formations must have disappeared very quickly, since there remains not a single example of it. Thus, for example, along with the tertiary forms *b-s-kyab-s* “guarded, protected,” *gyon po* “difficult to understand,”

h-byem pa "to act with promptness," and *h-phyor po* "foppish," we have the quartary forms *b-tšab-s* "hidden," *g-tšay po*¹ "clever, sagacious." *g-tšam po*¹ "done, made," and *m-thšor po* "foppish."

As a result of the conversion of the gutturals and labials palatalized by *ya btags* into the compound palatals *tš*, *thš*, and *dž* a meaning deviating from the original, but still fundamentally relating to it, is likely to be brought about.

§ 72. When various homophonous roots exist simultaneously, numerous words alike in sound and construction, but different in meaning, would result from the application of *tenuis*, *ablaut*, *aspiration*, and formative elements. There are, for example, six *bu*-roots: \sqrt{bu} (1) preserved in *h-bu ba* "to open, unfold (like flowers)," $\sqrt{*bu}$ (2) «mass, pile», $\sqrt{*bu}$ (3) «to increase, expand,» etc. \sqrt{bu} (1) forms for instance *bul* "valley, ravine," $\sqrt{*bu}$ (4): *h-bul ba* "to give," and $\sqrt{*bu}$ (6): *bul* "lazy, slothful." \sqrt{bu} (1) forms for example *h-bur ba* "to spring up, to blossom," \sqrt{bu} (5): *d-bur ba* "humming insect," and $\sqrt{*bu}$ (2) forms *phuŋ po* "bundle," and $\sqrt{*bu}$ (6): *phuŋ pa* "destroyed," etc.

In order to avoid too many forms identical in sound, the language applies certain specific word forming agents only with certain roots (thus we have the form *bub-s* only from \sqrt{bu} (1) or *bum* only from $\sqrt{*bu}$ (2), or the language passes in some cases from the labial to the guttural and dental series (provided the initial dental sound be nasal), or from the guttural to the labial or dental series (provided the initial dental sound be nasal) in order to avoid an all too possible confusion with the palatalized forms. Thus for example $\sqrt{*ga}$ (6) forms instead of *h-khoŋ ba* the word *h-phyoŋ ba* "to protect" with initial tertiary sound, in order to distinguish it clearly from *h-khyoŋ ba* "to observe" which belongs to $\sqrt{*ga}$ (2), etc. — The regular substitute for the palatalized nasal of the guttural series is *n* + *ya btags* (*ny*), and the nasal of the labial class interchanges readily with the dental group (cf. § 74). We call this phenomenon the initial sound shift.

§ 73. According to Laufer's investigation in his *Bird Divination* the transition from gutturals and labials palatalized through *ya btags* to *tš*, *thš*, and *dž* cannot have taken place until the end of the ninth

¹ The change from *gy* to *tš* and *by* to *tš* is also intermediary; that is initial *g* and *b* must first become *tenuis*.

century A. D.¹, at a time that is, when the decomposition of the language was just beginning and the feeling for the exact word image, built up according to set principles, was being lost. We must consequently conclude that such phonetical substitutes for words with tertiary or quartary initial sound are not to be found in texts written before the ninth century (cf. my analysis of $\sqrt{*gu}$ "water" § 144).

§ 74. a) We must add here a few comments on $m + ya$ *btags* (= *my*) and $n + ya$ *btags* (= *ny*). Both are nasal palatals — a fact which makes it probable that *ŋ* was also at one time palatalized through *ya btags*. No definite proof, however, remains; yet, $n + ya$ *btags* belongs of course to the palatalized dental series.

Compare

<i>m-nal</i>	"the sleep"	<i>r-nil</i>	} "the gums"
<i>nyal ba</i>	"to sleep"	<i>r-nyil</i>	
<i>m-nol ba</i>	"to grow feeble"	<i>nar</i>	} "long"
<i>g-nyel ba</i>	"tired, to get tired"	<i>nyar</i>	
<i>m-nyel ba</i>	"to be tired, fatigued"	<i>m-nod pa</i>	"to find, acquire"
<i>s-nyol ba</i>	"to bed a person"	<i>r-nyed pa</i>	"to acquire"
or			
<i>h-dem pa</i>	"to prove, examine"	<i>b-r-tas pa</i>	"to be delighted"
<i>s-nyam pa</i>	"to think, consider"	<i>m-nyes pa</i>	"to take delight in"
<i>s-ten pa</i>	"to keep close to"		
<i>s-nyen pa</i>	"to come near, approach," and others.		

Naturally $m + ya$ *btags* which survives only in very few examples is a representative of the labial series. It is used almost exclusively as a substitute for dental tertiary initial sounds.

Examples:

<i>r-ton pa</i>	"to place confidence in a person"
<i>s-myan (pa)</i>	"intermediation between a disagreeing pair"
cf. <i>s-nyen pa</i>	"to come near, approach"

¹ The transition from dentals palatalized by *ya btags* to *tš*, *thš*, and *dž* took place appreciably earlier. These sounds already existed in the seventh century A. D., when the Tibetan alphabet was invented (cf. § 74b).

	<i>b-s-nar ba</i>	“to stretch, extend in length”
	<i>s-myur pa</i>	“to stretch oneself after sleep”
cf.	<i>nyer pa</i>	“to tarry, linger”
	<i>s-dig-s pa</i>	“to point at, threaten”
	<i>myug pa</i>	“to show ostentatiously”
cf.	<i>nyug nyug pa</i>	“to stand out, project”
	<i>myul ba</i>	“to roam about, search into”
cf.	<i>g-nyul ba</i>	“to step gently, steal through,” etc., etc.

The interchange of *ny* and *my* likewise cannot, according to Laufer's investigations, have taken place before the ninth century A. D.

b) The palatal nasals require further analysis. In the Tibetan literation of Sanskrit words, the Sanskrit palatals, with the exception of *ñ* (ञ), are represented through characters whose compound nature is indubitable. That means they are compounded dentals (ञ, etc.) and appeared as such in the speech of the Kāśmīr-Paṇḍits even before the invention of the Tibetan alphabet. Whether the Tibetan palatals (ञ, etc.) should be considered as simple or as compound is still an open question, for they were palatals in contradistinction to the dentals, including the compound dentals.

Originally compound palatals were unknown in Sanskrit and are still unknown in correct pronunciation (e. g., in the pronunciation of the Madras-Paṇḍits). (If *ch* is doubled after certain vowels, we simply have duplication, or assimilation or “position” produced by assimilation). In words such as *pañca* “five,” and *muñja* “reed,” etc., *ञ* (*ñ*) is undoubtedly a compound character. It is erroneous to assume that the palatal *n* is always *n* + *y* and can be spoken in no other wise. The Spanish *ñ* as well as the French and Italian *gn* is simply a gliding *y*-sound abruptly terminated (*Abglitt*), as one may easily convince oneself by prolonging the pronunciation of *m* or *n*; or in similar wise by attempting to pronounce the French word *digne*, with a long-drawn-out *n*. If we pronounce *dignement* as it is usually pronounced by the Frenchman in rapid conversation, we get a pure *n* without *y*, such as we find in Sanskrit *ñc*, *ñj*, etc. An unmixed *n* as a final sound is also known in Hungarian in such words as *šovān* (*sovány*) “thin,” *kemēn* (*kemény*) “hard,” *fēn* (*fény*) “the light,” etc.

Sanskrit has five simple nasals: guttural, cacuminal, palatal, dental,

and labial (ङ = ṅ, ण = ṇ, ज्ञ = ṅṅ, न् = n, म् = m). The guttural and palatal distinguish themselves from the others in that they never occur (1) between vowels, or (2) in connection with *y* (य्). We have therefore:

simple: ṅ ṇ ṅṅ n m

compounded with *y*: — *ṅy* — *ṇy* *ṅṅy* *ny* *my*

None of these compounded sounds correspond to the Tibetan ལྷི. Rather the writing of ཀླེ for काञ्चो (*kāñči*) shows that Tibetan ལྷི is to be identified with the Sanskrit ज्ञ.

Sanskrit ज्ञ is ordinarily antevocalic (in contrast to ལྷི); it is antevocalic only in the few cases where it has developed from dental *n* (न), i. e. through progressive assimilation. For instance *yaj* + suffix *na* > *yajña*, and *rāj* + *nī* > *rājñī*. Such an antevocalic ṅṅ is not easily differentiated from *ny* and *ṅy* and therefore has replaced them in Pāli as ṅṅ (*yajña* > *yañña*, *puṇya* > *puñña*, etc.). Meanwhile initial *ny* appears as ṅ, for instance in Pāli *ñāya* < Skr. *nyāya*. Also in Tamir (where the juxtaposition of dental *n* with *y* is not possible) *ñaya* is written along with *niyāya*, and here, as well as in Malayalam ṅ is considered as a simple sound. In Sindhī the intervocalic Sanskrit *ṅg* (ङ्ग) became ṅ (*ṅ*, इ), and *ny* (न्य) became ṅ (ज): Skr. *śṛṅga* > Si; *siṅṅ*; *kanyā* > *kañā*, i. e., *ṅg* > ṅ; *ny* > *ṅy* > ṅ (in other words a simple palatal with or without *y*).

The inventor of Tibetan writing, in adopting his ལྷི, probably had in mind primarily the antevocalic Sanskrit ṅṅ as it occurs in such words as *jñāna* < *√jan*, *rājñī*, etc., that is an *n* with which a protracted and suddenly terminated *y*-sound (*ny*) easily occurs (*y-Abglitt*). This ṅṅ was either identical with the Tibetan sound or must have seemed similar to it (in case it was an *n* + *y*), in contrast to Sanskrit *ny* (न्य), which Tibetan also indicates as *n* + *y* (ལྷི), as in the example above *nyāya* “logic” (name of a philosophical system).

In Middle Indian (Prākṛt, Pāli) a compounded palatal develops from *t* + *y*, etc., e. g., Skr. *satyam* > Middle Indian *saćcam*. *vidyā* > Middle Indian *viĵjā*, etc. — (*ny* > *ṅṅ* or *ṅṅṅ*). On the other hand, initial *t* + *y* is a simple palatal, since consonantal groups are not admissible at the beginning of a word.

Morphology leaves no doubt that in Tibetan the palatals were nothing other than the dentals + *ya* *btags*, which must have lost their

dental character, else otherwise the Sanskrit *ty, dy* (त्य, द्य), etc., would also have remained in the forms of \tilde{y} , \tilde{y} , etc., as is actually the case with \tilde{y} , etc. Consequently, \tilde{y} must then be considered as $n + y$, not as $n + y$.

However, the possibility still remains that in \tilde{y} two sounds have coalesced — namely (1) the above-mentioned dental n palatalized through y , and (2) a more primitive, uncompounded palatal n , still extant in words like *nywa* (*n̄wa*), although the general pronunciation perhaps does not distinguish the two.

It is also possible that in Tibetan the palatal dentals are counted among the simple palatals *ć, ǰ, ń*, although they are perhaps today not so spoken. This is not to be assumed, in case they bring about “position” in metrics (for “position” would prove their compounded character), supposing always that in Tibetan metrics the same law of position is valid as in Sanskrit. But I am not yet prepared to deliver judgment on this point.

B. IMMINUTION OF INITIAL SOUND.

§ 75. The initial sound of the gutturals, labials, and dentals palatalized by *ya btags*, in other words the tertiary initial sound, undergoes a process called Imminution or reduction of the initial sound (*anlautsverkümmierung, anlautsreduzierung*), which results in the release of *ya btags*. In this free condition, *ya btags*, in the form of y , then creates new words whose meaning is the same as or related to that of the word from which *ya btags* originally came. We call this manifestation an imminution of the initial sound in the first degree (of a tertiary formation).

Examples:

$\left\{ \begin{array}{l} \text{h-khyo} \text{ } \text{y} \text{ } \text{ba} \\ \text{yo} \text{ } \text{y} \text{ } \text{ba} \end{array} \right.$	$\left\{ \begin{array}{l} \text{“to come”} \\ \text{“to come”} \end{array} \right.$	$\left\{ \begin{array}{l} \text{phyed} \text{ } \text{pa} \\ \text{phyod} \text{ } \text{pa} \end{array} \right.$	$\left\{ \begin{array}{l} \text{“to be sufficient”} \\ \text{“to be complete”} \end{array} \right.$
$\left\{ \begin{array}{l} \text{h-khyom} \text{ } \text{pa} \\ \text{yom} \text{ } \text{pa} \end{array} \right.$	$\left\{ \begin{array}{l} \text{“to reel, be giddy”} \\ \text{“to totter”} \end{array} \right.$	$\left\{ \begin{array}{l} \text{yod} \text{ } \text{pa} \\ \text{b-s-nyor} \text{ } \text{ba} \\ \text{yar} \text{ } \text{ba} \end{array} \right.$	$\left\{ \begin{array}{l} \text{“to be existant”}^1 \\ \text{“to sort, sift”} \\ \text{“to disperse”} \end{array} \right.$
$\left\{ \begin{array}{l} \text{h-byib} \text{ } \text{pa} \\ \text{yib} \text{ } \text{pa} \end{array} \right.$	$\left\{ \begin{array}{l} \text{“to hide, conceal”} \\ \text{“to hide oneself”} \end{array} \right.$	$\left\{ \begin{array}{l} \text{s-byin} \text{ } \text{pa} \\ \text{yon} \end{array} \right.$	$\left\{ \begin{array}{l} \text{“to give”} \\ \text{“a present”} \end{array} \right.$

¹ For the present we shall not touch upon the psychological connection of these three forms.

This new stem beginning with *y* may assume additional pre- and suffixes (cf. § 68).

Examples:

<i>phyuŋ ba</i>	“to cast out, throw away”	<i>nyal ba</i>	“to lie down, sleep”
<i>g-yuŋ ba</i>	“to outcast”	<i>g-yel ba</i>	“to be idle, lazy”
<i>yoŋ ba</i>	“to come”		
<i>yoŋ-s pa</i>	“to come,” and others.		

Note. In modern Lhasa-dialect it is customary in the case of a media labial initial sound, prefixed by *d* and palatalized by *ya btags*, to suppress *d* and *b* in pronunciation and permit only the sound *y* to be heard, e. g., *d-byar ka* “summer” has the sound of *yar ka*, and *d-byug pa*, “to blossom” the sound of *yug pa*, etc.

An interesting case we find in *ḥ-bur ba* “to rise, swell up, bud, unfold,” which in the conversational language of Lhasa has the sound of *yur ba* (and *hur ba* cf. § 76)¹, just as if it were palatalized by *ya btags*. There is, however, a form *yur wa* in the sense of “to water, irrigate,” which ought, in reality, to be derived from *ḥ-phyur ba* “to become separated” (from which we again have the form *b-žur ba* “to sieve, filter”), and likewise a form *ḥur ba* in the sense of “humming insect, beetle.” This *ḥur ba* is, of course, more recent than *ḥ-bur ba*, from which developed *s-bur ba* “beetle,” which now also retains only the sound of *hur ba*.

§ 76. Initial *y*, a resultant of the imminution of the initial sound, changes to *ḥ* (᳚).

Examples:

<i>yoŋ ba</i>	“to come”	together with	<i>ḥoŋ ba</i>
<i>yug pa</i>	“oats”	together with	<i>ḥug pa</i>
<i>yud pa</i>	“a moment”	together with	<i>ḥud pa</i>
<i>yob (pa)</i>	“a trench, ditch”	together with	<i>ḥob pa</i>

The form *ḥor ba* “to transfer,” according to Chandra Das, p. 1121, corresponds to the verb *s-por ba*. The latter is the nonpalatalized causative form of *ḥ-byor ba* “to arrive.” The form *ḥ-byor ba* would answer to the form **s-pyor ba*, from which **yor ba* = *ḥor ba* arose. We call this manifestation an imminution of the initial sound in the second degree (of a tertiary formation).

¹ Cf. Hannah, Grammar of the Tibetan Language, p. 13,5 and p. 29, 5.

§ 77. This same *h*, developed from initial *y*, then changes to *h*. So for instance *hur ba* "to be noisy, chattering" becomes *hur* "an expression of amazement" and *hur ba*¹ "passionate, hasty" (probably originated from *h-bur wa* "to swell up"). This stage of development we call an imminution of the initial sound in the third degree.

§ 78. Imminution of the initial sound occurs likewise in the following cases: (1) in the dental series palatalized by *ya btags* as in *d + ya btags* (= *dy = dž*), *t + ya btags* (= *ty = tš*), *th + ya btags* (= *thy = thš*), and *n + ya btags* (= *ny* oder *my*); (2) in the substituted forms mentioned in §§ 72—74; (3) in the quartary formations mentioned in § 71.

In reference to (1) and (2), imminution of the initial sound appears to have occurred so rarely in the dental series palatalized by *ya btags* that thus far I have succeeded in discovering but one reliable example. In this case the imminution of the initial sound apparently occurred as described in § 75: *ya btags* first becomes released and in the form of initial *y* changes to *h* or *h*, and as such may assume prefixes or suffixes (cf. §§ 75 and 124). Evidently we are dealing here also with imminution of the initial sound in the first, second, and third degrees (tertiary nos. 1 and 2; quartary no.3 see below).

Example:

l-hon pa "to return, pay back"

is to be derived from *l-don pa* "to pay back" (based on \sqrt{da} (5) «to be transferred»); palatalized: *s-nyon pa* "to deny," «to reject (in a dishonest way)»;² wherefrom imminution of the initial sound of the tertiary degree (tertiary formation): **hon + prefix l = l-hon pa*.

Note. In all the remaining words with initial *lh*, this *lh* can have been produced either by the imminution of the initial sound resulting from the palatalization through *ya btags*, or by the reduction of the initial sound achieved by means of palatalization through *ra btags*. In the former case we use the transcription *l-h*, and in the latter *lh*. After a careful perusal of my DTR, I have been forced to the conclusion that in the majority of these cases we deal with *l + aspiration (lh)* — hence with a reduction of the initial sound resulting from palatalization through *ra btags*.

Only in a few instances are both possible.

¹ Cf. German "hurr deburr," "hur(tig)," English "to hurry".

² From the same root we also have *b-r-nyan pa* "to borrow."

Compare

based on $\sqrt{*ga}$ (6): *lhab-s* } “the middle,” to which are
 or *l-hab-s* (?) } related
h-thšab pa “to hide”
thšib pa “encompassing”
 and *khrab pa* “a shield”
 or

based on $\sqrt{*ga}$ (14): *lhe ba* } “to twist, plait,”
 or *l-he ba* (?) } to which are related
r-gya “a net”
 and *s-gre ba* “to put or place in order,”

and others.

In reference to (3). Quartary formations can also point to tertiary forms, which reveal imminution of the initial sound in the first, second, and third degrees. It is true, however, that illustrative examples are rather rare. As illustration for the initial sound *lh* let us take an example from $\sqrt{*bu}$ (2):

l-hun “mass, bulk” } whereto are cognate
l-hun po “heap, hill” }
thšun pa (< **phyun pa*) “to bundle together”
thšun po (< **phyun po*) “a bunch, bundle”

Besides *bum pa* “water-bottle,” *d-puŋ pa* “heap,” and others, there are also from this same root forms with *ya btags*, as for example *phyuŋ ba* “the overflow of a thing in a vessel,” etc.; but there is no parallel form with *ra btags* ending in *n*. Hence one is compelled to ascribe *l-hun* to the action of *ya btags*. So we have *l-hun*, and not *lhun*! Of this same root the following *ra btags*-forms can be found; *s-brum pa* “pregnant,” and *rum(-s)* “the womb,” in addition to which we also have *lum(-s)* “a bath used as a medical cure,” and *lhum-s* “the womb.”

Another example of a quartary formation is

yib pa “to hide oneself,” to be derived from *gab pa* “to hide” (based on $\sqrt{*ga}$ (6) «head, enveloping»). From this we have the palatalized tertiary forms *s-kyob pa* “to guard, protect” and *s-kyib-s* “a place giving shelter,” and the quartary form *l-tšib-s* “gloves, shield”; besides the latter two there is still *yib pa* “to hide oneself” as an example of imminution of the initial sound in the first degree (of a tertiary formation)¹.

¹ As regards the initial sound *y*, compare note to § 75, p. 126.

§ 79. The compound palatal initial sounds *dž*, *tš*, and *thš* undergo still another imminution of the initial sound regardless of whether or not they are dentals palatalized by *ya* *btags* or quartary formations at all (cf. § 71). The compound sounds *dž*, *tš*, and *thš* split up into *d* + *ž*, *t* + *š*, and *th* + *š*;¹ or to be more specific, *dž*, *tš*, and *thš* become reduced to *ž* and *š*. These roots or stems which have the initial *ž* or *š* in turn assume quite independently prefixes as well as suffixes (cf. §§ 68, 75, 78). This imminution of the initial sound we designate as quintary.

Examples of the quintary imminution of the initial sound:

	<i>b-žig pa</i>	“to be undermined, decay”
from	<i>h-džig pa</i>	“to destroy, devastate”
	<i>b-šig pa</i>	“to upset, destroy”
from	<i>h-džig pa</i>	(= <i>*h-thšig pa</i>) “to devastate”
	<i>b-žug-s pa</i>	“to sit, dwell”
from	<i>h-džug-s pa</i>	a palatalized form of
	<i>h-dug pa</i>	“to sit, remain”
	<i>b-šum pa</i>	“to weep”
from	<i>h-džum pa</i>	(= <i>*thšum pa</i>) “to cause to shudder”
	<i>b-žed pa</i>	“to propose”
from	<i>r-džod pa</i>	“to say, announce”
	<i>žu ba</i>	“to melt”
from	<i>h-džu ba</i>	“to melt”
	<i>b-šor ba</i>	“to drive away”
from	<i>h-thšor ba</i>	“to drive away”
	<i>g-šo ba</i>	“to pour away”
from	<i>g-tšo ba</i>	“to pour out”
	<i>šul</i>	“narrow passage, a track”
from	<i>*tšul</i> < <i>*pyul</i>	a palatalized tenuis-form to
	<i>bul</i>	“valley, ravine” based on
	\sqrt{bu} (I)	“to become opened,” and many others.

§ 80. As a result of these investigations we are now in a position to complete the table given in § 66. The following is a résumé of §§ 67—79:

¹ This splitting up process evidently explains the somewhat strange transcription *thš* (*ths*) instead of *tšh* (*tsh*), *ch* or something similar. We regard this mode of transcription as indispensable in the field of the monosyllabic languages. It appears that Conrady had a similar feeling in this respect; for he makes *žon pa* = **s-gyon pa* and *žor la* = *s-byor la* (cf. ICDB, p. 61).

	Tenuis	Aspirata	Media	Nasal
guttural	<i>ky</i>	<i>khy</i>	<i>gy</i>	—
labial	<i>py</i>	<i>phy</i>	<i>by</i>	<i>my</i>
dental	<i>tš = t + ya</i> <i>btags</i>	<i>thš = th + ya</i> <i>btags</i>	<i>dž = d + ya</i> <i>btags</i>	<i>ny</i> or <i>my</i>
quartary formations	<i>tš = ky</i> or <i>py</i>	<i>thš = khy</i> or <i>phy</i>	<i>dž = gy</i> or <i>by</i>	—

simple palatal initial sound produced by
imminution of the initial sound in the

first degree	<i>y</i>	} of tertiary and quartary form- ations (cf. § 78)
imminution of the initial sound in the second degree	<i>h</i>	
imminution of the initial sound in the third degree	<i>h</i>	
quintary imminution of the initial sound <i>š ž</i> .		

C. TENSE FORMATION.

§ 81. In this chapter we come to tense formation of the palatal verbs. Since the verbs palatalized by *ya btags* and *ra btags* have been dealt with in §§ 24—65, only those verbs which have the initial sounds of *tš*, *thš*, and *dž* need still to be treated.

α) Tenuis.

This class comprises only such verbs as have the “inseparable” prefixes *g*, *b*, or *l*. Some of these verbs show the common characteristics (1) the *ablaut* *o > a* both in the perfect and future (s. § 28), (2) aspiration, or strengthening of the vowel, and (3) the addition of suffix *s* in the imperative (s. § 30).

Examples:

<i>g-tšag pa</i>	<i>g-tšag(-s)</i>	<i>g-tšag</i>	[<i>thšog-s</i>]	“to break, break asunder”
<i>g-tšag-s pa</i>	<i>g-tšag-s</i>	—	—	“to grasp, apprehend”
<i>g-tšag-s pa</i>	(<i>g-tšag-s</i>)	—	—	“to love”
<i>g-tšog pa</i>	<i>g-tšog-s</i>	<i>g-tšog</i>	—	“to break into pieces”
<i>g-tšad pa</i>	<i>g-tšad</i>	<i>g-tšad</i>	—	“to cut into pieces”
<i>g-tšar ba</i>	<i>g-tšar</i>	<i>g-tšar</i>	—	“to cut out, knock out”
<i>g-tšal ba</i>	<i>g-tšal</i>	<i>g-tšal</i>	—	“to spread, display”
<i>g-tši ba</i>	} <i>g-tši-s</i>	<i>g-tši</i>	<i>g-tši-s</i>	“to piss”
<i>g-tšid pa</i>				

<i>g-tšil ba</i>	<i>g-tšil</i>	<i>g-tšil</i>	—	“to destroy, spoil”
<i>g-tšu ba</i>	} <i>g-tšu-s</i>	<i>g-tšu</i>	—	“to strain, whirl”
<i>g-tšud pa</i>				
<i>g-tšun pa</i>	<i>g-tšun</i>	(<i>g-tšun</i>)	—	“to reprove; to subdue”
<i>g-tšur pa</i>	<i>g-tšur</i>	(<i>g-tšur</i>)	—	“to shun”
<i>g-tšu-s pa</i>	<i>g-tšu-s</i>	—	—	“to meddle with”
<i>g-tše ba</i>	<i>g-tše-s</i>	(<i>g-tše</i>)	—	“to esteem, hold dear”
<i>g-tšer ba</i>	<i>g-tšer</i>	<i>g-tšer</i>	—	“to heap, pile up”
<i>g-tšod pa</i>	?	—	—	“to cut, chop off”
<i>g-tšor ba</i> ¹	(<i>g-tšar</i>)	—	—	“to disperse”
<i>b-tšag pa</i>	[<i>b-tšag-s</i>]	—	—	“to split, cleave”
<i>b-tšaŋ ba</i>	<i>b-tšaŋ-s</i>	—	—	“to hold”
<i>b-tšad pa</i>	[<i>b-tša-s</i>]	—	[<i>thšod</i>]	“to cut; to decide”
(<i>b-tšab pa</i>)	<i>b-tšab-s</i>	—	—	“to conceal”
<i>b-tšar ba</i>	<i>b-tšar</i>	(<i>b-tšar</i>)	—	“to interview”
<i>b-tšar ba</i>	<i>b-tšar</i>	—	—	“to squeeze, press” (cf. <i>g-tšor ba</i>)
<i>b-tšal ba</i>	<i>b-tšal</i>	—	—	“to weigh, to pay”
<i>b-tšiŋ ba</i>	<i>b-tšiŋ-s</i>	—	—	“to bind”
<i>b-tšib pa</i>	<i>b-tšib-s</i>	<i>b-tšib</i>	<i>thšib-s</i>	“to ride on a horse”
<i>b-tšir ba</i>	<i>b-tšir</i>	(<i>b-tšir</i>)	—	“to squeeze, press out” (cf. <i>b-tšar</i> and <i>g-tšil</i>)
<i>b-tšil ba</i>	<i>b-tšil</i>	—	—	“to abandon, give up” (cf. <i>g-tšil ba</i> , intensive)
<i>b-tšu ba</i>	<i>b-tšu-s</i>	<i>b-tšu</i>	<i>thšu-s</i>	“to ladle water; to wa- ter” (cf. <i>g-tšu ba</i> , in- tensive)
<i>b-tšug pa</i>	<i>b-tšug[-s]</i>	—	—	“to interfere, meddle in”
<i>b-tšun pa</i>	<i>b-tšun</i>	—	—	“to subdue”
<i>b-tšum pa</i>	<i>b-tšum</i>	—	—	“to become contracted” (cf. <i>s-kum pa</i> “to con- tract”)
<i>b-tšur ba</i>	<i>b-tšur</i>	—	—	“to bar, obstruct” (cf. <i>g-tšur ba</i> !)
<i>b-tšem pa</i>	<i>b-tšem-s</i>	<i>b-tšem</i>	—	“to chew”
<i>b-tšer ba</i>	<i>b-tšer</i>	—	—	“to heap, pile up” (cf. <i>g-tšer ba</i> , intensive)

¹ A strengthened form of *g-tšar ba*.

<i>b-tšo ba</i>	<i>b-tšo-s</i>	(<i>b-tšo</i>)	<i>b-tšo-s</i>	“to make, manufacture”
<i>b-tšog pa</i> ¹	<i>b-tšag[-s]</i>	(<i>b-tšag</i>)	—	“to cut down, reduce”
<i>b-tšom pa</i>	<i>b-tšom-s</i>	—	<i>tšom</i>	“to conquer, subdue”
<i>b-tšol ba</i>	<i>b-tšol</i>	<i>b-tšol</i>	—	“to entrust” (cf. <i>g-tšal ba!</i>)

Here we have the tenuis stems with the prefixes *g* and *b*, *g* representing the iterative (intensive) element, and *b* the sign of purpose, aim. Both groups which have the prefixes *g* and *b* are wholly independent as present tense forms and, therefore, form in part the perfect as well as the imperative by the addition of the suffix *s*.

Only three verbs show irregular tense formation, and for them regular forms surely must have existed at an earlier period. They form the perfect by means of substitution. The three verbs are these:

<i>g-tšod pa</i>	}	<i>b-tšad</i>	<i>g-tšad</i>	<i>tšod</i>	“to cut, chop off; to decide”
<i>g-tšad pa</i>					
<i>g-tšog pa</i>		<i>b-tšag</i>	<i>g-tšag</i>	<i>tšog-s</i>	“to break, split, cleave”
<i>g-tšoŋ ba</i>		<i>b-šoŋ-s</i>	—	—	“to undermine, wash out”

In place of a form **g-tšaŋ* or **b-tšaŋ* the last named verb has as a substitute the form *b-šoŋ-s*, which indicates imminution of the initial sound.

The verbs with prefix *l* use only the suffix *s*. There are no more than three comprising this group:

<i>l-tšeb pa</i>	<i>l-tšeb</i>	—	—	“to kill oneself”
<i>l-tšog-s pa</i>	<i>l-tšog s</i>	—	—	“to be agitated, tremble”
<i>l-tšog-s pa</i>	<i>l-tšog-s</i>	—	—	“to be able”

β) Aspirata.

§ 82. Verbs with an aspirated initial sound are subdivided into two classes:

- 1) Verbs with *aspirata* as the sign of the intransitive;
- 2) Verbs with *aspirata* due to prefix *h*.

In the first case the perfect, of course, is also aspirated, and we find no second perfect form, while in the other we have two perfect forms side by side (cf. §§ 32, 33, 43, 44, 52, 53).

In reference to 1)

Initial tenuis-sound:

trans. *b-tšag pa* “to break, split up” (§ 81)

¹ A strengthened form of *b-tšag pa*.

intr.	<i>h-tšag pa</i>	“to be broken, to break” perf. <i>tšag(-s)</i>
trans.	<i>b-tšag pa</i>	“to break, split up” (§ 81)
intr.	<i>tšag-s pa</i>	“to spring up, to be begotten” perf. <i>tšag-s</i>
trans.	<i>g-tšag-s pa</i>	“to love” (§ 81)
intr.	<i>tšag-s pa</i>	“to indulge in, to be fond of” perf. <i>tšag-s¹</i>
trans.	<i>g-tšod pa</i>	“to cut, split up” (§ 81)
intr.	<i>h-tšad pa</i>	“to be cut off” perf. <i>tšad</i> (also in the sense of “to descend from”)
trans.	<i>g-tšod pa</i>	“to cut, chop off” (§ 81)
intr.	<i>tšod pa</i>	“to be cut off” perf. <i>tšod</i>
trans.	<i>g-tšod pa</i>	“to cut, chop off, divide” (§ 81)
intr.	<i>m-tšed pa</i>	“to be cut, be scattered = to spread” perf. <i>m-tšed</i>
trans.	<i>b-tšum pa</i>	“to contract” (§ 81)
intr.	<i>tšum pa</i>	“to become contracted, to shrink = to be frightened” perf. <i>tšum</i>
trans.	<i>g-tšun pa</i>	“to subdue” (§ 81)
intr.	<i>h-tšun pa</i>	“to be subdued” perf. <i>tšun</i>
trans.	<i>g-tšu ba</i>	“to turn round (like the twisting of a screw)” (§ 81)
intr.	<i>h-tšu ba</i>	“to be turned round, be twisted” perf. <i>h-tšu-s</i>
trans.	<i>g-tše ba</i>	“to esteem, hold dear” (§ 81)
intr.	<i>tše ba</i>	“to be great” perf. <i>tše-s</i>
trans.	<i>b-tšom pa</i>	“to conquer, subdue” (§ 81)
intr.	<i>tšom pa</i>	“to be finished, accomplished” perf. <i>tšom</i>
trans.	<i>b-tšom pa</i>	“to conquer, subdue” (§ 81)

¹ On p. 385, Ch. D. says *sub voce* *g-tšag-s* that it may be synon. with *tšag-s pa* “to love.” A more detailed morphological investigation plainly shows that *g-tšag-s pa* is transitive, while *tšag-s pa* is intransitive. Therefore, the latter usually tends to join with the pure dative.

- intr. *h-thšom-s pa* “to be conquered”
perf. *thšom*
- Initial media-sound:
- trans. *h-džal ba* “to weigh, measure”
intr. *h-thšal ba* “to fluctuate in mind = to hesitate,” «to be weighed»
perf. *thšal*
cf. *b-tšal ba* § 81.
- trans. *h-džil ba* “to expel, eject”
intr. *thšil* extant in *thšil s-grog* “wavelets” cf. *b-tšil ba* § 81.
- trans. *h-džug pa* “to put into, insert; to appoint”
intr. *h-thšug (pa)* “having reached, arrived at” possibly belongs here
perf. *h-thšug*
cf. *b-tšug pa* complete, § 81.
- trans. *h-džud pa* “to put into, insert”
intr. *thšud pa* “to enter, get into,” «to be inserted»
perf. *thšud*
- trans. *h-džun pa* “to tame, subdue”
intr. *h-thšun pa* “to be tamed, subdued”
perf. *(h-)thšun*
cf. *g-tšun pa* intensive-completive, §§ 81 and 82.
- trans. *h-džum pa* “to contract, cause to shudder”
intr. *thšum pa* “to be contracted, to shrink, to be frightened”
perf. *thšum*
cf. *b-tšum pa* § 81.
- trans. *h-džur ba* “to draw tight”
intr. *thšur ba* “a kind of cheese or curd extracted from milk after boiling and evaporation,” very probably belongs here.
cf. *b-tšur ba* § 81.
- trans. *h-džo ba* “to be fascinating, charming”; «to fetter»
intr. *thšo ba* “to be fettered, chained”
perf. ?
- trans. *h-džo ba* “to milk”
intr. *thšo* originally “to be milked” still extant in *thšo*

- bra* and *thšo ris* “extraction,” yet in most cases in the meaning of “descent, family.”
- trans. *h-džog pa* “to cut, chop, split up”
 intr. *h-thšag pa* “to be broken, (be cut)”
 perf. *h-thšag*
 cf. *b-tšag pa* and *b-tšog pa* § 82, 1 and § 81
- trans. *h-džom-s pa* “to conquer, subdue”
 intr. *h-thšom-s pa* “to be conquered”
 perf. *thšom*
 cf. *h-thšom-s pa* § 82,1 and
 b-tšom pa § 81.
- trans. *h-džol ba* “to let hang down”
 intr. *h-thšol ba* “to be topsy-turvy, upside-down”
 perf. *h-thšol (?)*

In addition to these it is necessary also to mention the following few verbs, where *aspirata* certainly was used in the production of the intransitive. The corresponding transitive tenuis forms can no longer be definitely traced.

- thša ba* “to go away, start”
m-thši ba “to go, come; to appear”
thša-s pa “to set forth, depart”
h-thši ba “to die”

The first three verbs are forms of \sqrt{da} (4) «to move forward» palatalized by *ya btags*. A corresponding tenuis form **b-tšah ba* in all probability had the meaning of “to send” as in *g-doy ba* “to go” and *g-toy ba* “to send” (cf. § 2). Compare also the form *b-tšah ba byed pa* “to give notice” and *b-tšah yig* “letter of notice,” — The fourth verb *h-thši ba* is a form of \sqrt{da} (11) «to vanish» palatalized by *ya btags*, of which *g-tšil ba* “to destroy, annihilate” is the tenuis form.

Further:

- h-thšar ba* “to arise, become visible”

intransitive; therefore we have in the first place aspiration along with the present tense prefix *h*. The form *h-thšar ba* is based on $\sqrt{*da}$ (10)b «to become light (shine),» from which derived the transitives *g-tšar ba* “to cut out, knock out” («to make appear»), and *g-tšor ba* “to spread, scatter.” The perfect tense of above mentioned *h-thšar ba* is *šar*, cf. §§ 96—97.

h-thšor ba “to flee, escape”

intransitive because of aspiration; the *h* of the present tense also requires aspiration. Passive voice of *h-thšor ba* (= *g-tšor ba!*) “to pursue”; cf. also *h-thšor ba* § 83.

h-thšim-s pa “to be full, become full”

quartary formation of the tertiary form *h-khyim-s pa* “to be encircled with a halo, like the sun and moon.” To *h-khyim-s pa* answer the media-form *h-gyim pa* “the circumference” and the tenuis-form *s-kyim* “dressed leather”; both are substantives formed by means of final *m* (s. § 12), belonging to *s-kyab pa* “to cover, envelop.” The aspiration in *h-thšim(-s) pa* is thus the sign of the intransitive or passive.

[*h-*]*thšud pa* “to get into, penetrate”

intransitive, therefore aspiration; perf. *thšud*

m-thšoŋ ba “to leap up, jump”

intransitive, wherefore aspiration besides aspiration required by prefix *m* (cf. § 8,3).

§ 83. In reference to (2) compare the text in § 33.

h-thšag pa “to tread, walk, move”

perf. *thšag-s*

b-tšag-s

fut. *b-tšag*

In the case of this verb we are dealing only with a tenuis stem, which as a result of the present tense prefix *h* was forced to undergo aspiration. Proof of this are the two perfect forms. Although the original verb *b-tšag* was lost, it undoubtedly meant something like “to bring.” It is a quartary form either of $\sqrt{*ga}$ (13) «to proceed to» (from which *h-khyog pa* “to bring”), or of \sqrt{da} (4) «to move forward.»

h-thšaŋ ba “to hold, take hold of”

perf. *thšaŋ*¹ still extant in *thšaŋ b-zuŋ* “closed

¹ *thšaŋ* can of course also be regarded as a present tense derivative meaning “the grasping one” (cf. Chinese *ch'ang*¹ 掌).

- hand"¹ (compare *b-zuŋ ba* "to capture")
- h-tšaŋ-s* fut. *b-tšaŋ* imper. *tšəŋ(-s)* (cf. § 81)
- h-tšab pa* "to conceal, keep secret"
- perf. *tšab*² represented by *tšab ma* "lid, valve,"
tšab s-go "door," *tšab brom* "ice," etc.
- b-tšab-s* fut. *b-tšab* imper. *tšob* (cf. § 81)
- h-tšam pa* "to accord, agree"
- perf. **tšam(-s)* extant in *tšam b-žag* "to be in a tranquil state, to keep quiet"
- *b-tšam* (a verb *b-tšam pa*, *b-tšam-s* cannot be traced anymore; yet it is not at all wrong to surmise its having once existed).
- h-tšah ba* "to draw up, construct"
- perf. *h-tša-s*
- b-tša-s* fut. *b-tšah* imper. *tšo-s*
- b-tša-s* as perfect form is still extant only in
- b-tša-s raŋ* "notification, information"
- b-tša-s paŋi khrim-s* "Buddhist canon, religious regulations"
- cf. *b-tšah ba byed pa* "to give notice"
- b-tšah yig* "letter of notice"
- h-tšal be* "to fluctuate in mind, be confused, hesitate"
- perf. *tšal*³ extant in *tšal tšil* "wavering, fluctuating"
- b-tšal* this form belongs here.
- b-tšal ba* means "to weigh" = «to make fluctuate,» intensive-completive of *h-džal ba!*

¹ Compare also *h-tšaŋ-s pa* "a (closed) handful" (*s* the sign of the perfect) *h-tšaŋ zuŋ-s* "handle, crook (of a stick)".

² May also be considered as a present tense form in the meaning of "hiding," cf. Chinese ch'a² (ch'ap) 室 "interior room of a house."

³ The forms *tšaŋ*, *tšab*, *tšal*, etc. formerly represented all tenses. When, however, *h* was introduced as a sign of the present tense, all quite naturally lost their real present tense quality. So we can say that they are truly perfect forms, but not so probably present tense forms.

We should remember that *h-thšal ba*, and *b-tšal ba* really are quartary forms of *h-gyel ba* "to fall down, tumble," possibly also of *s-kyal* "swimming" or *h-khyal* "irrelevant." In their quartary character these forms point to a more recent period, according to Laufer not prior to the ninth century A. D. Thus it is also clear that, as the language deteriorated, the true feeling for the laws of word formation gradually vanished.

h-thšiy ba "to bind, make fast"

perf. *thšiy-s* still used in the meaning of "that which binds." (Though the translation appears as in the present tense, *thšiy-s* is nevertheless a form of the perfect tense).

b-tšiy-s fut. *b-tšiy* imper. *h-thšiy(-s)* (cf. § 81)

h-thšib(-s) pa "to mount a horse or carriage, to ride"

perf. *thšib-s*¹ extant as a substantive noun of the perfect tense in the meaning of "horse" (honorific form for *r-ta*).

b-tšib-s fut. *b-tšib* imper. *thšib-s* (cf. § 81)

h-thšir ba "to press, squeeze"

perf. *thšir* no more traceable; yet it is found in the form *thsir*, cf. § 108.

b-tšir cf. § 81.

h-thšu ba "to ladle water, to water"

perf. *thšu-s* no more traceable; probably it was soon suppressed alongside with *h-thšu-s pa* as the perfect tense of *h-thšu ba* (§ 82).

b-tšu-s fut. *b-tšu* imper. *thšu-s* (cf. § 81).

[h-]thšud pa "to make enter, put into, insert"

perf. *thšud*

**b-tšu-s* no more extant, yet compare

g-tšu-s "having interfered"

fut.— imper. —

¹ *thšib-s* and *r-ta* belong to $\sqrt{da(5)}$ «to move from one place to another.» As a result of the tenuis, *r-ta* is the completive form of *b-da'hba* "to carry away," thus "to transport." *r* is the "animal" prefix, cf. § 21, 2. Of *b-da'hba* we have the following forms palatalized by *ya* *btags*: *ṽhša ba* "to go away," *h-thši ba* "to go," and *h-thšib pa* "to ride away (on horseback)."

- h-thše ba* "to attest"
 perf. **thše-s* no more traceable; it soon became obliterate alongside with *thše-s*, the perfect form of *thše ba* "to become great, grow."
b-tše-s fut. *b-tše* imper. *thše-s*
 (cf. *g-tše ba* § 81)
- h-thšem-s pa* "to chew"
 perf. **thšem-s* no longer extant in the meaning "to chew"
b-tšem-s fut. *b-tšem*.
- h-thšog pa* "to smite"
 perf. **thšog* no longer extant.
 (*b-tšag-s pa* fut. *b-tšag* cf. § 81)
- h-thšoy ba* according to Ch. D. "to be holding, keep fast"
 cf. above *h-thšay ba* and *h-thšiŋ ba*
- h-thšo-s pa* "to make, prepare"
 perf. *thšo s* cannot be traced with certainty.
 Could we possibly bring it in relation to *thšo-s* "religion, doctrine?"
h-thšo-s
b-tšo-s fut. *b-tšo* imper. *thšo-s* (cf. § 81)
- h-thšah ba* "to snap at, mangle"
 a transitive verb; aspiration is therefore due only to the present tense sign *h*. The same is true also of
- h-thšel ba* "to believe, give credence to"
- m-thšod pa* "to revere, worship"
m-thšod pa is the only verb of this group, where the aspiration was necessitated by prefix *m*. By reason of the tenuis as well as of the suffix *d* it is the causative form of *džo ba* "to be a lord" or of *džo bo* "lord," thus «to make someone lord» + prefix *m* (cf. § 16).

Three verbs, aspirated because of the present tense prefix *h*, show irregular perfect and future forms in order to distinguish them from other homophonetical formations. These tenses take forms produced by imminution of the initial sound (cf. §§ 95—96). These are:

- h-thšad pa* "to explain"
 perf. *b-šad* in distinction from *thšad*, perfect of

- h-ṭhšad pa* "to be cut off" and of
b-ṭšad pa "to cut."
h-ṭhšeg pa "to cut in twain, split; to confess"
 perf. *b-šag-s* in distinction from *ṭhšag(-s)*, perfect
 tense of *h-ṭhšag pa* "to be broken"
 and of *b-ṭšag pa* "to split, cleave"¹
 fut. *b-šag* in distinction from *b-ṭšag pa* "to split,
 cleave"
 imper. *šog* in distinction from
ṭhšog pa "to suffice" or
ṭhšog pa "to be permitted."

In addition to these we shall enumerate a few more verbs, the aspiration of which was obviously produced by means of the present tense sign *h*. The corresponding unaspirated tenuis or media forms are traceable, if at all, only with difficulty.

- ṭhšod pa* "to cover over, put into shade"
 a transitive verb, the aspiration of which is explicable only as a result of the omission of the present tense sign *h* (cf. § 8). Possibly it is related to *g-ṭšod pa* (Ch. D., p. 390), whose numerous meanings also admit of a "suppressing, obstructing, stopping." — Possibly *ṭšod pan* "crown worn by kings" also belongs here.

- h-ṭhšam pa* "to dance"
 aspiration required because of present tense sign *h*, in case it can be brought in relation to *g-ṭšam bu* "artificial expression of feeling, flattery."

- h-ṭhšum pa* "to long for, wish"
 aspiration possibly required because of *h*; a corresponding non-aspirated or media form is not extant.

- h-ṭhšor ba* "to pursue, chase"
h-ṭhšor ba "to flee" (§ 82) is passive voice of *h-ṭhšor ba* (= **g-ṭšor ba*) "to pursue." This *h-ṭhšor ba* is the present tense of **g-ṭšor ba* in the meaning of «to make flee» — aspiration then required by present tense prefix *h*.

¹ The language itself evidently found differentiation necessary, since the "strengthening of the vowel" in the present (as the overwhelming majority of verbs show), in the perfect and the future tenses was not preserved. (cf. § 5A).

- h-thšor ba* “to pursue, chase”
 perf. *b-šor* in distinction from *b-tšar ba* “to interview”
 fut. *g-šor* in distinction from *g-tšor ba* “to scatter, disperse” (cf. § 95).
- h-thšor ba* “to flee, escape”
 perf. *šor* in distinction from *b-šor*, perfect of *h-thšor ba* “to pursue.”

γ Media.

§ 84. This group contains no verbs with the inseparable prefixes *g* or *b*, unlike the media group of the gutturals, dentals and labials. We find only one verb with the inseparable prefix *m*: *m-džal ba* (perf. *m-džal*, imper. *m-džol*) “to meet, interview.” Here we have the following classes:

- 1) Verbs with prefix *h*, maintained also in the perfect;
- 2) Verbs with prefix *h* and an old perfect tense;
- 3) Verbs with prefix *h* and with “substitute” perfect and future tenses formed through imminution of the initial sound.
- 4) Verbs with prefix *h*, an with perfect and future tenses formed through imminution of the initial sound.
- 5) Verbs with the inseparable prefixes *r* or *l*.

§ 85. In reference to 1) Examples:

- h-džarŋ ba* — “to devour, swallow”
h-džah ba *h-dža-s* “to lame”
h-dža-s pa = *s-gyid s-kyur ba* “acute pain in the knee and leg,” cf. Ch. D., p. 328.
- h-džah ba* — “to confederate”
h-džar ba (= *h-byar ba*) “to cohere, stick together”
h-džig-s pa *h-džig-s* “to be afraid, terrified”
h-džib(-s) pa *h-džib-s* “to taste, relish”
h-džu ba *h-džu-s* “to grasp, seize”
h-džug pa *h-džug* “to plant, erect”
h-džug pa *h-džug-s* “to insert”
h-džum pa *h-džum-s* “to cause to shudder”
h-džol ba *h-džol* “to hang down (as of a robe or garment)”

§ 86. In reference to 2) Examples:

- h-džag pa* *džag-s* “to establish, settle”
h-džag-s pa *džag-s* (Amundsen) “to give, donate”

§ 87. In reference to 3) Examples:

- h-džal ba* “to weigh, measure”
 perf. *b-tšal* (§ 81)
 fut. *g-žal* imper. *h-džol*
 cf. *g-tšal ba* (§ 81) “to spread, lay out”
- h-džil ba* “to expel, eject”
 perf. *b-tšil* (§ 81)
 fut. *g-žil*
 cf. *g-tšil ba* (§ 81) “to spoil, destroy”
- h-džug pa* “to put in, insert” (cf. § 88)
 perf. *b-tšug* (§ 81)
 fut. *g-žug* imper. *tšug*
 cf. *g-tšug* “difference, discord”
- h-džun pa* “to subdue, make tame”
 perf. *b-tšun* (§ 81)
 fut. *g-šun*
 cf. *g-tšun pa* (§ 81) “to subdue”
- h-džum pa* “to cause to shudder” (s. above to 1))
 perf. *b-tšum* (§ 81)
 fut. *g-žum*

This verb has no corresponding tenuis form **g-tšum*, although one probably existed in an earlier period. Provided it did not really exist, then the scheme of the future formation by means of imminution of the initial sound was simply preserved as in the case of the other verbs referred to under 3).

- h-džur ba* “to draw tight”
 perf. *b-tšur* (§ 81)
 fut. —¹
 cf. *g-tšur pa* (§ 81) “to evade, shun”
- h-džom-s pa* “to conquer, subdue” (cf. § 82)
 perf. *b-tšom(-s)* (§ 81)
 fut. *g-žom* (this is also future of *žom pa* § 93)
 imper. *tšom*
 cf. *g-tšom* “that which is overpowering;
 haughtiness, arrogance”

¹ Probably the future form *g-žur* was still preserved in *g-žur b-r-tag pa* “a little faulty, defective” (cf. Ch. D., p. 1082).

§ 88. In reference to 4) Examples:

h-džab pa “to sneak, creep”
 perf. *b-žab-s*
 fut. *b-žab* imper. —

For the future we might expect **g-žab*; either this form was given up in order to differentiate it from *g-žab pa* “to rub with the hand; to lick,” or we have the verb *b-žab pa* with inseparable prefix *b*. This verb takes the suffix *s* in the perfect and drops it again in the future tense (cf. §§ 34, 45, 54).

h-džig pa “to destroy, devastate”
 perf. *b-žig*
 fut. *g-žig* imper. *šig* (instead of *thšig*)

h-džig pa “to be lost, perish”
 perf. *b-žig*
 fut. *šig* (instead of *g-žig* in differentiation to the above)
 imper. —

h-džib(-s) pa “to suck (of a baby)”
 perf. *b-žib-s*
 fut. *g-žib*

h-džu ba “to melt, digest”
 perf. *b-žu-s*
 fut. *b-žu* imper. —

In reference to the future tense form see the note in connection with *h-džab pa* above. Here we have the verb *b-žu ba* with an inseparable prefix (cf. § 92).

h-džug pa “to go into, enter”
 perf. *žug-s* in differentiation to *b-žug-s pa* “to sit”
 žug-s also occurs in the meaning of “to be converted to; to be involved in”
 fut. — no future, because *g-žug* belongs to the transitive *h-džug pa* (cf. §§ 87 and 82)
 imper. *žug-s* instead of *thšug-s* which belongs to the transitive *h-džug pa*

- h-džo ba* "to milk"
 perf. *b-žo-s* } both forms derived from a present
 fut. *b-žo* } tense form *b-žo!* (cf. § 92)
 imper. *h-džo-s*
- h-džog pa* "to put, place, settle"
 perf. *b-žag*
 fut. *g-žag*
 imper. *žog* in distinction to four other forms
thšog mentioned in Ch. D., p. 427.
- h-džog pa* "to cut, hew, carve" (cf. §§ 81 and 83)
 perf. (*b-*)*žog-s* } either form shows no weakening
 fut. *g-žog* } of the *o* to *a* in distinction to the
 } form above
 imper. *žog*
- h-džom-s pa* "to conquer, subdue" (cf. § 87)
 perf. *žom* together with *b-tšom*; more correct
 would be **b-žom-s*
 fut. *g-žom*
 imper. *thšom*

In reference to 5). Verbs with inseparable prefixes *r* and *l* are governed by the rules given in §§ 27—30.

§ 89. In §§ 81—89 we have a clear example of the regularity of the tense formation. It was found that in addition to the normal, standardized means of tense formation through *tenuis*, *aspirata*, and *ablaut*, prefix *b* occurred only in the perfect and prefix *g* only in the future. If notwithstanding we find shifting or mixture of tenses in the case of certain verbs, this is to be regarded as a tendency toward incorrectness in the language itself.

Examples of this type are:

with reference to *h-džom-s pa* (§§ 81, 87, and 88):

pres. *b-tšom-s* perf. *g-žom-s* fut. *h-džom-s*

with reference to *h-džur ba* (§§ 81 and 87):

pres. *h-džur* perf. *g-tšur*

with reference to *h-džo ba* (§ 88):

pres. *h-džo* perf. *b-žo-s*

with reference to *h-džib pa* (§ 88):

pres. *h-džib-s* perf. *g-žib-s* fut. *b-žib.*, etc., etc.

δ Nasal.

(Compare also §§ 58 and 74)

§ 90. The group of verbs with nasal initial sound *ny* has either the prefixes *g*, *m*, *r*, and *s*, or none at all. Those which have no prefix, and those which have prefix *g* or *m* take no prefixes in forming the tenses, and rarely — if ever — suffix *s*. Verbs with the prefixes *r* and *s* come under the rules stated in §§ 27—30. A number of verbs with prefixes *r* and *s* already have the prefix *b* in the present tense; these likewise follow the rules given in §§ 27—30.

Only *r-nyid pa* “to wither, fade” is irregular:

pres. *r-nyid pa* perf. *b-r-nyid* or *b-r-nyi-s*

fut. *g-r-nyid* (Amundsen) or *g-nyid* (Ch. D.)

D. TENSE FORMATION OF VERBS WITH IMMINUTION OF THE INITIAL SOUND. •

§ 91. According to what was said in §§ 75—79, we distinguish two groups in this division. The first group is composed of verbs with initial *y* or *h*, and *h*. The second group comprises verbs with initial *ž* and *š*. There are indeed only very few verbs with initial *y*. Some take prefix *g* indiscriminately as the sole tense sign of all the tenses. It appears that initial *y* was not at all suited to take on prefix *b*, since we have not a single instance of its occurrence. Verbs with initial *h* or *h* remain totally unchanged; rarely, if ever do we find *s* as the suffix for the perfect.

If, however, we are dealing with imminution of the initial sound in the quintary degree, i. e., roots or stems with initial *ž* and *š*, we observe that such verbs take the liberty of adding foreign inseparable prefixes, disregarding entirely the rightful prefix of the original verb to which they belong.

Verbs with initial *ž* are divided into two classes:

- 1) Verbs with “inseparable” prefixes *g* and *b*;
- 2) Verbs without a prefix in the present tense.

§ 92. In reference to 1). Verbs of this class remain unchanged. Only the perfect suffix *s* may eventually be added.

Examples:

<i>g-žah ba</i>	$\left\{ \begin{array}{l} g-ža-s \\ g-ža-s \end{array} \right.$	— —	“to sport, play”
			“sport, play”

g-žah ba — — — “to believe, confide in”
g-žag pa — — — “to make a place for”

(used as the future of *h-džog pa* “to put, place,” § 87)

g-žab-pa — — — “to rub with the hand”

g-žab pa — — — “to lick”

g-žal ba — — — “to weigh”

(used as the future of *h-džal ba*, § 87)

g-žig-s pa — — — “to investigate”

g-žib-s pa — — — “to put or lay in order”

must be traced from the tertiary *d-byib-s* “figure, form, symmetric measure” = quartary **džib-s*; therefore **žib-s* + prefix *g* which corresponds to prefix *d*. Compare *g-šib pa* in § 95.

g-žil ba — — — “to break down, conquer.”

(also used as the future of *h-džil ba*, § 87)

g-žu ba — — — “to strike, whip”

g-žug pa *g-žug[-s]* — — — “to put in, insert”

g-žun ba *g-žun-s* — — — “to be heedful”

g-žud pa — — — “to walk; to put into”

g-žun pa *g-žun* *g-žun* — — — “to subdue”

(used as the future of *h-džun pa* “to subdue,” § 87)

g-žum pa *g-žum* *g-žum* — — — “to cause to shudder”

(used as the future of *h-džum pa*, § 87)

g-žen pa — — — “to kindle, inflame”

g-žer ba — — — “to attend, serve”

g-že-s pa — — — “to be well, prosper”

g-žom pa *g-žom-s* — — — “to be split, cracked”

g-žol ba — — — “to flow down; alight”

(cf. *h-džol ba*, § 85!)

g-žol ba — — — “to remain fixed, absorbed in”

g-žol ba — — — “to be low, open”

b-žag pa — — — “to wear (of cloth)”

b-žag pa — — — “to burst, split”

(used also as the perfect of *h-džog pa* “to put, place,” § 87)

b-žad pa — — — “to blossom, develop”

b-žad pa — — — “to laugh, smile”

b-žab pa *b-žab-s* *b-žab* — — — “to sneak, creep”

(used as the perfect and future of *h-džab pa* “to sneak, creep,”

§ 88)

b-žam-s pa — — — “to stroke, caress”
 from the tertiary formation *byam-s pa* “love, affection”;
 from this the quartary form *h-džam pa* “tender, soft,
 charming,” whence through immutation of the initial
 sound **žam* + formative elements = *b-žam-s pa*.

b-žar ba — — — “to shave, shear”
b-žig pa *b-žig* — — — “to perish”
 (used as the perfect of *h-džig pa* “to perish,” § 88)

b-žu ba *b-žu-s* *b-žu* — — — “to melt, digest”
b-žug-s pa *b-žug-s* — — — “to sit, to dwell”
b-žud pa — — — — — “to start, depart”
b-žur ba — — — — — “to strain, filter”
 (by means of suffix *r* causative of *b-žu ba* “to melt,” cf. § 13)

b-žey ba *b-žey-s* — *b-žey-s* “to raise, erect”
 (derived from *g-dey ba* “to raise, lift”; *g-dey ba* > *g-džey*
ba > *žey ba* > *b-žey ba*; cf. DTR sub $\sqrt{*ga}$ (5) «head»)

b-žey-s pa — — — — — “to rise, get up”
b-žed pa — — — — — “to wish, desire”
b-žed pa — — — — — “to propose, maintain”
b-žed pa *b-že-s* (*b-žed*) — — — “to accept, take”
b-žo ba *b-žo-s* *b-žo* — — — — — “to milk”

(used as the perfect and future of *h-džo ba* “to milk,” § 87)

b-žog pa *b-žog-s* — — — — — “to cut at, chip”
 (used as the perfect of *h-džog pa* “to cut,” § 87)

§ 93. In reference to 2). Verbs which have no prefix in the present tense take *b* as a prefix for the perfect (prefix *s* is also found frequently in the perfect) as well as *g* for the future tense.

Examples:

[*žag pa*] *b-žag* *g-žag* — — — — — “to put, place”
 (*b-žag* as the perfect and *g-žag* as the future of *h-džog pa*, § 87).

The present tense form *žag pa* apparently could not maintain itself alongside with the older form *h-džog pa* “to put, place, settle.” It is still extant in the sense “that which places itself, settles”; cf. examples in Ch. D., p. 1065.

*žig pa*¹ *b-žig* *g-žig* — — — — — “to destroy”
 (*b-žig* as the perfect and *g-žig* as the future of *h-džig pa*, § 88)

¹ Cf. Ch. D., p. 1070.

(*žib pa*) *b-žib-s* *g-žib* — “to suck (of a baby)”
 (*b-žib-s* as the perfect and *g-žib* as the future of *h-džib(-s) pa*
 “to suck,” § 88)

I feel that the form *žib* is the same which Ch. D. mentions on p. 1070 in several examples. Among several we find it in the meaning “that which is minutely subdivided,” *žib thšen* “one who inquires into every detail,” *žib tu* “exactly thoroughly,” etc.

žu ba *b-žu-s* *g-žu* — “to melt, digest”

žu ba (*b-)*žu-s — — “to ask, request”

[*žog *pa*] (*b-)*žog-s *g-žog* — “to cut at, chip”

(*b-žog-s* is used as the perfect and *g-žog* as the future tense of *h-džog pa* “to cut, hew,” § 88. The present tense form *žog *pa* can no longer be found.)

žom pa *b-žom* *g-žom* — “to suppress, subdue” (Skr.
saṃvrta)

(*žom* is used as the perfect and *g-žom* as the future tense of *h-džom pa* “to conquer,” § 88.)

The verb *ži ba* “to be peaceful, be pacified” is an exception, since it remains unchanged in both the perfect and future.

To this group should be added the following combinations:

žab-s *b-žab* *g-žab* — «to lower»

žab-s represents an imminution of the initial sound derived from *h-džab pa* “to sneak, creep;” *h-džab pa* is to be regarded as a quartary form of *s-kyab-s*, etc. (cf. §§ 63 and 71); *s-kyab-s* is a tertiary form of the stem *gab* “to cover, conceal.” This original meaning is probably basic for the three following forms: *žab-s* “foot” — compare *s-krab pa* “to beat the ground with one’s foot,” § 63, No. 27 — *b-žab pa* “to sneak, creep” and *g-žab pa* “to rub with the hand” (cf. DTR sub $\sqrt{*ga}$ (6)).

žug-s pa *b-žug-s* — — «to entertain, dwell with»

b-žug-s is a quintary formation as a result of the imminution of the initial sound of *h-džug-s* which is quartary to *h-dug-s* “to sit, dwell.” The form *h-dug-s pa* belongs to \sqrt{du} (4) “smoke.” From this root have also derived *žug-s pa* “to cherish” = «to assemble conveniently around the fire» and *žug-s* “fire.” — The form *žug-s pa* “to be converted to, to be involved in” = «entered into» belongs to *h-džug-s pa* “to enter” § 88.

g-šuy ba g-šuy-s — — “to rebuke, blame”
 (surely an imminution of the initial sound from *g-tšun pa* “to reprove” (§ 81). These forms show the (probably) dialectical exchange of the final consonants *n* and *ŋ*, cf. § 5Bε: Change of the final sound.)

g-še ba g-še-s — — “to abuse, revile”
 (imminution of the initial sound from a former *[*g-*]tše *ba*).

g-šeg-s pa g-šeg-s — — “to depart (respectful)”
 (imminution of the initial sound from *h-thšag pa* “to go,” § 83).

g-šer ba g-šer — — “to ask, beg for”
 (imminution of the initial sound from a former *[*g-*]tšer *ba*).

g-šo ba g-šo-s — — “to pour away”
 (a quintary formation by means of imminution of the initial sound (§ 79) from *h-phyo ba* “to roam about; to flow forth (of fluids)” = «to be poured out.» Quartary: *h-thšo ba*, tertiary: *h-phyo ba*, alongside with the likewise tertiary form *h-byo ba* “to pour into another vessel” (sub $\sqrt{*ba}$ (4).)

g-šog pa g-šag-s g-šag g-šog — — “to break through; confess”
 (imminution of the initial sound from *b-tšag pa* or *b-tšog pa*, § 81, and from *h-thšag pa*, § 82).

g-šod pa (g-šod) — — “to comb”
 (imminution of the initial sound from *g-tšod pa* to cut asunder,” § 81).

g-šor ba g-šar — — “to measure, weigh”
 (used alongside with *g-žal ba*, § 92. By means of the imminution of the initial sound a quintary formation of *b-tšal ba* (§ 81) with exchange of the final consonants *l* and *r*, cf. § 13.)

g-šor ba g-šar (?) — — “to chase, run after”
 (imminution of the initial sound from *g-tšor ba*, § 81, or *h-thšor ba*, § 83).

b-šaḥ ba b-ša-s — — “to slaughter, kill”
 (imminution of the initial sound from a *[*b-*]tšaḥ *ba* which belongs to \sqrt{da} (11) «to change into.» Related to this are *h-thši ba* “to die,” and *h-dzad pa* “to dwindle,” with which could be associated a *[*b-*]tsad *pa* «to cause to disappear gradually,» whence *g-sad pa* and *g-sod pa* “to kill.”)

b-šag(-s) pa b-šag-s b-šag — — “to explain, lay open”
 (imminution of the initial sound from *g-tšag-s* “to comprehend,

understand,” belonging to $\sqrt{*da}$ (10)c «to become light (shine),» from which is formed the secondary *r-tog pa* “to consider, examine.”)

b-šad pa *b-šad* — — “to explain, declare”
(cf. *g-šad pa*, intensive form of *b-šad pa* by means of prefix *g*.)

b-šar ba *b-šar* — — “to measure, weigh”
(cf. *g-šor ba* by means of prefix *g* and ablaut intensive form of *b-šar pa*.)

b-šal ba *b-šal* — — “to wash out, cleanse”
(imminution of the initial sound from a *b-tšal ba* “to wash”(?))

b-šig pa *b-šig-s* — — “to destroy”
(imminution of the initial sound from an intensive form $*[b-]tšig pa$ “to destroy,” which must have existed alongside with *h-džig pa*, § 88, whence *žig pa*, § 93.)

b-šib *b-šib-s* — — “to arrange evenly”
(cf. *g-šib pa*, which is intensive of *b-šib pa* by means of prefix *g*.)

b-šu ba *b-šu-s* *b-šu* *b-šu-s* “to pull off, peel”
b-šug pa *b-šug-s* — — “to barter, exchange”
(imminution of the initial sound from a $*[b-]tšug pa$; could it be possibly traced from *b-tšug pa*, § 81 ?)

b-šun ba *b-šun* — — “to bring down, degrade;
to curse”
(cf. *g-šun ba*)

b-šud pa *b-šud* — — “to take off; to scratch”
(imminution of the initial sound from a tenuis form $*[b-]tšud pa$, which could have existed alongside with a media form $*h-džud pa$, whence the intransitive *b-žud pa*, § 92.)

b-šud pa *b-šud* — — “to purify by fire”
b-šud pa *b-šud* — — “to put into the scabbard”
b-šum pa *b-šum-s* — — “to shed tears, to weep”
(imminution of the initial sound from *b-tšum pa*, § 81; cf. *g-žum pa*, § 92, and *žum pa*, § 93.)

b-šur ba *b-šur* — — “to sing”

b-šes pa *b-šes* — — “to be acquainted with,
to be friendly”

b-šo ba *b-šo-s* — — “to have sexual intercourse
with”

b-šo ba *b-šo-s* — — “to pour out; to vomit”

(cf. *g-šo ba*, which is really the intensive form of *b-šo ba* by means of prefix *g*.)

b-šog pa *b-šag-s* — — “to confess”

(cf. *b-šag-s pa* and *g-šog pa*)

b-šor ba *b-šor* — — “to chase”

(cf. *g-šor*, by means of prefix *g* intensive of *b-šor ba*.)

b-šor is used as perfect of *h-thšor ba*, § 83

g-šor is used as future of *h-thšor ba*, § 83

b-šol ba *b-šol* — — “to wait, defer, delay”

§ 96. In reference to 2). Verbs without a prefix in the present either add no prefix in the other tenses — occasionally suffix *s* in the perfect — or consistently show the prefix *b* in all other tenses. In the latter case, the prefixless form is to be considered as the specific form of the present tense like that of verbs with prefix *h*. This prefixless form then came to take the place of a present tense form with “inseparable” prefix *b* as described in § 33, etc.

Examples:

šad pa — — — “to comb, to brush”

(cf. *g-šod pa*, § 95)

šar ba *šar* — — “to rise, dawn”

(used as the perfect tense of *h-thšar ba*, § 82)

ši ba — — — “to die”

(used as the perfect tense of *h-thši ba* “to die”; cp. note to *b-šah ba* “to slaughter,” § 95.)

šib pa — — — “to whisper” (cf. §§ 145, and 52)

šil ba *šil* — — “to drip through”

(cf. *g-nyil ba* “to dry”)

šun ba *šun-s* — — “to snore, hum”

(cf. *b-šun ba* “to curse” and *g-šun ba* “to reprove,” § 95)

šub pa *šub-s* (*šub*) *šub-s* “to speak in a low voice”

(cf. *šib pa* and §§ 145 and 51—53)

šon ba *šon* — — “to hold, contain”

šoy ba *šoy* — — “to comprehend”

šor ba *šor* — — “to be fled, lost; to escape”

(this *šor* can have derived only from the aspirate *h-thšor ba*, § 82, if *g-šor ba* and *b-šor ba*, § 95, means “to chase, pursue”;

šor is used as the perfect tense of *h-thšor ba*, § 83.)

šu ba *b-šu-s* *b-šu* *b-šu-s* “to take off, peel”

<i>šud pa</i>	<i>b-šud</i>	<i>b-šud</i>	—	“to rub”
	(cf. <i>b-šud pa</i> , § 95)			
<i>šum pa</i>	<i>b-šum-s</i>	<i>b-šum</i>	[<i>b-</i>] <i>šum-s</i>	“to weep”
	(cf. <i>b-šum pa</i> , § 95)			
<i>šer ba</i>	<i>b-šer</i>	—	—	“to compare, confront”
<i>šes pa</i>	<i>b-šes</i>	—	—	“to know”
	(cf. <i>b-šes pa</i> , § 95)			
<i>šoŋ ba</i>	<i>b-šoŋ-s</i>	} <i>b-šoŋ</i>	—	“to empty, remove”
	<i>b-šoŋ-s</i>			
	(the form <i>b-šoŋ-s</i> is used as the perfect tense of <i>g-tšoŋ ba</i> , § 81)			
<i>šom pa</i>	<i>b-šom-s</i>	} <i>b-šam</i>	<i>b-šom</i>	“to prepare, make ready”
	<i>b-šam-s</i>			
	(quintary form of <i>h-byem pa</i> “to act with promptness and success,” whence the quartary forms <i>b-tšam pa</i> “made” and <i>thšom pa</i> “finished.”)			

Note: *šad pa* “to comb, brush” and *šom pa* “to prepare” have also the future forms *g-šad* and *g-šom*.

§ 97. What was said in § 93 also applies here. Even though we should like to regard simple roots with initial *ž* or *š* as primary, we must recognize them as quintary formations (cf. § 79), based upon a primary root with original guttural, dental, or labial initial sound. In Tibetan there is not a single primary palatal root¹ to be found. I shall add here

¹ Conrady informed me that such a genesis cannot be supposed for onomatopoeical words like *šib pa*, *šub pa* “to whisper”, etc. He is inclined rather to regard the hissing sound as original, wherein, however, I am forced to disagree with him. In justification of my viewpoint I would refer the reader to the DTR sub $\sqrt{*ga(6)}$ “head” (in the sense of “covering, enfolding”), which can leave absolutely no doubt that *šib pa* and *šub pa* belong to a primary guttural root. In substantiation I offer the following groups:

<i>s-kyab-s</i>	“protection, defence”		
<i>b-s-kyab-s</i>	“protected”		
<i>s-kyob pa</i>	“to defend, protect”		
<i>s-kyib-s</i>	“a place giving shelter”	<i>yib</i>	“shelter”
		<i>yib ma</i>	“something hidden”
		<i>yib pa</i>	“to hide oneself”
<i>b-tšab-s</i>	“made secret, concealed”		
<i>h-thšab pa</i>	“to keep secret, conceal”		
(<i>l-tšib-s</i>	“gloves; a shield”)	<i>šib pa</i>	“to whisper”
(<i>thšib pa</i>	“covering all”)	<i>šub pa</i>	“to speak in a low voice”
		<i>šab šub</i>	“whispering; a lie”
		<i>šob</i>	“falsehood, a lie”

a few words with initial *š*, the development of which may serve as a good illustration.

šaŋ-s "nose (resp.)"

šaŋ-s can only be the imminution of the initial sound from some tenuis form which itself is no longer extant. On the other hand, the form *g-tseŋ ba* "to raise" (§ 105) is still extant. This form *šaŋ-s* is related to *b-žeŋ-s pa* "to rise, get up" (§ 92). Thus, *šaŋ-s* is an intensive form, possibly in the meaning of "that which is rising" or "that which has risen."

šan "union"

quintary form of *l-tan* "joined together," with which also goes *l-dan* "belonging to" (sub $\sqrt{*da}$ (3) «to become connected»); *šan* "difference" belongs to $\sqrt{*ga}$ (11) «to part, become separated», from which derived *b-god pa* "to separate," *h-gyed pa* "to divide," and *khyad pa* "difference"; thus, *šan* is quintary.

šan "small boat"

like *m-nyan* "boat, skiff" and *žon pa* "to ride," etc., to be derived from \sqrt{da} (5) «to be transferred»

šan pa "ugly, frightful"

is related to *g-nyan pa* "fierce, severe"

šab šub "whispering, a falsehood"

šib pa "to whisper"

šub pa "to speak in a low voice"

šub-s "case, covering, sheath"

šob "falsehood"

These all are quintary formations derived from a tenuis form of the primary stem *gab pa* "to conceal, hide oneself" (§ 63), in the creation of which a blaut was applied with great virtuosity. Compare *g-žab pa* "to rub with the hand," *g-žib-s*, § 92, and *g-šib pa*, § 95, etc.

šar "the east"

šar ba "dawning, sunrise"

šar ba "to arise, to become visible"

These are imminutions of the tenuis form *h-thšar ba*, § 82.

- šis* “good luck”
surely shows affinity with *s-kyid* “good luck,” see
DTR sub \sqrt{ga} (16)a
- šes pa* “to know”
a quintary form of $\sqrt{*da}$ (10)c «to become light»,
whereto belong *s-ton pa* “to explain,” *g-nas pa*
“to be taught,” and others.
- šog pa* “a wing”
šog pa is like *šan* “small boat” (see above) a quintary
formation of \sqrt{da} (5) «to be transferred»; cf. DTR.
- g-šin pa* “agreeable, gracious, good”
like *šis* to be derived from *s-kyid pa*. Regarding the
change of final $d > n$ or s , cf. § 12.
- g-šin pa* “ghost, the dead”
belongs to *ši ba* “to die, pass away” (§ 96).
- g-šin pa* “shattered, destroyed”
likewise belongs to *ši ba*; suffix *m* denotes the
aspectus actionis perfectae (§ 12)
- g-šed ma* “hangman; the angel of death”; «the cutter, reaper»
imminution of the initial sound from *b-tšad pa*
“to cut” (§ 81); cf. also *b-šad*, *g-šad*, etc. (§ 118).
- g-šer ba* “moist, damp; water, fluid”
to be derived from *b-tšar ba* “to squeeze” (§ 81)
- b-šan pa* “a butcher, cruel person”
cf. *b-šaḥ ba* (§ 95)
- šul* “a way, track, narrow passage”
- b-šul* “road; journey”
the two latter formations belong to \sqrt{bu} (1) “to be-
come opened, to blossom,” whence *bul* “valley,
ravine.” To *bul* belongs a form **byul* which is
suggested through *yul* “land, district.” From a
corresponding tenuis form of quartary degree
derived the imminution *šul*.
- b-šol ma* “spirit, wine”
can possibly be put in relation to *ḥ-khyal ba* and
ḥ-thšal ba (§ 83) with their corresponding deri-
vations.

E. VERBS WITH ASSIBILIZED DENTAL INITIAL SOUND.

§ 98. Closely related with the verbs palatalized by *ya btags* are those with assibilized dental initial sound. Also in this case we are dealing with compound as well as with simple sounds. Compound sounds (assibilized dentals) are *dz*, *ts* and *ths*¹. The simple sibilants are *z* and *s*. In the first place we shall discuss the compound sibilants *dz*, *ts*, and *ths*. These merely represent a variation of compound palatals, as the following examples will show:

<i>g-tšog pa</i>	“to break”	<i>d-pyod pa</i>	“to investigate, test”
<i>g-tsag pa</i>	“to thrust in, poke”	<i>r-tsad pa</i>	“to quarrel, dis- pute”
<i>tšog pa</i>	“to have leisure”		
<i>b-tsog pa</i>	“to cast filth”	<i>byaη ba</i>	“purified, cleans- ed”
<i>h-džug pa</i>	“to put into, plant”	<i>g-tsaη ba</i>	“clean, pure”
<i>g-tsug-s pa</i>	“to plant, erect”	<i>s-myan pa</i>	“to take care of”
		<i>žen pa</i>	“to labour, take pains”
<i>g-tše ba</i>	“to esteem, love”		
<i>b-r-tse ba</i>	“to love, show affection,” etc., etc.	<i>b-r-tson pa</i>	“to strive, exert oneself”

§ 99. In Chandra Das we find in all 78 words which illustrate the transition from compound palatals to assibilized dentals. Of this number 53 have not changed their meaning, while the rest have undergone certain changes which we shall discuss a little later.

Among these 53 word formations, however, we do find a number that, along with the *ablaut* (which in itself has a definitive function (cf. §§ 5—6), also show a change of the final consonant. We observe the following changes:

I) final <i>d</i> : <i>n</i> (2) ²	V) final <i>d</i> : <i>η</i> (3)
II) final <i>d</i> : <i>s</i> (1)	VI) final <i>s</i> : <i>η</i> (2)
III) final <i>d</i> : <i>r</i> (1)	VII) final <i>r</i> : <i>η</i> (1)
IV) final <i>r</i> : <i>d</i> (1)	VIII) final <i>r</i> : <i>g</i> (3)

¹ In reference to this transcription compare note to § 79.

² The numerals indicate the number of verbs showing the consonantal change in question.

IX) final <i>g</i> : <i>ɣ</i> (1)	XV) final <i>d</i> : <i>g</i> (1)
X) final <i>s</i> : <i>m</i> (1)	XVI) final <i>b</i> : <i>g</i> (1)
XI) final <i>r</i> : <i>m</i> (3)	XVII) final <i>n</i> : <i>g</i> (1)
XII) final <i>l</i> : <i>m</i> (1)	XVIII) final <i>n</i> : <i>l</i> (2)
XIII) final <i>m</i> : <i>g</i> (1)	XIX) final <i>d</i> : <i>b</i> (2)
XIV) final <i>g</i> : <i>d</i> (1)	XX) final <i>l</i> : <i>d</i> (1)

It is quite probable that this change in the final consonants did not definitely appear until the realization of the value of these final formative elements was lost, that is, until a time, when the language was in a general state of decomposition, (according to Laufer during the ninth century A. D.). The inner connection governing the change of the final consonants as represented in groups I—IV and XIV—XV is still intelligible; but not quite so clear in the other groups.

§ 100. In four cases a kind of diminutive indicative of a change for the worse is brought forth by the change of the compound palatals into assibilized dentals:

<i>tšog pa</i> “to have leisure”	<i>nyer ba</i> “to dress”
<i>b-tsoḡ pa</i> “to cast filth”	<i>ḥ-dzar ba</i> “to dress carelessly”
<i>d-gyer ba</i> “to sing”	<i>thšon</i> “a tent”
<i>ḥ-dzer pa</i> “to be hoarse”	<i>b-tson</i> “prison, jail”
(alongside with <i>ḥ-dzer</i> “singing, music”).	

§ 101. In four further cases verbal substantive nouns are formed:

<i>ḥ-thšos pa</i> “to make ready”	<i>ḥ-džil ba</i> “to shed blood”
<i>g-tsas pa</i> “the harvest”	<i>m-thsal</i> “blood”
<i>ḥ-khyig pa</i> “to bind”	<i>thsud pa</i> “to dig”
<i>thsag ma</i> “sinew, nerve”	<i>ḥ-džor</i> “hoe, mattock, spade”

In addition compare

<i>khyur po</i> “entirely full”	<i>byan po</i> “the cook”
<i>thsar ba</i> “to fulfil, complete”	<i>ḥ-thsod pa</i> “to boil, cook”
<i>ḥ-thsar ba</i> “to be fulfilled, completed”	<i>thsan po</i> “hot, warm”
<i>phyan pa</i> “continually revolving”	
<i>r-tsen pa</i> “to play, make sport”	

§ 102. In five cases intensives are obtained:

<i>g-tšog pa</i>	“to break, split”	<i>g-tšog pa</i>	“to break, split”
<i>g-tsag pa</i>	“to thrust in, poke”	<i>g-tsod pa</i>	“to cut off, chop off”
		<i>b-tsab pa</i>	“to cut small, chop”

<i>d-pyod pa</i>	“to investigate, test”	<i>b-žes</i>	“food, meat”
------------------	---------------------------	--------------	--------------

<i>r-tsod pa</i>	“to quarrel, dispute”	<i>r-dzes</i>	“riches, property”
	<i>b-r-gyaŋ ba</i>		“to extend, stretch out”
	<i>b-tsaŋ ba</i>		“to press forward, squeeze oneself in”

§ 103. Finally, we must add the following two causatives:

<i>h-khyud pa</i>	“to glide into”	<i>b-tšum pa</i>	“to become con- tracted”
<i>thsud pa</i>	“to dig”	<i>b-tsum pa</i>	“to wink with the eye.”

F. TENSE FORMATION OF VERBS WITH ASSIBILIZED, DENTAL INITIAL SOUND.

α) Tenuis.

§ 104. The tenuis-group is divided into two classes:

- 1) Verbs with “inseparable” prefixes *g* or *b*;
- 2) Verbs with “inseparable” prefixes *r* or *s*.

§ 105. Verbs of the first class use only the suffix *s* to indicate the perfect tense.

Examples:

<i>g-tsag pa</i>	—	—	—	“to thrust in, poke” (cf. <i>g-tšog pa</i> , § 81)
<i>g-tsaŋ ba</i>	—	—	—	“to be clean, pure” (§ 108)
<i>g-tsab pa</i>	—	—	—	“to detach with a crowbar”
<i>g-tsi ba</i>	<i>g-tsi-s</i>	(<i>g-tsi</i>)	—	“to delight in, be fond of”
<i>g-tsi ba</i>	<i>g-tsi-s</i>	—	—	“to invite, summon, appoint”
<i>g-tsig-s pa</i>	—	—	—	“to show one’s teeth = to grin”
<i>g-tsir ba</i>	—	—	—	“to press out” (cf. <i>b- tšir</i> , § 81).

<i>g-tsug-s pa</i>	—	—	—	“to plant, put into” (cf. §§ 107—108)
<i>g-tsug-s pa</i>	—	—	—	“to bore out, excavate”
<i>g-tsug-s pa</i>	—	—	—	“to extend, scatter”
<i>g-tsud pa</i>	—	—	—	“to put into”
<i>g-tsub pa</i>	<i>(g-tsub-s)</i>	—	—	“to rub”
<i>g-tsub-s pa</i>	—	—	—	“to churn” (§ 107)
<i>g-tse ba</i>	<i>g-r-tse-s</i>	<i>(g-tse)</i>	—	“to cause mischief, to injure”
<i>g-tseŋ ba</i>	—	—	—	“to summon, appoint” = «to raise» (§ 107)
<i>g-tser ba</i>	—	—	—	“to injure” (§ 107)
<i>b-tsag pa</i>	<i>b-tsag-s</i>	<i>(b-tsag)</i>	—	“to press out” (§ 108)
<i>b-tsaŋ ba</i>	<i>b-tsaŋ-s</i>	<i>(b-tsaŋ)</i>	—	“to press forward, to squeeze oneself into” (§§ 107—108)
<i>b-tsab pa</i>	<i>b-tsab-s</i>	<i>(b-tsab)</i>	—	“to cut small”
<i>b-tsam pa</i>	<i>b-tsam-s</i>	<i>(b-tsam)</i>	—	“to be agreeing, to be appropriate”
<i>b-tsaḥ ba</i>	<i>b-tsa-s</i>	<i>(b-tsaḥ)</i>	—	“to be born to, bring forth”
<i>b-tsaḥ- ba</i>	<i>b-tsa-s</i>	—	—	“to watch, look on” (§ 108)
<i>b-tsal ba</i>	<i>b-tsal</i>	—	—	“to seek”
<i>b-tsir ba</i>	<i>b-tsir</i>	—	—	“to press out, squeeze” (cf. § 108 and <i>b-tšir ba</i> , § 81)
[<i>b-tsug pa</i>]	<i>b-tsug-s</i>	[<i>b-tsug</i>]	<i>(ḥ-thsug-s)</i>	“to bore through, penetrate”
<i>b-tsud pa</i>	—	—	—	“to put into” (cf. §§ 107—108 and the above <i>g-tsud pa</i>)
<i>b-tsum pa</i>	<i>b-tsum-s</i>	<i>(b-tsum)</i>	—	“to wink with the eye” (cf. <i>ḥ-dzum pa</i> “to close; to smile” (§ 109, 4) and <i>b-tšum pa</i> , § 81)
<i>b-tsem pa</i>	<i>b-tsem-s</i>	<i>(b-tsem)</i>	—	“to sew” § 108)
[<i>b-tse ba</i>]	<i>b-tse-s</i>	—	—	“to cause mischief, to injure” (§ 108)
<i>b-tso ba</i>	<i>b-tso-s</i>	—	—	“to dye”

<i>b-tso ba</i>	<i>b-tso-s</i>	—	—	“to boil, cook” (§§ 107—108)
[<i>b-tsog pa</i>]	<i>b-tsag-s</i>	<i>b-tsog</i>	—	“to chop, mince” (§ 108)
<i>b-tsog pa</i>	<i>b-tsog-s</i>	<i>b-tsog</i>	—	“to accumulate” (§ 109, 3)
<i>b-tsoŋ ba</i>	<i>b-tsoŋ-s</i>	<i>b-tsoŋ</i>	—	“to barter, sell” (§ 108)
<i>b-tsol ba</i>	<i>b-tsol</i>	—	—	“to seek”

For *g-tsug-s pa* Chandra Das gives the perfect form *b-tsug-s*, and for *g-tsub pa* the perfect form *b-tsub-s*. We need then to add two additional verbs, the present tense forms of which are no longer traceable:

[<i>b-tsug pa</i>]	<i>b-tsug-s</i>	(<i>g-tsug-s</i>)	—	“to plant, put into”
[<i>b-tsub pa</i>]	<i>b-tsub-s</i>	(<i>g-tsub</i>)	—	“to rub” (§ 108)

§ 106. The second class of verbs with inseparable prefixes *r* or *s* are governed by the rules given in §§ 27—30. To this class belong also those few verbs which add prefix *r* instead of prefix *l*.

β) Aspirate.

§ 107. Verbs with aspirate are divided into two classes:

- 1) Verbs, the aspiration of which produces intransitives or passives;
- 2) Verbs, the aspiration of which is due only to the addition of prefix *h*.

In reference to 1). Verbs of the first group can, of course, only show an aspirated perfect form.

Examples:

Tenuis initial sound:

trans. <i>b-tso ba</i>	“to cook” (§ 105)
intr. <i>thsa ba</i>	“to be hot”
	perf. (<i>thsa-s</i>) probably the same as <i>thsa-s</i> “of a woman in child birth”
trans. <i>b-tsaŋ ba</i>	“to squeeze oneself into” = « to fill up» (§ 105)
intr. <i>thsaŋ ba</i>	“to be full”
	perf. <i>thsaŋ-s</i>
trans. <i>g-tsug-s pa</i>	“to put into, plant” (§ 105)
intr. <i>h-thsug-s pa</i>	“to go into, enter”
	perf. <i>thsug-s</i>
	(cf. <i>h-thsug-s pa</i> , § 108, and <i>h-thsug pa</i> , § 82)

trans.	<i>b-tsud pa</i>	“to put into, place into” (§ 105)
intr.	<i>h-thsud pa</i>	“to enter; to be placed into”
		perf. <i>thsud</i> (cf. <i>thšud pa</i> , (§ 82))
trans.	<i>g-tsub-s pa</i>	“to churn” (§ 105)
intr.	<i>h-thsub pa</i>	“to toss about, swirl”
		perf. (<i>h-</i>) <i>thsub-s</i>
trans.	<i>g-tsey ba</i>	“to summon, appoint” (§ 105)
intr.	<i>h-thsey ba</i>	“to be satisfied”
		perf. <i>h-thsey-s</i> .
trans.	<i>g-tser ba</i>	“to damage” (§ 105)
intr.	<i>h-thser ba</i>	“to grieve, sorrow”
		perf. <i>h-thser</i> and <i>thser</i> , extant in <i>thser ka</i> “sorrow” and <i>thser ma</i> “thorn.”

In addition to these, we add the following verbs with initial aspirate, which as transitives possibly would have the initial sound of a non-aspirated tenuis:

trans.	—	
intr.	<i>thsig pa</i>	“to burn, give intolerable pain”
		perf. <i>thsig(-s)</i> (cf. <i>h-thsig pa</i> , § 108)
trans.	—	
intr.	<i>thsim pa</i>	“to be contented, consoled”
		perf. <i>thsim</i>
trans.	—	
intr.	<i>thsom pa</i>	“to doubt, hesitate”
		perf. <i>thsom-s</i>
trans.	—	
intr.	<i>h-thsar ba</i>	“to be finished, completed”
		perf. <i>h-thsar</i> (cf. <i>thsar ba</i> “to complete,” § 108)
trans.	—	
intr.	<i>h-thsig pa</i>	“to glow”
		perf. <i>h-thsig</i> (cf. above <i>thsig pa</i>)
trans.	—	
intr.	<i>h-thsub pa</i>	“to be choked, subdued”
		perf. <i>thsub-s</i>
trans.	—	

- intr. *ḥ-thser ba* "to shine, glitter"
 perf. *ḥ-thser*
 (cf. *ḥ-thšar ba*, § 82)
- trans. —
- intr. *ḥ-thsob(-s) pa* "to be a substitute, to be deputy"
 perf. *thsob*, *thsab* in the meaning of "a deputy, representative"
- Media initial sound:
- trans. — cf. however *ḥ-dzab(-s)* "mischief, danger"
- intr. *ḥ-thsab pa* "to be afraid, to be in awe of"
 perf. *thsab-s*
 imper. *thsob-s*
- trans. — cf. however *ḥ-dzer pa* "to speak, sing,"
m-dzer pa "to speak"
- intr. *ḥ-thser ba* "to neigh"
 perf. (*ḥ-thser*)
- trans. *ḥ-dzug-s pa* "to put into, thrust into"
- intr. *ḥ-thsug-s pa* "to go into, enter"
 perf. (*thsug-s*)
 (cf. *g-tsug-s pa*, § 105, and *ḥ-thsug pa*, § 81)
- trans. *ḥ-dzud pa* "to put into, lead into, influence"
- intr. *ḥ-thsud pa* "to be put into"
 perf. *thsud*
 (cf. *b-tsud pa*, § 105, and *ḥ-thsud pa*, § 82)
- trans. *ḥ-dzem pa* "to give up, avoid"
- intr. *thsem-s pa* "to have the disadvantage"
 perf. *thsem-s*
 (both verbs must certainly be classed together).
- trans. — cf. *m-dzo* "breed between the yak-bull and the common cow"
- intr. *ḥ-thso ba* "to live; to be durable, to last"
 perf. (*thso-s*) obsolete, now *so-s*
- trans. *r-dzog-s pa* "to fulfil, complete" (may possibly be placed here)
- intr. *ḥ-thsog-s pa* "to come together, assemble"
 perf. *thsog-s* (as a verbal substantive "assembly, multitude")

§ 108. In reference to 2). Again, the verbs of the second group have two perfects: one with aspirated and one with non-aspirated initial tenuis sound.

Examples:

ḥ-thsaŋ ba “to be clean, pure”

perf. *thsan-s*

g-tsaŋ-s (§ 105)

thsug-s pa

usually with the negative element *ma* “not” in the meaning of “to injure,” originally «not to plant.»

perf. *thsug-s*, also in the meaning “station, rest” = «there, where one usually sets (plants) oneself.»

g-tsug-s (cf. § 105)

ḥ-thsug-s pa “to bore through, penetrate”

perf. *thsug-s*

b-tsug-s (§ 105)

(cf. *ḥ-thsug-s pa*, § 107 and *ḥ-dzug-s pa*, § 109, 4)

ḥ-thse ba

“to cause damage, to injure”

perf. *thse-s*

b-tse-s, § 105 and also *g-tse ba* § 105

*ḥ-thseg pa*¹

“to repay a kindness”

perf. *thseg-s*

the second perfect is not extant any more; compare however *r-tseg pa* “successive action, automatic movement”

ḥ-thsed pa

“to cook”

perf. *ḥ-thsed*

the second perfect is no longer extant; but we find *r-tsed pa* “sun”

ḥ-thsem pa

“to sew”

perf. *thsem-s*

b-tsem-s (§ 105) and *b-r-tsam-s*

ḥ-thso ba

“to heal, cure”

perf. (*ḥ-thso*)

non-aspirated perfect is missing

¹ Cp. *ḥ-dzeg pa*, § 109, 2.

- h-thso ba* “to cook, boil”
 perf. *h-thso-s*
b-tso-s (§ 105)
- h-thsog pa* }
m-thsog pa } “to chop, mince” (cf. *h-thsog pa*, § 83)
 perf. *thsag-s*
 preserved in Sikkim in the sense of
 “thin split bamboo for making
 baskets”
b-tsag-s fut. *b-tsog* imper. *thsog* (§ 105)
 the verb **b-tsog pa* or **b-tsag pa* as a
 present tense form is no longer
 extant; but compare *b-tšag pa*
 (§ 81)
- (h-)thsud pa* “to dig” = «to cause to enter»
 perf. *thsud*
b-tsud “to put into” (§ 105)
- thsor ba* “to perceive, feel”
 perf. *thsor*
 non-aspirated tenuis perfect form is
 no longer extant; compare *b-tsol*
ba “to seek, look for.”
- h-thsag pa* “to press out, squeeze”
 perf. *thsag-s*
b-tsag-s fut. *b-tsag* imper. *h-thsog* (§ 105)
 the tenuis form *h-thsag pa* is the
 transitive of *h-dzag pa* “to drop,
 leak.” (§ 109, 5)
- h-thsan ba* “to press into, thrust into” = «to fill up»
 perf. *thsan-s*
(b-tsan-s, § 105) fut. b-tsan
 (cf. *thsan ba*, § 107)
- h-thsab pa* “to repay, replace”
 perf. *h-thsab-s* imper. *thsob*
 non-aspirated tenuis perfect form is
 no longer extant.
- h-thsal ba* “to wish, request, ask, seek”
 perf. *h-thsal* imper. *h-thsol*
b-tsal (§ 105)

- h-thsal ba* “to present, show”
 perf. *h-thsal*
 non-aspirated tenuis perfect form
 is no longer extant.
- h-thsig pa* “to burn, destroy by fire”
 (cf. *h-thsig pa*, § 107)
 perf. *h-thsig*
 the second perfect form is no more
 extant.
- h-thsir ba* “to press out, squeeze”
 perf. *h-thsir*
b-tsir (§ 105)
 (cf. *h-thšir ba*, § 83, and *h-dzir ba*
 “to leak,” with which goes *h-*
thsir ba that is transitive through
 the tenuis.)
- h-thsog pa* “to inoculate”
 perf. (*h-thsog*)
 the second perfect is lacking
- h-thsog pa* “to blame, scold”
 perf. (*h-thsog*)
 the second perfect is lacking
- h-thsoŋ ba* “to barter, sell”
 perf. *thsoŋ* as a substantive: “trade, traffic”
b-tsoŋ-s fut. *b-tsoŋ* (§ 105) imper. *thsoŋ*
- h-thsod pa* “to cook” (see above *h-thsed pa*)
 perf. *h-thso-s* (also perfect of *h-thso ba* “to cook,”
 see above)
b-tso-s fut. *b-tso* (§ 105) imper. *thso-s*
- h-thsol ba* “to seek, make search”
 perf. (*h-thsol*), cf. above *h-thsor ba*
b-tsol or *b-tsal* (§ 105) imper. *thsol*

In addition we have

- h-thso ba* “to feed”
 perf. *[*h-*]*thso-s* is no more extant; yet we have
 (*b-*)*so-s* fut. *g-so*
 either forms represent the imminu-
 tions of a verb **b-tso ba* or **g-tso*
ba “to feed”; compare *b-tso ba*
 “to dye” (§ 105)

γ) Media.

§ 109. Verbs with “inseparable” prefixes *g* or *d* are phonetically impossible in this group. We must distinguish the following classes:

- 1) Verbs with “inseparable” prefix *m*;
- 2) Verbs with prefix *h* maintained in the perfect;
- 3) Verbs with prefix *h* plus an old perfect and old future;
- 4) Verbs with prefix *h* plus an old perfect and a substituted future formed through the imminution of the initial sound;
- 5) Verbs with prefix *h* plus a substituted perfect and a substituted future formed through the imminution of the initial sound;
- 6) Verbs with “inseparable” prefix *r*.

In reference to 1). These verbs remain unchanged.

Examples:

<i>m-dzah ba</i>	<i>(m-dze-s)</i>	—	—	“to be amicable”
<i>m-dzaŋ-s pa</i>	<i>m-dzaŋ-s</i>	—	—	“to be wise, learned”
<i>m-dzad pa</i>	<i>(m-dzad)</i>	<i>(m-dzad)</i>	<i>(m-dzod)</i>	“to make” (honorific)
<i>m-dzer pa</i>	<i>m-dzer</i>	—	—	“to speak”
<i>m-dze-s pa</i>	<i>m-dze-s</i>	—	—	“to be handsome”

In reference to 2). Examples:

<i>h-dzab pa</i>	<i>h-dzab</i>	—	—	“to count on the beads”
<i>h-dzab pa</i>	<i>h-dzab</i>	—	—	“to strive, endeavour”
<i>h-dzi ba</i>	<i>h-dzi</i>	—	—	“to be busy, be absorbed”
<i>h-dzi ba</i>	<i>h-dzi</i>	—	—	“to abstain from”
<i>h-dziŋ ba</i>	<i>h-dziŋ-s</i>	—	—	“to contend with”
<i>h-dzir ba</i>	<i>h-dzir</i>	—	—	“to trickle off”
				(cf. <i>h-thsir ba</i> , § 108, <i>g-tsir ba</i> and <i>b-tsir ba</i> , § 105)
<i>h-dzu ba</i>	<i>h-dzu-s</i>	—	—	“to catch at”
				(cf. <i>h-džu ba</i> § 85)
<i>h-dzul ba</i>	<i>h-dzul</i>	—	—	“to glide or steal away”
<i>h-dzeg pa</i>	<i>h-dzeg</i>	—	—	“to climb up, ascend”
				(cf. <i>g-tseŋ ba</i> , § 105, <i>h-thseŋ ba</i> , § 107 and <i>h-thseg pa</i> , § 108)
<i>h-dzeŋ ba</i>	<i>h-dzeŋ</i>	—	—	“to throw stones”
<i>h-dzeŋ ba</i>	<i>h-dzeŋ</i>	—	—	“to project, stick out”
<i>h-dzem pa</i>	<i>h-dzem-s</i>	—	—	“to shrink from, avoid”
<i>h-dzer ba</i>	<i>h-dzer</i>	—	—	“to speak, sing”
<i>h-dzer ba</i>	<i>h-dzer</i>	—	—	“to be hoarse”
<i>h-dzog pa</i>	<i>h-dzog</i>	—	—	“to fold the fist”

<i>ḥ-dzom pa</i>	<i>ḥ-dzom-s</i>	—	—	“to come together, meet”
<i>ḥ-dzom pa</i>	<i>ḥ-dzom-s</i>	—	—	“to interlace”
<i>ḥ-dzol ba</i>	<i>ḥ-dzol</i>	—	—	“to go in the wrong way”
<i>ḥ-dzol ba</i>	<i>ḥ-dzol</i>	—	—	“to intermix, confuse”

In reference to 3). Example:

<i>ḥ-dzog pa</i>	<i>b-tsog-s</i>	<i>b-tsog</i>	—	“to accumulate” (cf. § 3,2)
		(§ 105)		
		(Amundsen)		

In reference to 4) Examples:

<i>ḥ-dzug-s pa</i>	<i>b-tsug-s</i>	<i>g-zug-s</i>	—	“to put into, insert” (cf. <i>g-tsug-s pa</i> , § 105, <i>b-tsug-s pa</i> , § 105, <i>ḥ-thsug-s pa</i> , § 107, and <i>ḥ-džug pa</i> , § 87)
--------------------	-----------------	----------------	---	--

<i>ḥ-dzud pa</i>	<i>b-tsud</i>	<i>g-zud</i>	<i>thsud</i>	“to lead into, in- fluence” (cf. <i>b-tsud pa</i> , § 105, <i>ḥ-thsud pa</i> , § 107, <i>thsud pa</i> , § 108, and <i>thšud pa</i> , § 82)
------------------	---------------	--------------	--------------	---

<i>ḥ-dzum pa</i>	<i>b-tsum</i>	<i>g-zum</i>	<i>thsum</i>	“to shut” (cf. <i>b-tsum pa</i> , § 105, <i>b-tšum pa</i> , § 81, <i>ḥ-džum pa</i> , § 87)
------------------	---------------	--------------	--------------	--

In reference to 5). Examples:

<i>ḥ-dzag pa</i>	<i>g-zag-s</i>	<i>g-zag</i>	—	“to trickle off” (here we have a former present tense form <i>g-zag</i> ; cf. <i>b-tsag pa</i> , § 105, <i>b-tsog pa</i> “to pile up,” § 105, <i>ḥ-thsog-s pa</i> intransitive of <i>r-dzog-s pa</i> , § 107, <i>ḥ-thsag pa</i> , § 108, <i>ḥ-thsog pa</i> “to inoculate,” § 108, and others.)
------------------	----------------	--------------	---	---

<i>ḥ-dzad pa</i>	<i>zad</i>	—	—	“to run down, become exhausted”
------------------	------------	---	---	------------------------------------

<i>ḥ-dzar ba</i>	<i>b-zar</i>	<i>g-zar</i>	—	“to fling over” (clothes) (compare herewith intransitive <i>ḥ-džol ba</i> , § 85; the latter is intransitive on account of final <i>l!</i>)
------------------	--------------	--------------	---	--

<i>ḥ-dzin pa</i>	<i>b-zuŋ</i>	<i>g-zuŋ</i>	<i>zuŋ-s</i>	“to seize, grasp” (<i>b-zuŋ</i> and <i>g-zuŋ</i> are to be traced from <i>ḥ-dzu ba</i> “to seize on”; see also § 5 Change of the Final Sound.)
------------------	--------------	--------------	--------------	--

<i>ḥ-dzug-s pa</i>	[<i>b-</i>] <i>zug-s</i>	<i>g-zug</i>	—	“to put, stick, erect” (see above)
--------------------	----------------------------	--------------	---	---------------------------------------

<i>h-dzud pa</i>	<i>[b-]zud</i>	<i>g-zud</i>	<i>thsud</i>	“to lead into” (see above)
<i>h-dzum pa</i>	<i>[b-]zum</i>	<i>g-zum</i>	<i>thsum</i>	“to shut” (see above)
<i>h-dzur ba</i>	<i>b-zur</i>	<i>g-zur</i>	—	“to draw back, to shy”
<i>h-dzed pa</i>	<i>b-zed</i>	<i>g-zed</i>	—	“to hold out”

(*g-zed*, however, in the sense “to carry”)

In reference to 6). The words with “inseparable” prefix *r* are governed by the rules given in §§ 27—30.

G. IMMINUTION

OF THE INITIAL SOUND OF ASSIBILIZED DENTALS.

§ 110. The initial sound of a word formed by assibilized dentals, as in the case with the compound palatals, is subject to imminution or reduction of the initial sound. The media *dz* is reduced to *z*. the tenuis *ts* and the aspirated tenuis *ths* to *s*. Analogous to the case of the compound palatals (s. § 79), where we have the imminution of the initial sound as a formation of the fifth degree, we call this reduction also a quintary sibilant formation.

Examples of quintary sibilant formation:

a) of a guttural root:

based on $\sqrt{*ga}$ (5)a:	<i>h-dzey ba</i>	“to project, to be prominent”
	<i>g-zey-s pa</i>	“height, loftiness,” and from a tenuis form pertaining to it
	<i>sey ba</i>	“to raise what was hanging down”
based on \sqrt{ga} (16)b:	<i>h-dzer pa</i>	“to say, speak”
	<i>zer pa</i>	“to speak”
based on $\sqrt{*ga}$ (5)a:	<i>h-dzug-s pa</i>	“to raise”
	<i>zug pa</i>	“a building”

b) of a labial root:

based on \sqrt{ba} (1):	<i>h-thsag pa</i>	“thick, obese”
	<i>sag pa</i>	“a little bubble”
based on $\sqrt{*ba}$ (3):	<i>h-dzab pa</i>	“to strive, endeavour”
	<i>b-zab pa</i>	“to be careful, attentive”

c) of a dental root:

based on \sqrt{da} (11):	<i>h-dzad pa</i>	“to dwindle, to be consumed”
	<i>zad po</i>	“old cloth” and from a tenuis form pertaining to it
	<i>g-sad pa</i>	“extinguished; death”

based on \sqrt{da} (5):	<i>ḥ-thsab pa</i>	“to repay”
	<i>b-sab pa</i>	“to repay”
based on $\sqrt{*du}$ (6):	<i>ḥ-dzug-s pa</i>	“to thrust into; to prick”
	<i>g-zug</i>	“pain”
based on $\sqrt{*da}$ (10)a:	<i>s-tsal</i>	“said, commanded”
	<i>b-sal ba</i>	“advertising, announcement,” etc., etc.

Where we find forms such as *ḥ-diṅ ba* “to lay out” and *siṅ ba* “to sort out,” *g-duṅ ba* “to long for” and *g-zuṅ ba* “inclination, bias,” *g-deṅ ba* “to lift” and *seṅ ba* “to raise what was hanging down,” *ḥ-doṅ ba* “to go” and *soṅ* “gone,” or *ḥ-dem pa* “to prove, examine,” and *sem-s pa* “to think,” etc., side by side, the sibilant has not been developed from the stop sound as in Germanic. Rather does the Tibetan recognize in the initial sound a transition from the dental to the simple sibilant only as a result of the palatalization with *ya btags*. Moreover, a direct transition from *d* to *s* in the initial sound becomes possible only through palatalization with *ra btags* (s. § 127) as well as with the prefix *d* (s. § 18).

H. TENSE FORMATION OF VERBS WITH SIMPLE DENTAL SIBILANT IN THE INITIAL SOUND.

§ 111. In the matter of tense formation we are confronted with two groups of verbs. The first group comprises verbs having initial *z*, the second having initial *s*. Those verbs which have initial *z* + *la btags*, *s* + *ra btags*, and *s* + *la btags*, whose origin we shall discuss later in §§ 127—128, 139—140, and 137 belong, as far as tense formation is concerned, likewise to group 1 or 2.

§ 112. Those verbs which have the initial sound *z* are grouped into two classes:

- 1) Verbs with the “inseparable” prefixes *g* or *b*;
- 2) Verbs with no prefix in the present tense.

§ 113. In reference to 1). Verbs with the “inseparable” prefixes *g* or *b* remain unchanged; or, if changed at all, take the perfect suffix *s*.

Examples:

<i>g-zag pa</i>	<i>g-zag</i>	—	—	“to drip, trickle”
(imminution of the initial sound from <i>ḥ-dzag pa</i> ,				
§ 109, 5)				

<i>g-zag-s pa</i>	<i>g-zag-s</i>	—	—	“to magnify, multiply”
<i>g-zan pa</i>	<i>g-zan</i>	—	—	“to devour, consume”
<i>g-zab(s) pa</i>	<i>g-zab-s</i>	<i>g-zab</i>	<i>g-zob-s</i>	“to use diligence” (imminution of the initial sound from <i>h-dzab pa</i> , § 109, 2)
[* <i>g-zaḥ ba</i>]	<i>g-za-s</i>	—	—	“to eat”
<i>g-zas pa</i>	<i>g-zas</i>	—	—	“to set about, prepare for”
<i>g-zas pa</i>	<i>g-zas</i>	—	—	“to brandish”
<i>g-zar ba</i>	<i>g-zar</i>	—	—	“to put over (clothes)” (imminution of the initial sound from <i>h-dzar ba</i> , § 109, 5)
<i>g-zig-s pa</i>	<i>g-zig-s</i>	—	—	“to see, observe” (honorific)
<i>g-zig-s pa</i>	<i>g-zig-s</i>	—	—	“to give, grant”
<i>g-zig-s pa</i>	<i>g-zig-s</i>	—	—	“to accept, take; buy”
<i>g-zim pa</i>	<i>g-zim-s</i>	—	—	“to sleep, fall asleep”
<i>g-zir ba</i>	<i>g-zir</i>	—	—	“to be afflicted; to suffer”
<i>g-zug pa</i>	<i>g-zug</i>	—	—	“to sustain, to be able to bear”
<i>g-zug pa</i>	<i>g-zug-s</i>	—	—	“to put into, put up” (imminution of the initial sound from <i>h-dzug-s pa</i> , § 109,4)
(<i>g-zuḡ ba</i>)	<i>g-zuḡ-s</i>	—	<i>zuḡ-s</i>	“to seize, take hold of” (imminution of the initial sound from <i>h-dzu[ḡ] ba</i> , § 109,2)
<i>g-zud pa</i>	<i>g-zud</i>	—	—	“to lead, induce” (imminution of the initial sound from <i>h-dzud pa</i> , § 109,4)
<i>g-zum pa</i>	<i>g-zum[-s]</i>	—	—	“to shoot” (imminution of the initial sound from <i>h-dzum pa</i> § 109,4)
<i>g-zur ba</i>	<i>g-zur</i>	—	—	“to draw back, to shy” (cf. <i>b-zur ba</i>)
<i>g-zed pa</i>	<i>g-zed</i>	—	—	“to spit on a spike”
<i>g-zem pa</i>	<i>g-zem</i>	—	—	“to do a thing gently” (imminution of the initial sound from <i>h-dzem pa</i> , § 109,2)

<i>g-zer ba</i>	<i>g-zer</i>	—	—	“to bore into, knock in”
<i>g-zer ba</i>	<i>g-zer</i>	—	—	“to feel pain, be suffering”
<i>g-zo ba</i>	<i>g-zo</i>	—	—	“to remember, keep in mind”
<i>g-zon pa</i>	<i>g-zon</i>	—	—	“to take in, listen to”
<i>b-zaŋ ba</i>	<i>b-zaŋ</i>	—	—	“to be good”
<i>b-zab pa</i>	<i>b-zab-s</i>	—	—	“to use diligence” (cf. <i>g-zab(-s) pa</i> the intensive form of this)
<i>b-zaḥ ba</i>	<i>b-za-s</i>	}	—	“to eat” (cf. <i>g-za-s</i> intensive form of this)
	<i>b-zo-s</i>			
<i>b-zar ba</i>	<i>b-zar</i>	—	—	“to put over (clothes)” (cf. <i>g-zar ba</i> the intensive form of this)
<i>b-zi ba</i>	<i>b-zi[-s]</i>	—	—	“to become drunk, stupified”
<i>b-zuŋ ba</i>	<i>b-zuŋ(-s)</i>	—	—	“to lay hold on, capture” (cf. <i>g-zuŋ ba</i> the intensive form of this)
<i>b-zur ba</i>	<i>b-zur</i>	—	—	“to draw back, to shy” (imminution of the initial sound from <i>ḥ-dzur ba</i> , § 109,5)
<i>b-zed pa</i>	<i>b-zed</i>	—	—	“to endure” (cf. <i>g-zed pa</i> the intensive form of this)
<i>b-zo ba</i>	<i>b-zo-s</i>	—	—	“to make, manufacture” (cf. <i>b-tso ba</i> , § 81)
<i>b-zod pa</i>	<i>b-zod</i>	—	—	“to suffer, endure; to resist” (imminution of the initial sound from <i>ḥ-dzed pa</i> § 109,5)
<i>b-zod pa</i>	<i>b-zod</i>	—	—	“to forgive, pardon”
<i>b-zob pa</i>	<i>b-zob</i>	—	—	“to fill up, complete”
<i>b-zla-s pa</i>	<i>b-zla-s</i>	—	—	“to mutter”
<i>b-zlug-s pa</i>	<i>b-zlug-s</i>	—	—	“to inquire, ask for”

§ 114. In reference to 2). As a rule the few verbs which have no prefix in the present, remain unchanged; very occasionally the perfect suffix *s* occurs.

Examples:

<i>zab pa</i>	<i>zab-s</i>	<i>zab</i>	—	“to make deep, deepen”
				(cf. <i>b-zab pa</i> and <i>g-zab pa</i> , § 113)
<i>zin pa</i>	<i>zin</i>	—	—	“to commit to memory, learn”
<i>zin pa</i>	<i>zin</i>	—	—	“to be finished, terminated”
<i>zum pa</i>	<i>zum</i>	<i>zum</i>	—	“to close, shut up”
				(cf. <i>g-zum pa</i> , § 113)
<i>zur ba</i>	<i>zur</i>	—	—	“to push”
				(is <i>b-zur ba</i> and <i>g-zur ba</i> (§ 113) related to this?)
<i>zer ba</i>	<i>zer</i>	—	—	“to be named; to say”

The verb *za ba* forms an exception in so far as it is a present tense form, which takes the old perfect and future forms *b-za-s* and *b-zaḥ*; these in turn were borrowed from the former present form *b-zaḥ ba*. Thus we have

<i>za ba</i>	}	<i>b-za-s</i>	<i>b-zaḥ</i>	<i>zo-s</i>	“to eat”
<i>b-zaḥ ba</i>					

Note: Only those verbs that have *la btags* take prefix *b* in the perfect and occasionally in the future, corresponding then to the verbs with prefix *z* (cf. §§ 28—29) which take *b* in the perfect as well as in the future.

Examples:

<i>zlug pa</i>	<i>[b-]zlug-s</i>	—	—	“to pour into, to cast”
<i>zlug pa</i>	<i>b-zlug-s</i>	<i>(b-zlug)</i>	—	“to send word”
—	<i>b-zlug-s</i>	—	—	“to inquire”
<i>zlo ba</i>	<i>b-zlo-s</i>	<i>b-zlo</i>	—	“to summon, call”
<i>zlog pa</i>	<i>b-zlog(-s)</i>	<i>b-zlog</i>	—	“to drive back, repulse”

§ 115. Verbs with initial sound *s* are divided into four classes:

- 1) Verbs without prefix in the present tense;
- 2) Verbs with prefix *b* in the present tense;
- 3) Verbs with prefix *g* in the present tense;
- 4) Verbs with prefix *g* in the present and with substituted perfect tense.

§ 116. In reference to 1). Verbs without a prefix in the present usually remain unprefixed, or, in case a prefix is added, employ *b* in both the perfect and future, as do verbs with prefix *s* (cf. §§ 29—29).

Examples:

<i>saŋ ba</i>	<i>saŋ-s</i>	—	—	“to cleanse, make clean”
	(cf. <i>g-tsaŋ ba</i> , § 105)			
<i>siŋ pa</i>	<i>siŋ</i>	—	—	“to jerk, hitch up”
<i>siŋ ba</i>	<i>siŋ</i>	—	—	“to pick out, sort out”
<i>sid pa</i> ¹	<i>sid</i>	—	—	“to whistle”
<i>sib pa</i> ¹	<i>sib</i>	—	—	“to be absorbed (as water on the ground)”
<i>sim pa</i>	<i>sim</i>	—	—	“to refresh; to be refreshed”
<i>sug pa</i>	<i>sug</i>	—	—	“to push, jerk, nudge”
<i>sud pa</i> ¹	<i>sud</i>	—	—	“to cough, breathe with difficulty”
<i>sun pa</i>	<i>sun</i>	—	—	“to be tired of, weary of”
<i>sub pa</i>	(b-) <i>sub-s</i>	<i>sub</i>	—	“to stop up, plug up, to close, cork”
<i>sum pa</i>	<i>sum</i>	—	—	“to tie together; condense”
<i>sem-s pa</i>	<i>sem-s</i>	<i>sem-s</i>	—	“to think”
<i>srid pa</i> ²	<i>srid</i>	—	—	“to be possible; to grow”
<i>srib pa</i>	<i>srib-s</i>	—	—	“to grow dark or dusky”
<i>srug pa</i>	<i>srug</i>	—	—	“to stir, stir up”
<i>sruŋ ba</i>	<i>sruŋ-s</i>	<i>sruŋ</i>	—	“to protect, shelter”
<i>srub pa</i>	<i>srub-s</i>	<i>srub</i>	—	“to stir up, to churn”
<i>sru-s pa</i>	<i>sru-s</i>	—	—	“to thicken (by evaporation)”
<i>sreg pa</i>	<i>sreg-s</i>	<i>sreg</i>	—	“to destroy with fire; to roast, bake”
<i>sred pa</i>	<i>sred</i>	—	—	“to desire”
<i>sre-s pa</i>	<i>sre-s</i>	—	—	“to mix up together”

¹ Compare note to § 97 on p. 154.

² In regard to initial *sr* and *sl*, see explanation in § 111. These verbs have been added here merely to supplement this list in connection with tense formation.

<i>sro ba</i>	<i>sro-s</i>	<i>sro</i>	—	“to warm (by fire)”
<i>slan ba</i>	<i>slan-s</i>	<i>slan</i>	—	“to raise vertically”
<i>slab pa</i>	<i>slab-s</i>	<i>slab</i>	—	“to learn; to teach”
<i>slam pa</i>	<i>slam</i>	—	—	“to roast slightly”
<i>sloŋ ba</i>	<i>slan-s</i>	<i>slan</i>	—	“to cause to rise; to excite, inspire”
<i>san ba</i>	<i>b-san-s</i>	<i>b-san</i>	—	“to cleanse, clean” (see above)
<i>sub pa</i>	<i>b-sub-s</i>	<i>b-sub</i>	—	“to stop up, cork” (see above)
<i>sub pa</i>	<i>b-sub-s</i>	<i>b-sub</i>	—	“to erase”
<i>seŋ ba</i>	<i>b-san-s</i>	<i>b-san</i> } <i>b-seŋ</i> }	—	“to raise what was hanging down”
	(cf. <i>g-tseŋ ba</i> , § 105, and <i>h-dzeŋ ba</i> , § 107, intransitive)			
<i>sem-s pa</i>	<i>b-sam-s</i>	<i>b-sam</i>	<i>som</i>	“to think, imagine” (see above)
<i>sel ba</i>	<i>b-sal</i>	<i>b-sal</i>	<i>sol</i>	“to remove, cleanse, blot out”
<i>sog pa</i>	<i>b-sag-s</i>	<i>b-sag</i>	—	“to gather, heap up” (cf. <i>h-thsog-s pa</i> , § 107)
<i>sran pa</i>	<i>b-sran</i>	<i>b-sran</i>	<i>sron</i>	“to bear, endure”
<i>sri ba</i>	<i>b-sri-s</i>	<i>b-sri</i>	—	“to retain, to be parsimonious”
<i>sri ba</i>	<i>b-sri-s</i>	<i>b-sri</i>	—	“to wind, wrap around”
<i>sriŋ ba</i>	<i>b-sriŋ-s</i>	<i>b-sriŋ</i>	—	“to fling far away, to postpone; to send”
<i>sruŋ ba</i>	<i>b-sruŋ-s</i>	<i>b-sruŋ</i>	<i>b-sruŋ-s</i>	“to watch, guard”
<i>srub pa</i>	<i>b-srub-s</i>	<i>b-srub</i>	—	“to stir up, churn” (see above)
	(cf. <i>g-tsub pa</i> “to rub,” § 105, in connection with <i>ra btags</i> , § 120ff.)			
<i>srul ba</i>	<i>b-srul</i>	<i>b-srul</i>	—	“to decompose (of the human body); to stir, to move to and fro”
<i>sre ba</i>	<i>b-sre-s</i>	<i>b-sre</i>	<i>b-sre-s</i>	“to mix with; to add, sum up”

(cf. above *sre-s pa*)

<i>sreg pa</i>	<i>b-sreg-s</i>	<i>b-sreg</i>	<i>b-sreg</i>	“to burn; to roast, bake” (see above)
<i>srel ba</i>	<i>b-srel</i>	<i>b-srel</i>	—	“to rear, nurse”
<i>sro ba</i>	<i>b-sro-s</i>	<i>b-sro</i>	<i>b-sro(-s)</i>	“to make warm (at the fire)” (see above)
<i>sron ba</i>	<i>b-sran-s</i>	<i>b-sran</i>	<i>sron(-s)</i>	“to make straight”
<i>slad pa</i>	<i>b-slād</i>	(<i>b-slād</i>)	—	“to mix”
<i>slu ba</i>	<i>b-slu-s</i>	<i>b-slu</i>	<i>b-slu-s</i>	“to entice, seduce”
<i>sleb pa</i>	<i>b-sleb-s</i>	<i>b-sleb</i>	—	“to arrive”
<i>slog pa</i>	<i>b-slog-s</i>	<i>b-slog</i>	—	“to turn around, to turn inside out”

(cf. *zlog pa* § 114)

<i>sloy ba</i>	<i>b-slan-s</i>	<i>b-slan</i>	<i>sloy</i> <i>sloy-s</i>	} “to cause to rise; to inspire, excite” (see above)
<i>slon pa</i>	<i>b-slan</i>	<i>b-slan</i>	—	
<i>slob pa</i>	<i>b-slab-s</i>	<i>b-slab</i>	<i>slob(-s)</i>	“to learn; to teach”

§ 117. In reference to 2). All verbs with prefix *b* in the present retain this *b* not only in the perfect, but also in the future, for reasons adequately stated in §§ 28—29, 114, 116. These verbs need not be mentioned here since groups of verbs are enumerated in detail only where peculiarities or uncertainties may exist.

In reference to 3). There are extant 20 verbs with prefix *g*, of which 15 retain the prefix *g* in all tenses, exactly as in the case referred to in 2) of §§ 115 and 117; for this reason an enumeration at this time is unnecessary.

§ 118. In reference to 4). In the perfect tense the following four or five verbs have a substitute perfect taken from the verb-class with prefix *b* in order to differentiate between the perfect and the future. Thus, our assumption that the “separable” prefix *b* is to be recognized solely as a sign of the perfect tense, is strengthened (cf. §§ 24 and 58B). Otherwise we might rightly enough have expected a substitute also for the future¹.

Examples:

<i>g-so ba</i>	<i>g-so-s</i> <i>b-so-s</i>	} <i>g-so</i>	—	“to nourish”

(cf. *h-thso ba* “to live,” § 107)

¹ We do however find ablaut of the stem vowel *o* > *a* instead of a substitute for the future with the exception of *g-so ba* and *g-so-s pa*.

<i>g-sog pa</i>	<i>b-sag(-s)</i>	<i>(g-sag)</i>	—	“to gather, hoard”
	(cf. <i>h-thsog-s pa</i> , § 107)			
<i>g-sod pa</i>	<i>b-sad</i>	<i>g-sad</i>	}	— “to kill, slay”
		<i>b-sad</i>		
	(cf. <i>g-tšod pa</i> , § 81)			
<i>g-sob pa</i>	<i>b-sab</i>	<i>g-sab</i>	—	“to fill up, complete”
	(cf. <i>b-zob pa</i> , § 113)			
<i>g-so-s pa</i>	<i>b-so-s</i>	<i>g-so</i>	—	“to nourish”

§ 119. After a detailed discussion of words with assibilized dental initial sound and with simple, sibilized dental initial sound it might be well now to give also a general tabulation:

	tenuis	aspirata	media	
assibilized dentals	<i>ts(<tš)</i>	<i>ths(<thš)</i>	<i>dz(<dž)</i>	quarternary
simple, sibilized dentals by means of imminution of the initial sound	<i>s(<š)</i>	<i>s(<š)</i>	<i>z(<ž)</i>	quintary

IV. WORD FORMATION PALATALIZED

BY *ra btags*.

§ 120. The second kind of palatalization is accomplished by *ra btags*. The following consonantal series are subject to this palatalization:

	tenuis	aspirata	media	nasal
Guttural:	<i>kr</i>	<i>khr</i>	<i>gr</i>	—
Labial:	<i>pr</i>	<i>phr</i>	<i>br</i>	<i>mr</i>
Dental:	<i>(tr)</i> ¹	—	<i>dr</i>	—

The initial sounds *sr* and *hr* assume, however, a special place (see later paragraphs).

Palatalization with *ra btags* was originally throughout intensive (cf. § 6). Even as old as this word-forming element is — and it reaches back to the very earliest beginning of the language — it has preserved for thousands of years its phonetical character. It was not until after the ninth century, A. D., that a simple explosive sound developed from the double sound *gr*, *br*, *dr*, etc.; that is, for the media the palatal *ḡ* and for the tenuis the palatal *ṭ*. In the first half of the ninth century, according to Laufer's *Bird Divination amongst the Tibetans*, p. 86ff., *ra btags* could still be heard clearly in the guttural and labial series. The transition from *gr* to *ḡ* and from *kr* or *khr* to *ṭ* became practically an established rule (except in West Tibet and Ladakh). The change from *br* or *dr* to *ḡ* and from *pr* or *phr* to *ṭ* is still subject to dialectical caprice. This change we call a sound-shift². This palatal *ḡ* and *ṭ* is not graphically distinguished in genuine Tibetan words.

Palatal *ḡ* and *ṭ* which came into being after the ninth century, A. D., — if Laufer is correct — went over to dental *d* and *t* with amazing rapidity. Of the many examples that existed two hundred years later, two may serve as illustrations.

From the stem *gab* "to hide" are formed *ḡ-grib pa* "to grow dim, get dark" and *s-grib pa* "to obscure, to cover." Initial *gr* became *ḡ*, and the corresponding tenuis *ṭ* then became *t*; thus there developed

¹ Only in very few words, about 10 in number.

² Cf. Laufer, *Bird Divination*, p. 91.

the stem **tib* which, with its aspirate and media, served as the basis for further formations such as *g-tib-s pa* "to be gathering (of clouds)," *h-thib-s pa* "to be darkened," *l-dib pa* "not clear, unintelligible," etc.

From *h-grej ba* "to stand" and *s-grej ba* "to erect" is developed in the same way *l-daj ba* "to put up," *g-dej ba* "to lift," *s-tej* "the top," etc. (cf. DTR sub $\sqrt{*ga}$ (5)a).

That *d* or *t*, derived through palatalization with *ra btags*, further changes to *d* or *t* is susceptible of proof only in the guttural series. In accordance with § 71 we shall call this a quartary formation. In a dictionary of roots it thus becomes necessary to list *g-tib-s pa*, etc., for example under $\sqrt{*ga}$ (6) «head, enveloping.»

§ 121. Imminution or reduction of the initial sound may take place in gutturals, labials and dentals palatalized by *ra btags* (though not in *sr* and *hr* which are much later modern forms) as well as in those palatalized by *ya btags*.

Examples:

<i>s-grig pa</i>	"to put in order"
<i>rig pa</i>	"to put in order"
<i>grog-s</i>	"a friend, companion"
<i>rog-s</i>	"a friend, companion"
<i>b-grad pa</i>	"to open wide"
<i>rad pa</i>	"to open wide"
<i>gruy ba</i>	"to be very intelligent, wise"
<i>ruy ba</i>	"to be fit, capable for"
<i>h-brub pa</i>	"to overflow, gush forth"
<i>rub pa</i>	"to rush upon, attack"
<i>h-phrag pa</i>	"to envy, to be envious"
<i>rag(-s) pa</i>	"to be few"
<i>h-dreg-s pa</i>	"to pare nails, to shave the hair"
<i>reg-s pa</i>	"to be shaved, to be shorn"
<i>dral ba</i>	"to split with a blow"
<i>ral ba</i>	"to tear, to be torn, rent, cleft"

In conformity with § 75 we call this manifestation reduction of the initial sound in the first degree (of a tertiary formation).

Forms such as *rig pa*, *rad pa*, *ruy ba* are naturally listed under *r* in the lexicon. Chandra Das records 114 words under *r*, of which 70 are immediately recognizable as reduced forms. Of the remaining 44,

the origin of half is not so easily determined since intermediate forms must first be constructed. The origin of the other half remains stubbornly inexplicable. For all that, I feel myself forced in every case to the conclusion that all words beginning with *r* — even *rag pa*, *riṅ ba*, *red pa*, *ran pa*, etc. — are not primary forms!

§ 122. Such reduced new formations, which have thus acquired *r* as initial sound, take on prefixes anew¹. We must next consider prefix *l* which stands in place of *m* with initial *r*², and is subfixed (cf. § 20).

Examples:

<i>ḥ-khrig pa</i>	“to cohere; become thick”
<i>rig-s</i>	“lineage, relationship”
<i>rliḡ pa</i>	“testicles”
<i>ḥ-phrag pa</i>	“to be envious, to envy”
<i>rag-s pa</i>	“few”
<i>rliḡ pa</i>	“destructive, ruin”
<i>rliḡ pa</i>	“to become bodiless”
<i>rliḡ pa</i>	(and derivations) “to destroy, break down”
<i>d-krug pa</i>	“to disturb, put in motion”
<i>b-rluḡ pa</i>	“unsteady, not firm”
<i>ḥ-khrug pa</i>	“to fight, contend”
<i>rluḡ-s pa</i>	“to pull down, overthrow”
<i>b-grud pa</i>	“to clear off husks, to shell”
<i>rud pa</i>	“a falling or fallen mass”
<i>rlud bu</i>	“a hide bag,” etc., etc.

This formation we call a reduction of the initial sound in the second degree (of a tertiary formation), in conformance with § 76. Here we do not have an analogous kind of continued formation like that in § 76 where the transition from initial *y* to *ḥ* was discussed. The new formation here is obtained by the addition of the prefix *l* to an initial *r* brought about by reduction of the initial sound. Only for the purpose of better classification may we use, here and in the following paragraphs, the terms reduction of the initial

¹ For the prefixes, cf. § 138 end, and § 142 note.

² In the combination *mr*, *m* is the initial sound of the root or of the stem.

sound in the second, third or fourth degree (of a tertiary formation), etc.¹

§ 123. In connection with this formation, we have still to establish that initial *r* changes with *l*.

Examples:

<i>s-brum pa</i>	“pregnant”
<i>rum(-s)</i>	“womb, uterus”
<i>lum-s</i>	“a bath used as a medical cure”
<i>druŋ-s</i>	“root, origin”
<i>luŋ pa</i>	“native place”
<i>riŋ ba</i>	“single, simple”
<i>liŋ ba</i>	“any entire place”
<i>h-grib pa</i>	“to grow less, decrease”
<i>rib</i>	“a short time, a little while”
<i>lib</i>	“suddenly, all at once”
<i>rliŋ-s</i>	“entire, all”
<i>liŋ-s pa</i>	“quite round or globular”
<i>(grim pa</i>	“to hurry, hasten”) final <i>m</i> : <i>ŋ</i> (cf. § 133)
<i>riŋ-s pa</i>	“to hurry, hasten”
<i>liŋ-s pa</i>	“hunter,” ² etc., etc.

We call this stage of formation Substituted reduction of the initial sound of a tertiary formation (Reduction of the initial sound of a tertiary formation in the third degree, in accordance with § 77).

§ 124. The *l* of the initial sound thus obtained is now further capable of aspiration.

Examples:

<i>rum(-s)</i>	“womb, uterus”
<i>lum-s</i>	“a bath used as a medical cure”
<i>lhum-s</i>	“womb, uterus”

¹ For this sort of formation the following terminology is possibly better: “Prefixed reduction of the initial sound of a tertiary formation”. This includes forms like *sro*, *sriŋ*, *sruŋ*, etc., in §§ 127ff. In *rluŋ-s*, *rlud*, etc., *l* was originally also a prefix! (cf. § 20).

² Compare also *sras* and *slas* “son, child”.

We denominate this kind of formation Aspirated, substituted reduction of the initial sound of a tertiary formation (Reduction of the initial sound of a tertiary formation in the fourth degree)¹.

§ 125. Before initial *r*, obtained by means of reduction of the initial sound, *h* can be used in place of prefix *s*, as a prefix to change intransitives to transitives since initial *s* + *ra btags* lies in another field of sound change (s. §§ 127—128).

Examples:

<i>h-khrig pa</i>	“to cohere”
<i>rig pa</i>	“to cohere”
<i>h-rig pa</i>	“to hang (a thief)”
<i>dral ba</i>	“to split with a blow”
<i>ral ba</i>	“to be torn, to tear”
<i>h-ral ba</i>	“to rend, tear up”

The form *h-rum pa* “to break, smash” must also be added here, since it is related with *grum po* “a maimed person” and with *khrum khrum* in the phrase *khrum khrum byed pa* “to pound in a mortar,” and with similar derivates.

§ 126. Prefix *s* expresses a general intensive effect; prefix *h* makes a weak attempt at a parallel function. Possibly the following examples may serve as illustrations:

<i>kran</i>	“upright, straight”	<i>dral ba</i>	“to split”
<i>ran</i>	(1) “upright, straight”	<i>ral ba</i>	“anything torn, cleft”
	(2) “alone, only (self)”		
<i>h-ran</i>	“alone, single”	<i>h-ral</i>	“to be torn”
<i>dril</i>	“a roll”	<i>b-grad pa</i>	“to scratch”
<i>ril</i>	“a ball, globe”		
<i>ril ba</i>	“globular, cylindrical”	<i>rad pa</i>	“to scratch”
<i>h-ril po</i>	“round, cylindrical”		
<i>h-drul ba</i>	“to rot, to grow putrid”		
<i>rul ba</i>	“to go bad, turn rancid”		
<i>rul po</i>	} “ragged, tattered”		
<i>h-rul po</i>			

¹ Compare also §§ 20 and 78. If the initial sound *l-h* was produced by means of *ya btags*, *l* functions as prefix. If, however, *l-h* was formed through the agency of *ra btags* or *la btags*, *l* is no longer prefix, but an aspirated *l*.

We call this type of formation *Causative-intensive formation* of the reduction of the initial sound in the first degree (Reduction of the initial sound of a tertiary formation in the fifth degree).

Forms such as *h-rig pa*, *h-ral ba* (s. § 125), *h-ril po* (s. § 126), etc., are found in the dictionary sub *h*, which, however, is misleading in as much as these should be classified under *r*, their initial sound. Instead of prefix *s*, as might have been expected, prefix *h*¹ has been added.

§ 127. The consonantal combination *sr* occupies a special position. In this case, *s* is not the initial sound palatalized by *ra btags*. The combination *sr* has a twofold origin. In the chapter on imminution of the assibilized dentals (§ 110) we said that in Tibetan initial *s* could have arisen only as a result of the transition from compound palatals to assibilized dentals + imminution of the initial sound. We do not find a direct transition from *d* > *s* in the case of palatalization with *ra btags*. Compare the following words with initial dental:

<i>dro ba</i>	“to be warm”	<i>dro-s pa</i>	“to be heated, grown warm”
<i>sro ba</i>	“to warm, make warm”	<i>sro-s</i>	“twilight, dusk of evening”
<i>drod</i>	“warmth”	<i>h-dres pa</i>	“to be mixed”
<i>b-srod pa</i>	“to dry”	<i>sres pa</i>	“to mix up”
<i>srod</i>	“evening twilight”		
<i>drol</i>	“custom, habit”	<i>dril</i>	“roll or rounded thing”
<i>srol</i>	“usage, custom”	<i>sril</i>	“silk worm”
<i>dral ba</i>	“to split with a blow”	<i>h-drul ba</i>	“to rot, grow putrid”
<i>b-sral ba</i>	“to separate, sort”	<i>b-srul ba</i>	“to decay (of a dead body)”
<i>h-dre ba</i>	“to blend together”	<i>b-žed pa</i>	“to wish, desire”
<i>sre ba</i>	“to mix with”	<i>sred pa</i>	“to desire,” etc., etc.

In this group of words, evidently we find intermediate forms like **s-dro ba*, **s-dres pa*, **b-s-dral ba*, **b-s-drod pa*, etc. It is possible to explain such an occurrence by the fact that *s* and *d* are both dentals; thus *d* was either assimilated to *s* or completely eliminated.

¹ Compare a similar part which *h* plays in Burmese and Siamese to which we have previously referred in § 59.

So, for example, where we find a *srub pa* along with *g-tsud pa* (from **g-tšud pa*), a form like **drub pa* or **s-drub pa* must also have existed. The same applies to *sriŋ ba* (**driŋ ba*, **s-driŋ ba*) "to extend" and to *sroŋ ba* (**droŋ ba*, **s-droŋ ba*) "to make straight" (cf. *kraŋ* in § 126)¹.

In the case of *b-žed pa* and *sred pa* "to wish, desire" there must likewise have existed an initial dental stem **dred* analogous to *b-žed* < **h-džed pa* (cf. § 132).

§ 128. Another method of explaining the origin of the consonantal combination *sr* emphasizes the fact that certain words with prefix *s* lose the true initial sound, replacing it by prefix *s*. We call this manifestation an elision of the initial sound.

Examples:

<i>s-prug pa</i>	"to shake"	<i>s-prul pa</i>	"a disembodied spirit"
<i>srug pa</i>	"to stir, twirl"	<i>srul po</i>	"a malignant spirit"
<i>b-s-grib-s pa</i>	"darkness, night"	<i>b-s-grib pa</i>	"to become dark"
<i>srib-s</i>	"darkness, gloom"	<i>srib pa</i>	"to grow dark," etc., etc.

In addition we have beside *d-kri ba* a form *sri ba* "to wind, wrap round," and beside *d-krug pa* a form *srug pa* "to stir up, twirl." The forms *sri ba* and *srug pa* can only be deduced from the forms **s-kri ba* and **s-krug pa*. Now **s-kri ba* and **s-krug pa* developed either from earlier forms such as **s-d-kri ba* and **s-d-krug pa* (i. e. through the dropping of "d"), or by assimilation of *s + d* to *s*. Then, too, a transition from prefix *d* to *s* is possible (cf. § 16), whereby forms like *d-kri ba* and *d-krug pa* could directly become **s-kri ba* and **s-krug pa*.

§ 129. All the remaining words with initial *sr* are easily explained and can be traced readily enough to their origin. Compare

<i>b-krab pa</i>	"to choose from among many"
<i>srab pa</i>	"narrow, slight"
<i>srah mo</i>	"thin, fine, tender"
	or
<i>krum-s</i>	"meat (offered to a respected person)"
<i>srum</i>	"flesh of animals used as food (resp.)"

¹ In such cases, where *d* palatalized by *ra btags* becomes *s*, this *s* in all probability may have been recognized in its old function as producing an intensive form (cf. § 126).

and others. Thus the matter of explaining the origin of these words is clear¹, e. g. *srab* from **s-grab*, and *srum* from *s-grum*. With **s-grab* compare the form *s-grob* "haughtiness, pride," and with **s-grum* compare *h-grum pa* "to cut off." There are only 12 words, the origin of which is not so easily discernible; for example *groy*: *braṅ*: *sraṅ* "inhabited place, village, hamlet, camp."

An explication of such forms is theoretically possible only in the manner explained at the close of the foregoing paragraph. The probability of such a deduction, however, is of course only relative, since the intermediate forms are no longer traceable.

There still remain such forms as *kran ma* and *sran ma* "beans." The word *kran ma* is now pronounced *tan ma* and appears alongside of *sran ma*, which latter form is deducible only from a form **s-kran ma* or **s-gran ma*. Compare *s-kran* Ch. D., p. 120.

§ 130. The palatal compounds of the *ya btags* class offered much room for orthographic uncertainties of a more or less incorrect nature. In the *ra btags* class this is also possible, yet not to such an unfortunate degree. Although in the *ya btags* class these inaccuracies, even mistakes, are so very numerous that certain writers seem to have pleased only themselves in creating varied forms, we meet in fact with but few real orthographic mistakes in the *ra btags* class. Compare for instance

<i>d-krug-s pa</i>	"to disturb"	<i>gruṅ po</i>	"very intelligent"
<i>h-drug-s pa</i>	"to stir up, agitate"	<i>druṅ po</i>	"judicious, prudent"
<i>h-khrul</i>	"mistake, error"	<i>h-khruṅ-s pa</i>	"to be born"
<i>h-phrul ba</i>	"to be mistaken, err"	<i>druṅ-s</i>	"root (or origin)"
<i>h-greṅ ba</i>	"to stand"	<i>drag</i>	"vehement, violent"
<i>kraṅ</i>	"standing"	<i>braṅ</i>	"vehement, fierce"
<i>draṅ</i>	"straight, upright"	<i>khrog</i>	"hasty, rash," and others.

§ 131. Now and then we find an irregular or unusual orthography, especially where we meet with several homophonetical primary roots. By using the above listed means of word building, they produce forms that are sometimes analogous in outward appearance (cf. § 72). In

¹ Chandra Das enumerates 77 words sub *s + ra btags (sr)*, twelve of which can be explained, if at all, only with difficulty.

such cases divergent orthography might have been expressly desired, and such specific forms were then in a sense "legally" established. There exist for example six *bu*-roots, of which the following two are examples; $\sqrt{*bu}$ (2) «mass, pile» and $\sqrt{*bu}$ (6) «to vanish.» The former ($\sqrt{*bu}$ (2)) produces among others the form *ḥ-brud pa* "to fill up." The latter ($\sqrt{*bu}$ (6)) gives us the form *ḥ-drud pa* "to rub." It is true, apparently without any special reason, there exists along with *ḥ-brud pa* "to fill up" another form *ḥ-drud pa*. This form is decidedly untenable in this connection, since it belongs to \sqrt{du} (1). — Again, \sqrt{ba} (1) «to arch» shows besides *braṅ* "breast" a form *droy ma* "basket with cover." The form *droy ma* is not derived from a dental root, since no such root exists in the meaning of «to arch.» In all probability *droy ma* was formed for the direct purpose of avoiding a coincidence with (*ḥ*)*broṅ* "a wild yak" (based on $\sqrt{*ba}$ (2)). — We find further that \sqrt{bu} (5) "worm, insect" has produced (along with a few other similar forms) *ḥ-bru ba* and *ḥ-dru ba* "to dig." Such a manifestation we call exchange of the initial sound in accordance with § 72¹.

A small, though interesting collection could be made of just such examples as these. The instances given above will suffice to indicate to what lengths a language must go, if the genius of the language wishes to create new concepts and forms from several homophonetical roots with one and the same means at its command. Such forms as these, of course, cannot belong to the earliest creative period of the language. Undoubtedly, they can have come into being only at a time, when a basic vocabulary was already extant and current among the people. Naturally, such forms were pronounced as the script of today indicates; on the other hand the orthographic inaccuracies mentioned in § 130 do not reproduce the sounds indicated by the letters, but merely the general palatal pronunciation of the words. Such forms showing an exchange of the initial sound evidently cannot have existed before the ninth century A. D. They are, moreover, of recent date. Now, if these combinations of letters representing a palatal sound were to be pronounced in accordance with their real value, we should have a mispronunciation which might indeed prove misleading to the investigator. The historic development of a root can be had only from an authentic dictionary of Tibetan roots.

¹ This exchange of the initial sound, however, is not identical with the so-called saltatory sound change, not to be found in Tibetan, to which we already referred on p. 17 § 2.

§ 133. When decomposition began in a later period of the language, the final formative elements lost their individuality and became practically undifferentiated in function. So we find an apparently lawless interchange of the final consonants in similar as well as in diverse word series. There follows below a complete list of the possibilities of interchange:

- 1) $d > s$ or $d : s$ in accordance with the dental series, § 11; compare *byad* and *tšas* "shape, aspect, form."
- 2) $n : s$ in accordance with the dental series § 11; compare *khyo-s ma* and *yon* "a present"; *m-khyen pa* and *šes pa* "to know"; *b-kren pa* and *b-kres pa* "hungry."
- 3) $b : s$, compare *bab mo* and *bas mo* "soft, mild"; *khyab pa* and *r-gyas pa* "to embrace."
- 4) $m : s$, compare *g-tšam pa* and *bya-s pa* (*) "made"; *h-tšō-s pa* and *šom pa* (*) "to make ready"; *s-brum pa* "pregnant" and *dru-s ma* (*) "in foal."
- 5) $\eta : s$, compare *s-mraŋ ba* and *s-mra-s pa* (*) "to speak"; *g-šun ba* and *s-myo-s pa* (*) "to rebuke."
- 6) $l : s$, compare *r-dol ba* "to come forth, make its appearance" and *r-do-s pa* "to break, flow out"; *tšal* and *tšas* "garden"; *gral* and *gras* "row, range."
- 7) $g : d$, compare *g-tšog pa* and *g-tšod pa* (*) "to break asunder, split"; *g-žig-s pa* and *d-pyod pa* "to examine into."
- 8) $\eta : d$, compare *b-taŋ ba* "given" and *b-tad pa* (*) "presented to"; *g-toŋ ba* and *g-tod pa* (*) "to send."
- 9) $n : d$ in accordance with the dental series, § 11; compare *b-žed pa* and *žen pa* "to wish, desire."
- 10) $b : d$, compare *khyab pa* and *h-khyud pa* "to embrace"; *byad* and *d-byib-s* "shape, form."
- 11) $m : d$, compare *byed pa* "to make" and *h-byem pa* (*) "to act with promptness and success"; *khrod* and *khrom* (*) "crowd, multitude (of men)."
- 12) $l : d$, compare *nyal ba* "to sleep" and *g-nyid* "the sleep"; *d-myal ba* "to cut off" and *h-tšad pa* "to be cut off"; *zil* "brightness, splendour" and *b-r-džid pa* "to shine, glitter."
- 13) $r : d$, compare *h-gyur ba* and *phyed pa* (*) "to change"; *nyer ba* and *m-nyed pa* (*) "to clothe"; *g-tšod pa* and *b-žar ba* (*) "to cut off"; *g-tšor ba* and *tšed pa* (*) "to spread over" (s. suffix *r*, § 13).

- 14) *g : n*, compare *g-yog-s pa* and *r-gyon pa* (*) “covering, garment”; *ḥ-thsag pa* and *thson po* (*) “fat, plump”; *ḥ-thsog-s pa* “to meet together, assemble” and *b-tson* “prison, jail.”
- 15) *ŋ : n*, compare *blaŋ-s pa* and *len pa* “to seize, lay hold of”; *s-nyuŋ ba* and *s-nyun pa* (*) “to be ill”; *d-byuŋ ba* and *ḥ-byin pa* (*) “to take out, remove” (s. § 5, p. 33).
- 16) *b : n*, compare *r-dzub* “deceit, imposture” and *r-dzun* (*) “falsehood, fiction, fable” (s. suffix *n*, § 11).
- 17) *m : n*, compare *ḥ-khyam-s pa* and *ḥ-phyan pa* (*) “to rove, wander”; *ḥ-thšom-s pa* and *ḥ-thšun pa* (*) “subdued”; *ḥ-thšam pa* “to dance” and *šon* (*) “the dance”; *ḥ-džam pa* and *m-nyen* (*) “supple, soft”; *ram pa* and *ran pa* (*) “a kind of grass (quitch-grass)”; *ḥ-grim pa* and *grin pa* (*) “clever, skilful.”
- 18) *l : n*, compare *b-r-tul* and *r-tun pa* “diligence”; *zil* and *byin* “brightness, splendour”; *r-tsol ba* and *b-r-tson pa* “to endeavour, take pains.”
- 19) *r : n*, compare *ḥ-byor ba* and *ḥ-byon pa* (*) “to come, arrive”; *(g-nyer ba* (*) “to tend, take care of” and *g-nyen* “kinsman.”
- 20) *ŋ : g*, compare *phyuŋ ba* and *s-pyug pa* (*) “to expel, bannish,”
- 21) *b : g*, compare *ḥ-brub pa* and *brug pa* (*) “to stream out, gush forth”; *g-žab pa* and *ḥ-gyog pa* (*) “to lick”; *l-dib pa* and *l-dig pa* (*) “to quiver, shudder” (s. suffix *b*, § 12).
- 22) *m : g*, compare *ḥ-dzom pa* and *thsog-s pa* (*) “to meet together, assemble.”
- 23) *l : g*, compare *g-nyil ba* and *g-tig(-s) pa* (*) “to trickle down, drip, melt” (s. suffix *l*, § 13, and *g*, § 10; *l* continuative, *g* iterative).
- 24) *b : ŋ*, compare *s-kyob pa* and *s-kyoŋ ba* (*) “to protect”; *byab pa* and *ḥ-byaŋ ba* (*) “to clean, cleanse”; *s-nyob pa* and *r-kyoŋ ba* (*) “to extend, stretch forth.”
- 25) *m : ŋ*, compare *l-dom* and *s-loŋ mo* “alms.”
- 26) *m : b*, compare *zem* “barrel” and *g-zeb* (*) “a tent, cage”; *r-tsam pa* “parched barley ground into meal” and *r-tsab-s pa* (*) “yeast, prepared from barley flour”; *ḥ-thom pa* and *r-tab pa* (*) “to be confused.”
- 27) *l : b*, compare *s-nyil ba* and *r-tib pa* “to break or pull down.”

- 28) $\eta : l$, compare *doŋ* “a deep hole, pit” and *b-r-tol* (*) “a cavern.”
- 29) $m : l$, compare *ḥ-khyim pa* and *ḥ-khyil ba* “to twist, whirl round;” *ṭhšam* and *ṭhšol ba* “headlong, full length”; *khrom me* and *khrol po* “sparkling, glittering.”
- 30) $\eta : r$, compare *ḥ-khyoŋ ba* and *ḥ-byor ba* “to arrive.”
- 31) $b : r$, compare *g-žob pa* and *b-šur ba* “to singe.”
- 32) $m : r$, compare *s-nem pa* and *s-nar ba* “to shake.”
- 33) $l : r$, compare *kyał* and *kyar po* “flat (not globular);” *ḥ-thsol ba* “to seek, look for” and *ḥ-thsor ba* “to perceive, feel”; *yol ba* “curtain” and *g-yor mo* “a sail”; *nal* “precious stone” and *nor* “any property, wealth, money,” etc.; cf. §§ 13 and 132.

34) We need also to mention here another small group representing words with *ya btags* + final *n*, whose corresponding forms with *ra btags* ends in *g*.

Examples:

<i>d-byin pa</i>	“to incite”	<i>d-byen pa</i>	“difference, discord”
<i>ḥ-phrag pa</i>	“to stir up, spur”	<i>ḥ-breg pa</i>	“to prune (trees)”
<i>ḥ-drug(-s) pa</i>	“to stir up, agitate”	<i>ḥ-dreg pa</i>	“to pare (nails)”
<i>gyon pa</i>	“to put on, wear”	<i>ḥ-phyen pa</i>	“flatulence”
<i>phrag pa</i>	“the shoulder”	<i>brag pa</i>	“anger, (malice)”
<i>ḥ-grag-s pa</i>	“to bind (a load)”	<i>drag pa</i>	“vehement, severe”
<i>s-pyan pa</i>	“to give heed, take care”	<i>s-pyon pa</i>	} “to go, depart”
		<i>ḥ-byon pa</i>	
<i>ḥ-brog pa</i>	“herdsman”	<i>prog pa</i>	“to run away”
<i>grog-s</i>	“friend, companion, fellow-labourer”	<i>grag-s pa</i>	“fame, rumour,” etc., etc.

With but few exceptions such as *khyab pa* and *ḥ-khyud pa* (sub 10), *ḥ-gyur ba* and *ḥ-phyed pa* (sub 13), *g-žab pa* and *ḥ-gyog pa* (sub 21), and a few others sub 34, the examples enumerated in this paragraph under the various numbers constitute pairs from one and the same root. In each case the interchange of the final consonants is apparently to be explained by analogy, in as much as in each case a close rela-

tionship can be established between two given suffixes, that is, between η and d , g and d , b and n , l and g , etc. Wherever I have discovered an analogy of this kind I have indicated it by means of an asterisk in parenthesis (*).

I have not hesitated to mention the exceptions just enumerated, since occasionally concepts arising from two different roots can lead to an association of ideas. Such a manifestation as this accounts for the many forms of one and the same concept derived, however, from different roots, as for instance *h-khyol ba*, *h-byor ba*, *h-byon*, *h-khyon ba* "to arrive at," or *thšol ba*, *h-khyor ba*, *h-khyom pa* "to reel," and others.

§ 134. In this connection reference must be made to a remarkable feature of the Tibetan language to which I shall have to return later (s. § 141). We have seen that many forms with *ya btags* show corresponding forms with *ra btags* (s. § 132), as for instance *r-gyab pa* "to beat" and *d-brab pa* "to beat with a whip," *h-thšum pa* "to long for" and *drum pa* "to wish, desire"; *r-gyan* "ornament" and *s-gron pa* "to decorate," etc. It should be remembered that among the dentals *r* appears as infix only with the media. Hence tenuis forms with *ra btags*, which ought to correspond to forms with *ya btags*, are not to be found. It is, of course, entirely possible that such forms were not produced at all, and that *r* in this case is to be considered merely as a prefix. Compare *s-nyil ba* "to throw down, break down" with *r-tib pa* "to break or pull down" which probably appears in place of **trib pa*. Final *l* : *b* (cf. § 133 sub 27); *g-tšin pa* "tide, firm, unshaken" with *b-r-tan pa* "firm, steadfast," probably in place of **b-tran pa*; *h-džun pa* "to subdue, make tame" with *r-duŋ ba* "to beat," possibly in place of **drun ba*¹. Final *n* : η (cf. § 133 sub 15). A similar condition we have in *s-byin pa* "to give" and *r-dob pa* "to give" instead of **drob*. In this particular case the *r* may at one time actually have functioned as an infix (s. § 141); today we find that metathesis has occurred in this very form. Compare also *h-grum pa* "to pinch off, cut off," *grum po* "a cripple," and *r-dum* or *r-gum* "maimed, limbless."

¹ Here still another idea may have predominated. From $\sqrt{*du(2)}$ "pain" developed *g-duŋ* "to be pained, tormented" — prefix *g* and suffix η both being intensive-iterative. To *g-duŋ* was then added the causative form *r-duŋ* "to beat, strike, to cause pain" (cf. prefix *r* in § 13).

V. WORDS WITH *la btags*.

§ 135. It is not justifiable to regard words with *la btags* as of almost equal value with words palatalized by *ra btags*. We find *la btags* or subfixed *l* in the combinations of *kl*, *gl*, *bl*, *sl*, (*lh*), *zl*, and *rl*. In the latter combination *l* is to be thought of as a prefix (cf. §§ 20 and 122). The use of *la btags* may be explained in the following four ways:

1) In the first place it was surmised that *la btags* stood in a certain relation to *ra btags*. In § 132 we called attention to the correspondence between the palatalization by *ya btags* and that by *ra btags*. In most cases a form with *ya btags* has a parallel form with *ra btags*. In a few instances we find, however, forms with *la btags* instead of with *ra btags*, but they are at best nothing more than dialectical variants. In most cases *la btags* functioned in the beginning as a prefix, which as a result of a consonantal accumulation was later moved forward as an initial sound.

2) *sl* (*lh*) came about from elision of the initial sound to which *l* had been superfixed, so that when prefix *s* (or aspiration) was added, the original superfixed *l* took the place of the initial sound which had dropped out.

3) *sl* (*lh*) is also the result of elision of an initial sound to which *l* had been subfixed, so that *l* became the initial sound which then took *s* as prefix.

4) *rl* represents a former *ra btags* as an initial sound, with superfixed prefix *l*.

§ 136. Illustrations for 1). Chandra Das gives under *kl* 14, under *gl* 19, and under *bl* 11 words with final consonants, in which *la btags* is not a simple substitute for *ra btags*¹. It is not necessary to illustrate each of the 44 instances. A few examples will serve the same purpose.

klog pa "to read, study" and *klog pa* "to read" are undoubtedly parallel forms of *g-tšag-s pa* "to grasp, comprehend." On the other hand, we cannot trace a form with *ra btags*.

klad pa "head, brain" is a parallel formation to *d-pyod pa* "to investigate, test by reasoning." A form with *ra btags* does not exist.

¹ In only two forms I have not yet been able to trace the origin, in *klan pa* "vengeance" and *blad pa* "thick-headed, dull."

klam pa “a thick blanket” is surely an equivalent of *khyeb-s* “a cover, lid” from the stem *gab* “to hide,” cf. § 63. (In this connection compare also *s-bram* “largeness, bulk” from $\sqrt{*ba}$ (2) «to swell, increase.»)

glag-s pa “to go, proceed” is an analogous form of *h-thšag(-s) pa* “to tread, walk.” There exists, however, in the sense of “glory, fame, reputation” (*grag-s*), a form which corresponds phonetically to that with *ra btags*, but which has nothing to do with “to walk, to go.”

blag pa “to lean towards” is the counterpart of *thšag-s pa* “to cling to.” There exists with *ra btags* a homophonetical word *brag pa* “anger, wrath,” which, however, is derived from an entirely different root.

blug pa “to pour into a pot, to fill” is found along with *brug pa* “to flow out, stream out.” It is only necessary here to explain why *blug pa* is transitive in view of the form *brug pa*. Without losing its medial initial sound, *blug pa* could form a transitive only by means of the prefix *s* (= **s-blug pa*), as the causative form *zlug pa* “to pour out” bears testimony. This formation will be touched upon again in § 140, illustrations to 3).

3). According to § 124 *l* can again become independent and take on aspiration; so we have beside *lug-s* “the casting of metal” (< **s-blug*) the forms *lhug pa* “to pour out,” *lhug-s* “successive, continuous,” *lhug ma* “prose,” and *lhug po*¹ “abundant, luxurious.” — The form *blug-s pa* “to pour out” is preferably used as the perfect of *l-dug-s pa* “to pour out, sprinkle” (cf. § 137, b and c).

blud pa “to pour out; to offer” appears in place of **brud pa* as an intensive form of *h-bud pa* “to set free, let go.” The form *blud pa* is used as the perfect of *l-dud pa* “to offer” (cf. § 137b and c).

§ 137. a) To conclude these illustrations, we would discuss two more groups of words.

First group:

	<i>blan pa</i>	}	“to answer”
<i>glan pa</i>	<i>zlon pa</i>		
<i>glon pa</i>	<i>l-don pa</i>		
<i>klon pa</i>	<i>r-lon pa</i>		
	<i>lan</i>		“the answer”

It was pointed out in § 120 that out of palatal *t* and *d* derived from *kr*, *chr*, and *gr* may furthermore develop dental *t* and *d*; in other words,

¹ The development of this form is also possible as indicated in § 78.

the tertiary roots *kra*, *khra* (*ta*), and *gra* (*da*) constitute the basis of the quartary root formations *ta* or *da*, which, by means of affixes and *ablaut*, in turn produce new words. Similarly, one is tempted to seek a relationship between *l-don pa*, *glon pa*, etc., but such a relationship is not possible because we have $\sqrt{*da}$ (10)c «to become light» (with regard to the mind) and $\sqrt{*da}$ (10)a «to come forth» (as a tone), roots which are evidently original or primitive (see DTR) and stand in close relation to one another. Thus the two words *don* “reason, mind” and *l-don pa* “to answer” are the starting point of the present investigation.

In the first place it is necessary to call attention to a manifestation within the initial sound itself: Initial sound *d* + prefix *l* frequently is changed to *b* + subfixed *l* — i. e., $l-d > b-l$, as for instance in *l-dad pa* and *blad pa* “to chew”; *l-dud pa* and *blud pa* “to pour out”; *l-dug-s pa* and *b-lug-s pa* “to pour out,” etc. Occasionally also *bl* takes the place of *gl* — analogous to the initial sounds with *ra* *btags* (s. §§ 130—131) —, as for instance in *blud pa* and *glud pa* “ransom”; *blon* “advice” and *glon pa* “to answer”; *glen po* and *blun po* “foolish, stupid,” etc.

A form like *l-don pa* “to answer” above shows clearly the developmental process of the group *blan pa* “to answer” and its derivatives. The initial sound $*l-do$ became *blo* “mind, spirit” and *blo pa* “to be able,” whence *blon* “advice” and *blan pa* “to answer” are derived, and to this *blan pa* correspond *glan pa*, *glon pa*, and *klon pa*. The word *zlon pa* arose from the intensive form $*s-blon pa$ in accordance with the development mentioned in § 139, sub 2). The forms *blan* and *zlon* further produced *lan* “the answer” and *r-lon pa* “to answer” (by a process like that described in § 122) with this difference, however, that here *l* became the initial sound and *r* the prefix.

b) The transition from $ld > bl$ can be explained phonetically only, if we regard *b* as a prefix to *ld*, hence $ld > b-ld > bl$. Accordingly *blo* “mind, spirit” must have been derived from $*b-ldo$. The same principle holds for *blud pa* “to pour out” and *b-lug-s pa* “to pour out” (s. § 136). Similarly the form *blud pa* is to be considered as a derivative of $*b-l-dud pa$, which is probably a perfect form of *l-dud pa* by reason of the prefix *b*. Accordingly, the form *b-lug-s pa* is to be regarded as deriving from $*b-l-dug-s pa$.

c) Only in this way is the transition from $ld > gl$ intelligible. As *blo* “mind, spirit” is to be derived from $*l-do$, so the forms *glon pa* and *glan pa* in all probability arose from *l-don pa* “to answer” + the

intensive iterative prefix *g*, thus giving us **g-l-don pa* > *glon pa* and *glan pa*. I do not believe that the forms *glon pa* and *glan pa* are to be considered as simple forms based upon $\sqrt{*ga}$ (2), subfixed by *la btags*. Rather have they developed through a shift of the initial sound. On the other hand, it appears that the various stages of the form *glon pa* were not quite clear in the mind of the Tibetans, and for this reason a tenuis form *klon pa* occurred alongside of the media form *glon pa*.

d) As far as *bl: gl* is concerned, we are really not confronted here with a manifestation of interchange, but with a juxtaposition of two forms, the development of which progressed along parallel lines. Thus we have *blon* "an advice" giving us the forms **b-l-don* > *blon*, and *glon pa* "to answer" giving us **g-l-don pa* > *glon pa*. The same is true of *blud pa* and *glud pa* "ransom" as well as of *glen po* and *blun po* "foolish, stupid," etc.

§ 138. The second group (cf. § 137) is composed of the following words:

<i>glen pa</i>	"stupid, ignorant, idiot"
<i>glos pa</i>	"stupidity, ignorance"
<i>blad pa</i>	"thick-headed, dull, stupid"
<i>blun po</i>	"dull, foolish"
<i>l-toŋ-s pa</i>	"a dunce"
<i>bloŋ ba</i>	"a dull person", «imbecile»
<i>r-moŋ-s pa</i>	"stultified, ignorant"

The form *glen pa* has arisen in one of the two following ways: either it stood dialectically in place of **gren pa* or *s-gren po* "naked, bare, poor" (analogous to *r-džen pa* "naked, bare"), or *s-gren po* produced (by means of reduction of the initial sound) the form **ren po* > *len po* (cf. § 123), to which was added the prefix *g*. — Similarly the form *glos* like the word *glen* had a twofold origin and is certainly to be regarded as analogous to *s-kyos pa* "wasted, spoiled"; to this word also belongs *s-kyon* "fault, defect"; these forms are all based on \sqrt{ga} (12) «to decrease, vanish, decay.» To these belong also *blad pa* and *blun po*. The form *blad pa* developed from **b-glad pa*, *glad* being also the basis for *glod pa* "to relax," *glod pa* "stupidity", *glen pa* "stupid" and even for both *blad pa* and *blun po*. The word *blun po* might be regarded as an ablauted form of *glen pa* (> **b-glen* > **blen* > *blun*). — The remaining forms arose through association of ideas. \sqrt{da} (11) «to vanish» yielded *l-doŋ ba* "infatuated," whence developed **b-l-doŋ* > *bloŋ ba* "a dull

person," *l-toṅ-s pa* "a dunce," etc. $\sqrt{*ba}$ (1) «to arch» produced the form *r-moṅ-s pa* "stupid," see DTR and § 65, 10).

From all this discussion to which I have devoted considerable space, we may conclude that *la btags* in the initial sounds *kl*, *gl* and *bl* was originally (with a very few exceptions) a prefix and became itself an initial sound with the prefix *b* and *g* through initial "sound shift." After a time the Tibetan apparently felt that the forms with *gl* were equivalent to those palatalized by *ra btags* and *ya btags*. Thus he considered the prefix *g* as the initial sound and, for the purpose of further formations, added the tenuis *k* to the media. We have thus in actuality a prefix *k* which is otherwise completely unknown in Tibetan! It is very probable that analogous forms like *glag-s pa* (see p. 192) and *blag pa* (see p. 192) were built up largely by an unconscious parallel with the development with *ra btags*. It is also probable that such forms as *klag pa*, *klad pa*, *klam pa*, *blud pa* are possibly only dialectical variants. Nevertheless, one may say that *la btags* in general is only a fiction of the Tibetan grammarian. Forms like *blug pa*, *blud pa*, and a few others can actually have developed through reduction of the initial sound on the basis of the formation with *ra btags* (cf. § 122), so that the new initial sound *r* changed to *l*, which took the prefix *b*. Thus, if *b*, *g*, and *k* are prefixes in the initial sound *bl*, *gl*, and *kl*, it is necessary in transcribing them to separate them, as is our custom, from the stem, thus: *b-lug pa*, *g-lag-s pa*, *k-lad pa*, and so on.

§ 139. Illustrations for 2).

a) Sub *sl* Chandra Das mentions 22 words ending in consonants, of which only *s-lam pa* "to roast slightly, to make brown" cannot be traced with absolute certainty. Of these 21 remaining words, 14 belong in this paragraph, since the initial sound *d*, prefixed by *l*, is dropped on account of the additional prefix *s*, thus making *l* the initial sound.

Examples:

l-dog pa "to return"

**s-l-dog pa* > *s-log pa* "to turn round = to turn inside out" along with *zlog pa* "to cause to return."

l-daṅ ba "to arise, get up"

**s-l-daṅ ba* > *s-loṅ ba* "to cause to rise, to excite," etc.
(plus derivatives).

l-dad pa "to contaminate, adulterate"

**s-l-dad pa* > *s-lad pa* "to mix with something of an inferior quality, adulterate" (plus derivatives).

l-dob pa "to comprehend quickly"

**s-l-dob pa* > *s-lob pa* "to learn, teach" (plus derivatives)

l-deb pa "to bend round, double over" (based in $\sqrt{*da}$ (2) «to arrive at, reach to,» s. DTR) **s-l-deb pa* > *s-leb pa* "income, revenue," *s-leb pa* "that which comes in, to arrive."

b) The verb *l-day ba* and its derivatives have likewise a very interesting development which I shall trace here:

It has its origin in the root $\sqrt{*ga}$ (5)a «head, top, uppermost end.» From this are derived the following tertiary formations: *h-greṅ ba* "to stand"; *s-greṅ ba* "to put up, erect"; *kraṅ* and *kroṅ* "upright"; *kroṅ ṅe* "upright, straight"; furthermore *glag* "that which is above, the upper part." This same *glag* is an analogous form of **grag*, from which arose *tog* "point, extreme end." To *tog* again are related *theg pa* "to lift, raise"; *h-deg-s pa* "to lift"; *g-deṅ ba* "to lift, raise," and *l-day ba* «to lift oneself» = "to arise, get up"; *s-loṅ ba* "to cause to rise"; *b-s-laṅ ba* "to raise, lift up," and others. — Thus we have *b-s-laṅ ba* as a quintary formation along with the form *s-greṅ ba* as a tertiary formation, from which again have arisen the many forms *s-raṅ*, *s-roṅ*, *b-s-raṅ*, and so on.

c) To the form *s-laṅ ba* "to take, accept" with its derivatives it is still necessary to add an explanation:

It has its origin in the root \sqrt{da} (5) «to be transferred.» From this are formed for instance *b-daḥ ba* "to carry away"; *h-deg-s pa* "to remove"; *l-dog pa* "to send back"; *s-deb pa* "to exchange"; *r-dob pa* "to give"; *l-dom pa* and *l-dum bu* "alms," etc. — If now *l-dom pa* «that which is given» = "alms" shows prefix *l*, we may reconstruct a form like **l-day ba* «to be brought,» from which have been derived *s-laṅ ba* «to cause to be brought (for oneself)» = "to take, accept" plus the intensive forms *s-loṅ ba* "to request, demand" and *s-loṅ mo* "alms." The form *blaṅ ba* (< **b-l-day*) "taken" also points to an archaic form **l-day ba*.

The form *s-lon pa* "to return; repulse," based on the same root, is possible only as a derivative of the form *l-don pa* "to pay back," which existed along with *h-don pa* (see Ch. D., p. 694).

d) Words having the initial sound *l* like *laṅ ba*, *loṅ ba*, "to arise," *lad mo* "imitation" (cf. *b-s-lad* "adulteration," *s-lad pa* "to adulterate"), *log pa* "to go back, return" and others similar, (i. e. as far as purely Tibetan words are concerned) cannot be regarded as primary forms.

§ 140. Illustrations for 3).

Of the 22 words ending in a consonant which Ch. D. enumerates sub *sl*, five have arisen through the elision of the initial sound which had been prefixed by *s* and subfixed by *l*.

Examples:

klad pa "what is uppermost"

**s-klad* > *slad (ma)* "what is uppermost" or with reference to time "that which comes later."

glan pa "to mend," *glon pa* "to mend"

**s-glan* > *slan pa* and *slon pa* "to patch, mend," and others. Compare herewith § 128.

Of the forms in question 14 belong to § 139 and 5¹ to § 140. There remain but the forms *slas* = *sras* "son, male child" (mentioned in the note to § 123), *sled pa* (which belongs to *sle ba* "to twist, plait," s. § 142), and *slam pa* "to roast slightly, make brown," (which cannot be traced back to a more original form).

§ 141. Illustrations for 4).

The forms having *rl* as their initial sound have been discussed in § 122. Only *r-lob-s pa* "to give, present" still requires an explanation. This form belongs to *r-dob pa* "to give" (based on \sqrt{da} (5) «to be transferred») with which should be classed also *h-deb ma* "a wing" — «the transferrer» and *r-deb pa* "to transfer, change." If we wish to explain the forms *r-lob-s pa* "to give" and *r-lab pa* "to remove, clear away," we evidently can do so in accordance with morphological principles only by assuming the existence of a form like **drob* or **drab* (forms with initial *d* having a subfixed *l* are not traceable), from which developed by means of reduction of the initial sound + suffix *l* the forms *r-lob-s pa* and *r-lab pa* (s. §§ 20 and 122).

§ 142. In addition to the above mentioned 22 word forms with the initial sound *sl* (*zl*), ending in consonants, there are 9 more which end in vowels and can be readily enough explained.

Examples:

z-lo ba "to be capable" is an intensive form of *blo ba* (cf. § 145).

z-la ba "to recite (e. g. mantras), to respond, reply" is related to *l-da gu* "speech, conversation," based on $\sqrt{*da}$ (10) a «to appear = to come forth» (as sound). Development:
**s-l-da* > **s-la* > *z-la* (cf. § 139).

¹ These five forms are *slad* "in the future, later" along with *slad ma*, *slad pa*, *b-slad pa* (cf. Ch. D., p. 1298 and p. 1323), also *slon pa* "to patch, mend."

- z-lo ba* “to summon, call” is a form of *z-la ba* produced by *ablaut*.
- b-z-lo-s* perfect form of *z-lo ba*.
- z-lo-s* “charm, spell” is possibly a kind of perfect-substantive of *z-la ba* or *z-lo ba*; yet it is more probably derived from *l-dog ba* “to change, undergo a change.”
- z-la* “month” is based on $\sqrt{*da}$ (10) \bar{b} «to become light (shine)» with which must be classed **l-da ba* «to shine forth»; *l-daj ba* “to come forth (flame)”; *z-la ba* (< **s-l-da ba*) “moon,” *z-la ba* “beautiful, pretty,” *g-zah* “planet (sun, etc.),” *g-zi* “shine, brightness,” *g-zig-s pa* “to see”; *zer* “beam, ray,” *lha* «the shining one» = “God” (deva); *lham me* “blazings, bright”; *lho* “south,” etc.
- z-la ba* “juice, semen” is related to *l-da ba* “juicy,” also equal to the concept «swollen on account of humidity.» Development: **s-l-ba ba* > **s-la ba* > *z-la ba* (cf. § 139)
- z-la bo* “helper, friend, husband” I would like to relate to $\sqrt{*ga}$ (14) «connection,» «to become connected,» from which developed *s-gro ga* “cord, fetter,” *s-grog* “strap” and *grog-s* “friend, companion, fellow-laborer.” Through reduction of the initial sound are produced **ra*, **ro*, *rog-s* “friend, companion,” and also **ran* (which is explained by *gras pa* “to bind”). Concerning *r*: *l* compare § 123. So we obtain the formations **la* and **lan*, which again take prefixes (cf. § 138 and note to § 142). Thus we have the words *g-lan pa* and *g-lon pa* “to patch, mend” and *z-la bo* “helper, friend.”
- sle ba* “to twist, knit” obviously is related to *s-brel ba* “to sew on, bind together,” and its corresponding form *s-byor ba* “to fasten on, bind together” (cf. § 132). A form *s-bre* in the sense of “a coarse material manufactured of yak’s hair for tent coverings” still exists today as an intensive-causative form of a tertiary root **bre*. By means of reduction of the initial sound + a subsequent initial sound-change arose the basic form **re* > **le* (cf. § 123). With the aid of prefix *s* the form *s-le ba* arose to which belongs also *s-led pa* “knitting-needling.” The perfect tense form **s-le-s*

VI. ROOTS AND STEMS OF THE PALATAL GROUPS.

§ 143. At the beginning of this work we defined the two words root and stem. The primary root of words with guttural, labial, and dental stems has an initial media sound and is to be found through removing the affixes. If words palatalized by *ya btags* and *ra btags* retain unimpaired their tertiary character, the primary root is likewise easily discovered in the same way. As soon, however, as the tertiary formation of the guttural series is substituted for the labial or dental series or vice versa (cf. § 72), detection of the primary root becomes more difficult. In case that a tertiary formation has gone over into a quartary and that imminution or reduction of the initial sound has taken place, we no longer have a reliable means by which to identify the primary root. The connection of such words with their primary root becomes clear only through a dictionary of Tibetan roots. The number of Tibetan primary roots is very small.

Primary roots always have an initial media sound and above all the final vowels *a*, *o*, and *u* — I have never found the vowels *i* and *e* in a primary root. If the media of the consonantal series *g*, *d*, and *b* are taken each time as the only combining elements with *a*, *o*, and *u*, we obtain only nine primary roots,¹ which through the change of the media into tenuis, tenuis aspirata, and nasal quickly establish 27 further roots which are, however, secondary — making a total of about 36 pure primitive elements which form the base and starting point of all further word formations.

§ 144. Not a single palatal root occurs among the primary roots. One is sorely tempted to consider the word *thśu* “water” as such, first, because we should like to believe that such an apparently simple word as *thśu* with such a humble meaning as “water” must have survived from primitive times, and second, because the same word occurs with initial palatal sound in numerous related speeches (e. g., Chin. *šui*;

¹ However, in the compilation of the DTR we could not stay within the limits of these nine roots without a sacrifice of synoptic clearness. As we can gather from the list of primary roots (see Appendix), they had to be subdivided in order to distinguish the many nuances and shades of meaning which they had developed.

Burmese *ye*). But first it must be observed that the initial sound of *thšu* is a compound one, and second that Chinese *šui* (Burmese *ye*) and similar words must be looked upon, from the standpoint of Tibetan, as comparatively late forms. Everything points to the conclusion that in Tibetan the palatals are not primitive even though they precede in point of time the separation of the monosyllabic language family into several branches. The initial palatal sound of *thšu*, *šui*, *ye* and others might have arisen out of non-palatal initial sounds through a parallel development in their respective languages. It seems more probable that *šui* as well as *ye* was derived from a form similar to *thšu* through imminution of the initial sound, and that the palatalization of certain words in Tibetan is very old. Consequently Laufer's assumption that this palatalization took place some time in the ninth century, A. D., is scarcely adequate.

I mentioned in § 73 the phonetical investigation of Laufer, who places the transition from the tertiary to the quartary stage not earlier than the ninth century A. D. Thus the word *thšu* "water" could not be much older. At that time "water" was pronounced not as *thšu*, but as *šu* (or possibly *žu*, according to Laufer). The form *šu* is quintary, derived from *thšu* through imminution of the initial sound, and was apparently preferred in the ninth century to the quartary form *thšu*. However, the word *thšu* cannot be of such recent date. Surely, the old word for "water" like many other archaic words should have been preserved. This transition from the tertiary to the quartary stage undoubtedly dates very far back, which does not preclude the possibility that a few words of the tertiary formation became quartary during the ninth century or even later.

Be that as it may (a philological comparison of the monosyllabic languages must determine this point later), the Tibetan *thšu* may be traced back with comparative certainty to a secondary $\sqrt{*ku}$ or even to a primary $\sqrt{*gu}$ through *d-kyu ba* "to filter," *b-kru ba* "to wash." The secondary $\sqrt{*ku}$ still remains unimpaired in words like *b-ku ba* "juice," and others. This primitive $\sqrt{*ku}$ or $\sqrt{*gu}$ «water» may, to all appearances, be traced back even far beyond the Tibetan.

If a few monosyllabic (Indo-Chinese) parallels seem to bespeak a dental initial sound (cf. Conrady, "Eine merkwürdige Beziehung zwischen den austrischen und indochinesischen Sprachen," p. 2), the Chinese on the other hand indicates a guttural initial sound. Compare

$k'u^1$ 瀹 (Giles No. 6278) "deep water," kun^3 滾 (Giles No. 6533) "rushing water," $kuei^4$ 澹 (Giles No. 6471) "flowing water," ku^3 臃 (Giles No. 6245) "dropsical, swollen." The following are perhaps related to the foregoing words: ku^3 汨 (Giles No. 6249) "to float," kai^4 漑 (Giles No. 5792) "flowing water, to flow," $kêng'$ 羹 (Giles No. 6008) 'soup' (s. below), and Siamese $\hat{p}\hat{i}\hat{j}\hat{i}$ $gu\check{a}k$ "to squeeze, press out" (s. below), etc., etc.

Through the gradual development of $\sqrt{*gu}$ "water" there arose, as in Indo-European, a group of associated ideas. Compare Skr. \sqrt{su} "to press out"; Latin *sucus* "juice"; Gr. $\upsilon\epsilon\iota$ "it rains"; OHG *sūgan* "to suck."¹ Then German $\sqrt{sūp}$ is the source of *Suppe* (soup), *saufen* (to swill), and even of *Saft* (juice). The Tibetan $\sqrt{*gu}$ forms for example (1) *b-ku ba* "to make extract of a drug by drawing out the juice; juice," probably thought of at first in the sense of «to squeeze, press out,» (2) and *khū ba* "juice," The form *b-ku ba* must be, since it begins with the tenuis, a completive form of $\sqrt{*gu}$ «water, fluidity.»

The primitive $\sqrt{*gu}$ and the secondary $\sqrt{*ku}$ take *ya btags* and *ra btags*. The combination with *ya btags* gives (1) *d-kyu ba* "to wring out, filter" (tenuis causative and prefix *d: g* iterative), corresponding to *b-ku ba* above, (2) *h-khyu ba* «to be wrung out or filtered» = "to run away" (aspirata as a sign of the intransitive (cf. § 8), prefix *h* a later addition (cf. § 59), (3) the quartary (cf. § 71) formations: (a) *h-džu ba* "to melt" — this form like *b-gruṅ-s pa* (s. below) argues very definitely for a primary $\sqrt{*gu}$, (b) *g-tšū ba* "to squeeze, strain" — compare *d-kyu ba* "to wring out" above, (c) *b-tšū ba* "to water," (d) *h-thšū ba* "to water" from which comes the substantive *tšū* "water" = «that which is squeezed out» along with other derivates. In addition there belongs here *h-dzir ba* "to drip," *b-tsir ba* and *h-thsir ba* "to squeeze out" = «to cause to drip.»

From the combination with *ra btags* arose: (1) *b-gruṅ-s pa* "to strain through a sieve" (*ra btags* causative (cf. § 6 b), suffix *ṅ* intensive (cf. § 101), (2) *b-kru ba* and *h-khru ba* "to wash," etc. From these forms palatalized by *ra btags* there developed through a sound shift (§ 120) the following forms (1) *thug pa* "soup," (2) *b-tuṅ ba* and *h-thuṅ ba* "to

¹ Possibly Tamil *šuvai* "taste, flavour, deliciousness" also belongs here. Compare Turk *ssu* "water" and Mong. *ussun* "water."

drink," (3) *g-tuŋ* in *g-tuŋ byed* "water," (4) *thu* "saliva," (5) *thu ba* "to spit out," (6) *g-tu-s* "drawn out" somewhat like «pressed out» (7) and even *g-tar ba* "to let blood for medical treatment" I venture to associate here. (*Ablaut u : a* to obtain a more special meaning, the reverse of *ablaut a : u* in § 41).

To *b-ku ba* "to press out juice" mentioned above, probably belongs *d-ku ba* "stench, putrid smell," provided that first, *šuvai* (Tamil) above may be traced to \sqrt{su} "to press out," and that second, *d-ku ba* may rightly be considered an iterative-intensive squeezing along with *b-ku ba* "to make extract of a drug by drawing out the juice; juice." Medicinal juice is usually drawn from plants or roots which often have a penetrating odour. Thus *d-ku ba* "putrid smell" can mean nothing else than «something pressed out» or «to press out.» From *d-ku ba* is furthermore derived *kun*, which is found in such compounds as *kun do* "onion" *kun du ru* "sweet smelling tree; a kind of incense," and *kun da* "blue jasmine." Even in *kun h-gro*, the equivalent of *nam m-kha* "heaven, sky," I do not see *kun* which means "all, the whole," but a *kun* coming from (*b-*)*ku ba* «to cause water to fall, to cause to drip.»

Word Analysis of the Palatal Groups.

§ 145. Continuing with our word analysis of § §63 seq., we determine here the remaining forms.

a) Guttural.

- 28) *b-tšab-s pa* "made secret, concealed"
quartary formation, s. §§ 71 and 81.
- 29) *h-thšab pa* "to conceal, keep secret"
quartary formation, s. §§ 71 and 81.
- 30) *l-tšib-s* "gloves; a shield"
quartary formation, s. § 71; *ablaut* see note 3 to § 5.
- 31) *thšib pa* "encompassing, covering all"
quartary formation, see § 71.
- 32) *h-byib pa* "to conceal, envelop"
tertiary formation on account of initial sound change, see §§ 70 and 72.
- 33) *yib pa* "to hide oneself"
imminution of the initial sound in the first degree (of a tertiary formation), see § 75.

- 34) *h-khyim-s pa* “to be encircled with a halo, as the sun and moon” tertiary formation, see § 70; as to suffix *m* cf. § 12.
- 35) *h-džab pa* “to sneak, creep”
quartary formation, see §§ 71 and 88.
- 36) *b-žab pa* “to sneak, creep”
quintary formation by means of imminution of the initial sound, see §§ 79 and 92.
- 37) *žub pa* “coat of mail”
quintary formation by means of imminution of the initial sound, see § 79; as to “*u*” cf. *ablaut* § 4. Compare also above No. 30)
- 38) *šub-s* “case, covering, sheath”
quintary formation by means of imminution of the initial sound, see § 79.
- 39) *šob* “a falsehood”
quintary formation by means of imminution of the initial sound, see §§ 79 and 97.
- 40) *šab šub* “whispering, falsehood”
quintary formation by means of imminution of the initial sound, see §§ 79 and 97.
- 41) *šib pa* “to whisper”
quintary formation by means of imminution of the initial sound, see §§ 79 and 97.
- 42) *šub pa* “to speak in a low voice”
quintary formation by means of imminution of the initial sound, see §§ 79 and 97.
- 43) *h-thsob-s pa* “to be a deputy” = «to cover somebody» quartary formation of the sibilant group, see §§ 98 and 107.
- 44) *h-dzeb pa* “to turn up a hat”
quartary formation of the sibilant group, see § 98 and § 109 in reference to 2)
- 45) *srib-s* “darkness, gloom, night”
formation of the *ra btags* group by means of initial sound elision, see § 128; cf. also § 63 sub a) Guttural No. 21.
- 46) *srib pa* “to grow dark”
formation of the *ra btags* group by means of initial sound elision, see § 128.

- 47) *l-dib pa* “not clear, unintelligible”
formation by means of sound shift, see § 63,
No. 21; cf. also § 120.
- 48) *g-tib-s pa* “to be gathering (of clouds)”
formation by means of sound shift, see § 120.
- 49) *thib pa* }
thib-s po } “very dark, dense”
formation by means of sound shift, see § 120.
- 50) *h-thib-s pa* “to be covered, darkened”
h-thib-s po “dark, dense”
formation by means of sound shift, see § 120.
- 51) *h-thib-s* “covering”
formation by means of sound shift, see § 120.

b) Dental.

- 21) *r-tsom pa* “to compose, draw up (in writing)”
tertiary sibilant formation, see §§ 98 and 106.
- 22) *b-r-tsam pa* “to compose, draw up”
tertiary sibilant formation, see §§ 98 and 106;
perfect tense of No. 21.
- 23) *h-dzom pa* “to come together, to meet”
tertiary sibilant formation, see § 98 and § 109
in reference to 2).
- 24) *h-dzom po* “abundant, swelling, profuse”
tertiary sibilant formation, see § 98.
- 25) *h-dzab pa* “to strive, endeavour, be studious”
tertiary sibilant formation, see § 98 and § 109
in reference to 2).
- 26) *g-zab(-s) pa* “to use diligence, to use care”
quartary formation by means of imminution
of the initial sound, see §§ 110 and 113.
- 27) *b-zob pa* “assiduity”
quartary sibilant formation by means of
imminution of the initial sound, see
§ 110.
- 28) *g-sob pa* “to fill out or up, to complete”
quartary sibilant formation by means of immi-
nution of the initial sound, see §§ 110
and 118.

- 29) *b-r-nyab-s pa* “to take pains”
 tertiary formation of the stem *dab*, see §§ 74
 and 80.

c) Labial.

- 3) *h-džoŋ* “tadpole”
 quartary formation of *h-boŋ ba* (= **h-byoŋ*),
 mentioned in § 65; cf. also § 71.
- 4) *h-džoŋ po* “oval, elliptical, cylindric”
- 5) *l-džoŋ-s* “a cultivated valley”
- 6) *tšioŋ* “a precipice”
- 7) *g-tšoŋ ba* “to excavate, wash out (by water)”
- 8) *g-tšoŋ-s* “undulating, uneven”
 The forms 4)—8) are also quartary formations
 of *h-boŋ ba* mentioned above; cf. also § 71.
- 9) *thšaŋ* “beer, wine,” «that which is swelling up»
 quartary formation of *boŋ* (s. § 65, No. 2);
 the analogous form of *draŋ* (s. § 65, No. 6);
 cf. §§ 71 and 132.
- 10) *g-žaŋ* “the anus”
 quintary formation by means of imminution
 of the initial sound, evolved from *h-boŋ ba*
 (s. § 65); cf. § 79.
- 11) *g-žoŋ* }
 b-žoŋ } “wooden trough”
- 12) *g-žoŋ-s* “valley, basin of a river”
- 13) *g-šoŋ-s* “deep valley”
- 14) *šoŋ ba* “excavation, furrow”
- 15) *g-šoŋ ba* “a vessel for water”
- 16) *šoŋ ba* “to empty, remove”; cf. § 96
- 17) *b-šoŋ-s* } perfect tense of *šoŋ ba*.
- 18) *b-šaŋ-s* } the forms 11)—18) represent quintary forma-
 tions of *h-boŋ ba* (s. § 65); cf. also § 79.
- 19) *g-yaŋ (ba)* “gulf, abyss”
 tertiary formation by means of imminution
 of the initial sound (in the first degree),
 see § 75.
- 20) *g-tsoŋ po* “river”
 quartary sibilant formation of *g-tšoŋ ba* (s.
 above No. 7); cf. § 98.

- 21) *b-tsoŋ* “onion”
 quartary sibilant formation of *ḥ-boŋ ba* (s. § 65);
 cf. § 98.
- 22) *g-zeŋ-s pa* “wide-spread, spacious”
 quintary sibilant formation by means of immi-
 nution of the initial sound, see § 110.
- 23) *raŋ-s po* “all, whole, entire”
- 24) *roŋ* “deep gorge, defile”
 the forms 23) and 24) represent tertiary for-
 mations by means of reduction of the
 initial sound (see *ra btags* group); cf. § 121.

VII. *Wa zur*.¹

§ 146. The last word-forming element which we must consider is *wa zur*, still preserved in the following Tibetan words:

<i>kwa</i>	“oh”
<i>kwa ye</i>	“oh, holla”
<i>khwa</i>	“crow, raven”
<i>khwa ta</i>	“crow, magpie”
<i>khwa ba</i>	“a rent or tax”
<i>gwa pa</i>	“the white mark or patch on the forehead of the <i>kyaṅ</i> .”
<i>grwa</i>	“corner; school” (and combinations)
<i>grwa pa</i>	“mouth”
<i>grwa ti</i>	“plate, dish”
<i>dwa ba</i>	“a medical plant”
<i>dwag-s</i>	“bright, i. e., reference to openness or cheerful appearance of a place”
<i>dwaṅ-s</i>	“glare, lustre; pure, clean”
<i>dwaṅ-s ma</i>	“juice, gravy; relish, taste (fig.)”
<i>nywa</i>	“muscles”
<i>phywa</i>	“luck, good luck”
<i>tswa</i>	“spunk, tinder”
<i>r-tswa</i>	“grass, herb”
<i>thswa</i>	“salt”
<i>žwa</i>	“hat, cap”
<i>zwa</i>	“nettle”
<i>rwa</i>	“horn, sting”
<i>lwa ba</i>	“wollen blanket or cloth”
<i>šwa</i>	“blood; flood, high water”
<i>šwa ba</i>	“deer”
<i>hwa</i>	“transient and unsteady”
<i>hwag-s</i>	“sugared medicine like lozenges”

As Laufer, among other Tibetologists, conjectured twenty years ago, *wa zur* apparently fulfilled both a graphic and a phonetic purpose. In his article “Über das *va zur*” (printed in the *Wiener Zeitschrift für*

¹ I am grateful to Dr. F. O. Schrader for some of the examples in this chapter.

die Kunde des Morgenlandes, Vol. XII, pp. 289—307, Wien 1898, and Vol. XIII, pp. 95—109 and pp. 199—226, Wien 1899), he gives with his usual thoroughness the palaeographic information: “das untergeschriebene *va zur* ist also tatsächlich das selbständig gebrauchte indische *v*” (p. 290). He is obliged later on to admit: “der obere Teil des 𑍊 ist nicht erklärt” (pp. 293—94). To me it seems, however, more correct to say that *wa* (𑍊) is a sort of graphic variation of *la* (𑍌).

It is worthy of note that the distinguishing cross-stroke here used is the same as that which differentiates the Slavic velar *l* (*l*) from the palatal *l*. Apparently the inventor of Tibetan writing had exactly these two kinds of *l* in mind, when he recognized the distinction between Tibetan and Sanskrit *v*. The latter (once bi-labial) had become labio-dental long before his time, in contrast with the half-vocalic Tibetan *w* (“unsyllabic *u*”). The nearest approach to the latter which he knew was the velar *l* (*l*), and his comparison was perfectly legitimate, as is shown by the transition from *l* to *u* for example in Dutch *goud*, English *gold*; or in Polish *Stanislas*, pronounced *Stanisluas*. Exactly the same thing happened in South India, where the Tamir alphabet transcribed the Skr. *au* (unknown to the Dravidians) by *el* (that is *e* + cacuminal *l*), or more rarely by *avu*. Thus, for example, Skr. *maunam* appears as *melanam* or *mavunam*. To convince oneself that *wa zur*, although graphically an *l*, cannot be possibly a phonetic *l*, one need but attempt to pronounce with a phonetic *l* the words *grua*, *nywa*, or *phywa* to which the preceding palatals would have admitted at the most a palatal *l*, from which, however, *wa* could never have developed.

The *l*-character of the *wa zur* (𑍊) finds use only as an independent letter which, being independent, can only stand at the beginning of a syllable. But *wa* like *ya btags* and *ra btags* is capable only of medial or final placement (final, but preceding the vowel inherent in the consonant), and must then be written as a subscribed letter identical with the Sanskrit *va* (𑍌). On the other hand the Sanskrit *va* at the beginning of a syllable is transcribed in Tibetan as *ba*, the *b* in which “itself often is pronounced *v*” (Jäschke). This *v*, interchangeable with *b*, is necessarily bilabial and consequently related to the original *wa zur*. It is, so to speak, a newly arisen or arising *wa zur*, taking the place of the old *wa zur* which has died out (except in Balti. See Jäschke, Tibetan Grammar. p. 8).

In a few language related to Tibetan *wa zur* occurs as *w* or *u*. This sound is still indicated in Burmese writing by *w*. Compare: Tib. *šwa* "blood" = Burmese *ṣwē* 𑜀𑜢𑜤𑜰𑜫 𑜀𑜢𑜤𑜰𑜫; Tib. *dwag-s* "to come out (in evidence)" = Burm. *thwek* 𑜀𑜢𑜤𑜰𑜫 𑜀𑜢𑜤𑜰𑜫 or *ṣwā* 𑜀𑜢𑜤𑜰𑜫 𑜀𑜢𑜤𑜰𑜫 "to proceed"; or Tib. *glag-s* "to proceed, advance" = Burm. *kywa* 𑜀𑜢𑜤𑜰𑜫, and others. To Tib. *khwa* "crow" corresponds Chinese *kua*¹ 鵠 (Giles No. 6298) and Siamese *kā* 𑜀𑜢𑜤𑜰𑜫; to Tib. *khwa* "tax, rent" corresponds Chin. *kua*⁴ 誥 (Giles No. 6310) and Siamese *gā*₁ 𑜀𑜢𑜤𑜰𑜫 "price, amount"; to Tib. *grwa pa* "mouth" compare Chin. *kua*¹ 𠵽 "a crooked mouth" (Giles No. 6300); or to Tib. *klan pa* "to vituperate" compare Chin. *kuai*⁴ 怪 (Giles No. 6330); to Tib. *klad* "above" compare Chin. *kuan*¹ "top, point (of a cap)" 冠 (Giles No. 6373) or Chin. *k'uei*¹ "helmet" 盔 (Giles No. 6482); to Tib. *glan pa* "to mend" compare Chin. *kuan*¹ "to shut, connect, implicate" 關 (Giles No. 6368); or compare: Tib. *klog pa* "to study" = Siam. *klōk* "poem" = Chin. *kuan*¹ "to examine" 觀 (Giles No. 6363); Tib. *glan pa* "to come back, return" = Chin. *kuai*¹ 𠵽 or 歸 (Giles No. 6429 and 6419); Tib. *kloṅ* "broad, extended" = Chin. *kuang*³ 廣 (Giles No. 6397); Tib. *zla ba* "moon" = Siam. *slā* "clear, bright" and many others. —

A number of words with *wa zur* indicate that an attempt was made to use it as an infix in the same way as *ya btags* was used for palatalization. For example the following words are apparently parallel: *dwaṅ-s ma* "juice" and *draṅ* "beer," *dwag-s* "to shine brightly" and *drag pa* "distinguished," *dwaṅ-s* "elevation," etc., and *draṅ-s* "chieftain, husband," etc. On the other hand, *dwag-s* and *dwaṅ-s* "splendour," etc., along with *thsay ba* "to be pure", etc., go back to $\sqrt{*da}$ (10). In the same way it is not difficult to associate *tswa* and *thswa*, also *zwa*, with *thsa ba* "to be hot," which belongs to $\sqrt{*da}$ (12). Whether or not these words are proethnic remains to be investigated, that is, whether *dwaṅ-s* is related to the still unexplained word Germ. *Schwan* (or *swan*), or to Lith. *szvēntas* "holy," or to Skr. *śvīndate* "it glitters, shines," or to Malay *trang* "light, bright, clear" and to many others.

There is apparently in the majority of words little substantiation

for the hypothesis that *wa zur* was ever *wa blags*. I strongly suspect that through the monosyllabic languages we shall be able eventually to unravel with reasonable certainty this language riddle.

Laufer expresses in his articles "Über das *va zur*" the conjecture that "*va zur* in einigen Fällen graphisch angewandt worden sei" (p. 302) as for instance in *dway-s pa* "pure, clear," *yi dwags* "the *preta*," *ri dwags* "deer, gazelle," *la dwags* "Ladakh," *bla dwags* "a technical term in grammar". On the other hand he recognises the phonetical significance of *wa zur*. In connection with the example *rtva* "grass" (草 *ts'ao³*) he says that *wa zur* is equal in phonetic function to the half-vocalic *o* or *u*. He says further, "dieser Halbvokal bildet mit dem folgenden *a*-Vokal einen Diphthong" (pp. 306—07). Every scholar who studies carefully the Tibetan language must come to this same conclusion. This chapter on *wa zur* was already prepared for printing, before I became familiar with Laufer's article "Über das *va zur*." I take the liberty of analysing a few further examples in this place.

The Tibetan nouns *grwa* "corner; school" and *grwa pa* "mouth" are obviously some way connected with Lat. *curvus*, *curvare* or with Lat. *corbis*, MHG. *krebe*, Germ. *Korb* (or with Finnish *korva* "ear"); furthermore with Greek *καρπός* "wrist," Sanskrit *kurpara* "elbow, knee," OHG *hwerban* "to turn oneself," etc. Of this I feel certain. The unextended root *k-r* (*g-r*, etc.) as in German "*krümmen* (= *drehen*)" again appears in the Tib. *s-kyor ba* "to turn round repeatedly" *h-khyor ba* "to reel," *h-khyir ba* "to turn round," *h-gyur ba* "to change, alter" (cf. Sanskrit *vartate* "turns itself," etc. = German *werden*); furthermore compare here Tamil *kuṛaṇḍu* "to be bent, crooked," Kanarese *kurgu*, *kurgu* "to bend, to shrink together" (also in the meaning of "hump"), *kural* "curl" *giri* "the whirling around," Tamil *kiṛu-kiṛu* "to turn oneself around, to be dizzy, confused," Malay *gila* "distorted, crazy," Suaheli *kereza* "to turn (on a lathe)" and many others.

We now take another word from the group formed with *wa zur*: *hwa* "transitory and unsteady" which is without doubt the same word as Finnish *hupa* (Gen. *huvan*) "futile, transitory; bad, poor," to which must be added *hupene* (*huvan-*) "to decrease, diminish"; the *h* of these two Finnish words has been derived from Finnish-Ugrian cacuminal *š*, which is still extant in Hungarian *šovān* "meager" as well as in Hungarian *šavanū* "sour," but it has nothing to do with Tibetan *thsua* "salt" (since one might expect here the Tibetan *h*), nor with Mordvin *šuva*, *čova* etc. "thin" (see Szinnyei, Finnisch-Ugrische Sprach-

wissenschaft, p. 26). The Osmanli equivalent to Tib. *hwa* is *yawan* "meager." Thus we have Tib. *h-* = Osmanli *y-* = Fin. Ugr. *š* = Dravidian *č-* (the latter we find for instance in Tamil *čaru* "to become weak, to grow lean"). Along this same road we may probably also find some clue to Tibetan *hwag-s* "sugared medicine like lozenges"; (one might compare here also Finnish *huvī* "pleasure," *hyvā* "good").

Furthermore we may assume (1) a connection between Tib. *r-wa* "horn; sting" and German *Schraube*, Finnish *rūvi* "screw" and Tamil *uruvu* "to penetrate, go through" (in Dravidian initial sound *r* is possible only with prothetic vowel); or (2) a connection between Tib. *r-tswa* "grass" with Kanarese *tuppul* "feather, soft plumage, fine hair," Tamil *tūvu* "sprinkle gently, rain," Lat. *s-tupula*, German *Stoppel*; and (3) finally a connection between Tibet. *thswa* "salt" and Tamil *tuvar* "to be astringent, astringency" and Sanskrit *tucara* "astringent, astringent taste," *tucarī* "alum" (and possibly also Suaheli *chumbi* "salt").

Jäschke's assumption (Tibetan Grammar, p. 8) that in the pronunciation of a few words *w* originally preceded instead of followed the consonant in question, would open up the possibility of associating *lwa ba* as **wla ba* with our "wool" (German *Wolle*). Compare especially Old Bulgarian *vlūna* "wool" and Lat. *lāna*.

The Tibetan *khwa* "crow" — apart from the connection with the list of monosyllabic words mentioned above — possibly can be associated with Tamil *kūvu* "to crow"; but, in spite of Lat. *coruos*, Skr. *kārava*, not so easily with Tib. *khra* "hawk, falk," which far more readily appears to link itself with Tib. *b-žar ba* "to cut off," *h-thšor ba* "to pursue, chase" (possibly equal to «desirous of injuring»), also with Greek *κείρω*, Skr. *kr-ṇā-ti* "injured, killed" (*khariya* "maimed"). German *scharf*, *schroff*, Kanarese *kōre* "to cut, break," Tamil *čeru* "to kill, destroy," Malay *čarik* "to tear apart," Osmanli *qaraq* "eagle" and others.

Obviously the connection between words in this chapter is only conjectural, but even so, it ought at least to spur on the exact scientists of the monosyllabic languages to a more earnest investigation of these connections. I myself am not prepared to undertake it, but I hope ardently that some authoritative spirit may find in it a congenial task.

Finally there obtrudes itself the question of whether or not words with *wa zur* are — at least in part — foreign words imported early into Tibetan or Primitive Indo-Chinese. I, in agreement with Conrady.

do not believe this very probable, since the *u*-gradation, which *wa zur* appears to represent, is an unusually frequent manifestation in Indo-Chinese and especially in Chinese.

§ 147. We have now arrived at the end of our study which has embraced all of the morphological features of the Tibetan language. Our cumulative evidence points to the conclusion that in the family of the monosyllabic language Tibetan is a very old, if not the oldest type. Thanks to the highly conservative character of this language a great number of words and forms from the earliest beginnings have been preserved intact through subsequent periods of development down to the present time, a circumstance which alone makes possible a satisfactory revelation of the oldest stage of the language, beginning with the roots. Involuntarily one wonders, in comparing related speeches, if they too have not a similar evolution behind them or if they too may be traced back to a group of common roots.

Let us compare for instance:

Tib. *thsu* "water" = Chin. *shui* (水) 水 (Giles No. 10128) = Burm.

yē ရေ;

Tib. *žun* "middle" = Chin. *chung* (中) 中 (Giles No. 2875);

Tib. *glog* "lightning" = Siam. *klɔk* ក្រហម;

Tib. *glu* "song, tune" = Siam. *klui* គ្រឿង "flute";

Tib. *b-žen-s pa* "to erect" = Chin. *shang* (上) 上 (Giles No. 9729)

= Siam. *rāy* ၎င်း "to erect, to raise" or *āy* ၎င်း "to

build, to erect" = Burm. *s'aiy* ဆိုင် "shop, stall" and

s'aiy zī ဆိုင် သည့် "to set up a shop":

Tib. *g-sad pa* "to kill" = Chin. *sha* (殺) 殺 (Giles No. 9632)

= Burm. *zat* သတ်

Tib. *šwa* "blood" = Chin. *hsüeh* (血) 血 (Giles No. 4847) = Burm.

zwe ရေ;

Tib. *b-tsun* "honourable" = Chin. *tsun* (尊) 尊 (Giles No. 11945);

Tib. *thsan* "hot" = Burm. *s'at* ဆတ်;

Tib. *go* "head" = Siam. *huā* 花 = Burm. *k'aun* ကျော;

Tib. *nywa* "muscles" = Siam. *nua* 肉 "meat, flesh";

Tib. *khron no* "upright, straight" = Siam. *kroy* (tron) ត្រង់

wissenschaft, p. 26). The Osmanli equivalent to Tib. *hwa* is *yawan* "meager." Thus we have Tib. *h-* = Osmanli *y-* = Fin. Ugr. *š* = Dravidian *č-* (the latter we find for instance in Tamil *čavu* "to become weak, to grow lean"). Along this same road we may probably also find some clue to Tibetan *hwag-s* "sugared medicine like lozenges"; (one might compare here also Finnish *huvi* "pleasure," *hyvä* "good").

Furthermore we may assume (1) a connection between Tib. *r-wa* "horn; sting" and German *Schraube*, Finnish *rūvi* "screw" and Tamil *uruvu* "to penetrate, go through" (in Dravidian initial sound *r* is possible only with prothetic vowel); or (2) a connection between Tib. *r-tswa* "grass" with Kanarese *tuppul* "feather, soft plumage, fine hair," Tamil *tūvu* "sprinkle gently, rain," Lat. *s-tupula*, German *Stoppel*; and (3) finally a connection between Tibet. *thswa* "salt" and Tamil *tuvar* "to be astringent, astringency" and Sanskrit *tuvara* "astringent, astringent taste," *tuvarī* "alum" (and possibly also Suaheli *chumbi* "salt").

Jäschke's assumption (Tibetan Grammar, p. 8) that in the pronunciation of a few words *w* originally preceded instead of followed the consonant in question, would open up the possibility of associating *lwa ba* as **wla ba* with our "wool" (German *Wolle*). Compare especially Old Bulgarian *vlūna* "wool" and Lat. *lāna*.

The Tibetan *khwa* "crow" — apart from the connection with the list of monosyllabic words mentioned above — possibly can be associated with Tamil *kūvu* "to crow"; but, in spite of Lat. *coruos*, Skr. *kārava*, not so easily with Tib. *khra* "hawk, falk," which far more readily appears to link itself with Tib. *b-žar ba* "to cut off," *h-thšor ba* "to pursue, chase" (possibly equal to «desirous of injuring»), also with Greek *κείρω*, Skr. *kr-ṇā-ti* "injured, killed" (*kharva* "maimed"), German *scharf*, *schroff*, Kanarese *kōre* "to cut, break," Tamil *čerū* "to kill, destroy," Malay *čarik* "to tear apart," Osmanli *qaraq* "eagle" and others.

Obviously the connection between words in this chapter is only conjectural, but even so, it ought at least to spur on the exact scientists of the monosyllabic languages to a more earnest investigation of these connections. I myself am not prepared to undertake it, but I hope ardently that some authoritative spirit may find in it a congenial task.

Finally there obtrudes itself the question of whether or not words with *wa zur* are — at least in part — foreign words imported early into Tibetan or Primitive Indo-Chinese. I, in agreement with Conrady,

do not believe this very probable, since the *u*-gradation, which *wa zur* appears to represent, is an unusually frequent manifestation in Indo-Chinese and especially in Chinese.

§ 147. We have now arrived at the end of our study which has embraced all of the morphological features of the Tibetan language. Our cumulative evidence points to the conclusion that in the family of the monosyllabic language Tibetan is a very old, if not the oldest type. Thanks to the highly conservative character of this language a great number of words and forms from the earliest beginnings have been preserved intact through subsequent periods of development down to the present time, a circumstance which alone makes possible a satisfactory revelation of the oldest stage of the language, beginning with the roots. Involuntarily one wonders, in comparing related speeches, if they too have not a similar evolution behind them or if they too may be traced back to a group of common roots.

Let us compare for instance:

Tib. *thśu* "water" = Chin. *śui* (*śu*) 水 (Giles No. 10128) = Burm.

yē རྒྱ;

Tib. *žuy* "middle" = Chin. *chung*¹ 中 (Giles No. 2875);

Tib. *glog* "lightning" = Siam. *klōk* ព្រៃព្រៃ;

Tib. *glu* "song, tune" = Siam. *khlui*₁ ໑໑໑ "flute";

Tib. *b-žey-s pa* "to erect" = Chin. *shang*³ 上 (Giles No. 9729)

= Siam. *tāy*₂ ๕๕ "to erect, to raise" or *sāy* ๕๕ "to

build, to erect" = Burm. *s'aiy* ဆိုငံ "shop, stall" and

s'aiy ႁိ ဆိုငံ သည် "to set up a shop":

Tib. *g-sad pa* "to kill" = Chin. *sha*³ (*śat*) 殺 (Giles No. 9632)

= Burm. *zat* သတ်

Tib. *śwa* "blood" = Chin. *hsüeh*³ 血 (Giles No. 4847) = Burm.

zwē རྒྱ;

Tib. *b-tsun* "honourable" = Chin. *tsun*¹ 尊 (Giles No. 11945);

Tib. *thsan* "hot" = Burm. *s'at* သတ်;

Tib. *go* "head" = Siam. *huā* 花 = Burm. *k'auy*₃ རྒྱ;

Tib. *nywa* "muscles" = Siam. *nüa* 肉 "meat, flesh";

Tib. *khroy yō* "upright, straight" = Siam. *kroy* (Troy) 正直

Siam. *h-yat* 𑄓𑄛𑄛𑄛 “to leak, fall down in drops”

h-yot 𑄓𑄛𑄛𑄛 “to leak, fall down in drops”

h-yōt 𑄓𑄛𑄛𑄛 “to imbibe a few drops of liquid”

*yōi*² 𑄓𑄛𑄛𑄛 “to flow down”

Burm. *yō* 𑄓𑄛 “to leak, drip”

Chin. *cho*¹ 涒 “to drip, trickle” (G. No. 2403)

*chiang*¹ 洚 “an inundation, flood” (G. No. 1250) and many other examples.

This comparison finally brings us to the conclusion that Chinese, Burmese, Siamese, etc., in the form in which they are preserved to us, from the earliest traditions up to the present, have a long period of development behind them, which, generally speaking, is comparable to the Tibetan development on the tertiary or quartary stages. Comparative monosyllabic philology will be in a position to cast more light on this problem only after more definite morphological information has been established in the individual languages.

The purpose of this work has been to lay the foundations for comparative monosyllabic philology and to indicate the many directions which it must follow in order to reach its goal. We have recognized that the principles of morphological structure found in Tibetan clearly indicate a similar inner psychological pressure even in languages of the Indo-Chinese group which have little or no connection with each other. Among the principal languages of the Indo-Chinese group the change of the initial sound (media, tenuis, etc.), *ablaut*, and aspiration are typical manifestations. Particularly noteworthy is the great superfluity of forms which have come into being through *ra btags* or *la btags* (especially in Chinese and Siamese), and *wa zur* or *wa btags* (especially in Burmese).

APPENDICES.

LIST OF TIBETAN ROOTS.

GUTTURAL ROOTS.

- $\sqrt{*ga}$: «head» splitting into:
- $\sqrt{*ga(1)}$: «head» (physical)
 - $\sqrt{*ga(2)}$: «head» (mental, i. e., the seat of the mind, etc.)
 - $\sqrt{*ga(3)}$: «head» (in a figurative sense, such as “chieftain, leader”)
 - $\sqrt{*ga(4)}$: «head» (in the sense of a “beginning”)
 - $\sqrt{*ga(5)}$: «head» (in the meaning of: a) “top” (above), b) “foremost” (ahead)
 - $\sqrt{*ga(6)}$: «head» (in the sense of “casing, integument” — cf. Turkish *üst bash* اوست باش, — without regard to content)
- $\sqrt{*ga(7)}$: «to swell up = to arch (intr.)» (with regard to the contents of the vault)
- $\sqrt{*ga(8)}$: «to swell up = to increase (intr.)» (physically)
- $\sqrt{*ga(9)}$: «to swell up = to increase (intr.)» (in a plane)
- $\sqrt{*ga(10)}$: «to swell up = to increase (intr.)» (in the figurative sense)
- $\sqrt{*ga(11)}$: «to turn away, to part from»,
- $\sqrt{*ga(12)}$: «to decay, to decrease, to wane»
- $\sqrt{*ga(13)}$: «to move forward, to go to»
- $\sqrt{*ga(14)}$: «conjunction»; «to be joined together»
- $\sqrt{*ga(15)}$: «to come up = to come into appearance, to arise» (physically)
- $\sqrt{*ga(16)}$: «to come into appearance = to develop»
a) as a light (physically and symbolically).
b) as a sound
- $\sqrt{*ga(17)}$: «to glow, to burn, to be warm»

With Ablaut into *u*:

$\sqrt{*gu}$: «water»

DENTAL ROOTS.

- $\sqrt{*da(1)}$: “now, at present, just” (with a strong demonstrative quality)
- $\sqrt{da(2)}$: «to arrive at, to reach to = to extend, to stretch > to become equalized, to suffice»
- $\sqrt{*da(3)}$: «to be knotted together, to be tied to»; «to be annexed»
- $\sqrt{da(4)}$: «to emerge > to move forward, to proceed»
- $\sqrt{da(5)}$: «to betake oneself to = to go from one place to another, to be transferred»
- $\sqrt{*da(6)}$: «to emerge > to extend, to expand, to increase (intr.)» (in a plane)
- $\sqrt{*da(7)}$: «to expand, to increase» (physically)
- $\sqrt{*da(8)}$: «to grow, to increase» (figuratively)
- $\sqrt{*da(9)}$: «to come up = to come into appearance, to arise» (physically)
- $\sqrt{*da(10)}$: «to appear = to develop»
a) as a light
b) as a sound
- $\sqrt{da(11)}$: «to go over into another condition = to wane»
- $\sqrt{*da(12)}$: «to be warm, to radiate warmth»

With Ablaut into *u*:

- $\sqrt{du(1)}$: «heap, mass, accumulation»; «to come together, to accumulate (intr.)»
- $\sqrt{*du(2)}$: «to come together = to adapt oneself, to unite (intr.)»
- $\sqrt{*du(3)}$: «to come together = to become bound together» (materially)
- $\sqrt{du(4)}$: “smoke”
- $\sqrt{du(5)}$: “desire, taste, lust”
- $\sqrt{*du(6)}$: «urge, torture, pain»

LABIAL ROOTS.

- $\sqrt{ba(1)}$: «vault»; «to vault, to arch»
- $\sqrt{*ba(2)}$: «to vault > swell up, increase» (physically)
- $\sqrt{*ba(3)}$: «to swell up, to increase» (figuratively)

- $\sqrt{*ba(4)}$: «to emerge from = to flow over, to fall down > to decrease»
- $\sqrt{*ba(5)}$: «to emerge > to betake oneself to = to go from one place to another, to be transported»
- $\sqrt{*ba(6)}$: «to emerge = to come into appearance, to become visible»

With Ablaut into *u*:

- $\sqrt{bu(1)}$: “to open (intr.), to unfold” (of a flower)
- $\sqrt{*bu(2)}$: «heap, mass, accumulation»; «to come together, to accumulate»
- $\sqrt{*bu(3)}$: «to increase (intr.), to grow» (figuratively)
- $\sqrt{*bu(4)}$: «to emerge > to proceed to»
- $\sqrt{bu(5)}$: “worm, bug, insect”
- $\sqrt{*bu(6)}$: «to wither, to decay, to wane»

ARRANGEMENT OF ROOTS ACCORDING TO IDENTICAL OR SIMILAR MEANING.

- $\sqrt{*ga(6)}$: «head» (in the sense of “casing, integument” — cf. Turkish *üst bash* اوست باش — without regard to content)
- $\sqrt{bu(5)}$: “worm, bug, insect” (that bores holes into wood)
- $\sqrt{*ga(7)}$: «to swell up = to arch (intr.)» (with regard to the contents of the vault)
- $\sqrt{ba(1)}$: «vault»; «to vault, to arch»
- $\sqrt{*ga(8)}$: «to swell up = to increase (intr.)» (physically)
- $\sqrt{*da(7)}$: «to expand, to increase» (physically)
- $\sqrt{*ba(2)}$: «to vault > swell up, increase» (physically)
- $\sqrt{du(1)}$: «heap, mass, accumulation»; «to come together, to accumulate (intr.)»
- $\sqrt{*bu(2)}$: «heap, mass, accumulation»; «to come together, to accumulate (intr.)»
- $\sqrt{*ga(9)}$: «to swell up = to increase (intr.)» (in a plane)
- $\sqrt{*da(6)}$: «to emerge > to extend, to expand, to increase (intr.)» (in a plane)

- $\sqrt{*ga(10)}$: «to swell up = to increase (intr.)» (in the figurative sense)
 $\sqrt{*da(8)}$: «to grow, to increase» (figuratively)
 $\sqrt{*ba(3)}$: «to swell up, to increase» (figuratively)
 $\sqrt{*ba(3)}$: «to swell up, to increase» (figuratively)
 $\sqrt{*bu(3)}$: «to increase (intr.), to grow» (figuratively)
- $\sqrt{*ga(11)}$: «to turn away, to part from»
 $\sqrt{ga(12)}$: «to decay, to decrease, to wane»
 $\sqrt{da(11)}$: «to go over into another condition = to wane»
 $\sqrt{*ba(4)}$: «to emerge from = to flow over, to fall down > to decrease»
 $\sqrt{*bu(6)}$: «to wither, to decay, to wane»
- $\sqrt{*ga(13)}$: «to move forward, to go to»
 $\sqrt{da(4)}$: «to emerge > to move forward, to proceed»
 $\sqrt{*bu(4)}$: «to emerge > to proceed to»
 $\sqrt{*ga(14)}$: «conjunction»; «to be joined together»
 $\sqrt{*da(3)}$: «to be knotted together, to be tied to»; «to be annexed»
 $\sqrt{*du(3)}$: «to come together = to become bound together» (materially)
- $\sqrt{ga(15)}$: «to come up = to come into appearance, to arise» (physically)
 $\sqrt{*da(9)}$: «to come up = to come into appearance, to arise» (physically)
 $\sqrt{*ba(6)}$: «to emerge = to come into appearance, to become visible»
- $\sqrt{ga(16)}$: «to come into appearance = to become light» (physically and symbolically)
 $\sqrt{*da(10)}$: «to appear = to become light (subst.), to become bright»
- $\sqrt{*ga(17)}$: «to glow, to burn, to be warm»
 $\sqrt{*da(12)}$: «to be warm, to radiate warmth»
 $\sqrt{du(4)}$: “smoke”
 $\sqrt{du(5)}$: “desire, taste, lust”
 $\sqrt{*du(6)}$: «urge, torture, pain»
- $\sqrt{*da(2)}$: «to arrive at, to reach to > to extend, to stretch to become equalized, to suffice»
 $\sqrt{*du(2)}$: «to come together = to adapt oneself, to unite (intr.)»

- $\sqrt{da(5)}$: «to betake oneself to = to go from one place to another, to be transferred»
- $\sqrt{*ba(5)}$: «to emerge > to betake oneself to = to go from one place to another, to be transported»

THE “h” IN TIBETAN.

To the primitive Indo-Chinese language “h” as well as “*h*” was unknown as a word-forming agent. Both were probably unknown in primitive Tibetan, being obviously of more recent date since they belong to those word-forming agents which were introduced much later — without doubt at a time when Tibetan had already completed its transition from the primary to the tertiary stage.

In Tibetan, *h* has a dual origin; one phonetic, the other formative. As an initial sound *h* developed phonetically as a result of palatalization with *ya btags*. Forms palatalized with *ya btags* are subject to imminution of the initial sound (s. §§ 75—80). For example, from *h-byib pa* “to hide” comes *yib pa* “to hide oneself”; from *h-khyoŋ ba* “to come” develops *yoŋ ba* “to come”; from *h-khyom pa* “to reel” comes *yom pa* “to totter,” etc.

Forms with initial *y* go one step further in the development, and initial *y* > *h*. Compare

<i>yoŋ ba</i> “to come”	beside <i>hoŋ ba</i>
<i>yug pa</i> “oats”	beside <i>hug pa</i>
<i>yud pa</i> “a moment”	beside <i>hud pa</i>
<i>yob pa</i> “ditch, trench”	beside <i>hob pa</i>

And these form a third step in the development in which the *spiritus asper* (*h*) becomes a true *spirans* (*h*).

Compare

<i>hur ba</i> “to be noisy, chattering” with
<i>hur</i> “an expression of amazement” and
<i>hur ba</i> “to be quick, hot, hasty”

or

<i>hab pa</i> “to bark” with
<i>hab</i> “a mouthful”

or

<i>har po</i> “angry” with
<i>har</i> “suddenly,” etc.

Such words with initial *h* may take prefix *l*, which indicates “parts of the human (or animal) body, common objects used by man in daily life, and qualities and actions peculiar to man” (s. § 20).

Examples:

l-hag (pa) “excellent, superior” (along with *hog ma* and even *’og ma* “throat, neck”). This is a form based on $\sqrt{*ga}$ (3) «head» = «chieftain, leader» produced through *ya btags* (cf. *m-thšog* “the best, the most excellent”) and through imminution of the initial sound.

l-hag-s pa “to approach, to assemble with,” This is a form based on $\sqrt{*ga}$ (13) «to move forward» produced through *ya btags* (cf. *r-gyag pa* “to throw, sling”, *khyog-s pa* “a vehicle,” etc.) and through imminution of the initial sound.

l-hur “devotion, earnest application.” This is a form based on $\sqrt{*ga}$ (10) «to swell» produced through *ya btags* (cp. *b-s-gyur ba* “to augment, increase”) and through imminution of the initial sound, and others.

This *h* phonetically derived has not proved as productive in Tibetan as the formative *h* which was employed as prefix and infix with the liquids *l* and *r*.

In those cases where *l* was forced to become the initial sound through the dropping out of the original initial sound which had *l* either as prefix (cf. §§ 135 and 139) or infix (cf. §§ 135,3 and 140), it was evidently necessary to supplement (strengthen) the *l* in order to develop shades of meaning.

For this purpose *h* was taken as an infix, since all the other prefixes and infixes had other definite uses and were therefore not available. Consequently, an aspirated *l* arose which outwardly resembled *kh*, *th* and *ph*, but which instead of serving the normal purpose of aspiration (i. e., formation of intransitives or passives) served rather in an intensive completive capacity.

Examples:

l-dug pa (“to pour out”) > **b-l-dug pa* > *b-lug pa* (“to pour out”) > *lug-s pa* (“the casting or founding of metal”) > *lhug pa* (“to pour out”)

l-dog pa (“to return”) > *b-z-log pa* (“the opposite, reverse”) > *log pa* (“reversed, inverted”) > *lhog-s pa* (“the opposite, reverse”).

In other cases *h* is responsible for the change from intransitives to transitives, i. e., to causatives, as for instance in

- krum pa* "broken in the edge or side (of porcelain)" > **rum*
 > *h-rum (pa)* "to break, smash"
dral ba "to split with a blow" > *ral ba* "to be torn, rent"
 > *h-ral ba* "to rend, tear to pieces," etc. (cf. §§ 125—126)

Thus, prefix *h* before *r* plays the same rôle as prefix *s*, which forms intensives, completives, causatives, etc. (cf. §§ 16—17). Apparently, the Tibetans wished to make further alteration in words with initial *r* in order to gain new related concepts. Prefix *s* would have been very suitable — the other prefixes were out of question —, but prefix *h* was chosen because, as a result of the falling out of original initial sounds, words had already been created with the initial sound *s-r* (cf. §§ 127—128). Thus a second form *s-r*, i. e., initial *r* + the added prefix *s* would have been identical in form with the first *s-r*.

We then see that *h* plays a fourfold rôle in Tibetan:

1. It is phonetically derived and takes prefix *l* (*l-h*)
2. As an infix with *l* it forms intensive-completives (*lh*)
3. As a prefix before *r* it forms intensive-completives (*h-r*)
4. As a prefix before *r* it forms causatives (*h-r*).

Tibetan offers above all a remarkable opportunity for understanding the Indo-Chinese languages, and at the same time represents the oldest speech form preserved to us in the monosyllabic languages. As a result too of the fixity of old forms, it has preserved to us a great host of manifestations in word-building, without which comparative Indo-Chinese philology could succeed to but meager results. The Tibetan "*h*" is of special value in determining the route which the *h*-sound has taken in the other Indo-Chinese languages, above all after the division of the language into the two separate branches, Tibeto-Burmese and Siamo-Chinese. Because of lack of time, I must reserve for myself until some later date, the venture of sifting and making public the abundant material which I have collected on this subject.

INDEX.

- abglitt*, 124 ff.
- ablaut*, 2, 9—13, 20 ff., 28—33, 35 ff., 45 ff., 68, 76, 84 ff., 91, 112—118, 122, 131, 145, 152, 155 ff., 176 ft. nt., 193 ff., 198 ff., 203 ff., 215
- adjectiva perfecti*, 83
- affix, 3, 31 ft. nt., 105, 193, 200
- agglutination, 19, 29, 111
- Altaic, 110
- anlaut*, (see, initial sound), 15
- anlautreduzierung*, 34, 126
- anlautsverkümmerung*, 39, 78 ff., 126
- anlaut tonlos*, 18
- anlaut unaspiriert*, 16
- antevocalic, 125
- Arabic, 56
- aspirate (or aspiration), 11 ft. nt., 15 ff., 29 ff., 39 ff., 73, 75, 82 ff., 92, 97, 107 ff., 112, 119—122, 128, 131, 133, 136 ff., 145, 153, 161 ff., 169, 177 ff., 181 ff., 191 ff., 202, 215, 221, 222
- assibilized dental (see also, dental), 15, 35, 53, 56, 65, 73, 77, 157 ff., 169, 177, 182
- austrisch*, 64, 202
- Austrolasian, 109
- auxiliary, modal, 111
- Balti 210
- Bantu, 110
- Bulgarian, Old, 212
- Burmese, 3, 42 ft. nt., 55, 65, 107 ft. nt., 111, 117, 183, 201, 210, 213 ff., 223
- cacuminal, 124, 209, 211
- causativbildung*, 16, 44
- causative, 2, 9 ff., 14 ff., 19 ft. nt., 20, 22, 24, 26, 36 ff., 42—46, 49 ff., 54, 58 ff., 62—69, 73—76, 78—80, 82, 90, 99, 102 ft. nt., 113—116, 127, 140, 148, 159, 183, 190, 192, 198, 202, 222 ff.
- Chinese, 1 ff., 109, 111, 117, 138 ft. nt., 201 ff., 210, 213 ff., 223
- completive, 2, 9, 12 ff., 20, 23, 26, 36 ff., 42 ff., 75, 79 ff., 90, 93, 112, 116—118, 135, 138 ff., 139 ft. nt., 206, 221 ff.
- consonant, 1 ff., 19 ft. nt., 32, 55 ff., 78, 81, 102 ft. nt., 108, 111, 125, 151, 158, 178, 183 ff., 187, 189, 191, 195 ff., 200, 209, 212
- continuative (see, iterative)
- denominative, 2, 9, 14, 20, 24, 38 ff., 49, 74, 116
- dental, 5, 15, 21, 46, 53, 58, 63 ff., 73, 81, 90, 97, 105 ff., 112 ff., 120—126, 128 ff., 142, 169 ff., 178 ff., 183, 186 ff., 190, 192, 200, 205, 209
- dental initial sound (see, initial sound), 5, 21, 80, 96, 105, 122 ff., 154, 183 ff., 201
- derivative, 16, 28 ff., 45, 118, 137, 182, 193 ff.,
- derivative, see also:
tertiary, quartary, quintary
- deverbative, 2, 9, 14, 20, 24, 36—38, 50
- diminution, 26, 29
- Dravidian, 19 ft. nt., 20, 209, 212
- Dutch, 209
- dynamic formations (see also, formative), 19
- elision, 184, 191, 197, 204
- English, 128 ft. nt., 209
- Finnish, 211 ff.
- Finnish (see also, Ugrian)
- form, basic, 9
- formative element, 2 ff., 16—18, 20, 28, 33, 45—47, 75—77, 108—111, 122, 148, 158, 187
- formative element, inseparable, 77, 108 ff.

- formative element, separable, 77, 108ff.
- French, 124
- German, 55, 128ft. nt., 170, 202, 211f.
- German, Middle High, 211
- German, Old High, 202, 211
- Greek, 202, 211ff.
- grundform*, 63ff.
- gurung*, 109
- guttural, 4, 21, 31, 46, 58, 60, 62, 64, 68ff., 80ff., 90, 97ff., 105, 107, 112, 119—122, 125ff., 131, 142, 154, 169, 178ff., 200ff.
- guttural initial sound, 4, 21, 66, 73, 80, 90, 94, 96, 105, 121, 154, 202
- h*, 80, 106, 107ft. nt., 128, 146, 182ff., 211, 220ff.
- h*, prefix, 11ft. nt., 15, 17, 31, 40, 42—46, 77, 80, 82—86, 88, 94ff., 99ff., 105—109, 114, 116, 118, 127ff., 133, 136ff., 140—142, 146, 153, 161, 167, 180, 202, 220
- h*, suffix, 55—58, 105
- Hungarian, 124, 211
- imminution, 78, 126—131, 133, 140, 142ff., 146, 148—152, 155ff., 166ff., 169—172, 177, 179, 183, 200—207, 220—222
- Indian, 126—129
- Indian, Middle, 125
- Indo-Chinese, 109ff., 201ff., 121ff., 215, 220, 223
- indochinesisch*, 64, 202
- infix, 1ff., 40, 64ff., 111, 190, 210, 221, 223
- inflection, 19
- initial sound (see, *anlaut*), 1—3, 9, 11ft. nt., 15, 17ff., 20ff., 32, 44ff., 49, 53, 55, 73, 78, 105, 111, 116—119, 120ft. nt., 122ff., 126—131, 133, 140, 142ff., 146, 148—152, 155—157, 159, 163ff., 167, 169—173, 177—184, 186, 191, 193—199, 201, 203—205, 207, 212, 215, 220—223
- instrumentalis*, 77ff.
- intensive, 13—15, 23, 30, 37ff., 40, 46, 54, 57ft. nt., 58, 67—69, 73ff., 76, 78ff., 85, 112—118, 132ff., 135, 138, 152ff., 155, 159, 172, 178, 182ff., 184ft. nt., 190 ft. nt., 192—194, 196—199, 202ff., 221—223
- intransitive, 2, 10, 12, 15ff., 25ff., 40—46, 50, 63, 83ff., 92, 97—99, 108, 115ff., 133—137, 152, 161ff., 168, 175, 182, 202, 221ff.
- isolating language, 1
- Italian, 124
- iterative (also, continuative), 12, 14ff., 22—24, 30ff., 37ff., 45—47, 58—63, 67—69, 74, 76, 81, 85—87, 105, 114ff., 117, 133, 188, 190ft. nt., 194, 202ff.
- Jya ruñ, 109
- Kanarese, 211ff.
- Kāśmir-Pandits, 124
- Katšari, 108
- labial, 7, 21, 31, 46, 58, 60, 62, 68ff., 71ff., 82ft. nt., 97, 100, 104ff., 112, 116, 119—123, 126ff., 131, 142, 169, 178ff., 200, 209
- labial initial sound, 7, 21, 64, 66, 80, 82ft. nt., 105, 121, 127, 154
- la btags*, 58, 72, 170, 173, 182ft. nt., 191, 194ff., 215
- Ladakhi, 33, 70, 78ft. nt., 111, 178, 211
- Latin, 202, 211ff.
- laute, sekundäre*, 16
- lautverhältnisse*, 108
- lautverschiebung*, 39
- lautverschleifung*, 3, 39
- Lithuanian, 210
- Madras-Pandits, 124
- Malay, 210—212
- Malayalam, 125
- media, 1ff., 4—8, 11, 15ff., 18—20, 26, 31ff., 44, 58, 63, 67, 80, 85ff., 88, 93ff., 100, 103, 119, 131, 137, 141ff., 152, 167, 169, 177—179, 190, 194ff., 209, 215
- media aspirate, 19ff.
- media, initial, 9ff., 15ff., 18, 25, 29,

- 39—45, 74, 83—85, 88, 90, 92, 96,
98, 102, 104, 127, 135, 163, 192,
200
- medial transitives, 2, 9, 11, 20, 22, 26,
42, 45
- media unaspirate, 20, 141
- media verbs, 31
- media verbs, dental, 31, 107
- media verbs, guttural, 31, 107
- media verbs, labial, 31, 107
- media verbs, palatal, 131
- metathesis, 46, 72, 140
- Miao-tse, 109
- Mongolian, 202ft. nt.
- Mordvin, 211
- Mo-so, 109
- nasal, 1ff., 4—8, 26, 58, 73ff., 90, 96,
105, 108, 119, 121—124, 131, 146,
178, 200
- nasal, initial, 16, 64ff., 90, 96, 105,
116ff., 146
- objective, 20, 25
- palatal (palatalization), 2, 33, 35ff., 45,
63, 65, 72ff., 79, 90, 94, 96, 104ff.,
113ff., 116, 118—131, 136, 139ft.
nt., 154, 157ff., 163ff., 178ff., 183,
184ft. nt., 185ff., 191ff., 195,
200—203, 209ff., 220
- palatal, final, 56
- palatal, initial, 2, 119, 130ff., 201
- palatal series, 15, 123
- Pali, 55ff., 125
- passive, 2, 15, 40, 42ff., 45, 137, 141,
161, 221
- pitch, 44
- pleonasm, 16, 40, 47, 57, 60ff., 74
- Prākṛt, 125
- prefix, 1—3, 9ft. nt., 10ff., 15—20, 22,
30ff., 33, 40, 42—47, 55, 57—63,
66ff., 69—74, 76ff., 80—82, 86,
90ff., 93—97, 99—101, 103, 105,
109—112, 114—118, 121, 127ff.,
130, 137, 139ft. nt., 140ft. nt.,
141ff., 144—148, 150, 152ff., 161,
170, 172ff., 176, 180, 181ft. nt.,
182—184, 190—199, 202, 220—223,
- q* 107
- b* 30ff., 63ff., 66ff., 70ff., 76ff.,
79—83, 86, 88, 90ff., 94, 95ft. nt.,
97, 101ft. nt., 105, 109, 112, 115,
133, 142, 144—146, 148, 150, 153,
159, 170, 173, 176, 195
- d* 30ff., 62ff., 65, 67—69, 76ff., 80,
82, 86, 90, 97, 99—101, 105, 109,
117, 147, 167, 170, 184, 202
- g* 30ff., 54, 59—62, 67, 69, 71, 76ff.,
81, 90, 94, 96, 105, 109, 114ff.,
133, 142, 145—148, 150, 152ff.,
159, 167, 170, 173, 176, 190, 194ff.
- h* and *h̄*, see under “*h*”
- k* 195
- l* 69, 72ff., 76, 82, 90ff., 94, 100, 104,
107, 109, 115, 133, 142, 145, 161,
180, 182, 191, 195ff., 220ff.
- m* 11ft. nt., 43ff., 46, 52ft. nt., 57ft.
nt., 58, 62, 71ff., 76, 90, 96, 109,
115, 137, 140, 142, 146, 167
- r* 31, 69, 71—75, 80—82, 86, 90ff., 96,
100, 104, 107, 109, 116ff., 142,
145ff., 159, 161, 167, 169, 190,
193
- s* 31, 46, 57ft. nt., 62, 66—69, 71,
80—82, 86, 90ff., 94, 96ff., 100ff.,
104—109, 111ff., 146, 148, 159,
161, 173, 182—184, 191ff., 195,
197—199, 223
- z* 69, 173
- prefix, “loose”, 67, 106
- prefix inseparable, 88, 94, 100, 106ff.,
131, 142, 144—146, 150, 153, 159,
161, 167, 169ff.
- prefix separable, 17, 109, 176
- primary, 1ff., 121, 150, 154ff., 180,
185, 196, 200ff., 220
- proethnic, 210
- prothetic, 212
- quartary, 121, 123, 128—121, 137, 139,
147—151, 154, 156, 177, 179,
200—206, 209, 215
- quintary, 130ff., 146, 149—151,
154—156, 169, 177, 196, 201, 204,
206ff.
- ra* *blags*, 1ff., 33, 35ff., 38ff., 58, 64ff.,
72ff., 85, 94, 96, 104, 114, 116—118,
121, 128ff., 131, 170, 175, 178ff.,

- 182ff., 184ft. nt., 185, 189—193,
195, 200, 202, 204, 207, 209, 215,
222
- resultative, 13, 23, 37ff., 52, 117
- root, 1ff., 4ft. nt., 9, 14, 20ff., 28ff.,
36, 43, 46ff., 64ff., 76, 80ff.,
109—111, 120—122, 128—130, 146,
154, 169, 179, 180ft. nt., 186,
189ff., 192ff., 196, 200, 211, 213
- root bare, 1
- root-inflecting, 1
- root-isolating, 19, 29, 31ft. nt., 111
- root, primary (see primary) 1—3, 150,
154, 185, 200
- secondary (see also, secondary), 1, 121
- tertiary (see also, tertiary), 121, 193,
198ff.
- saltation, 17 ff., 186
- Sanskrit, 14, 55ff., 121, 124—126,
149, 202, 209, 211 ff.
- semasiological, 2, 16, 64, 91, 108, 110
- Shi King, 3
- Siamese, 55, 65, 105, 107ft. nt., 111,
117, 183, 202, 210, 213—215
- sibilant, 4—7, 20, 46, 63, 157, 169ff.
- Si-hia, 109
- Sikkim, 165
- Sindhi, 125
- Singpo, 108
- Slavic, 209
- sonantal, 2, 17
- sound shift, 122, 178, 194ff., 202, 205
- Spanish, 124
- spiritus asper*, 55ff., 107, 220
- spiritus lenis*, 55ff.
- spirans* mute, 55, 220
- sprachgefühl*, 1
- stem, 1ff., 9, 20, 40, 43, 45, 47ff., 51,
55, 65, 76, 80ff., 83—85, 110ff.,
120, 127, 130, 133, 137, 146, 150,
155, 178ff., 180ft. nt., 183, 195,
200, 206
- stem, bare, 1
- stem-vowel, 29ff., 32, 68, 82, 176
- stop-sound, 170
- stufenwechsel*, 1
- Suaheli, 211ff.
- subjective, 20, 25
- substantiva futuri*, 83
- substantiva perfecti* 83, 88, 198,
- suffix, 1—3, 14, 16, 29, 31, 33, 45—48,
50—60, 67, 73, 76—81, 106, 111
—118, 125, 127, ff., 130ff., 133,
140, 144, 146, 148, 250, 153, 156,
159, 170, 172, 187ff., 190, 197, 202,
204
- b 51ff., 58, 70, 105, 112, 188, 190
- d 49ff., 58ff., 62, 65, 80, 105, 115,
140, 188, 190
- g 47ff., 58ff., 63, 188, 190
- h 53, 55—58
- l 53ff., 58, 60, 110, 114, 188, 190, 197
- m 51ff., 58ff., 70, 110, 112—114,
156, 204
- ŋ 47ff., 58ff., 116, 118, 190, 201
- r 45, 53ff., 58ff., 69, 73, 110, 148, 187
- s 31, 50ff., 60, 82ff., 86, 90f., 96ff.,
105, 108, 111ff., 114—117, 131,
133, 144, 146, 150, 152, 159, 170, 172
- u 29
- suffix consonantal, 3
- suffix primary, 2
- Svarabactic, 107
- Tamil, 19ft. nt., 202f. nt., 203, 211ff.
- Tamir, 125, 209
- tempusbildung*, 64
- tense, present, 17, 30—33, 57ft. nt.,
76, 79, 81—87, 89ff., 95, 100, 106
— 108, 112, 114, 116, 133, 136,
138ft. nt., 139—141, 145ff., 148
— 150, 153, 161, 165, 168, 170,
173, 176
- perfect, 9, 31, 33, 50—52, 66ff.,
78—94, 96—101, 103—108, 112,
114—117, 121, 131, 133—140,
141ft. nt., 142—149, 153ff., 159,
161—167, 170, 172ff., 176, 192ff.,
198ff., 205ff.
- future, 31, 33, 42, 60, 80—84, 86—94,
96ff., 99, 101, 103ff., 105,
113—115, 131, 137—140, 141ft. nt.,
142—149, 153ff., 165ff., 173, 176
- imperative, 30ff., 33, 43, 79, 82,
86—93, 96, 99, 103ff., 108, 115,
131, 138—145, 163, 165ff.
- tense formation, 30ff., 43ff., 69, 77ff.,
90, 93, 101, 112, 131, 133, 145ff.,
159, 170, 174ft. nt.

- tenuis, 1 ff., 4—11, 15—20, 22, 25, 29, 31 ff., 39 ff., 42—46, 56, 63, 66 ff., 74, 82 ft. nt., 83, 88, 90, 97, 107, 112, 114 ff., 119—122, 130 ff., 133, 136 ff., 139 ft. nt., 140 ff., 143, 145, 152, 155 ff., 159, 162, 164—166, 169, 177 ff., 190, 194 ff., 200, 202, 215
- aspirate, 1 ff., 4—8, 15, 17 ff., 20, 32, 40, 42—44, 46, 56, 164, 169, 200
- initial, 15, 18, 26, 40, 45, 80, 82 ft. nt., 83 ff., 92 ff., 133, 161, 164.
- tertiary, 31, 78, 85, 117 ff., 121—123, 126—129, 131, 137, 147—149, 151, 179—183, 193, 196, 198—207, 215, 220
- Tibetan, 1—4, 9, 15, 18—20, 22, 29, 31 ft. nt., 44, 46, 55 ff., 64 ff., 70, 90, 105—107, 109—111, 120 ff., 123 ft. nt., 124—126, 154, 170, 178, 183, 186, 190, 194—196, 199—202, 208—215, 220, 222 ff.
- tone system, 18
- transitive, 2 ft. nt., 11, 20 ft. nt., 25, 40—45, 50, 63 ff., 82—84, 92, 97 ff., 133—136, 140 ff., 144, 161—163, 165 ff., 182, 192, 222
- truncation, 3
- Turkish, 110, 202 ft. nt.
- Turkish, Osmanli, 110, 212
- Ugrian, Finnish, 211 ff.
- Velar, 209
- vowel, 1, 26, 28, 31—33, 35, 53, 55 ff., 68, 78, 82, 91 ff., 108, 111, 123—125, 131, 141 ft. nt., 176, 197, 200, 209
- vowel-(root)-form, 3
- wa btags*, 210, 215
- wa zur*, 58, 208—211, 215, 222
- ya btags*, 1 ff., 33—36, 39, 51, 58, 61 ff., 64 ff., 79, 90, 99, 111, 113, 117, 119—123, 125—131, 136, 139 ft. nt., 157, 170, 179, 182 ft. nt., 185, 189—191, 195, 200, 202, 209 ff., 220 ff.

INDEX TO THE ROOTS.

\sqrt{ba} (1): 7, 14, 26, 49, 50, 118, 169, 186

\sqrt{bu} (1): 29, 36, 38, 47—50, 52, 54, 61, 77, 122, 130, 156

\sqrt{bu} (5): 14, 27, 41, 42, 47, 49, 52, 61, 122, 186

\sqrt{da} (1): 12, 14, 21, 24

\sqrt{da} (3): 24

\sqrt{da} (4): 5, 11, 23, 34, 42, 54, 120, 136, 137, 149

\sqrt{da} (5): 6, 11, 22, 24, 46, 52, 53, 128, 139, 155, 156, 170, 196, 197

\sqrt{da} (6): 6

\sqrt{da} (10) a: 24

\sqrt{da} (11): 6, 12, 24, 34, 43, 53, 54, 58, 64, 136, 151, 169, 194,

\sqrt{da} (12): 210

\sqrt{du} (1): 12, 43, 75, 120, 121, 186

\sqrt{du} (4): 43, 47, 120, 149,

\sqrt{du} (5): 60, 120

\sqrt{ga} (12): 21, 25, 27, 38, 41, 42, 54, 74, 194, 214

\sqrt{ga} (16): 21

\sqrt{ga} (16) a: 156

\sqrt{ga} (16) b: 24, 37, 41, 169

$\sqrt{*ba}$ (2): 7, 26, 30, 39, 116—118, 186, 192

$\sqrt{*ba}$ (3): 7, 12—14, 23, 24, 26, 37, 38, 39, 41, 42, 47, 49, 53, 65, 73, 79, 97, 100, 169

$\sqrt{*ba}$ (4): 7, 12—14, 22, 23, 29, 30, 36—38, 47, 51, 64, 100, 151, 214

$\sqrt{*ba}$ (5): 12, 23, 38, 41, 43, 54, 100

$\sqrt{*ba}$ (6): 8, 13, 34

$\sqrt{*bu}$ (2): 8, 14, 30, 37, 53, 61, 121, 122, 129, 186

$\sqrt{*bu}$ (3): 122

$\sqrt{*bu}$ (4): 8, 36, 43, 122

$\sqrt{*bu}$ (5): 43

$\sqrt{*bu}$ (6): 12, 14, 38, 43, 54, 61, 122, 186

$\sqrt{*da}$ (2): 5, 13, 21—23, 50, 52, 57, 114, 196

$\sqrt{*da}$ (3): 5, 21, 23—35, 45, 57, 58, 100, 120, 155

$\sqrt{*da}$ (5): 13

$\sqrt{*da}$ (6): 22, 60, 65

$\sqrt{*da}$ (8): 43

$\sqrt{*da}$ (9): 12

$\sqrt{*da}$ (10): 6, 11, 210

$\sqrt{*da}$ (10) a: 13, 23, 25, 43, 61, 70, 71, 136, 170, 193, 197

$\sqrt{*da}$ (10) b: 47, 48, 54, 71, 198

$\sqrt{*da}$ (10) c: 152, 156, 193

$\sqrt{*da}$ (11): 57

$\sqrt{*du}$ (2): 52, 76, 190

- | | |
|--|--|
| $\sqrt{*du}$ (3): 43, 76 | $\sqrt{*ga}$ (8): 23, 25, 27, 41, 52, 61 |
| $\sqrt{*du}$ (6): 7, 36, 41, 53, 60, 120, 170 | $\sqrt{*ga}$ (9): 20, 28, 29, 30 |
| $\sqrt{*ga}$ (2): 4, 11, 13, 21, 23, 25, 26,
28, 37, 38, 41, 48—50,
53, 57, 60, 70, 76, 122,
194 | $\sqrt{*ga}$ (10): 13, 20, 24, 37, 52, 74,
221 |
| $\sqrt{*ga}$ (3): 4, 14, 22, 23, 25, 28, 29,
37, 39, 49—51, 61, 74,
85, 221 | $\sqrt{*ga}$ (11): 23, 27, 29, 30, 41, 50,
54, 155 |
| $\sqrt{*ga}$ (5): 23, 24, 37, 38, 53, 61, 71,
73, 148 | $\sqrt{*ga}$ (12): 5, 29, 64 |
| $\sqrt{*ga}$ (5)a: 11—13, 25, 26, 169, 179,
196 | $\sqrt{*ga}$ (13): 13, 21—23, 25, 27, 30,
38, 41, 42, 54, 74, 137,
221 |
| $\sqrt{*ga}$ (6): 4, 11, 12, 14, 28, 37, 39,
40, 51, 70, 76, 112,
117, 121, 122, 129,
149, 154, 179 | $\sqrt{*ga}$ (14): 22, 40, 48, 49, 129, 150,
198 |
| $\sqrt{*ga}$ (7): 5, 13, 25, 27, 28, 37, 61, 76 | $\sqrt{*ga}$ (16)a: 42, 57, 65 |
| | $\sqrt{*ga}$ (16)b: 26, 42 |
| | $\sqrt{*gu}$: 12, 41, 43, 60, 123, 201, 202 |
| | $\sqrt{*ku}$: 201, 202 |

