Phonetic Analysis of dGudzong Tibetan, The Vernacular of Khams Tibetan spoken in the rGyalrong Area

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<th>著者 (英)</th>
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URL: http://doi.org/10.15021/00003880
Phonetic Analysis of dGudzong Tibetan
The Vernacular of Khams Tibetan spoken in the rGyalrong Area

Hiroyuki Suzuki*

In this paper, the phonetic analysis of the dGudzong dialect is treated with special attention paid to the synchronic phonological framework of the dGudzong dialect as well as to several remarkable diachronic features through a comparison with Written Tibetan forms. The phonetic analysis is divided into three parts: consonants, vowels and suprasegmentals; the diachronic analysis also mentions typological characteristics among the Khams Tibetan dialects. At the end of the article, a list of the basic vocabulary (ca. 1000 words) is added.

Key Words: Tibetan, Khams Tibetan, twenty-four-villages’ patois, rGyalrong, phonetics

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1 Introduction

1.1 Background

Danba 丹巴 County, which is the central spiritual place of the rGyalrong region as well as being an ethnic boundary of Tibetan, Qiang and Han Chinese in Ganzi 甘孜 Tibetan Autonomous Prefecture, western Sichuan, is a multilingual area. Tibetans living in Danba speak several languages: Situ-rGyalrong, Geshtsa, the Sichuan variation of Mandarin Chinese, Amdo nomadic Tibetan as well as Khams Tibetan. The Tibetans in Danba identify themselves as rGyalrong, and their culture, traditions and heritage are also similar to those of other rGyalrong people who speak rGyalrong languages. The architectural heritage treated in Darragon (2005) clearly indicates the common characteristics among the rGyalrong and eastern Khams areas, including Danba.

The Khams Tibetan spoken in Danba is recognised by local Tibetans as a kind of standard variant of the Tibetan language which is comparable to the Derge dialect. It is called ershisi cun hua 二十四村落 “twenty-four-villages’ patois.” This variety is spoken in several villages such as Sogpho 桑坡 [Sog-pho], dGudzong 格宗 [dGu-rdzong], sProsnang 中路 [sPro-snang], Yozha 岳扎, Rongbrag 章谷 [Rong-mi Brag-'go / Rong-brag] and Rwatso 水子 [Rwa-tso] as well as Panan 潘安 in Xiaojin 小金 County, which are located at the uppermost region of Daduhe 大渡河 River.

This vernacular is one of the isolated Khams Tibetan dialects (Suzuki 2006; 2009: 17, named Rongbrag dialect), surrounded by Situ-rGyalrong to the north (the Chuchen variety) and the east (the bTsanlha variety), Geshtsa to the west and Guqiong to the south. According to local Tibetans, this dialect consists of several idioms, which can be identified by the names of rivers and mountains, namely, Sogpho, dGudzong, sProsnang and Rwatso. The differences among these idioms are comparatively minor with respect to their grammatical features, but are great with respect to their phonetic features. The speakers of this dialect group use their native dialect only in their own villages, in other villages in Danba they generally use Chi-
nese (the Sichuan variety of Mandarin) because of the linguistically intricate situation mentioned above.

In previous studies on Tibetan linguistics, there have been several monographs published in China such as Qu (1991), Jiang (2002) and Zhang (2009), but they provide neither information nor data of the varieties spoken in Danba, although many brief introductions to the “twenty-four villages’ patois” have been provided, for instance, in *Danba Xianzhi* (Sichuansheng Danba Xianzhi Bianzuan Weiyuanhui 1996: 174) and Lin (2006), both presented short descriptions of the “twenty-four-villages’ patois.” However, both were written from the viewpoint of the introduction to the languages spoken in Danba, thus, they mention these vernaculars as standard Tibetan dialects, which is the way the local people consider their dialects. Consequently, only a few linguistic studies have so far been produced. The present author’s works Suzuki (2005a; 2005b; 2007a; 2007b; 2008a; 2008b) provide us with the first preliminary descriptions of the phonetic characteristics, the phonological system and the dialectal characteristics of the four vernaculars: Sogpho, sProsnang, Rongbrag and dGudzong.

1.2 Framework of the description

This paper explores the synchronic phonetic analysis with a basic phonological treatment and diachronic sound changes of dGudzong Tibetan with a remark on its characteristics from both typological and contrastive viewpoints with reference to the Tibetan dialectology.1)

The description in this paper occupies a portion of the Tibetan dialectology, meaning that the description is not simply an object of descriptive linguistics proper, but is done with the object of providing a unified descriptive framework throughout all of my works on the Tibetan dialects. The framework of the description is primarily phonetic, and it is consistent with the author’s description of all the Tibetan dialects (circa 150 dialects at present; cf. Suzuki 2007a: 42–56), in order to avoid any confusions that may occur when one checks only the described forms for comparative study (cf. Zhu 2008: 303; Zhang 2009: 358). The phonetic symbols include the IPA set with some additional phonetic symbols that have been adopted for Sino-Tibetan languages, such as those given in Zhu (2010). These symbols are used for the description of phonemes, and no orthographic conventions are used, as has been done in Tournadre (2005: 24).

In this paper, I have not attempted to apply any particular theory of phonology nor do I discuss the advantages of one specific theory over another. Any theoretical analyses are left for monographs.2) Phonetic variants are also described unless they are simply free-variants of a certain phoneme, and the phonetic characteristics to represent dGudzong Tibetan may be displayed in the description. Phonemes should be primarily identified through the presence of minimal or near minimal pairs, however, there are some phonemes for which minimal pairs have not yet been found.
2 Synchronic Description

2.1 Syllable structure
The most complicated syllable structure can be illustrated as in the following:

\[ ^cC_iGVCC \]

preinitial \( ^c \): preaspiration, prenasal, glottal stop and labial obstruent only.
main initial \( C_i \): all the consonants.
glide \( G \): /w/ or /j/ only.
syllable core \( V \): all the vowels.
final \( C \): /p/, /ʔ/, /γ/, /r/, /w/, and /j/; \( CC \): /wʔ/ and /jʔ/ only.3)

2.2 Consonants
The consonant inventory is displayed below:

<table>
<thead>
<tr>
<th>Table 1: consonant inventory</th>
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<tbody>
<tr>
<td>plosive</td>
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<tr>
<td>non-aspirated</td>
</tr>
<tr>
<td>voiced</td>
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<tr>
<td>affricate</td>
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<tr>
<td>non-aspirated</td>
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<tr>
<td>voiced</td>
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<tr>
<td>fricative</td>
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<tr>
<td>non-aspirated</td>
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<tr>
<td>voiced</td>
</tr>
<tr>
<td>nasal</td>
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<tr>
<td>voiceless</td>
</tr>
<tr>
<td>liquid</td>
</tr>
<tr>
<td>voiceless</td>
</tr>
<tr>
<td>semi-vowel</td>
</tr>
</tbody>
</table>

2.2.1 Simplex initials

2.2.1.1 Plosives and affricates
All the plosives and affricates except /c, ʃ, ʔ/ have a three-way distinction aspirated/non-aspirated/voiced.

The palatal plosives /c, ʃ/ are included in the consonant inventory, but they do not appear as a simplex (cf. 2.2.2.1 and 2.2.2.6). These sound values may include a
phonetic variant of palatalised velar plosives, but the velar plosive series generally do not include a phonetic variant of palatal plosives. These two series, therefore, are still distinctive, but it is supposed that they may merge into velar ones in the near future.

/pʰ/ /pʰa ʰga/ ‘father’
/p/ /’paʔ paʔ/ ‘level’
/b/ /’bũ/ ‘wide’
/tʰ/ /tʰa zuʔ/ ‘cockscomb’
/t/ /’ta ro/ ‘yoghurt’
/d/ /’de: mo/ ‘log’
/tʰ/ /tʰeʔ/ ‘butter’
/t/ /’to/ ‘hair’
/d/ /’du/ ‘blood’
/kʰ/ /kʰa ɦo/ ‘snow’
/k/ /’kɐ zi/ ‘barley’
/g/ /’gi ʰga/ ‘teacher’
/r/ /’rɐ mi/ ‘grandfather’
/tsʰ/ /’tsʰa ʰbu liʔ/ ‘dragonfly’
/ts/ /’tsʰ “bu/ ‘wrinkle’
/dz/ /’dzar/ ‘pasta’
/tɕʰ/ /’tɕʰɯ/ ‘water’
/tɕ/ /’tɕa bu/ ‘thing’
/dz/ /’dza mo/ ‘steelyard’

2.2.1.2 Fricatives
The alveolar, retroflex, prepalatal and velar fricative series have a three-way distinction aspirated/non-aspirated/voiced, while the bilabial and glottal fricative series have a two-way distinction aspirated/voiced. The prepalatal series are always pronounced with a prepalatal (or alveopalatal) articulation.

/ɸ/ /’ɸoʔ ka/ ‘cover’
/ʃ/ /’ʃu loʔ/ ‘rise’
/sʰ/ /sʰi gu/ ‘charcoal’
/s/ /’so sã/ ‘light’
/z/ /’zi teʰsã/ ‘dog year’
/sʰ/ /sʰuʔ po ɸe/ ‘cypress’
/ʒ/ /’nɪ ʂu/ ‘twenty’
/z/ /’ʒi nǐʔ ‘three days after tomorrow’
/cʰ/ /’cʰi ɸe/ ‘tree’
/c/ /’ci ɸe/ ‘forest’
/z/ /’tsʰe ziʔ/ ‘the first day’
/xʰ/ /’xʰoʔ/ ‘fold’
The bilabial fricatives /ɸ, β/ rarely appear, and can be distinguished from /p(ʰ), b/ respectively, e.g.:

/ɸ/-/p/-/pʰ/ /ˈʃoʔ kə/ ‘cover’; /ˈpoʔ/ ‘Tibetan’; /ˈsʰo pʰo/ ‘next year’
/β/-/b/ /ˈβɯ loʔ/ ‘rise’; /ʰbɯʔ/ ‘shed’

The velar fricative /γ/ often appears in word-medial position, and it does not alternate with a plosive [g] even in careful speech. /γ/ and /ɡ/ are therefore distinctive.

2.2.1.3 Resonants (nasals, liquids and semi-vowels)
The resonants except /r, w, j/ have a two-way distinction voiced/voiceless. The nasal /n/ is always pronounced as a prepalatal, and the variant of the palatal articulation is not included.

/m/ /ˈmõ/ ‘cow’
/m̥/ /ˈm̥ɔ/ ‘medicine’
/n/ /ˈnɑʔ tɕʰwe/ ‘ear’
/n̥/ /ˈn̥ɔ/ ‘nose’
/ȵ/ /ˈȵo/ ‘fish’
/ŋ/ /ˈŋo/ ‘five’
/ȵ̊/ /ˈȵ̊ə̃/ ‘heart’
/ŋ̊/ /ˈŋgə̃ŋ̊iː/ ‘pillow’
/l/ /ˈla mo/ ‘leaf’
/l̥/ /ˈl̥ɛʔ bo/ ‘frost’
/r/ /ˈrə be/ ‘rabbit’
/w/ /ˈwo/ ‘fox’
/j/ /ˈje sʰo/ ‘last night’

2.2.2 Complex initials
Complex initials can be classified according to the preinitial type. There are six preinitial types: (1) preaspirations, (2) prenasals, (3) labial plosive preinitials, (4) labial fricative/approximant preinitials, (5) glottal stop preinitials and (6) glides.
These features, except the glide, are summarised as follows:

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<th>(4)</th>
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</thead>
<tbody>
<tr>
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<td>+</td>
<td>−</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>labiality</td>
<td>−</td>
<td>−(+)</td>
<td>+</td>
<td>+</td>
<td>−</td>
</tr>
<tr>
<td>continuity</td>
<td>+</td>
<td>+</td>
<td>−</td>
<td>+</td>
<td>−</td>
</tr>
</tbody>
</table>
2.2.2.1 Preaspiration type

Most non-aspirated and voiced consonants can occur preaspirated:

\[
\begin{array}{cccccccc}
{^h}p & {^h}t & {^h}l & {^h}c & {^h}k & {^h}ts & {^h}tc \\
\hphantom{{^h}}b & \hphantom{{^h}}S & \hphantom{{^h}}S & \hphantom{{^h}}S & \hphantom{{^h}}S & \hphantom{{^h}}S & \hphantom{{^h}}S \\
\hphantom{{^h}}b & \hphantom{{^h}}d & \hphantom{{^h}}d & \hphantom{{^h}}j & \hphantom{{^h}}g & \hphantom{{^h}}dz & \hphantom{{^h}}dz \\
\hphantom{{^h}}Z & \hphantom{{^h}}Z & \hphantom{{^h}}Z & \hphantom{{^h}}Z & \hphantom{{^h}}Z & \hphantom{{^h}}Z & \hphantom{{^h}}Z \\
\hphantom{{^h}}m & \hphantom{{^h}}n & \hphantom{{^h}}n & \hphantom{{^h}}n & \hphantom{{^h}}n & \hphantom{{^h}}n & \hphantom{{^h}}n \\
\end{array}
\]

The voicedness of the preaspiration depends on that of the main initial. The preaspiration feature is always phonetically weaker than the main consonant of the initial.

Examples:

\[
\begin{align*}
\text{\(\text{\textdegree}^h p\)} & \quad /^{h}\text{pej bo}/ \text{‘shoulder’} \\
\text{\(\text{\textdegree}^h t\)} & \quad /^{h}\text{to}/ \text{‘horse’} \\
\text{\(\text{\textdegree}^h l\)} & \quad /^{h}\text{leʔ}/ \text{‘bracelet’} \\
\text{\(\text{\textdegree}^h c\)} & \quad /^{h}\text{ma}/ \text{‘jaw’} \\
\text{\(\text{\textdegree}^h k\)} & \quad /^{h}\text{kɯ mo}/ \text{‘thief’} \\
\text{\(\text{\textdegree}^h ts\)} & \quad /^{h}\text{tsә wo}/ \text{‘grass’} \\
\text{\(\text{\textdegree}^h tɛ\)} & \quad /^{h}\text{tɛi}/ \text{‘tongue’} \\
\text{\(\text{\textdegree}^h S\)} & \quad /^{h}\text{b}\text{ha}/ \text{‘gold’} \\
\text{\(\text{\textdegree}^h s\)} & \quad /^{h}\text{s}\text{a}/ \text{‘three’} \\
\text{\(\text{\textdegree}^h \text{c}\)} & \quad /^{h}\text{b}\text{a}/ \text{‘be born’} \\
\text{\(\text{\textdegree}^h l\)} & \quad /^{h}\text{la}/ \text{‘thigh’} \\
\text{\(\text{\textdegree}^h x\)} & \quad /^{h}\text{x}\text{a}/ \text{‘seed’} \\
\text{\(\text{\textdegree}^h l\)} & \quad /^{h}\text{leʔ}/ \text{‘eagle’} \\
\text{\(\text{\textdegree}^h b\)} & \quad /^{h}\text{buʔ}\text{de}/ \text{‘leather bellows’} \\
\text{\(\text{\textdegree}^h d\)} & \quad /^{h}\text{da wo}/ \text{‘moon’} \\
\text{\(\text{\textdegree}^h d\)} & \quad /^{h}\text{da}:\text{mo}/ \text{‘sap of pine’} \\
\text{\(\text{\textdegree}^h j\)} & \quad /^{h}\text{j}\text{i}/ \text{‘back’} \\
\text{\(\text{\textdegree}^h g\)} & \quad /^{h}\text{gu}/ \text{‘nine’} \\
\text{\(\text{\textdegree}^h dz\)} & \quad /^{h}\text{dzæ}:\text{ji ma}/ \text{‘false’} \\
\text{\(\text{\textdegree}^h dz\)} & \quad /^{h}\text{dzu}:\text{mo}/ \text{‘intestine’} \\
\text{\(\text{\textdegree}^h z\)} & \quad /^{h}\text{zo}/ \text{‘leaning’} \\
\text{\(\text{\textdegree}^h z\)} & \quad /^{h}\text{z}\text{a}/ \text{‘four’} \\
\text{\(\text{\textdegree}^h z\)} & \quad /^{h}\text{zi}/ \text{‘exchange’} \\
\text{\(\text{\textdegree}^h m\)} & \quad /^{h}\text{me}/ \text{‘low’} \\
\text{\(\text{\textdegree}^h n\)} & \quad /^{h}\text{na}/ \text{‘Mongolian gazelle’} \\
\text{\(\text{\textdegree}^h n\)} & \quad /^{h}\text{n}:\text{ma}/ \text{‘two’} \\
\text{\(\text{\textdegree}^h ɛ\)} & \quad /^{h}\text{ɛ}:\text{ma}/ \text{‘sweet’} \\
\text{\(\text{\textdegree}^h l\)} & \quad /^{h}\text{l}:\text{po}/ \text{‘brain’} \\
\end{align*}
\]
2.2.2.2 Prenasal type

All the aspirated and voiced plosives and affricates as well as several continuants can occur prenasalised:

\[
\begin{array}{cccccccc}
^m b & ^n d & ^n d & ^n g & ^n dz & ^n dz & ^n \gamma \\
^m p^b & ^n t^h & ^t^h & ^n k^h & ^n t^s^h & ^n t^z^h & ^n x^h & ^n S^h & ^n c^h & ^n l^h
\end{array}
\]

The voicedness of the prenasal depends on that of the main initial. Almost all prenasals are homorganic, but there are also a few heterorganic, labialised prenasals, e.g.:

\[
^m g =^m t^s^h
\]

The prenasal feature is always phonetically weaker than the main consonant of the initial.

Examples:

\[
\begin{align*}
/mb/ & \sim /m\text{bu} leʔ/ ‘worm’ \\
/nd/ & \sim /n\text{da}/ ‘read’ \\
/nd/ & \sim /n\text{di}/ ‘rice’ \\
/ŋd/ & \sim /ŋ\text{go}/ ‘go’ \\
/ŋdz/ & \sim /ŋ\text{dzu}/ ‘mdzo’ \\
/ŋdz/ & \sim /ŋ\text{dzaʔ xɒ}/ ‘shoe’ \\
/ŋγ/ & \sim /ŋγɛ tɔ/ ‘bite’ \\
/m̥p^b/ & \sim /m̥p^bɛ/ ‘fly’ \\
/n̥t^h/ & \sim /n̥t^hu/ ‘high’ \\
/q̥t^h/ & \sim /q̥t^he po/ ‘gall bladder’ \\
/q̥k^h/ & \sim /q̥k^ho li/ ‘roof’ \\
/n̥t^s^h/ & \sim /n̥t^s^hu/ ‘lake’ \\
/q̥t^s^h/ & \sim /q̥t^s^h u/ ‘mouth’ \\
/q̥x^h/ & \sim /q̥x^h o/ ‘village’ \\
/q̥s^h/ & \sim /q̥s^hu mɔ ‘marry’ \\
/q̥c^h/ & \sim /q̥c^hu/ ‘dance’ \\
/n̥l^h/ & \sim /n̥l^hu/ ‘shoot’ \\
/mg/ & \sim /m\text{gu}/ ‘head’ \\
/n̥s^h/ & \sim /n̥s^h a ma/ ‘sweep’
\end{align*}
\]

2.2.2.3 Labial plosive type

A limited set of the voiceless plosives and affricates can occur prelabialised:

\[
^p t \quad ^p t^h \quad ^p l \quad ^p k \quad ^p t^s^h \quad ^p t^s \quad ^p t^c
\]
Voiced counterparts are not found. The prelabial plosive is always articulated lightly, and its audibility is very weak. It cannot, however, vary with a prelabial continuant such as a fricative or an approximant in the normal speech, but it is sometimes omitted. Not all of the prelabialised plosives have minimal pairs with non-prelabialised plosives.

Examples:

\[ /pt/ \quad /\tilde{p}t\tilde{a} \quad /\tilde{p}t\tilde{a} \alpha /p^b\tilde{a}/ \quad \text{‘poplar’} \]

\[ /\tilde{p}l/ \quad /\tilde{p}\tilde{\iota}/ \quad \text{‘breast’} \]

\[ /\tilde{p}\kappa/ \quad /\tilde{\kappa}\tilde{i}/ \quad \text{‘carry on the back’} \]

\[ /\tilde{p}ts/ \quad /\tilde{p}ts\tilde{\epsilon}/ \quad \text{‘broom’} \]

\[ /\tilde{p}t\tilde{s}/ \quad /\tilde{p}ts\tilde{\epsilon}/ \quad \text{‘carry on the back’} \quad \text{cf.} \quad /ts\tilde{\epsilon}/ \quad \text{‘coral’} \]

\[ /\tilde{p}t\tilde{c}/ \quad /\tilde{p}\tilde{t}\tilde{\epsilon}/ \quad \text{‘ten’} \quad \text{cf.} \quad /\tilde{t}\tilde{\epsilon}/ \quad \text{‘house’} \]

2.2.2.4 Labial fricative/approximant type

A labial fricative/approximant can stand before a limited set of consonants:

\[ \tilde{\epsilon}t \quad \tilde{\epsilon}\tilde{\l} \quad \tilde{\epsilon}\tilde{t}\tilde{c} \quad \tilde{\epsilon}s \quad \tilde{\epsilon}\tilde{l} \]

\[ \tilde{\epsilon}d \quad \tilde{\epsilon}g \quad \tilde{\epsilon}d\tilde{z} \quad \tilde{\epsilon}z \quad \tilde{\epsilon}n \quad \tilde{\epsilon}l \]

The voicedness of the pre-labial continuant depends on that of the main initial. The pre-labial continuant feature is always weaker than the main initial on the phonetic aspect. It does not alternate with pre-labial plosives. It can be distinguished from a preaspiration type without a labial feature.

Examples:

\[ /\tilde{t}/ \quad /\tilde{t}u\tilde{u}/ \quad \text{‘swelling’} \quad \text{cf.} \quad /\tilde{t}/ \quad /\tilde{t}u\tilde{u}/ \quad \text{‘dinner’} \]

\[ /\tilde{\epsilon}t\tilde{c}/ \quad /\tilde{\epsilon}t\tilde{\epsilon}\tilde{o}/ \quad \text{‘December’} \]

\[ /\tilde{\epsilon}s/ \quad /\tilde{\epsilon}s\tilde{\dot{a}}/ \quad \text{‘feed’} \quad \text{cf.} \quad /\tilde{\epsilon}s/ \quad /\tilde{\epsilon}s\tilde{\dot{a}}/ \quad \text{‘three’} \]

\[ /\tilde{\epsilon}\tilde{l}/ \quad /\tilde{\epsilon}\tilde{l}\tilde{\dot{a}}/ \quad \text{‘clap’} \quad \text{cf.} \quad /\tilde{\epsilon}\tilde{l}/ \quad /\tilde{\epsilon}\tilde{l}\tilde{\dot{e}}/ \quad \text{‘eagle’} \]

\[ /\tilde{\epsilon}\tilde{d}/ \quad /\tilde{\epsilon}\tilde{d}\tilde{\epsilon}/ \quad \text{‘animal’s hair’} \]

\[ /\tilde{\epsilon}\tilde{g}/ \quad /\tilde{\epsilon}\tilde{g}\tilde{\epsilon}/ \quad \text{‘share’} \quad \text{cf.} \quad /\tilde{\epsilon}\tilde{g}/ \quad /\tilde{\epsilon}\tilde{g}\tilde{\epsilon}/ \quad \text{‘door’} \]

\[ /\tilde{\epsilon}\tilde{d}z/ \quad /\tilde{\epsilon}\tilde{d}z\tilde{\epsilon}/ \quad \text{‘eight’} \]

\[ /\tilde{\epsilon}\tilde{z}/ \quad /\tilde{\epsilon}\tilde{z}\tilde{\epsilon}/ \quad \text{‘shave’} \quad \text{cf.} \quad /\tilde{\epsilon}\tilde{z}/ \quad /\tilde{\epsilon}\tilde{z}\tilde{\epsilon}/ \quad \text{‘four’} \]

\[ /\tilde{\epsilon}\tilde{n}/ \quad /\tilde{\epsilon}\tilde{n}\tilde{\epsilon}/ \quad \text{‘swear’} \]

\[ /\tilde{\epsilon}\tilde{l}/ \quad /\tilde{\epsilon}\tilde{l}\tilde{\epsilon}/ \quad \text{‘thigh’} \quad \text{cf.} \quad /\tilde{\epsilon}\tilde{l}/ \quad /\tilde{\epsilon}\tilde{l}\tilde{\epsilon}/ \quad \text{‘musk’} \]

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2.2.2.5 Glottal stop type
Nasals and approximants can be with a pre-glottal stop:

\[ \hat{m} \hat{n} \hat{j} \]

Glottal stop is really clear phonetically, and it does not vary with glottal continuants. It can be distinguished from simplex and preaspiration types.

Examples:

/\hat{m}/ /\hat{m}a h\hat{a}ʔ/ ‘fall down’
/\hat{n}/ /\hat{n}e ne/ ‘sharp’
/\hat{j}/ /\hat{j}a: ʔt\hat{u}/ ‘expand’

No minimal pairs are found only with/without the pre-glottal stop. But the existence of this glottal feature is extremely evident, thus it is described.

2.2.2.6 Glide type
There are many combination patterns including a glide /w/ or /j/:

bw tw kw gw ts\h w tc\h w tcw sw s\w
sw \h w \h w c\h w cw zw xw \h w mw
\h w lw rw
pj bj tj zj xj nj lj rj

In addition, there are several complex types with both of a preinitial and a glide, consider the following examples:

\hat{m}\w \hat{b}\w \hat{c}\w \hat{n}\w \hat{t}\w \hat{h}\w \hat{t}\w \hat{sw}
\hat{sw} \hat{b}\w \hat{d}\w \hat{z}\w \hat{g}\w
\hat{t}\w \hat{t}\w \hat{m}\w

The pronunciation of the glide is clear, and its omission is not accepted. Minimal pairs with/without a glide are not numerous. Examples illustrating the distinction are:

/\hat{b}/−/\hat{m}\w /−/\hat{b}/j/ /\hat{r}\w be/ ‘rabbit’ /\hat{m}\w be mad/ /\hat{b}/pa: bje/ ‘leather’

2.3 Vowels
The vowel inventory is displayed below:

i u u u
\epsilon o o
\epsilon a a
Each vowel can be articulated oral or nasalised. Short and long vowels are distinctive. Only monophthongs can become an element of the syllable.

2.3.1 Normal vowels

With articulatory contrast

- /i/-/e/ /'sʰiː wo/ ‘hail’; /'sʰeː mo/ ‘nail’
- /e/-/e/ /'mejʔ/ ‘eye’; /'ʰmejʔ/ ‘low’
- /a/-/a/ /'ʰteʔ/ pa/ ‘excrement’; /'ʰtɕʔʔ/ ‘cut’
- /e/-/ə/ /'tɕaʔ/ ‘pull up’; /'tɕəʔ/ ‘patch’
- /ə/-/o/ /'kʰwʔʔ/ ‘needle’; /'ʰmʊwʔʔ/ ‘awl’
- /u/-/u/ /'ʰsʰu/ ‘tooth’; /'sʰo/ ‘earth’
- /u/-/o/ /'ʰsʰu/ ‘who’; /'sʰə pu/ ‘yellow’
- /u/-/u/ /'ʰdʊʔ/ ‘split up’; /'dʊ/ ‘wheat’

With length contrast

- /i/ /'mi/ ‘fire’; /'niː/ ‘highland barley’
- /e/ /'ʰteʔ/ ‘tiger’; /'sʰeː mʊ/ ‘nail’
- /e/ /'le le/ ‘breast’; /'tɕeː ma/ ‘cliff’
- /a/ /'ʰsʰə fʊ/ ‘deer’; /'ŋaː na/ ‘front’
- /a/ /'ʰnaː wə ‘sky’; /'rʊː kə ‘cowshed’
- /ə/ /'ŋə/ ‘nose’; not found
- /o/ /'ʰdzo/ ‘rainbow’; /'ʰtoː ‘belly’
- /u/ /'ʰsʰu/ ‘tooth’; /'pə fuː ‘knee’
- /u/ /'ʰtɕʰu/ ‘water’; /'ʰkʊː ruː ‘hip’
- /u/ /'ʰdʊ/ ‘wheat’; not found
- /ə/ /'ʰtɕ/ ‘cloud’; /'tɕː tʊ/ ‘seed’
- /o/ /'pe te/ ‘noodle’; not found

2.3.2 Nasalised vowels

Except /u/ and /ə/, each vowel can be nasalised as in:

- /i/ /'jɪ/ ‘be’
- /e/ /'ʰkʰeʃ/ ‘drink’
- /e/ /'kʰe ‘diː ‘kidney’
- /a/ /'ʰgə mʊu/ ‘box’
- /a/ /'rʊ ma/ ‘other person’
- /ə/ /'tɕ/ ‘drag’
- /o/ /'ʰpʊ/ ‘government official’
- /u/ /'ʰsʰə jʊ/ ‘merchant’
- /u/ /'bʊ/ ‘wide’
- /ə/ /'ʰnə/ ‘heart’
2.4 Tonemes

Tone is distinctive in dGudzong Tibetan. It is realised not by an relative pitch height but by a pitch pattern. Four distinctive tones exist.

A tonal sign is given before each word as follows:


The tonal pitch value is not uniquely determined, thus /¯/ can be phonetically realised as [55] or [44], /´/ as [53/42] or [52/51], etc. Therefore, the most important feature for the distinction is the pitch pattern (level or contour).

Examples of monosyllabic words:

/¯mu/ 'to rake'
/´mi/ 'fire'
/^hɛj/ 'low'
/`mejʔ/ 'eye'

At present, there are no minimal pairs which are distinctive only with the difference respect to tone. In this paper, the tonal description reflects the actual pronunciation of native speakers, lest they judge a word as a non-dGudzong vernacular form.7)

In the case of bisyllabic words, the tonal value of the beginning of the second syllable is restricted to two high tone types [55] and [53], except for an atonal syllable. This means that dGudzong Tibetan has word tone,8) and polysyllabic words also show the same tonal pattern. Bisyllabic words can become as follows:

/¯S1S2/: main tonal value described as S1[55]S2[55]
/´S1S2/: main tonal value described as S1[24]S2[55]
/^hS1S2/: main tonal value described as S1[24]S2[53]
/`S1S2/: main tonal value described as S1[55]S2[53]

Words with more than two syllables also show the same pattern as bisyllabic ones and after the third element no proper tonal value is given (atonal).

Except for pitch tone, suprasegmental features such as a stress and a phonation type are not phonetically evident. Theoretical treatments are not applied any more in this paper.

3 Diachronic Analysis

This section presents a diachronic analysis of the dGudzong dialect through a correspondence with Written Tibetan (WrT) forms. I add in the footnotes some explanations for remarkable sound changes from the viewpoint of Tibetan dialectology.9)

However, there are some difficulties describing the precise sound change of the dGudzong dialect because of the lack of WrT correspondences in multiple examples,
some of which may originate from obscure non-Tibetan languages, which are not considered here. The analysis is divided into three parts: initial, rhyme, and tone.

3.1 Initial

3.1.1 Development of simple initials

3.1.1.1 WrT obstruents

The general tendency of the diachronic development of obstruents in initial position can be characterised as follows:

• Reflexes of WrT simplex voiceless initials have remained voiceless in dGudzong.
• Reflexes of WrT simplex voiceless fricative initials have become aspirated in dGudzong.
• Reflexes of WrT simplex voiced initials are devoiced in dGudzong.
• Reflexes of devoiced WrT simplex initials are associated with low-tone syllables in dGudzong.

Examples:

/\ka wo/ ‘pillar’ ka ba
/\sʰo/ ‘earth’ sa
/ˈpɔʔ/ ‘Tibetan’ bod
/ˈʂɯ/ ‘melt’ zhu

A significant articulatory innovation which sets the dGudzong dialect apart from most other Tibetan dialects is the split of the WrT alveopalatal spirants into retroflex series as well as alveopalatals, e.g.:

/ˈtɕʰi ʑi/ ‘field’ ? zhing
/ˈɕʰi ɸe/ ‘tree’ shing phung
/ˈʂʰo/ ‘meat’ sha
/ˈʂʰa ɦo/ ‘deer’ shwa ba
/ˈʱʐә/ ‘four’ bzhi

As far as the actual data of dGudzong is concerned, the condition of the split is the vocalic quality, alveopalatals are kept in the position preceding the narrow vowels /i/ and /e/.10

3.1.1.2 WrT sonorants

The WrT sonorants included four nasals (m, n, ny, ng), two liquids (l, r), and two glides (w, y). In the dGudzong dialect, the WrT simplex sonorants are generally kept and realised with a low tone, e.g.:
3.1.2 Development of complex initials with prefixes
WrT has nasal (m-, ‘-’) as well as oral (g-, d-, b-, r-, l-, s-) prefixal consonants.

3.1.2.1 With nasal prefix
Almost all the WrT nasal prefixes merged before obstruent root initials (in this case stop/affricates), resulting in homorganic prenasalised consonants in the dGudzong dialect,11) as in:

\[ /ˈmɔ/ \text{ ‘man’ } mi \]
\[ /ˈno/ \text{ ‘be sick’ } na \]
\[ /ˈnɔ/ \text{ ‘fish’ } nya \]
\[ /ˈŋɔ/ \text{ ‘I’ } nga \]
\[ /ˈlɔw/ \text{ ‘road’ } lam \]
\[ /ˈrɔ/ \text{ ‘goat’ } ra \]
\[ /ˈwɔ/ \text{ ‘fox’ } wa \]
\[ /ˈjɔ mɔ/ \text{ ‘light’ } yang \]

I have found only a few words with non-homorganic prenasal elements, some of them are:

\[ /ˈmgu, ˈŋgu/ \text{ ‘head’ } mgo \]
\[ /ˈmʦʰa mɔ/ \text{ ‘sweep’ } phyag \]

These examples can be explained with the WrT form, the preinitial m or ’ preceding a labial consonant. The example ‘head’ has a variant of the homorganic prenasalised initial, which means that it is in a transitory stage from the heterorganic prenasal to the homorganic one. The heterorganic prenasal will merge into the homorganic one in the near future.

3.1.2.2 With oral prefix
WrT oral prefixes such as g-, d-, b-, r-, l- and s- were lost or developed as preaspiration. The prefix b- is associated with a labial preinitial. As far as voicing is concerned, the preinitial elements remained voiced if the root initial was voiced except for the initial nasal with the prefix s- changing into a voiceless nasal as follows:12)

\[ /ˈmwoː/ \text{ ‘wound’ } rma \]
\[ /ˈrɔa/ \text{ ‘medicine’ } sman \]
Examples of WrT prefix b- are as follows:

/ptɕ/ /ptɕɯ/ ‘ten’ bcu
/ŋt/ /ŋtɯ/ ‘wash’ bkru
/ŋg/ /ŋgu/ ‘share’ bgo
/ŋdz/ /ŋdzaʔ/ ‘eight’ brgyad

3.1.3 Development of complex initials with a glide

There are four WrT glides, -y-, -r-, -l- and -w-. Dialectologically the development of the complex with a glide is very important.

WrT glide -w- (wa zur) has been dropped without compensation:

/ʂʰa ɦo/ ‘deer’ shwa ba
/ʈʰa wɔ/ ‘grass’ rtswa

The palatal glide -y- could combine with labial and velar plosives, as well as with the labial nasal m-. WrT labial plosives co-occurring with the -y- glide were transformed into alveolar affricates with a slight labial plosive preinitial:\[13\]

/ptɕo/ ‘cock’ bya
/ptɕʰe/ ‘open’ phye
/tsʰu/ ‘coral’ byu ru
/’dzar/ ‘paste’ sbyar

The prelabial plosive has been lost in several examples, but the voiced prelabial plosive is not attested, so that its lack as in ‘paste’ can be because of the phonological restriction.

WrT velar plosives taking the -y- glide were transformed into alveopalatal affricates or palatal plosives:\[14\]

/dʑo/ ‘Han Chinese’ rgya
/btɕʰa/ ‘sour’ skyur
/bkʰa/ ‘ride (a horse)’ rhya
/ŋjweʔ ma/ ‘quick’ mgyogs
/bjiʔ bdu/ ‘back’ rgyab

The WrT medial -r- could be added to labial, alveolar, and velar plosives, as well as to the spirants s and h. Considering first the stop-based clusters, we observe all sequences merging as retroflexed plosives:

/ʈʰaʔ/ ‘blood’ khrag
/ɖu/ ‘wheat’ gro
As can be seen, almost all WrT labial plosives with glide r developed as retroflexes with labial plosive preinitials.

\[ r \] dropped from the cluster sr-, leaving the remaining s aspirated or unaspirated:15)

\[ /\text{s}^{h}\text{weʔ}/ \text{life'} \text{srog} \]
\[ /\text{s}^{h}\text{wo ma}/ \text{hard'} \text{sra mo} \]
\[ /\text{sa} : \text{mo}/ \text{soy'} \text{sran ma} \]

The WrT glide -l- could be added to labial and velar plosives, as well as to the spirants s and z. We observe all sequences merging to become a voiced preaspirated alveolar laterals on the stop-based clusters, while sl became a voiceless preaspirated alveolar lateral and zl became a voiced preaspirated alveolar plosive:

\[ /\text{ throm}/ \text{cattle'} \text{glang} \]
\[ /\text{ throm}/ \text{brain'} \text{klad pa} \]
\[ /\text{ throm}/ \text{take'} \text{blangs} \]
\[ /\text{ throm}/ \text{moon'} \text{zla ba} \]
\[ /\text{ thrh}/ \text{learn'} \text{slob} \]

3.1.4 Special remarks on the initials
Almost all of characteristic phonemes in the dGudzong dialect such as /\text{f}, \beta, ̬l, ̬nx/ probably have a non-Tibetan origin,16) the source of which is still unobvious. Among them, /\text{f}/ is associated with the WrT ph initial, but it cannot freely change into \[ [\text{p}] \], as:

\[ /\text{ trtsha}\, \text{fu}/ \text{cock'} \text{bya pho} \]
\[ /\text{ fweʔ}/ \text{have shot'} \text{phog} \]

Etymologically, the word-medial /\text{f}/ is surely associated with WrT ph initial and it is possible to analyse it as a lenition of the aspirated labial plosive, but not all the cases observed in the WrT word-medial ph are realised as a labial fricative, thus we cannot treat \[ [\text{f}] \] as a conditioned variant of \[ [\text{p}] \].

Preaspirations preceded by an aspirated initial can be regarded as a special combination, but some of them have a WrT origin: \[ /\text{ thrh}/ \text{gold'} \text{gsen}. \] This type of
sound change is not conditioned.

Resonants preceded by a glottal stop are also noticeable (see 2.2.2.5). This combination is rare and its form is near to WrT, but no correspondence with a glottal stop exists in WrT. For example, the morphemes /ja:/ and /ma/ (17) are related to WrT yar ‘upward’ and mar ‘downward,’ respectively. 18)

3.2 Rhyme

3.2.1 WrT open syllables
The quality of WrT vowels in open syllables (including WrT ‘final) was generally not retained in the dGudzong dialect. They developed as in follows: 19)

<table>
<thead>
<tr>
<th>WrT dGudzong</th>
</tr>
</thead>
<tbody>
<tr>
<td>a /o/</td>
</tr>
<tr>
<td>i /i/</td>
</tr>
<tr>
<td>u /u/</td>
</tr>
<tr>
<td>e /e/</td>
</tr>
<tr>
<td>o /o/</td>
</tr>
</tbody>
</table>

/sa/ ‘earth’ sa
/sa/ ‘mountain’ ri
/sb/ ‘who’ su
/i/ ‘fire’ me
/s/ ‘tooth’ so

The correspondences above are particularly observed in word-final position, while in word-internal position WrT a and o retained their vocalic quality as in: 20)

/sa/ ‘land’ sa cha
/sb/ ‘gum’ so ?

There are, naturally, other correspondences in the dGudzong dialect, some of them include a reflex of the glide /w/ and /j/, as in:

/w/ ‘wound’ rma
/j/ ‘entrance’ sgo ?

3.2.2 WrT closed syllables with nasals
Almost all WrT nasal finals caused the nasalisation of the preceding vowel without losing their segmental phonemic status, but in a case WrT nasal final has been lost as in:

/tz/ ‘field’ ? zhing
/t/ ‘medicine’ sman

The condition of the omission of the final nasal is not explained based on the WrT form.

Vowel quality has developed depending on the final nasal. The main correspondences are displayed as follows:
3.2.3 WrT closed syllables with non-nasals

Almost all WrT plosive finals (b, d, g) have developed into glottal stops. The vowel quality does not change when followed by the final WrT d, but changes drastically when followed by the final g.21) Vowel quality has developed depending on the final consonant. The main correspondences are displayed as follows:

<table>
<thead>
<tr>
<th>V\F</th>
<th>ng</th>
<th>n</th>
<th>m</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>/ö/</td>
<td>/ä/</td>
<td>/å/</td>
</tr>
<tr>
<td>i</td>
<td>/i/</td>
<td>/i/</td>
<td>/å/</td>
</tr>
<tr>
<td>u</td>
<td>/ü/</td>
<td>/ä/</td>
<td>/ü/</td>
</tr>
<tr>
<td>e</td>
<td>/ö/</td>
<td>/ä/</td>
<td></td>
</tr>
<tr>
<td>o</td>
<td>/ö/</td>
<td>/ö, ā/</td>
<td>/ü/</td>
</tr>
</tbody>
</table>

Examples:

/ʰkaʔ/ ‘voice’ skad
/ʰmbuʔ/ ‘call’ ‘bud
/³poʔ/ ‘Tibetan people’ bod

/³pʰjeʔ/ ‘pig’ phag
/³mejʔ/ ‘eye’ mig22)
/³tuwʔ/ ‘six’ drug23)
/³sʰweʔ/ ‘life’ srog

A final b can change to /w/ as in:

/³kʰwʔ/ ‘needle’ khab
/³saw ³swʔ/ ‘deep’ zab zab

WrT continuants (s, r, l) lost their segmental phonemic status resulting in occasional compensatory lengthening. The vowel quality has developed depending on the final consonant. The main correspondences are displayed as follows:

<table>
<thead>
<tr>
<th>V\F</th>
<th>r</th>
<th>l</th>
<th>s</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>/ə/</td>
<td>?</td>
<td>/i/</td>
</tr>
<tr>
<td>i</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>u</td>
<td>/u/</td>
<td>/i/</td>
<td>/u/</td>
</tr>
<tr>
<td>e</td>
<td>/i/</td>
<td>/i/</td>
<td>/i/</td>
</tr>
<tr>
<td>o</td>
<td>/o/</td>
<td>/u/</td>
<td>/u, o/</td>
</tr>
</tbody>
</table>

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Examples:

/´ʈiː/ ‘mule’ drel
/´dʒuː/ ‘rice’ bras

Several examples show no compensatory lengthening, as in:

/´ma/ ‘butter’ mar
/ʰʃʰә/ ‘gold’ gser
/ʃʰu/ ‘boil’ khol

3.2.4 Special remarks on the rhymes
There are two vowels /ʉ, ɵ/ which have not explained above. They are seldom related to WrT forms. For example, /´pə luʔ/ ‘Tibetan dumpling’ has both of the two vowels, but this word is not of a WrT origin.

3.2.5 Summary of the rhyme development
The rhyme development in dGudzong Tibetan presented above can be summarised from the viewpoint of the oral forms as follows: 24)

<table>
<thead>
<tr>
<th>dGudzong</th>
<th>WrT</th>
<th>dGudzong</th>
<th>WrT</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>-e, -ul, -os</td>
<td>i:</td>
<td>-er, -el, -as, -es</td>
</tr>
<tr>
<td>a</td>
<td>-a (word-medially)</td>
<td>a:</td>
<td>-ar</td>
</tr>
<tr>
<td>o</td>
<td>-a (word-initially)</td>
<td>o:</td>
<td>-or</td>
</tr>
<tr>
<td>u</td>
<td>-o, -ol, -os</td>
<td>u:</td>
<td>-ur, -ol</td>
</tr>
<tr>
<td>u̯</td>
<td>-u</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ə̯</td>
<td>-i</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

nasalised rhyme

<table>
<thead>
<tr>
<th>dGudzong</th>
<th>WrT</th>
</tr>
</thead>
<tbody>
<tr>
<td>ɪ̃</td>
<td>-ing, -in</td>
</tr>
<tr>
<td>ɛ̃</td>
<td>-eng</td>
</tr>
<tr>
<td>ɑ̃</td>
<td>-an, -un</td>
</tr>
<tr>
<td>ɑ̃̂</td>
<td>-en, -on, -am</td>
</tr>
<tr>
<td>ɔ̃</td>
<td>-ang, -ong, -on</td>
</tr>
<tr>
<td>ũ̯</td>
<td>-ung, -um, -om</td>
</tr>
<tr>
<td>ŋ̃</td>
<td>-im</td>
</tr>
</tbody>
</table>

checked rhyme

<table>
<thead>
<tr>
<th>dGudzong</th>
<th>WrT</th>
</tr>
</thead>
<tbody>
<tr>
<td>(j)eʔ</td>
<td>-ag</td>
</tr>
<tr>
<td>ejʔ</td>
<td>-ig</td>
</tr>
</tbody>
</table>
3.3 Tones
An analysis of tonogenesis is inevitable for understanding the diachronic phonology of Khams Tibetan. As mentioned in the synchronic analysis (2.4), the tone system in dGudzong Tibetan is analysed as a tonal type and a word tone system because of the variety of tonal values and of the restriction of the tonal pattern in the second syllable. This method of analysis is different from that taken by most of the previous works dealing with the description of Tibetan dialects such as Huang (1994) and Jiang (2002: 260–283). The result of the analysis of dGudzong Tibetan, therefore, can be only partially shared with such works. For the sake of an effective analysis of the tonogenesis, the analysis below is separated into two cases: monosyllabic words and polysyllabic ones. Nevertheless, only a tendency of the relation between the tonal type and WrT can be indicated.

3.3.1 Monosyllabic words
The genesis of tone from WrT forms is clearly evident on monosyllabic words. The tonal distribution of high and low is associated with the kind of WrT initial as follows:

- high (¯ and ´): voiceless obstruents (with/without preinitials/glides) and resonants with preinitials
- low (´ and `): voiced resonants, voiced obstruents without preinitials

<table>
<thead>
<tr>
<th>High Tone Type</th>
<th>Low Tone Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>/¯tē/ 'tiger' stag</td>
<td>/’ti/ '3rd person singular' de</td>
</tr>
<tr>
<td>/’sʰo/ 'earth' sa</td>
<td>/’po/ 'Tibetan’ bod</td>
</tr>
<tr>
<td>/’bʰo/ 'release' gtong</td>
<td>/’so/ 'eat' za</td>
</tr>
<tr>
<td>/’tsʰo/ 'salt' tshwa</td>
<td>/’lawi/ 'sheep’ lug</td>
</tr>
<tr>
<td>/’n⁵sna/ 'nose' sna</td>
<td>/’kwe⁵/ ‘tan’ gog</td>
</tr>
<tr>
<td>/’lʰo/ 'ox’ glang</td>
<td>/’ro/ ‘mountain’ ri</td>
</tr>
</tbody>
</table>
However, WrT voiced obstruents with preinitials have developed as either high or low tone under conditions which are not clear, as in:

\[
/\text{6}dā/ \text{‘seven’ bdun} \\
/\text{dzo/ ‘Han Chinese’ rgya} \\
/\text{z}d调料/ ‘eight’ brgyad
\]

While the presence of falling or non-falling tones cannot be associated with the WrT form, they can be associated with vowel length in other dialects. For example, in the Derge (cf. sKal-bzang ’Gyur-med and sKal-bzang dByangs-can 2002: 108) and the mBathang dialects, falling tone appears when the vowel is short, and the non-falling one appears when the vowel is long. Clearly dGudzong Tibetan does not belong to this type.

3.3.2 Polysyllabic words
The tonal pattern of polysyllabic words in the dGudzong dialect can be represented by that described for bisyllabic word (see 2.4). But the relation between the tonal pattern and WrT is less obvious than it is for monosyllabic words. There are several compounds which include two words which /\text{tɕʰɯ}/ chu ‘water’ (high-level tone) and /\text{ʔtɕʰɯ}/ bya ‘cock’ (rising tone) show multiple tonal patterns, for example:

\[
/\text{tɕʰɯ kʰu}/ \text{‘boiled water’ chu khol} \\
/\text{tɕʰɯ tsʰã}/ \text{‘hot spring’ chu tshan} \\
/\text{tɕʰɯ ʰləw}/ \text{‘wave’ chu rlabs} \\
/\text{tɕʰɯ meʔ}/ \text{‘pond, well’ chu mig} \\
/\text{ʔtɕʰɯ ʰtɕeʔ}/ \text{‘cock’s excrement’ bya skyag} \\
/\text{ʔtɕʰɯ ʰu}/ \text{‘cock’ bya pho} \\
/\text{ʔtɕʰɯ mu}/ \text{‘hen’ bya mo}
\]

As shown above, the tonogenesis of the polysyllabic word is not the same as that for WrT forms, and needs further study.

4 Summary and Conclusion
The sketch of the synchronic phonetic status and its evolution in the dGudzong dialect demonstrates that little known dialects possess a typologically distinctive phonetic characteristics and sound changes in the Tibetan dialects, which are summarised as follows:

1. WrT sh/zh partially became retroflexes.
2. WrT Py became alveolar affricates.
3. WrT a became /o/.
4. WrT vowels with the final g changed their vocalic quality.
From a typological viewpoint, the characteristics mentioned above are quite rare, especially the fourth feature, that is not shared with any other dialects belonging to "twenty-four villages’ patois." This subgroup of Khams Tibetan is characterised not only by its distinctive phonological aspects, but also by its unique lexical traits and grammatical features. Further linguistic investigation is to be done in this area.

Notes

1) The content of the section two is based on Suzuki (2007a: 128–133). The field research was funded mainly by a Grant-in-Aid for Scientific Research of Japan Society for the Promotion of Science (“Linguistic Substratum in Tibet” headed by Yasuhiko Nagano, No. 6102001) and by a Grant-in-Aid for Scientific Research of Japan Society for the Promotion of Science (“Dialectological Study of the Tibetan Minority Languages in the Tibetan Cultural Area in West Sichuan,” No. 19-250). Many thanks to Xiao Tianyu and A-grong for providing the data for this paper as well as to Xiao Songying and Zla-ba sGrol-ma for coordinating my research in Gezong village, and to You-Jing Lin for giving me many useful comments for this paper. I wish to also thank Lawrence Reid for help in English editing and for assistance in presentation of the data.

2) The phonological description is changeable depending on the position of each scholar. We should note that there are multiple interpretations of phonology. Even in Central Tibetan represented by Lhasa Tibetan, which has been described the most in detail, many systems of its phonology are produced. See Tournadre (1996: 53–54) and Kitamura (1977: 1–2).

3) Among the final consonants, /p/, /γ/, and /r/ rarely appear.

4) As in this example, the consonant cluster /mg/ will merge into a homorganic prenasalised type in the near future.

5) This type, as explained in the section 3 (diachronic analysis), can be associated with WrT labial initials plus glide y or prefix b-. The limited distribution of the prelabialisation in the synchronic status can originate from this that of WrT.

6) Same as the footnote above.

7) This is to avoid the possibility that a form might be considered to have come from some other varieties in “twenty-four-villages’ patois.”


9) The data on other Tibetan dialects is also based on my description in order to guarantee an identical phonetic description. Data from previous works will only be used when I have no data from the dialects concerned.


10) This type is also found in Sogpho 棱坡 (Suzuki 2005b), Zhongu 熟務溝 (Sun 2003), and some of the dialects spoken in Xiangcheng 關城 and Deqin 德欽 counties (Suzuki 2007a). The condition of the split is similar to Zhongu. Other dialects in which almost all WrT alveopalatal spirants transformed into retroflexes are: sProsnang 中路, gTorwarong 東旺, rGyalthang 湍塘 (香格里拉), Byagzhol 般若, mThachu 塔城, Zhollam 嘎嘎塘, etc.

11) In almost all Khams Tibetan dialects, the same process took place. There are several descriptions that claim that prenasals did not exist before aspirated obstruents, but according to my fieldwork, a slight prenasal element before the aspirated obstruents still exist in many Khams Tibetan dialects (Suzuki 2007a).

12) In almost all Khams Tibetan dialects, the same process took place.

13) This is one of the most characteristic sound changes in “twenty-four-villages’ patois,” and this phenomenon is also found in the Tibetan loanwords in nDrapa, a Qiangic language spoken in Daofu 道孚 and Yajiang 雅江 counties as well as in Zhongu (Sun 2003). In addition, the case of the Khyungpo 瓊波 (sBrachen-Khromtshang 巴青(中) dialect, spoken in the eastern area of Baqing 巴青 County, Naqu 那曲 District, Tibet Autonomous Region, is the same as in the “twenty-four-villages’ patois.” Data from the sBrachen dialect is also cited in Zhang (2009: 316).
Concerning the transformation into alveolar sounds, a correspondence of alveolar fricatives to WrT Py is found in the gTsangtsa 滇扎 and Phyugtsi 树正 (Jiuzhaigou 九寨溝) dialects as well as the dialects spoken in Xiangcheng, Daocheng 稻城 and Muli 木里 counties plus the gTorwarong dialect.

14) The WrT velar with the glide -y- changed into a palatal plosive generally in nomadic varieties of Amdo Tibetan, and it also occurred in some of the Khams Tibetan dialects such as Lhagang 塔公 as well.

15) Many Khams Tibetan dialects underwent the same development of WrT sr- as dGudzong Tibetan, for instance, mBathang 巴塘 and Rangakha 新都橋 dialects as well as the dialects spoken in Xiangcheng County etc.

16) Neighbouring languages such as Geshtisa or Situ-rGyalrong do permit a combination such as /]`, ^x/ in their phonotactics.

17) These are not used alone, the tonal sign is thus not added.

18) The oral form of these two WrT words yar and mar takes a high-tone type in several neighbouring Khams Tibetan dialects such as Sogpho, Lhagang and Rangakha.

19) Almost the same transformation of the vowels in open syllable is also found in the nDappa 梓城 dialect. Similar sound changes are also observed in dialects spoken in Xiangcheng and Muli, as well as in gTorwarong.

20) A similar phenomenon is observed in the gSerpa 色爾措 dialect (Sun 2005).

21) This type of sound change is not reported in Qu (1991). But almost the same type as in dGudzong dialect is also found in several vernaculars spoken in Batang 巴塘 such as Sowanang 蘇哇龍 and Dangba 党巴 (personal communication with sKal-bzang ‘Gyur-med 格桑居冕 in Batang 2006), and spoken in Khyungpo sBrachen).

22) This word must originate from Old Tibetan dngig.

23) This word may not be directly associated with WrT drug because of its oral form with high tone.

24) A multiple sound correspondence between the oral forms and WrT is not rare in dGudzong Tibetan. Only the main correspondences are mentioned.

25) This is also true in the Derge 德格 and the mBathang dialects (cf. sKal-bzang ‘Gyur-med 1985). Probably it is a quite common phenomenon among Khams Tibetan dialects, but its effect is still uncertain (cf. Jiang 2002: 264–268).

26) I have observed a similar tonal phenomenon in some rGyalrongic languages such as Geshtisa, Lavrungr and Situ-rGyalrong. In addition, Wang (2008) reports a similar tonal phenomenon in the bisyllabic word in Guiqiong. These languages are spoken in the neighbouring areas of Danba, thus a mutual linguistic influence can be supposed on the suprasegmental aspect of Tibetan dialects spoken in the rGyalrong area.

27) Among the characteristics listed above, the second and the fourth are shared with the Khyungpo dialect spoken in Baqing, Naqu, T.A.R., i.e. a place far from Danba.

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Appendix: Vocabulary of English-dGudzong

The following English-dGudzong vocabulary lists circa 1000 basic lexical items. The verbal conjugation is not attested except for the verbs with a suppletive paradigm.

<table>
<thead>
<tr>
<th>English</th>
<th>dGudzong</th>
</tr>
</thead>
<tbody>
<tr>
<td>afternoon</td>
<td>´za ro ʰjuiʔ</td>
</tr>
<tr>
<td>again</td>
<td>´jə: roʔ</td>
</tr>
<tr>
<td>age</td>
<td>´lu</td>
</tr>
<tr>
<td>agree; consent</td>
<td>´tů ʰdq̥ ϱjǐ</td>
</tr>
<tr>
<td>air; breath</td>
<td>´puʔ</td>
</tr>
<tr>
<td>alcoholic drink</td>
<td>´teʱb̥ō</td>
</tr>
<tr>
<td>all</td>
<td>´jǐʔ teʰi γuʔ</td>
</tr>
<tr>
<td>alone</td>
<td>´mə ʑejʔ</td>
</tr>
<tr>
<td>animal; beast</td>
<td>´r̥a ge</td>
</tr>
<tr>
<td>ankle</td>
<td>´k̥o ʰtiiʔ</td>
</tr>
<tr>
<td>answer; reply</td>
<td>´leː caʔ</td>
</tr>
<tr>
<td>ant</td>
<td>´tweː 'mo: mo</td>
</tr>
<tr>
<td>ansus</td>
<td>´r̥o ho ma</td>
</tr>
<tr>
<td>arm</td>
<td>´lɛː bo</td>
</tr>
<tr>
<td>armpit</td>
<td>`t̥eʱb̥ō</td>
</tr>
<tr>
<td>arrive</td>
<td>´pa roʔ</td>
</tr>
<tr>
<td>ask</td>
<td>´r̥a ma</td>
</tr>
<tr>
<td>at present; now</td>
<td>´ʔa to</td>
</tr>
<tr>
<td>aunt (father’s sister)</td>
<td>´ʔa ʰts̥o</td>
</tr>
<tr>
<td>autumn and winter</td>
<td>´r̥a ʰts̥o</td>
</tr>
<tr>
<td>awl</td>
<td>=b̥ow?</td>
</tr>
<tr>
<td>baby</td>
<td>´t̥̊o yи tʰu tʰu</td>
</tr>
<tr>
<td>back</td>
<td>´jĩʔ ʰdzuu</td>
</tr>
<tr>
<td>backside</td>
<td>´kū ʰdz̥oʔ</td>
</tr>
<tr>
<td>bad</td>
<td>´m̥a niː m̥o</td>
</tr>
<tr>
<td>bald; bare</td>
<td>´g̥o ʰdu</td>
</tr>
<tr>
<td>bamboo</td>
<td>´c̥uː mo</td>
</tr>
<tr>
<td>barley</td>
<td>´k̥a zi</td>
</tr>
<tr>
<td>basket carried</td>
<td>´se βu</td>
</tr>
<tr>
<td>on the back</td>
<td>´jĩ</td>
</tr>
<tr>
<td>be</td>
<td>´teʔ</td>
</tr>
<tr>
<td>be afraid</td>
<td>´t̥u ʰl̥o</td>
</tr>
<tr>
<td>be angry</td>
<td>´kʰu</td>
</tr>
<tr>
<td>be boiling</td>
<td>´ψ̥a</td>
</tr>
<tr>
<td>be born</td>
<td>´l̥u</td>
</tr>
<tr>
<td>be broken</td>
<td>=mbuʔ</td>
</tr>
<tr>
<td>cooked</td>
<td>=tsu</td>
</tr>
<tr>
<td>be done; accomplish</td>
<td>`tʰaː ʰiə</td>
</tr>
<tr>
<td>be drunk</td>
<td>=dʑe</td>
</tr>
<tr>
<td>be dry</td>
<td>=b̥k̥a</td>
</tr>
<tr>
<td>be full; fill up</td>
<td>´k̥o</td>
</tr>
<tr>
<td>be hungry</td>
<td>=t̥je</td>
</tr>
<tr>
<td>be ill</td>
<td>'n̥o</td>
</tr>
<tr>
<td>be like</td>
<td>=b̥ts̥a</td>
</tr>
<tr>
<td>be old</td>
<td>=b̥ga</td>
</tr>
<tr>
<td>be one’s turn</td>
<td>=dʑi</td>
</tr>
<tr>
<td>be ripe</td>
<td>=t̥i</td>
</tr>
<tr>
<td>to be like</td>
<td>=n̥c̥i</td>
</tr>
<tr>
<td>be sleepy</td>
<td>=n̥c̥i</td>
</tr>
<tr>
<td>be tired</td>
<td>=b̥k̥o</td>
</tr>
<tr>
<td>bean flour</td>
<td>´s̥aː mo =ts̥e</td>
</tr>
<tr>
<td>bear</td>
<td>´t̥aː ʰg̥a</td>
</tr>
<tr>
<td>bear [fruit]</td>
<td>=t̥eː</td>
</tr>
<tr>
<td>beautiful</td>
<td>=b̥dʑeː m̥o</td>
</tr>
<tr>
<td>become crazy</td>
<td>=b̥w̥eː</td>
</tr>
<tr>
<td>become curved; bent</td>
<td>=k̥i k̥i</td>
</tr>
<tr>
<td>bed</td>
<td>=b̥n̥d̥o</td>
</tr>
<tr>
<td>bee</td>
<td>=b̥tsiː m̥o</td>
</tr>
<tr>
<td>beggar</td>
<td>=t̥o ma</td>
</tr>
<tr>
<td>believe in</td>
<td>=ji ʰs̥a</td>
</tr>
<tr>
<td>belly</td>
<td>=b̥t̥o</td>
</tr>
<tr>
<td>belt</td>
<td>=b̥ka reʔ</td>
</tr>
<tr>
<td>big; large</td>
<td>=t̥a</td>
</tr>
<tr>
<td>bind; tie up</td>
<td>=b̥g̥eː m̥o</td>
</tr>
<tr>
<td>birch</td>
<td>=b̥eː n̥eː =p̥e</td>
</tr>
<tr>
<td>bird</td>
<td>=p̥i ʰk̥a</td>
</tr>
<tr>
<td>birthday</td>
<td>=n̥w ʰc̥a ʰz̥ m̥o</td>
</tr>
<tr>
<td>bite</td>
<td>=b̥γ̥ ʰt̥a / =b̥d̥aʔ</td>
</tr>
</tbody>
</table>
bitter  "kʰoː mә  
butterfly  "teː  bu liʔ  'mo teː*  mo
black  'njeʔ  γә  
button  "qwe
black-eared kite  "jeʔ  
buttocks  "kuw ruw
blind person  'mejʔ  mi "di  bu  
buy  'nә
blink; wink  "mejʔ  'tsә  zi  'tsә  zi  
cadre  "pә
blissful; happy  "tsә*  ʰgo  
calculate  "tsә  ru:  "dә
block up  "tsuː  
can  'tә  zo  'tә:
block; obstruct  "kʰweʔ  
carry on the back  "kʃi:
bleed  'tʃeʔ  
carry [a child]  "dzaʔ  "kʰu:  mo
blow [the trumpet]  "mbuʔ  
on the back  "xor loʔ
carry [sthg] with a pole on the shoulder  "kî:
blue  'n̥tsʰaw zi  
carve; engrave  "kî:
blunt; dull  "tsuː  mo  
cave in; sink  "ma:  teː*  "kwe  mo
go  "dzaʔ
boar  'po  liʔ  
cave; hole  'tә
boat  'tʃeʔ  
chaff; bran  'dә
boat; base  "tsa  wo  
change  "ma:  ni  loʔ
bowl  'pә  ro  
cheese cake  "teː*:  γo
descendants; base  "tsa  ro  
chest  "tʃә  ⃣ja
break to pieces  "tsʰe  tsʰe  "ϕweʔ  
chicken  "tʃo
break; snap  "tʃeː  du:  dәʔ  
child  "bә:  γi
break; smash [a bowl]  "dzeːʔ  
Chinese chives  "gwe  γo
breakfast  "tsʰo  γu  
Chinese priskly ash  "ji  "mo
bridge  "tsʰo  "mbo  
chop down  "teː*
broad bean  'tә  "ga:  du  du
choose; select  "ra  noʔ  "dә
broom  "tsʰe:  mo  
chop [wood]  "teː*
brother  'pǔ  riʔ  
chop; cut [meat]  'lә  dә
brown bear  'tә  "ga  'tә  mo  
chopsticks  "tә  ʰmo
bucket  'teː*u  ʰlә  zo  
circle; circular  "ko  "de  "de
bud; sprout  'la  mo  "tә:  γi  
clap  "tә
bull  'pʰu  
claw  "sʰe:  mo
bury  "qәjʔ  
clean  "tsә  mo
busy  "tsʰaːw  zi  
clear  "da:
clever  | `go mɔ
cliff  | `ɭ: ma
climb up [tree] | `nɔ dzeʔ
close [the mouth] | `pɔ tsuʔ
close [the door] | `dɔ?
cloth | `re:
cloth robe | `ko zi
cloud | `tɔ
cock | `tsa fu
cockscomb | `tʰa zu?
cold [weather; water] | `tʰoʔ?
collar | `nɔ bko?
collect; gather | [firewood] | `tʰoʔ?
comb | `gu cʰa? so?
come | `ʃʰweʔ
commend; praise | `to ro: `ja?
compare | `pui `dzui: mɔ
connect; join; link | `dʒ ʔdji `ru:
consult; discuss | `tu bo: `je?
cook; boil | `tsu
cooking stove; kitchen range | `dʒ `low?
cool | `to: `mi tʃʰej?
coral | `tsa ru
corner; angle | `sui bko
corpse | `na ru
count [numbers] | `tʃ ʔtsu ru: `dʒ `ʔsoʔ
cover [the mouth] | `dʒ ʔma
cover up | `gu bka?
cow | `mɔ
crawl | `dze:
crops | `mɔ tʰeʔ
cross [a bridge] | `xə `go
crow | `tsa rweʔ
cry; weep | `gu
cuckoo | `ʃʰi: `ɣweʔ
cuddle | `kweʔ
cupboard; cabinet | `gã mɨbɯ
curtain | `gã kʰe ke soʔ
curved; bent | `gwi gwe
cut [paper, cloth] | `tʰ ʔca: mɔ
cut down | `tʰ ʔa? ro?
cut off | `h ʔca?
cut up [vegetable] | `ʔu?
dare | `pui?
date | `nà xo?
day after tomorrow | `nɔ nĩ
day before yesterday | `kʰa nã: `ke
daytime | `nã: `ke
deaf person | `nã ɚo
decide; cheat | `zã ɺjeʔ
decoct; cook in [tea] | `bku ɺo
deep | `saw sʃ? rɔ ma
deer | `ʃʰa ɺo
die | `ʃʰo
die out | `ʔtʰu
difficult | `b ɺo
dig out with finger | `ʔqweʔ
dig; excavate | `ʔʃweʔ
dig; scoop [out] | `lu?
dirty | `b ɺo ɺa:
disappear; vanish | `meʔ?
divide; share | `w ɺu
do not have | `me: ɺo?
do business | `tsʰej `jaʔ?
do; make | `jaʔ?
dog | `ʃe ɺbɛ
donkey | `kʰ o ɺo
do; make | `n ɺu
door | `n ɺu
dove | `pʰiʔ ɺa
down; hair | `pui
doze off; nod | `tewe ji ɺjor
dragon | `n ɺu?
dragonfly | `tsʰ ɺa ɺbu ɺiʔ
draw [a picture] | `ʔtɔ
drink | `tʰej
dry | `b ɺa ɺbu
dry by fire | `b ɺa ɺtɕu
dry land | `la ɺzi
dry; drought  `naw hkā
dry [clothes] is the sun  `ndiʔ
 dumpling  `na xu tɕʰi mu
dusk; twilight  `majʔ du ru zi
dust  `ndi wo
dye  `tsʰe ma `ndzā
each; every  `kweʔ  `di zoʔ
ear  `nɑʔ teʰwe
early  `yweʔ mo
earrings  `a lu
earth; ground  `sʰo
earthen jar  `za mo
earthquake  `sʰo ʰgi ro
easy  `le: ʃo: mo
eat  `so
egg  `ndi go hā
eight  `ndza?
eighteen  `teuʔ ʰdza?
eighty  `ndza: zū
elder brother  `ku u yu
elder sister  `tse tse
eleven  `teuʔ ʰtɕeʔ
embrace; hug  `fiə ɣwe ʰra ʃo ʰo
embroider  `ʰtseʔ
empty  `pej bo
ewe  `lawʔ mo
exchange  `tso ʰzi ʰpa ʰzi jǐ
excrement  `ʰtɕaʔ pa
expand; swell  `ja: ʰtʰu
extract [oil]  `zò
eye  `mejʔ
eyebrow  `mej hpu
face  `de: pʰo
fall  `ʰma ʰjəʔ
fall asleep  `me ʰjɪʔ ro
false  `ndzā: ji mo
family members  `tɕʰu: nō ko `mo
far  `tʰe: ʰri mo
fart  `ʰtɕaʔ
fat  `tsʰu: mo
father  `pʰu ʰga
father-in-law  `ta ʰgā
feather  `dza hpu
feed; suckle  `sū
fetch; draw [water]  `tɕaʔ
few; little  `ne: mo
field  `tʃe zī
fierce; sharp  `kʰaj mo
fifteen  `tʃo ʰjo
fifty  `ña ʰtʃeu
finger  `dʒo yī
finish  `tʰu:
fire  `mi
fire [a shot]  `ʃi:
first  `nō ʃā bi: zō?
fish  `no
fist  `kʰu zū
five  `ʃo
flat  `pa? pa?
flea  `dʒo wō
float  `di: wō
flood  `tʃu fiu `tfʰo?
flour  `tʃʰe: ru
flow; run  `rō
flower  `mbu deʔ
fly  `dʒo ʃeʔ?
fog  `rā bo
follow  `kō ʰdzur: ʰpo ro?
food steamer; steam box  `ʃe: ʃo
fookstuff; grain  `ʃo ʰqo
foot  `kō bo
force; compel  `tʃā ʰbu laʔ
forehead  `ʃa ʰga:
forest  `ɕi ʃej
forget  `ʃo: xwi ʃo
forty  `ro ʰtʃeu
foundation  `tʃō ʃo
four  `ʃə
fourteen  `tʃeu: ʃo
fox  `wo
freeze; ice up

fresh

friend

frighten; scare

frog

front

frost

frying pan

full

fur-lined jacket

future

gall bladder

garden

garlic

gather [water]
gentle; amiable

get angry; flare up

get dark

get; acquire

girl

glass

gnaw; nibble

go upstairs

go; leave

goat

god

gold

good

goods

government official

grandfather

grandmother

grass

grassland

green

grey

grind [flour]
grow up

gruel; porridge

guest

gum

haul

hair

half

Han Chinese

hand

happy

hard

hard; solid

hat

hate

have a fever

have a headache

have found

have [money]

he, she; it

heart

head

herdsman

hen

here

hide

high; tall

highland barley

hill; mountain

hillside;

mountain slope

hold; grasp

honest

hoof

horizontal

horse

hot

hot pepper
magpie: \(\text{magpie} \rightarrow \text{'tɕɔ γo} \) move [a stool]
maize; corn: \(\text{maize; corn} \rightarrow \text{'ʃtɕ o μo} \) "bteŋa ?
make a row: \(\text{make a row} \rightarrow \text{'meʔ} \) musk
make turn: \(\text{make turn} \rightarrow \text{'kʰo} \) mushroom
make; cause: \(\text{make; cause} \rightarrow \text{'miʔ} \) 'sa μu
make [tea]: \(\text{make [tea]} \rightarrow \text{'bð} \) 'sʰe: mo
man: \(\text{man} \rightarrow \text{'pu zi} \) nail; tack
many; much: \(\text{many; much} \rightarrow \text{'mõ mә} \) 'dzu u ye
mare: \(\text{mare} \rightarrow \text{'ta μu} \) narrow
marrow: \(\text{marrow} \rightarrow \text{'ru jɔ} \) near
marry: \(\text{marry} \rightarrow \text{'na μo} \) 'pje de r o ma
maternal aunt: \(\text{maternal aunt} \rightarrow \text{'ma jo} \) needle
maternal uncle: \(\text{maternal uncle} \rightarrow \text{'ta jo} \) nephew
meal; food: \(\text{meal; food} \rightarrow \text{'se} \) 'tsʰa μu
medicine: \(\text{medicine} \rightarrow \text{'ŋ̊kʰo} \) new
meet: \(\text{meet} \rightarrow \text{'meʔ} \) New Year
merchant: \(\text{merchant} \rightarrow \text{'tsʰ o jʊ} \) nineteen
middle: \(\text{middle} \rightarrow \text{'tɕi xuʔ} \) ninety
midnight: \(\text{midnight} \rightarrow \text{'tɕ thor o} \) notify; inform
milk: \(\text{milk} \rightarrow \text{'ʃtɕ o μo} \) "bteŋa ?
milch cow: \(\text{milch cow} \rightarrow \text{'lu sʰa ʰpo} \) "bteŋa ?
milk skin: \(\text{milk skin} \rightarrow \text{'ʃtɕ o μo} \) "bteŋa ?
mirror: \(\text{mirror} \rightarrow \text{'ʃtɕ o μo} \) "bteŋa ?
money: \(\text{money} \rightarrow \text{'lu sʰa ʰpo} \) "bteŋa ?
Mongolian gazelle: \(\text{Mongolian gazelle} \rightarrow \text{'na μo} \) "bteŋa ?
monkey: \(\text{monkey} \rightarrow \text{'ʃtɕ o μo} \) "bteŋa ?
monk’s cloth: \(\text{monk’s cloth} \rightarrow \text{'ʃtɕ o μo} \) "bteŋa ?
month: \(\text{month} \rightarrow \text{'ʃtɕ o μo} \) "bteŋa ?
moon: \(\text{moon} \rightarrow \text{'ʃtɕ o μo} \) "bteŋa ?
morning: \(\text{morning} \rightarrow \text{'ʃtɕ o μo} \) "bteŋa ?
(morning) \(\text{(morning)} \rightarrow \text{'ʃtɕ o μo} \) "bteŋa ?
(old lady) \(\text{(old lady)} \rightarrow \text{'ʃtɕ o μo} \) "bteŋa ?
mother: \(\text{mother} \rightarrow \text{'ʃtɕ o μo} \) "bteŋa ?
mother-in-law: \(\text{mother-in-law} \rightarrow \text{'ʃtɕ o μo} \) "bteŋa ?
mountain cave: \(\text{mountain cave} \rightarrow \text{'ʃtɕ o μo} \) "bteŋa ?
mouse: \(\text{mouse} \rightarrow \text{'ʃtɕ o μo} \) "bteŋa ?
moustache: \(\text{moustache} \rightarrow \text{'ʃtɕ o μo} \) "bteŋa ?
mouth: \(\text{mouth} \rightarrow \text{'ʃtɕ o μo} \) "bteŋa ?
move: \(\text{move} \rightarrow \text{'ʃtɕ o μo} \) "bteŋa ?
onion; scallion  "go ɗe
open [a door]  "tsʰe
open [the mouth]  "ɗə
oppose  "mi go
orphan  "pʰa mo ʻme? ڇo
other people  "rō ڇo
others; else  "tə ڇo
outside  "tsʰə na
owl  "wu? ʰga: ڇo
ox; cattle  "tɕo
pack-horse  "tə ˈkiː ڇo
pad; cushion  "tə ʰtɕa
paddle [a boat]  "tɕa
paddy; rice  "diː
palm  ˈleː ˈfuː
pare; pell with a knife  "ɗə
parent  "pʰa mo
parrot  ˈji ɡo?
paste  ˈdʒar
patch [clothivg]  ˈtɕa
paternal aunt  ʔa ʰtɕa
paternal uncle  ʔa ɾo
pea  ˈsaː ʰka
pea; bean  ʔa ɾo
peach  ˈkʰa ʰbu
peacock  ʰmaʔ ɗzo
pear  ˈlo
peasant  ˈliʔ  ˈkoː ڇo
peck at [rice]  "tʰu
people  ʰma ʰsa
peppery; hot  ˈzaw
permit; allow  ˈpe ʰié ʰɬwə?
pheasant  "tso ɡo
pick up; collect  "tɕa
pick up [food with chopsticks]  ˈlo
pig  "pʰje?
pig food  "pʰjeʔ ẑi
piglet  "pʰjeʔ ɣi
pile up; stack up  "tɕwə ʰtɕo
pillar; column  ʰka ʰdo
pillow  "go ʰji:
pit  ˈka ʃu
pitiful  ˈpej ʃeʔ
place  "sʰa ʰo
placenta  "tˢu ʰi ʃi ˈrʊ ∵ ɾu ʃe
plank; board  ʰtɕiː ʃe
plant  ʰtɕiː ʃe
plant [trees]  ᵗˢuʔ
plant ash  ʰtʃ ʃeʔ ʰa
plant; raise [wheat]  ˈtʃ: ʃeʔ
plate; dish  "dʒo ʰmo
play; amuse oneself  ᵗʃ ʃeʔ
plough  ʰmʊ
pluck [flowers]  ʰtɕa?
point at; point out  "tʃa:
point; tip  ʰnɛj ʃoʔ
pointed; tip  ʰnej ʰne
polite; courteous  ʰdʒi ʰdʒi
pond  ˈtʃu ʃeʔ ڇo
poor  ʰtʃ ʃeʔ ڇo
poplar  ʰtʃ ʃeʔ ɡaː ʃeʔ
prepare  ʔa ʰdoj ʃej ʃe bje
press; push down  ʰni:
press  [with palm or finger]  ʰne ʃeʔ
promise; consent  ʰkʰoː ʃe
pull up  ˈtʃo?
pull; tug  ʰtʃu
pulse; beat  "dʒu ʰpo ɡo ʰtʃi
punch [a hole]  ʰpʰu?
puncture  ʰtʃoʔ
push; shove  ʰpʰi
put in [salt]  "dʒoʔ
put on [the shoe]  "dʒi
puttee  ʰtʃ ʰoʔ
quarrel  ʔa ʃʃo ʃe ʃaʔ
quick; fast  "jweʔ ڇo
quickly  ʔa ʃo ɬo ʃa ʃo
rabbit  ɾo ʃe
rafter  ʰgwo ʰtʃo
rain  ˈtʃ ʃeʔ ʃo
<table>
<thead>
<tr>
<th>English</th>
<th>Phonemic Transcription</th>
<th>Vietnamese</th>
</tr>
</thead>
<tbody>
<tr>
<td>rain falls</td>
<td>ʰtɕʰ a bo: ʰγɔ ʰdʒo?</td>
<td>run ʰdzu?</td>
</tr>
<tr>
<td>rainbow</td>
<td>ʰdʑo</td>
<td>ʰduw ʰzi</td>
</tr>
<tr>
<td>raise [chickens]</td>
<td>ʰsuʔ</td>
<td>ʰsʰɔ? ʰtsi: me:</td>
</tr>
<tr>
<td>raise [the tail]</td>
<td>ʰtɕʰi</td>
<td>ʰpʊ ʰbʊ ʰdʒe?</td>
</tr>
<tr>
<td>read</td>
<td>ʰda</td>
<td>ʰtɕʰu mo</td>
</tr>
<tr>
<td>remember</td>
<td>ʰs̥u ʰtɔ:</td>
<td>ʰtsʰo mo</td>
</tr>
<tr>
<td>receive</td>
<td>ʰtʰɑ:</td>
<td>ʰtsʰo mo</td>
</tr>
<tr>
<td>recognise</td>
<td>ʰgeʔ ʰɕi</td>
<td>ʰdʑa ʰdʑo</td>
</tr>
<tr>
<td>red</td>
<td>ʰma ʰpu</td>
<td>ʰdʑo</td>
</tr>
<tr>
<td>reduce</td>
<td>ʰle: ʰbwe ʰluʔ</td>
<td>ʰbwe ʰluʔ</td>
</tr>
<tr>
<td>relative</td>
<td>ʰn̥tsʰɯwʔ ʰdʑәʔ</td>
<td>ʰmɯo</td>
</tr>
<tr>
<td>release; set free</td>
<td>ʰlweʔ ʰtɔ:</td>
<td>ʰr̥ɯː</td>
</tr>
<tr>
<td>rely; lean</td>
<td>ʰdʑuʔ ʰtɑ</td>
<td>ʰtʃa ʰtɔ:</td>
</tr>
<tr>
<td>remember</td>
<td>ʰtoom̥tʃuʔ</td>
<td>ʰtʃu</td>
</tr>
<tr>
<td>repay</td>
<td>ʰlwe: ʰtɑ</td>
<td>ʰtsʰu dʑa</td>
</tr>
<tr>
<td>rescue; save</td>
<td>ʰʃu ʰtʃuʔ</td>
<td>ʰn̥tsʰoʔ ɾ̥o</td>
</tr>
<tr>
<td>reserve [seeds]</td>
<td>ʰtsʰɯw ʰdʑo?</td>
<td>ʰn̥tsʰoʔ ɾ̥o</td>
</tr>
<tr>
<td>rest</td>
<td>ʰmi: ʰsuʔ</td>
<td>ʰmi ɾ̥o</td>
</tr>
<tr>
<td>return</td>
<td>ʰlwe: ʰpɔ</td>
<td>ʰmi ɾ̥o</td>
</tr>
<tr>
<td>reverse side</td>
<td>ʰkwiʔ ʰdʑoʔ ʰtsʰweʔ</td>
<td>ʰmɯo</td>
</tr>
<tr>
<td>rice</td>
<td>ʰdji:</td>
<td>ʰmɯo</td>
</tr>
<tr>
<td>rice straw</td>
<td>ʰdji: ʰsʰweʔ</td>
<td>ʰmɯo</td>
</tr>
<tr>
<td>rich</td>
<td>ʰtsʰɯw ʰmɑ</td>
<td>ʰmɯo</td>
</tr>
<tr>
<td>riddle</td>
<td>ʰtɑ: ʰjuʔ</td>
<td>ʰmɯo</td>
</tr>
<tr>
<td>ride</td>
<td>ʰkɔ</td>
<td>ʰmɯo</td>
</tr>
<tr>
<td>right [hand]</td>
<td>ʰtʃu le ʰsʰweʔ</td>
<td>ʰmɯo</td>
</tr>
<tr>
<td>right; correct</td>
<td>ʰn̥tʃu ʰmɑ</td>
<td>ʰmɯo</td>
</tr>
<tr>
<td>right; front</td>
<td>ʰɡa ʰn̥ ʰtʃu ʰweʔ</td>
<td>ʰmɯo</td>
</tr>
<tr>
<td>ring</td>
<td>ʰpɔʔ ʰtɔ:</td>
<td>ʰmɯo</td>
</tr>
<tr>
<td>rise; come out</td>
<td>ʰjɯ ʰluʔ</td>
<td>ʰmɯo</td>
</tr>
<tr>
<td>rise; stand up</td>
<td>ʰji ʰlʊ</td>
<td>ʰmɯo</td>
</tr>
<tr>
<td>river</td>
<td>ʰtʃu ʰu</td>
<td>ʰmɯo</td>
</tr>
<tr>
<td>river deer</td>
<td>ʰla ʰwo</td>
<td>ʰmɯo</td>
</tr>
<tr>
<td>road</td>
<td>ʰlɔw</td>
<td>ʰmɯo</td>
</tr>
<tr>
<td>rob; loot</td>
<td>ʰtʃʰweʔ</td>
<td>ʰmɯo</td>
</tr>
<tr>
<td>robber</td>
<td>ʰkʃu ʰmɑ</td>
<td>ʰmɯo</td>
</tr>
<tr>
<td>rock</td>
<td>ʰtʃʰ ʰkɔ:</td>
<td>ʰmɯo</td>
</tr>
<tr>
<td>roll up [cloth]</td>
<td>ʰdʃe</td>
<td>ʰmɯo</td>
</tr>
<tr>
<td>roof</td>
<td>ʰkʰ ʰɔ li</td>
<td>ʰmɯo</td>
</tr>
<tr>
<td>root</td>
<td>ʰkɔ</td>
<td>ʰmɯo</td>
</tr>
<tr>
<td>rough</td>
<td>ʰtʃoʔ ʰtsɔʔ</td>
<td>ʰmɯo</td>
</tr>
<tr>
<td>Asian Characters</td>
<td>Romanization</td>
<td>Meaning</td>
</tr>
<tr>
<td>------------------</td>
<td>---------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>swallow</td>
<td>‘tsa go ɾiː ti</td>
<td>this</td>
</tr>
<tr>
<td>swear; vow</td>
<td>‘nɔ btsø</td>
<td>this side; here</td>
</tr>
<tr>
<td>sweat</td>
<td>‘tsa ɾtɕu</td>
<td>this way; like this</td>
</tr>
<tr>
<td>sweep</td>
<td>‘tsʰeʔ</td>
<td>this year</td>
</tr>
<tr>
<td>sweet</td>
<td>ʰjaː ma</td>
<td>those</td>
</tr>
<tr>
<td>swim</td>
<td>tʰwʊ ʰtɕi ɾdzo?</td>
<td>thousand</td>
</tr>
<tr>
<td>table</td>
<td>‘se ɾo sʰo</td>
<td>thread</td>
</tr>
<tr>
<td>tadpole</td>
<td>‘tɕo noː ɾtɕa pa</td>
<td>three</td>
</tr>
<tr>
<td>tail</td>
<td>‘dzuʔ mo</td>
<td>three days ago</td>
</tr>
<tr>
<td>tailor</td>
<td>‘kɯʔ zi ɾɔː ma</td>
<td>threshold</td>
</tr>
<tr>
<td>take out</td>
<td>ɾjɔʔ pʰoʔ</td>
<td>throat</td>
</tr>
<tr>
<td>take; hold; get</td>
<td>‘xʰoʔ</td>
<td>throw; toss</td>
</tr>
<tr>
<td>tea</td>
<td>‘tɕo</td>
<td>throw oneself</td>
</tr>
<tr>
<td>tea with milk</td>
<td>‘sa tɕo</td>
<td>on the earth</td>
</tr>
<tr>
<td>teach</td>
<td>‘jɑʔ</td>
<td>throw up; vomit</td>
</tr>
<tr>
<td>teacher</td>
<td>‘gi ʰɡa</td>
<td>thumb</td>
</tr>
<tr>
<td>tear up; rip</td>
<td>‘tʃi</td>
<td>thunder</td>
</tr>
<tr>
<td>tears</td>
<td>‘mej teʰtu</td>
<td>Tibetan</td>
</tr>
<tr>
<td>tell</td>
<td>‘lɪ tɕaː ʰçɑʔ</td>
<td>Tibetan</td>
</tr>
<tr>
<td>ten</td>
<td>‘tɕuʔ</td>
<td>tiger</td>
</tr>
<tr>
<td>ten thousand</td>
<td>tʰsʰwi ɾzɔʔ</td>
<td>time</td>
</tr>
<tr>
<td>tendon</td>
<td>dtsuʔ ʰpo</td>
<td>to blossom; button up</td>
</tr>
<tr>
<td>tense</td>
<td>‘tɑː ɾɑːː</td>
<td>to change</td>
</tr>
<tr>
<td>that</td>
<td>pʰaː tɕu ʰbe</td>
<td>to comb</td>
</tr>
<tr>
<td>that [over there]</td>
<td>‘tʃi</td>
<td>to cough</td>
</tr>
<tr>
<td>that [way] / [like]</td>
<td>that ɾa ʰdʃø ra</td>
<td>there</td>
</tr>
<tr>
<td>there</td>
<td>ɾtʃu</td>
<td>to dance</td>
</tr>
<tr>
<td>there is; exist</td>
<td>ʰjoʔ</td>
<td>to dream</td>
</tr>
<tr>
<td>thereupon; then</td>
<td>ɾa ʰdʃø / ɾu ʰdʃø</td>
<td>to fish</td>
</tr>
<tr>
<td>these</td>
<td>ɾa na ɾoː ma ʰgɔ</td>
<td>to fly</td>
</tr>
<tr>
<td>they</td>
<td>ɾtʃu</td>
<td>to guard; defend</td>
</tr>
<tr>
<td>thick</td>
<td>‘tuʔ tuː rɔ ma ʰtsø</td>
<td>to hang; suspend</td>
</tr>
<tr>
<td>thief</td>
<td>‘kɯʔ mo</td>
<td>to harvest</td>
</tr>
<tr>
<td>thigh</td>
<td>‘la ʰco</td>
<td>to hook</td>
</tr>
<tr>
<td>thin</td>
<td>ɾʃø ɾʃø ɾo ma / ʰɡwe ma</td>
<td>to itch; tickle</td>
</tr>
<tr>
<td>thin &lt;in diameter&gt;</td>
<td>ɾʃø ɾtʃu</td>
<td>to leak</td>
</tr>
<tr>
<td>fine</td>
<td>ɾtʃø</td>
<td>to light [a fire]</td>
</tr>
<tr>
<td>thing</td>
<td>tʃa bu</td>
<td>to light [a light]</td>
</tr>
<tr>
<td>think</td>
<td>‘sɔː</td>
<td>to lightening</td>
</tr>
<tr>
<td>thirteen</td>
<td>ɾtʃu ʰsɔː</td>
<td>to marry</td>
</tr>
<tr>
<td>thirty</td>
<td>ɾʃø ɾtʃu</td>
<td>to measure</td>
</tr>
</tbody>
</table>

Note: The table represents phonetic analysis of dGu dzong Tibetan.
welcome; greet  `sɯ ʰkʰor
well  `tʰu me?
wet  ʰba ra:
what  `tee
wheat  `dɯ
corn  `tʃe
wheat straw  `tʃa ʰwe?
when  `nɑ̃
where  `kaj
what [a knife]  ʰda?
whip; thrash  ʰlaʔ
white  ʰka ʰpu
who  `sʰu
wide <in diameter>  `bɯ
wife  ʰgi mu
wild boar  ʰpʰjeʔ ʰgoʔ
wild goose  ʰtsa ʰri: ti
willow  ʰdo ʰwó ʰpʰe
win; gain  ʰtʰowʔ
wind  ʰlu ma?
wind blows  ʰlu ma: ʰlo
window  ʰgʰa ʰkʰe
wing; fin  ʰda ʰpu
wipe  ʰtsʰa ʰmɯ
wolf  ʰpa ʰio
woman  ´mɑ re: jö
wood; log  ´dʰi ʰka ʰpʰo ʰro
wooden bowl  ´tʰ: ʰmu: kwa
woodpecker  ´lɑw? ʰpu
worry; be anxious  ´dʰu ʰwɑ
wound  ´mɯ: ʰtʰe: ʰtʰo?
wrinkle  ´tsʰ ʰbu
write  ´tʰo
wrong  ´mɑ ni: ʰmɑ
yak  ´nje?
year  ´lɑ ʰzɑ
year before last  ´zɑ ni ʰyɑ
year after next  ʰpʰo / ʰtʰ ʰφɑ
yellow  ʰsʰ ʰpu
yesterday  ´kʰɑ ʰzɑ
yoghurt  ´tʰɑ ʰro
you (sg)  ´tʰeʔ
you (pl)  ´tʰeʔ ʰzɑ
you two  ´tʰeʔ ʰnɑ: ʰnɑ
young  ´lu ʰtʰi: ʰmɑ
younger brother  ´sɑ ʰnɑ
younger sister  ´sʰi: ʰmɑ