Zhangzhung and Gyarong

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|  | 作成者：長野，泰彦 |
|  | メールアドレス： |
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# Zhangzhung and Gyarong 

Yasuhiko Nagano<br>National Museum of Ethnology, Japan

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## 1. Introduction

This paper aims to demonstrate a genetic relationship between the new Zhangzhung language and the Gyarong language and to serve as a basis for future research. Before I explain the linguistic data, I'd like to discuss some extra-linguistic facts, which are related to Zhangzhung.

## 2. Old Zhangzhung Language

The Zhangzhung language was originally that of the dMu tribe that was based north of Mt . Kailash in the Zhangzhung sMad district of Western Tibet. The dMu and other tribes in Zhangzhung strengthened the bond with the Yarlung dynasty, which had arisen in Central Tibet, through cross-cousin marriages. They then began moving eastward around the $4^{\text {th }}$ to $5^{\text {th }}$ century until they settled in the northwestern area of current Sichuan Province. Later, when the Yarlung dynasty came to power, it abandoned the Bon religion, which was the religion of the dMu , and accepted Buddhism as the new ideology of state unification. As a result, the political powers of Central Tibet removed those bureaucrats of Zhangzhung origin who had been cooperating with them. Moreover, as the central administration strongly promoted Tibetanization, the Zhangzhung language seems to have become obsolete around the $10^{\text {th }}$ century, when Tibetan control over Dunhuang ended.

Research into the literature excavated from Dunhuang has made progress since the beginning of the $20^{\text {th }}$ century. The research shows that the Dunhuang literature belonging to the British Library includes some texts written in Tibetan characters, but not in the Tibetan language. F. W. Thomas assumed that they were in the Zhangzhung or the Nam language. Considering the lexical items that can be picked up in fragments, he hypothesized that: (1) the
two pieces（plus one piece added later）of the literature known at that time to be Zhangzhung are those related to medical herbs，and（2）the forms other than loanwords from either Written Tibetan or Sanskrit have a genetic relationship with the pronominalized languages of Western Tibet．The Bibliothèque Nationale de France，Paris，has another three pieces of literature which are considered similar to the above，making a total of six pieces at present．We position this Zhangzhung language as＂Old Zhangzhung（OZ）＂to distinguish it from the Zhangzhung language reconstructed in and after the $14^{\text {th }}$ century．

Although we have been analyzing these pieces of literature，we have not clearly deci－ phered them yet and are still working，for no parallel texts exist and there are only a limited number of samples in the literature．Progress on this front is described by Tsuguhito Takeuchi and Nishida＇s paper in this volume．Tatsuo Nishida，in regard to the same literature which we are working on，cites several examples of lexical correspondence with Written Tibetan and argues that＂they clearly show characteristics of Tibetan languages，as shown by the cor－ respondence of the sentence final particles such as－new＇o，－khyiro，and－shido with those in Tibetan＂（Nishida 1982）．Conversely，they can be all regarded as loanwords from Tibetan， and we do not have to stand on his assumption．Instead，the theory by Thomas（1933）and Shafer（1966）about the relationship with the pronominalized language of Western Tibet，Old Almora，and Tibeto－Kinnaur seems more persuasive．

## 3．Some Extra－linguistic Facts concerning Zhangzhung

The dMu tribe and others who had been using the Zhangzhung language before the establish－ ment of the Tufan（吐蕃）Dynasty moved eastward and settled in the Khams district and in the northwestern area of Sichuan Province．During this period，Tibetanization made rapid progress in Tibet，and the Bon religion，which had played a major part in the Zhangzhung lan－ guage，was largely driven out by Buddhism and was relegated to a minor role．Meanwhile，the Bon religion focused on the development of doctrines and documentary materials opposing Buddhism，and it seems to have established its system on a par with Buddhism by the begin－ ning of the $15^{\text {th }}$ century．In this process，there was a movement to reconstruct the Zhangzhung language which had been previously spoken by the ancient adherents of the Bon religion． As a result，every title of the Bon scriptures includes a description such as＂xxx in Sanskrit， yyy in Zhangzhung，and zzz in Tibetan．＂We call the Zhangzhung language at this stage the ＂New Zhangzhung language（NZ）．＂However，the NZ found in the Bon literature written in Tibetan is merely at a lexical level and no sentences in Zhangzhung have been found．It is said that there is a grammar book in existence，but such a book has not yet been discovered．

Then，where was their base located？Some Chinese literature states that the Kingdom of the Queen（女國）moved eastward to build the Eastern Kingdom of the Queen（東女國）where the sBrang clan reigned，and united with several clans in the area formed by lines connecting Zungchu（Songpan 松潘），rNgaba（Aba 阿壩），＇Barkham（Maerkang 馬爾康），＇Dzamthang （壤塘），Rab brtan（Jinchuan 金川），bTsan lha（Shaojin 小金），and Wunkhron（Wenchuan 汶川）．The location of the base of the sBrang clan has long been controversial in the field of Oriental history．Studies by Zuiho Yamaguchi，who took advantage of both the Dunhuang and Chinese literature，proved that it was a place called Gyim－shod or Jinchuan in Chinese．

Jinchuan at that time was located at Zhangkuotun（章谷屯），around 70 kilometers south of where the city of Jinchuan lies today，and just south of modern Danba（Rong drag 丹巴）． Gyim，or kim in middle－ancient Chinese as reconstructed by Baxter（1992），means＇gold，＇and shod is a Tibetan word for＇locality．＇Therefore，Gyim－shod means a＇country of gold．＇The Kingdom of the Queen is called suvarnagotra in Sanskrit，which corresponds to Gyim－shod． Also，it should be noted that when vowels are dropped from suvarṇa，it becomes sBrang．

Considering these factors，it is likely that the descendants of Zhangzhung settled in the region where the Gyarong language is currently spoken．Given that they reconstructed the new Zhangzhung language，it is no wonder that it has some genetic relationship with the Gyarong language．However，it remains unknown（1）whether those who currently speak the Gyarong language are descended from those who used the Zhangzhung language，or（2） whether Gyarong served as a substratum in the reconstruction of Zhangzhung．In Nishi and Nagano（2001），I pointed out part of the relationship between the two languages，but could not provide sufficient evidence．

## 4．New Zhangzhung Materials

In 1999，the only material available relating to NZ was the Tibetan－Zhangzhung Dictionary， published in Delhi in 1965．Reverend Tenzin Namdak completed this dictionary by com－ piling descriptions by Nyima Dragpa，a learned monk of Bon．Most of the examples were employed from gZi－brjid and mDzod－phug，thereby handing down the tradition of bsGyur bon（transformed／organized Bon）．E．Haarh（1968）analyzed this material（see Tables B and C）and compared it mainly with the Linguistic Survey of India materials to indicate several interesting relationships concerning case particles，numerals（ $1-10$ ），and the words for＇ear，＇ ＇iron，＇＇water，＇＇horse，＇and＇dog．＇He concluded，＂The above few examples of word－corre－ spondence ．．．indicate that the Zhangzhung language belongs to the West Tibetan languages， most probably among the Complex Pronominalized dialects of the western group．＂His ana－ lytical and comparative approach is novel because of its emphasis on particular examples supporting the relationship with Himalayan languages．However，the examples of correspon－ dence are either Tibeto－Burman roots or loanwords from Written Tibetan，and the only word which positively indicates his hypothesis is ra－tse which means＇ear．＇Furthermore，if one looks into the above dictionary，it is apparent that ra－tse does not mean＇ear＇but＇nose．＇

## 5．Some findings of New Zhangzhung Correspondences

Recently，another publication relating to NZ has been released．A Lexicon of Zhangzhung and Bonpo Terms was published as one of the results of this project．This lexicon was edited jointly with Dr．Samten Karmay，CNRS，Paris（Nagano and Karmay 2008）．We extracted the Zhangzhung lexical items and those which exclusively appear only in Bonpo literature from sixteen kinds of Bonpo scriptures，and added translations in Tibetan and English．

Based on these materials，I prepared Table A，which shows the correspondence with James Matisoff＇s 200－word list．Table A also includes Proto－Southern Qiang（PSQ），Proto－ Tamang（PTam），and Proto－Tibeto－Burman（PTB）for reference．
5.1 The following shows examples of direct correspondence between the new Zhangzhung and PTB. Most of the examples are TB roots. Thus,

| 17 | mouth | NZ ag sho | PTB *ak |
| :---: | :---: | :---: | :---: |
| 58 | frog | NZ rba | PTB *s-bal |
| 126 | nine | NZ du gu | PTB *d-kuw |
| 48 | poison | NZ dug | PTB *duk |
| 125 | eight | NZ gyad | PTB *b-r-gyat |
| 178 | tie | NZ khyig | PTB *kik |
| 20 | skin | NZ kog tse | PTB *kok |
| 179 | steal | NZ kun mun | PTB *r-kuw |
| 66 | horse | NZ hrang | PTB *s-ray |
| 78 | moon | NZ zla ri | PTB*s-la |
| 93 | wind | NZ li | PTB *g-liy |
| 6 | eye | NZ mig ci | PTB *mik |
| 46 | name | NZ ming | PTB *r-min |
| 120 | two | NZ nis | PTB * g -nis |
| 117 | seven | NZ snis | PTB *s-nis |
| 123 | five | NZ nga | PTB * 1 -ŋа |
| 130 | cry | NZ ngu 'bar | PTB * nuw |
| 113 | neighborhood | NZ nye | PTB * ney |
| 90 | sun | NZ nyi(-ri) | PTB *ney |
| 15 | horn | NZ ru | PTB*kruw |
| 101 | iron | NZ zom shang | PTB *syam |
| 16 | liver | NZ shin | PTB *m-sin |
| 91 | tree | NZ shing | PTB * $\sin$ |
| 121 | three | NZ ne sum | PTB *g-sum |
| 7 | fat | NZ tshos | PTB*tsow |
| 111 | right | NZ ya | PTB *g-ya |
| 110 | left | NZ yi | PTB *bay |

5.2 Among the words selected by Haarh, the word hrang 'horse' has a cognate form in Written Tibetan and also has corresponding forms in Jinghpaw (kumray) and Burmese (mrày). The words ting 'water' and $k u-r a$ 'dog' are widely distributed and can be considered to be Sino-Tibetan roots. The word zangs 'iron' is obviously cognate with 'copper' in Written Tibetan and is a loanword from it.

Table B

|  | EAR | IRON | WATER | HORSE | DOG |
| :--- | :---: | :--- | :--- | :--- | :--- |
| Zhang-zhung | ra-tse | zangs | ting | hrang | ku-ra |
| Kanawri |  |  | ti | rang | khui |
| Manchati | rhe-tra |  | ti | rang | khui |
| Chamba Lahuli |  |  | ti | rhang | khui |
| Tinan | re-tra |  | so-ti |  |  |
| Bunan | re-tsi |  | so-ti | srangs | khyu |
| Rangkas | rach | chyang | ti | rhang | khvi |
| Darmiya | racho | nijang | ti | rang | khi |
| Chaudangsi | rach | najang | ti | rang |  |
| Byangsi | rach | najag | ti | rang |  |

(Haarh 1968: 26)

Table C

|  | Newari |  | Pahri Colloquial [20] | Tinan |  | Bunan |  | Byangsi Colloquial [20] | Zhangzhung |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Classical [19] | Colloquial [20] |  | Written <br> [21] | Colloquial [20] | Written <br> [21] | Colloquial [20] |  |  |
| 1 | chi | chi | thi-ki | i, id |  | ti, ti-ki | ti-ki | tig | tig |
| 2 | ni | nasi | nisi | nyi-ji | nyizhi | nyis | nyis-king | nisi | ni |
| 3 | swom | sõ | songo | srum | shrummu | sum | sumi | sum | sum |
| 4 | pi | pi | pingi | pi'i |  | pi'i |  | pi | bing |
| 5 | nga | nga | ngongu | nga | ngar | nga'i | ngai | nge | nga |
| 6 | khu | khu | khugu | tru'i |  | trug |  | truk | drug |
| 7 | hnas | nhasa | nhagi | nyi-ji | nyid-chi | nyi-ji | nyizhi | nis | snis |
| 8 | cya | chya | chegi | gye'i |  | gyad | gyei | jedr | gyad |
| 9 | gu | gũ | gugu | gu |  | gu | gu | gvi | gu-dug |
| 10 | ji | sanha | jigi | sa | sa | cu'i | chui | chi | cu |

(Haarh 1968: 25)
5.3 Table C shows the correspondence of numerals. According to the comparison of the numerals 1, 4 and 7, it seems reasonable that, as Nishi (1991: 78) claims, Zhangzhung is not directly related to Written Tibetan and that it corresponds to Almora rather than Western Himalayish, in a more detailed way.
5.4 The following shows examples of a clear correspondence between the new Zhangzhung language and Gyarong, with no correspondence to other language groups. Initial consonants
and rhymes correspond perfectly except for the last two examples, and there exists no correspondence with PTB except for 'frog.' As for 'gold,' NZ, Gyarong, and Proto-Tamang correspond well with one another while no correspondence with PTB is observed. Thus,

| 58 | frog | NZ rba | G ka rpa |
| :--- | :--- | :--- | :--- |
| 160 | cold | NZ cil | G wu ff $u$ tf ${ }^{\prime}$ u (Lin 1993: 123) |
| 164 | heavy | NZ lden | G kə di |
| 71 | cloud | NZ du | G zdem |
| 89 | stone | NZ ju slig | G jeluk |
| 17 | mouth | NZ khag | G tə kha |
| 95.1 | gold | NZ mar, mar-zhi | G smar 'yellow' |
| 85 | sky | NZ mu ra | G təmu |
| 80.1 | snow | NZ mu | G təmu |
| 158 | long | NZ rko rin | G kə skres |
| 43 | son | NZ hri tsa | G məza |
| 110 | left | NZ yi | G ka we |
| 200.1 | burn | NZ bzhop | G kə njop |

5.5 The following shows examples of correspondence between NZ and PSQ. In these six examples, correspondence is observed only between NZ and PSQ, while no correspondence with PTB or PTam is observed. Considering that Gyarong and Qiang have the same protolanguage and referring to the NZ-Gyarong and NZ-PSQ correspondences, I assume that NZ and Proto-Gyarong-Qiang are substantially related to each other. Thus,

| 143 | emerge | NZ da dod ci | PSQ tchi - tchi |
| :--- | :--- | :--- | :--- |
| 160 | cold | NZ cil | PSQ $\chi$ tu - |
| 71 | cloud | NZ du | PSQ $\chi$ d a/e-(H) |
| 173 | sharp | NZ kha rtse | PSQ tsie $\sim$ tsa-L |
| 170 | black | NZ kha nig | PSQ ňi - |
| 179 | steal | NZ kun mun | PSQ $\chi$ ku - |

5.6 The following shows the correspondence relationship between NZ and Himalayish languages. As Isao Honda's paper in this volume explains, the relation between 'gold' and 'way/ road' should be paid attention to. In connection with the above, the following correspondences might be noted:

| 163 | red | NZ mang | Bunnan | man |
| :--- | :--- | :--- | :--- | :--- |
| 20 | skin | NZ pad | Kinnaur | pod |
| 19 | nose | NZ ra-tse | Bunnan | retsi |
| 92 | water | NZ ting | Kinnaur | ti |
| 163 | blue | NZ ting | Bunnan | tip |

## 6. Afterword

From the rough comparison shown above, one may agree that Gyarong has many identical shapes to PTB and WT and is closest to NZ. But, most of the NZ forms we have are Bonrelated and the number of basic NZ words is rather limited. On the other hand, the Gyarong materials are also far from being sufficient both in terms of their number and of dialect variation, because of the difficulty of field research. We must continue our efforts to accumulate data for comparison.

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## Abbreviations

| G-LIN1 | Gyarong (Cogtse dialect), from Lin Xiangrong 1993 |
| :--- | :--- |
| G-LIN2 | Gyarong (Ribu dialect), from Lin Xiangrong 1993 |
| G-LIN3 | Gyarong (Ergangli dialect), from Lin Xiangrong 1993 |
| G-NAGANO | Gyarong (Cogtse dialect), from Nagano [unp. field notes] |
| HPTB | Matisoff 2003 |
| JAM | J. A. Matisoff |
| NZ (SER) | Zhangzhung, from Nagano and Karmay (eds.) 2008 |
| NZ (HAARH) | Zhangzhung, from E. Haarh 1968 |
| PLB | Proto-Lolo-Burmese |
| PSQ | Proto-Southern Qiang, from Evans 2001 ( $\check{n}$ = voiced palatal nasal) |
| PTam | Proto-Tamang, from M. Mazaudon 1988 |
| PTB | Proto-Tibeto-Burman, from J. A. Matisoff 2003 |
| STC | Benedict 1972 |
| TBL | Dai et al. 1992 |
| TSR | Matisoff 1972 |
| WT | Written Tibetan |

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Table A 200-Wordlist

|  | GLOSS | ZZ (SER) | ZZ (HAARH) | G-NAGANO | G-LIN1 | G-LIN2 | G-LIN3 | PTam | PSQ | PTB |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | belly | rko rtse | khog-tse | tawo | to-pok | to-ки | sdu | , | 1 pu-L | *pu-k (STC 358) |
| 2 | blood | ting tsar, nyun, tsa mun ta, she tshu | ri-bil | tashi | ta-fi | ta-sa | sə | ' | , sa-L | *s-hwiy (STC 222) |
| 3 | bone | tal, ru sul |  | shara | Se ro | ce ro | ce ra | , | ra-L k V | *rus (STC 006) |
| 4 | ear | khud 'khor, ra tse, she ru | ra-tse (=nose) | tran | torna | to-rna | nu | ' | ¢ $\mathrm{n} / \mathrm{n} \mathrm{i} / 2-\mathrm{L}$ ma-L | *g-na (STC 453) |
| 5 | egg | mu ril |  | tangam | ta-gam | ta-gum | t'py | , *phum-A | ) $\chi^{\text {to-(H) }}$ | *twiy (STC 168) |
| 6 | eye | mig ci, rgyang zhag |  | təmnyak | to-mıak | to-mjak | mok |  | mia-(H) | *mik ₹ *myak (STC 402) |
| 7 | fat (oil) | tshal, tshos | tshas | təzi | te-tşm | ta-rtsi | mel lo | *tshi | thhi -, so/a-L ie -, $\chi$ fa | *ryak (STC 204), *tsil (STC pp. 16, 168, 173), *sa•w (STC 272) |
| 8 | leg | ngar, nyungzug, zham zug | tshas-phru | tame | ta-m $\varepsilon$ | tə-mə | qa le | * *kang-B | go-L, dzV - | *kriy (STC 038) |
| 9 | intestines | gyir, ling, hri tsum | hri-tsum | tobok layca | nay tfe | nay tfi | wu vo | - | pzi-L | * pik (STC 035) |
| 10 | hair (of head) | con, ding ra | spa | ta kornye | ta-ko rne | ta-ku rme | кe rme | * *ham | q $2 /$ e-L to-H | *s-kra (STC 115); *ney (STC 292); *tsam (STC 073) |
| 11 | hair (of skin) | spu |  |  |  |  | smok | * ${ }^{\text {tsham-A }}$ | smu-L | * ${ }^{\text {mul (STC 002), * } \text { tsam (STC 073) }}$ |
| 111 | feather | spu |  | warnye | ta-mgi | ta-sar | mbje $\mathrm{ve}^{\text {t }}$ | - | , | *mul (STC 002), *tsam (STC 073) |
| 12 | hand | ra | khri-tse | təyak | te-jek | to-jak | jok | , | $\begin{aligned} & 1 \mathrm{~V}-\text {, dze -, i-H, } 1 / \varnothing \mathrm{i}-(\mathrm{L}) \\ & \mathrm{pa}-\mathrm{H} \end{aligned}$ | * *lak (STC 086) |
| 13 | head | dung mtsho, pu ta ra | cog | tako | ta-ko | to-ku | fu |  | qo-L b/p a-H tşi-L | * ${ }^{\text {m-gaw }}$ ※ *s-gaw (STC 490), *d-bu (STC p. 117) |
| 14 | heart | thigs pa, mang wer, tsi ta, she, she tung, ha ra | tsi-ta | tesne | to-fn $\varepsilon$ | tว-sn $\varepsilon$ | sjo |  | snie-(H) mi/u-(L) | * *s-niy (STC 367) |
| 15 | horn | ru |  | ta ga khru | to-ru | ta-ктว | rə |  | 1 ra-L k/q ə-H | *kruw (STC 037), *ruy (STC 085) |
| 16 | liver | shin, | shin | mkhyin pa, te pshu | to-p ${ }^{\text {d }}$ u | to-mts'i | p'se | * ${ }^{\text {net-A }}$ | sin-(H) | *m-sin (STC 234) |
| 17 | mouth | khag | ag-sho | to kha | tə-k'a (tə-mt ${ }^{\prime}$ ) ${ }^{\text {a }}$ | to-k'a | mtc'a |  | 又qa- | * *ak (STC 106), *m-ka (STC 468) |
| 18 | neck | khang, ag | khang | to mnyuk krun krun, to mki | to-mki | to-mk $\varepsilon$ | fq | , | mu-L kie-L | *ke (STC 251), *lig (STC 096), *tuk (STC 392) |
| 19 | nose | ye thum, lgyum, li zhi | lgyum, ra-tse | te sna | t2-Sna | t-ssiiv | sne | *hna-B | i sni-L q V-(H) p i/a-L | *s-na ~ *s-nar (STC 101) |
| 20 | skin | kog tse, pad | sad, pad, bad | to Ndri | to-ndzị | to-nd3ə | dza dzu |  | 1 ra-(L) pia-H, $\chi$ ¢ tşi | *s-graw (STC 121), *kok (STC 342) |
| 21 | spit |  |  | te kha dzi |  |  |  |  | dza - |  $58,75,126,132,146$ ), *twiy (STC 168) |
| 22 | tail |  |  | temə | mbro jmi | mbre lme | mbro jmi | *hme:-B | , sua-(L) kie-L | *r-may (STC 282) |
| 23 | tongue | rkyel, rke ru, lge | rkyel, rkyes, lke-ri, skyel | tesme | to-fmic | t2-mdкi | sni | *hle (PB) | zว-L qว-(H) | *m-lay *s-lay (STC 281) $^{\text {a }}$ |
| 24 | tooth | skod | skod | te swa | to-swa | tว-Swa | cvi | *swa-B | 1 suə-(H) | * ${ }_{\text {s-wa ( }}$ (STC 437) |
| 25 | wing | ting skras |  | ta rkham |  |  |  |  | dzya-L k/q e-L | *s-ton; *(s/k-ll-w-ak [cf. No. 12]; *(s/p-)lyap |
| 26 | nail | gzer bu |  | shim dzəmdzə | ta-ndzru | to-ndzru | rdze | , | , | * ${ }^{\text {m-(t) }}$ sin (STC 074) |
| 261 | back |  |  | , wa sgan | te-zgen | to-zga | ve rke | ' | de - , bo - | * ${ }_{\text {s-gal (STC p. 18), *s-nup (STC 354) }}$ |
| 262 | knee |  |  | t mıa | t2-mya | to-xpum | rgi |  | x 0 o/u-(L) | *du (STC p. 21), *(m-)kuk (STC pp. 120, 159, 182); *put (STC 007) |
| 263 | leg | ngar, nyung zug, zham ze, ta pep pa | tshas-phru, nyung-zug | te me |  |  |  |  | go-L, dzV - | *(r-)kay (STC pp. 70, 142) |
| 27 | finger | kun, kan, mang ber | sran , rtsal-gsum | ta yak ndzo | tr-jek ndzo | tə-jak ndzro | $t^{\text {tre me }}$ | I | no/e-L | *m-yuy (STC 355) |
| 28 | palm |  |  | ta yak pa |  |  |  | ' | , | *pwa or *b-wa (STC 418) |
| 29 | penis | ther ber, the'u ber, sta |  | to lam |  |  |  | \%mle-B | , lia-L q a/e-L | * li ₹ *m-ley (STC 262) |
| 30 | vagina |  | pad-ma | to stu | to-ftu | to-sta |  |  | $\begin{aligned} & \text { ňa-(L) ňa-(H) ~ [breast, } \\ & \text { milk] } \end{aligned}$ | *nuw (STC 419) |
| 31 | brain | glang, tsa na, |  | to wurnok | to-rnok | to-rnok | nak | I | qจ-L $\chi$ ňa-L | * nuk (STC 483) |
| 32 | navel |  |  | to pok cu |  |  |  | ' | pu-tşi-L | *la.y, *s-tay (STC 299) |
| 33 | shit |  |  | ta pshe |  |  |  | , | , | *kliy (STC 125), *n(y)ik (STC 235), *s-bay (STC p. 21), *r-kyak * $^{\text {s-kyak (STC pp. 26, 146), }}$ *e-k (STC p. 26, p. 146) |
| 34 | piss |  |  | ta skyi |  |  |  | ! | ! | ! *ts(y)i ※*ziy (STC 077) |


| 35 | sweat |  |  | to stre |  |  |  | ! | $\chi$ रışu()-(L) | * *krwiy ${ }^{\text {(PLB) }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 36 | snot |  |  | to snam |  |  |  | - | xňi-(H) | *s-nap (STC 102) |
| 37 | vomit | lhug |  | to mphat | to-mp'et | tə-nbes | mp 'tt | 1 | 1 ra-L | *Npat (TSR 038), *on (STC 343) |
| 38 | marrow | zhung, zhum |  | to b-yo | to-pjo | to-rka | p ${ }^{\text {cju }}$ | ! |  | *klin (STC 126) |
| 39 | breath | khri seg, rko seg, li, seg ri | $\begin{aligned} & \hline \begin{array}{l} \text { lung-rgyung-sad, seg, } \\ \text { seg-ri } \end{array} \end{aligned}$ | ta syo re |  |  |  |  |  | *sak (STC 485); *C-sak (TSR 123) |
| 40 | man, person | ni | klung-se (=youth), ni | te rmi | to-rmi | t--rm | rjju | - | mu/e-L | * ${ }^{\text {r-mi(y) (STC pp. 107, 119, 158) }}$ |
| 401 | man | kyo |  | , | to-tsa | ta-nmak | øว vjju | ! |  | * ${ }^{\text {mi(HPTB p. 81), *pwa(HPTB p. 165) }}$ |
| 402 | woman | nyung sa, na ri ma, dbyal, mo btsun, yo se, shang mo | tsa-med, yo-se (old), yog-ze (old) |  | to-mi | to-mi | ma le | , |  | * ${ }^{\text {mow(STC 223), nya(STC 173) }}$ |
| 41 | you |  |  | nogyo | no | nə ғjo | ne | - | no -, u-L, kuә - | * ${ }^{\text {na(y) (STC 407) }}$ |
| 42 | I | a bu |  | 1 ja | ya | yə | ye | , | qa -, ya- | * *na (STC 406) ※ * yay (STC 285) |
| 43 | son | ca li, bu le, hri tsa | slung-se, hri-tse | $\begin{aligned} & \text { ta pu, məza, ti } \\ & \text { za pu } \end{aligned}$ | ta-ro-ziع | ta-ro ze | te-ru ze | * dza-B | tci - bri-(L) | - ${ }^{\text {za } \times * \text { tsa (STC 059) }}$ |
| 44 | grandchild |  |  | pkhi |  |  |  |  | zi-(H) tsuə-L, dziL[niece, nephew] | *b-liy (STC 448) |
| 441 | nephew |  |  | tim 'di |  |  |  | ! |  | - *b-liy (STC 448) |
| 45 | groom |  |  | phəya, wa rcap | to-nmak | ta-nmak | məle ji vjju |  | tcti-(L) mia-L | *ma•k (STC 234), *z-ma•k (TSR 153) |
| 46 | name | snyo men, ma ming | ma-ning | wu rme | to-rmi $\varepsilon$ | ta-rmi | rme | *hmin-B | xm ə/e-(H) | * r-miy (STC 083) |
| 47 | pea |  |  | stok zem, stog tsa | stok lar | sno le | sna li | 1 | d doL | *be (STC 253), *s-nok (TSR 140) |
| 48 | poison | dmu thug, dug | dub | ta dok | ta-dok (dək) | dək | day sman | ! |  | * duk ₹ ${ }^{\text {tuk (STC 472) }}$ |
| 49 | mushroom |  |  | te mok, dzur nu, I sherna | mdza rnu | kə pa lmok | rdza rmar |  | m V-L zu - | $\text { *g-muw (STC 455) } \approx *_{\text {s-muw }} \text { (JAM) }$ |
| 50 | wine (strong) |  |  | khya, ma'a zi | ? P -rek | ?a-rak | rjja vo | - | tcha - | *yu(w) (STC 094) |
| 51 | banana |  |  | , |  |  |  | ! | ) | \% ${ }^{\text {s-mak (STC 477) }}$ |
| 511 | medicine |  |  | smen | smon | smen | sman | 1 | si - | * ${ }^{\text {tsiy (STC 065) }}$ |
| 512 | cooked rice | kar be'u |  |  | $\mathrm{k}_{\text {¢ }{ }^{\text {ri }} \text { i }}$ | mbres | mbre |  | $\begin{aligned} & \text { ma-L ma-H, tshI-L[in } \\ & \text { fileds] } \end{aligned}$ | *b-ras (STC pp. 17, 123), *han² (PLB:Bradley 1975a, \#281b) |
| 5131 | barley | a rdag | zad | t rg rgok | swi | ta-sə | ¢ә | 1 | रla-L | (TBL 0412) |
| 5132 | buckwheat |  |  | t shok | Sok | cok | ¢ог | ! |  | (TBL 0413) |
| 5133 | wheat |  |  | swe | ti | qa | кju | - |  | (TBL 0410) |
| 5134 | auto wheat |  |  |  | to-jmet | rjja qa | ?а кә | - |  |  |
| 52 | raw meat | mang sa |  | 1 jari, thamtham | Sa ni | ca lto | ce lu | * ${ }^{\text {tshingkai-B, sja-B }}$ | tshi-(L) | * ${ }^{\text {sya (STC 181) }}$ |
| 53 | bird |  | du | katsa |  |  |  | ! | i-L tshV-H, ye - | * ${ }^{\text {bya (STC 177), *s-pak (TSR 141) }}$ |
| 531 | crow | pho ma rog dgu |  | pho rok | ki, p‘o rok (ki) | qa re, po rok | qa bi | ! |  |  |
| 531 | crow with a red beak |  |  | pho ma rog dgu | k• rko | kual ku |  | - |  | I |
| 532 | owl |  |  | - | pka k'u | pu ka | q* | - | , | ' |
| 54 | dog |  | ku-ra | khəna | k` na & ku ze & ka to & - & khur-(L) & *kwiy (STC 159) \\ \hline 55 & fish & & tsa & gyigyo & & & & * *arnga-A & qe-L, sdza - & * nyy (STC 189) \\ \hline 56 & louse & pra mo ha & & \({ }^{\text {sor, dzayi }}\) & ndza \(\int\) ¢k, sor & ndzị cək, ser & ndzi co, tctor & - & 入tsil-(L) & *s-rik (STC 439), \(^{\text {s sar }}\) ※ *́ar (STC pp. 15, 53, 84, 147, 172, 189) \\ \hline 57 & snake & & re-hab & ka pri & k'a bre & ка pri & mba rə & - & br u/e-L & \%b-ru-1 (STC 447) \\ \hline 58 & frog & rba & & ka !pa & & & & , & dzo-L pia-H & *s-bal (STC 015, 021, 107) \\ \hline 59 & worm & & & kolu & kə-lu & to-mbs & mba ndzo & - & bu/o-L lo-(L) & *buw (STC 027) \\ \hline 60 & honeybee & & & babu & mba bu & wu ja & vel 3 u & gwai-A & & *bya \({ }^{2}\) (PLB); *kwa•y (STC 157), *was (STC 017), *tay (STC 494)[cf. BIRD\#053] \\ \hline 61 & pigeon & & & skro & du dut pi pi & du dut pi pit & & , & gue-L & * *m-kruw (STC 118), *kuy 'pigeon' (STC 495) \\ \hline 62 & monkey & shi mun & & \({ }^{\text {kəzu }}\) & kə-tsu & кzว & zə & - & bua-L sa-L & *mruk (STC pp. 43, 112), *woy (STC 314); *m-yuk (PLB:JAM 1973e) \\ \hline 63 & pig & du re & & pak & pak & pak & \(\mathrm{p}^{\text {d }}\) & ! & pia-L & *pwak (STC 043); *wak (PLB:TSR 168) \\ \hline 64 & chicken & & & ka cu & pka Ja & рьє \(¢ \varepsilon\) & pa ku ci & 1 & & *k-rak (STC pp. 88, 107, 187-9) \\ \hline 65 & otter & & & , ji sram & t5'ə sram & tf \({ }^{\text {¢ s sram }}\) & sram & , & & \% \({ }^{\text {s-ram (STC 438) }}\) \\ \hline \end{tabular} \begin{tabular}{\|c|c|c|c|c|c|c|c|c|c|c|} \hline 66 & horse & ku hrang & hrang & I nbro & rta-p o & rta-p;o & & i & Cr o/u-(L) & * \({ }_{\text {s-ray }} \times\) *m-ray (STC 145) \\ \hline 67 & ant & & & kha rok & k'o rok & k'rok & \(\mathrm{q}^{\text {e }}\) & 1 & I & * \({ }^{\text {rwak (STC 199) }}\) \\ \hline 68 & bear (N) & & & tu wam & pri & pra & pra & ! & tiam-(H) & \\ \hline 681 & leech & & & \[ \begin{aligned} & \text { wa stsa, ku ru } \\ & \text { smenba } \end{aligned} \] & & & & & & \({ }^{\text {( }}\) (BL 0364) \\ \hline 69 & rat & & & pu gyu & pə ju & pə ji & pi & & z/dz i/e-(L) kuo-(L) & *k-r-wak (TSR 188); *bwiy (STC 173) 'bamboo rat', *b-yuw ( (STC 093) 'rat, rabbit' \\ \hline 70 & ground, base & & & te lop, datro & zdi srem, ta tşo zgok & zda кuei, spu tu & sra, poo lo & *sa-B & bri/e-L[ashes] & *pla (STC 137), *r-ka (STC 097), \({ }^{\text {*mliy (STC 152) }}\) \\ \hline 71 & cloud & du phung, spre zhi & du & zdem & zdım & zdim & zdəm & ! & X \(\mathrm{x} / \mathrm{e}\)-(H) & * \({ }^{\text {C-tim}}\) ( (PLB: Bradley 1975a, \#320-2) \\ \hline 70 & earth & & & & & & & 1 & zuo-L, dzu - & \\ \hline 721 & wall mud, plaster & & & tarnya & 3a le & 3 l 18 & ка ло & 1 & & ( (BL 0046) \\ \hline 73 & fire (N) & ne, ne cu, ne ra, tshang stang, rma ‘dangs & ne & tomcik & tə-mt \(\mathrm{j}^{\text {k }}\) & sə-mə & ктә & *hjme-B & mu/i-(H) & *bar æ *par (STC 220), *mey (STC 290) \\ \hline 74 & flower & & ba-ni-ne-ra (lotus) & ta pat & mən tok & \(\mathrm{m} \varepsilon\) tok & me ta & - & pa-(L) tşue - & * bar (STC 001) \\ \hline 75 & fruit & & khri-tse, tun, byungldem (fruit tree) & tashi & mbras wa & mbres va & & & sie-(L) mi/u-(L) & *sey (STC 057) \\ \hline 76 & grass & & & I teno & ka-tsa & to-kra & \(\chi\) ¢i & , & dzo/u - & - *mrak (STC 149) \\ \hline 77 & leaf & & & tenbak & tei wek & tel vsak & p'a la & *Hla-B, *lapte-B & kca-qə-(L) &  \\ \hline 78 & moon & zla ri & zla-ri, sla & tsola & tso la & zde gi & slou li & *hla & slo-L & *s-la * *-la (STC 144) \\ \hline 79 & mountain & & rang, rwang, rnilrwang, snil-rang & krowo & ta-wat & le ke & \(\mathrm{p}^{\text {c }}\) & & qhs u/uə - & *kay (PLB:Bradley 1975a, \#312) \\ \hline 80 & rain (N) & & kyi-tang, phang & t tomu & to-mu & to-rdzi & mə & ! & xdzV - & 1 \({ }^{\text {r-wa (STC 443) }}\) \\ \hline 801 & snow & rnil, rnir & rnil-rwang, snil-rwang & & tei pa & \(\mathrm{k}^{\text {c }} \mathrm{ve}\) & \(\mathrm{k}^{\text {¢ }} \mathrm{eve}\) (lvi) & 1 & & *kyam (STC 252), *wa (STC 46), *wal (STC 404) \\ \hline 81 & river & ting kyo & ting-sho & daci & mjan gun & sme rtfo & brməm me & & \(\chi \mathrm{d} 7 \mathrm{~V}\) - & *klu•⿰ (STC 127), *kor (STC 349) \\ \hline 811 & valley & & khud & gyokha & ç̧o k'a & tıa & xi \(\mathrm{k}^{\prime} \mathrm{B}\) & 1 & & ( (cf. TBL 0025 WT ri 'gag) \\ \hline 82 & way & & tha, lgyum-zhi & trola & tşo-la & t5am mba & tç'i & \begin{tabular}{|l}  *gyam \(^{2}\) (Nishi \\ 1991 ) \end{tabular} & dze - & * \(\operatorname{lam}\) (STC 087) \\ \hline 83 & root & & tsang-ri & wa sram & te-srem & to-rzam & sram & , & kie-L & * \({ }^{\text {bul }}\) ※ \({ }^{\text {ppul (STC pp. 166, 173), *r-sa (STC 442) }}\) \\ \hline 84 & salt & & & t tha & ts' B & tssi & ts'i & I & tshi-(L) & * g -ryum (STC 245), *tsa (STC 214) \\ \hline 84 & salt (from sea) & & & tsha & rjje ts \({ }^{\text {c }}\) e & rjja ts \({ }^{\text {c }}\) \% & ts \({ }^{\text {i }}\) & ' & & \\ \hline 85 & sky & mu ra, mu tor, mu trhig, mu la, mu ye & mu, mu-ne, mu-la & təmu, namkha & nem mk'e & t-məs & nว mk'p & *hmu-B & रmu-(L) & *muw (STC 488) \\ \hline 86 & smoke & & & dəwu, dəkhə & & & & 1 & mu-L kh/qh uә-H & *kuw (STC 256) \\ \hline 87 & star & wak shing & dzwar-wag, ‘dzar-wag, wer-zhi & tso ngri & tseu ri & ske m \(\varepsilon\) & sker me & *sar-A & xdze-L & \(*_{\text {s-kar (STC 049) }}\) \\ \hline 88 & stick & bing chen & & ta dar & te-rtfok wro & te-rtf'ok ro & zgo de rru & I & ' & 1 * \({ }^{1}{ }^{1}(\) PLB cf Lahu átà \()\) \\ \hline 89 & stone & ju slig & & jeluk & jjo lok & to-ко & rgə me & *hjung-B & रlo-L, pia - & *brak (STC 134) 'rock', *r-luy (STC 088), *k-lok \(\preccurlyeq * k-l o \eta ~\) (PLB:TSR 190) \\ \hline 90 & sun & nyi, nyi ri & nyi-ri & kәуam & kə-jam-tayi & ta-yi & bna & 1 & ' 'sky'+ si-H, 'sky' +nə - & * \({ }^{\text {nam (STC 048), * } n \text { y (STC 081), *tsyar (STC 187) }}\) \\ \hline 91 & tree & shing & byung & shikphu & Sis & ka-ju & s'e & ' & pho, ко-L & * *is (STC 233); *sik (PLB:TSR 118) \\ \hline 92 & boiled water & ting, & ting & t 2 ji & tf'a stso & eçi lye ndsi & do ts \({ }^{\text {u }}\) & *kjui-A & tsuo-L & * *wiy (STC 168), *m-tśril (STC p. 30) \\ \hline 93 & wind & yu bun, sha'a ser, be ling, li & 1 & khali & k'a-li & ка ldə & \(\chi\) pel rjjə & - & 'sky' + кu-H & \% *-liy (STC 454) \\ \hline 94 & branch & tha tan & & gak & tei ge & rda lek & je zgo & ' & kh \(2 / 2 / \mathrm{a}-\mathrm{L}\) & 1 *ka-k (STC 327), *ku•y (STC 359) \\ \hline 95 & silver & gu ci, ting zhi & & po nje & po yi (rypl) & rym & rye & *hmwi & Хпи-H & * \({ }^{\text {d-nul (STC pp. 15, 173) }}\) \\ \hline 951 & gold & gu lang, ma la, mar mar, mu mar & mar, mar-zhi & kser & k'sor & \(\chi\) ¢ \({ }^{\text {cr }}\) & SE r & \% \({ }^{\text {mar2}}\) (Nishi 1991) & & *s-rwəy (TBL 0051) , *tsyak \\ \hline 96 & bamboo & & & , gyok & jio & snup me & кји & & ) \(\chi\) pu-(L) & * g -pa (STC 044) \\ \hline 97 & shadow & & & dәуip & te-jəp & t--кjev & bgrav & I & & ' \({ }^{\text {g-rip }}\) * \({ }_{\text {s-rip (STC p. 113) }}\) \\ \hline 98 & joint (N) & sra tse & & to tsik & ts'ək & ts'ək & ts \({ }^{\text {¢ }}\) u & ! & sa-(L) & **sik (STC 064) \\ \hline 99 & thorn & & & temdzo & to-mdzo & ta-mdza & mdzu & I & I tshi-(H) & , *tsow (STC 276) \\ \hline 100 & night & & & tomor & to-rjek & to-rjjek & ? 3 -rjau & - & ra-L, gie-L & I *ya (STC 417) \\ \hline 101 & iron & tal, zom shang & zangs & sham & Jam & cam & ¢əm & 1 & , cam-(L) & *si.r (STC 372), *syam (STC 228) \\ \hline \end{tabular} \begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|} \hline 102 & field & & tig-tig, tig-smar & to mnya & se zey & sa zey & mıe lo & - & \[ \begin{aligned} & \text { şe - [irrigate], } 1 \mathrm{e} / \mathrm{u} \\ & \text {-L[irraigate] } \end{aligned} \] & *idan \({ }^{3}\); *C-mi \({ }^{1}\) (PLB:Bradley 1975a, \#415) \\ \hline 103 & arrow & wer, nag phran & wer-hri, wer-hrim & I shim nya & & & & *hmja-B & 1ว-L & *m-da (STC pp. 96, 111-112, 118), *b-la (STC 449) \\ \hline 104 & needle & & & to kap & & & & - & ' x - & *kap (STC 052); *k-rap (PLB:TSR 191) \\ \hline 105 & house & gung mig, se sto & se-to, se-dad & t to gyim & tfam & cçim & jəm & * dim-A & tc eli-H k/q o & * kim \(\times\) *kyim \(\times\) *kyum (STC 053) \\ \hline 106 & bow & hrim & wi-to, wer-hrim & shim nya way tsə & Sə mıa & t2-cça & mjək & & 1 , & * \({ }^{\text {d-liy (STC 463) }}\) \\ \hline 107 & boat & & & sgru & 3gru & zbri & rgu & , & - & *m-liy (STC 474) \\ \hline 108 & stone mill & & & lay tak, ta 'dzor & ts‘ou mbo & kə-Jum & rgəme rtsəm & *sjp-A(to pound) & kh ue-H & * *sum (STC 075) \\ \hline 109 & village & & & khyim dza & & & & & tshua-H k/q u/o -, zo - & * \({ }_{\text {r-wa }} \times\) *g-wa (STC 444), *kak (PLB:TSR 022) \\ \hline 110 & left & yi & & ka we & \(\mathrm{k}^{\text {ce-fkor }}\) & k'ua skor & \(\mathrm{k}^{\text {¢ }}\) e skor & & גgy-L, виa - & *bay (STC 047) \\ \hline 111 & right (against left) & ya & & ka cha & ka-cç \(\mathrm{a}^{-1}\) & кі-сç'i & sç̧ \({ }^{\text {cou }}\) & ' & xda - & ' \(\mathrm{g}_{\text {g-ya } \times \text { *g-ra (STC 098) }}\) \\ \hline 112 & far from & & & wure kəchə & kə-ç̧ \({ }^{\text {co }}\) & ka-qə & tce 'e rdo & & रua-L & *dzya.1 (STC 229), *wiy \({ }^{\text {2 }}\) (PLB) \\ \hline 113 & neighborhood & nye drung & & wure kənbat & cç` ${ }^{\text {war }}$ | cç'e ver | tç e be |  | q/k e-L $\chi$ z i/a-H[near] | * ney (STC 291) |
| 114 | year |  |  | кәра | pai pa | p3 vi | p2 vi |  | pu-L, nə-(H) pu-L[last year], dia-H tçhi-L[next year], tse-H pu-L[this year] | * ${ }^{\text {niy (STC 368) }}$ |
| 115 | twenty | ni cu, ne cu | ni-cu, tseg | kə nyisce |  |  |  |  |  | *(m)-kul (STC 397) |
| 116 | one |  | ti, tig, pra-mo-ha (single), mu-tig (once) | , katek |  |  |  |  | a-L | *it (STC pp. 94, 162), *kat (p. 94), *t(y)ik $^{*}$ (g-)tyik (STC <br> pp. 84, 94, 169, 189) |
| 117 | seven | snis | sni, snel, snes | kə shnər | kə-fnəs | k2-snas, snas | sne, fsne | *hnis-A | sni-(H) | *s-nis (STC 005)[cf. TWO \#120] |
| 118 | ten | cu snis | cu, cu-tse | , sce |  |  |  | *tsjui-A | fiə diu | * ${ }^{\text {gip (STC 016) }}$ |
| 119 | one hundred | bir pra | ra | pargya | pr vje | pər rjji | vrji | *bra-A, gjar-A | tshhi-(L) | * ${ }_{\text {r-gya (STC 164) }}$ |
| 120 | two | ni sum, nis | ni | kə nyis | kə-n¢s | Enis | yne | * ni :-A | ( $\chi$ )nว-(L) | *g-nis (STC 004) |
| 121 | three | ne sum | sum | ka sam | kə-sam | fcum | fsəm | *swam/som-A | khsi - | *g-sum (STC 409) |
| 122 | four | bi nga | bing | ke wdi | kə-wdi | vldi | vda | *bli-A | gro-L | *b-liy (STC 410) |
| 123 | five | nga | nga | ka mıo | kə-myo | myo | mne | *nga:-A | , кua-L | *--na * $^{\text {b-ya (STC 078) }}$ |
| 124 | six | nga drug, drug snyis, snybe gyer | drug | k k trok | kว-tsok | ft5oy | ptcy | \% *dru-A | $\chi^{\text {tsul-(H) }}$ | *d-ruk (STC 411); *C-krok (PLB:TSR 35) |
| 125 | eight | gyad | sni-gyad | wu ryat | wə rjat | vrjj $\varepsilon$ | vje |  | khr e/a-(L) | * ${ }^{\text {b-r-gyat (TSR 163) }}$ |
| 126 | nine | gu dun, du gu, dun gu | gu-dug, gu-dun | kə ngu | kə-nıgu | ngit | vngu |  | Хguә | *d-kuw (TSR 013) |
| 127 | many | ti mur |  | kə mca |  |  |  |  | dio-H, | * mra (TSR 148) |
| 128 | be born | drod | skyi: mu-si-skyi | ka shkyi |  |  |  | , | bu - | * ${ }^{\text {bray (STC 135), *kruy (STC 382) }}$ |
| 1291 | sleep, take a nap |  |  | ka rma | kr-nə-nk ${ }^{\text {¢ }}$ nel | ka-nə-po'k nel | sta fq` fq 'əm |  | z/ze-L, no - | *ip (STC 114), *mwiy (STC 196), *n(y)it (STC 236) |
| 130 | cry, weep | ngu 'bar |  | to nu ru | ka-ñ kru | ka-ya mbli | кmbə |  | z/7e-L, no - | * *krap (STC 116), *nuw (STC 076) |
| 131 | laugh | ha sig | ha-si-ga | to nə ri | ke-ra ro we | ka-nə rə ve | re ve | , | dza-(L) | * ${ }^{\text {m-nwi(y) (STC 191), *rya-t (STC 202) }}$ |
| 132 | die |  | gyog, gyag | no kshis | ka-fi | ka-sə | s\% | *si-B | ¢ a/e-(L) | * ${ }^{\text {siy (STC 232) }}$ |
| 133 | awake |  |  | wu mnyak nə gros |  |  |  |  | - | *m-sow (STC 295); *nuw ${ }^{2}$ * ${ }^{\text {s-nuw }}$ ( (PLB) |
| 134 | cough |  |  | to rtshos kə pa | tə-rts'os kə-pa | ta-sq'ut | rts ${ }^{\text {g mbo }}$ |  | , | * $\mathrm{su}(\mathrm{w})$ (STC 423) |
| 135 | stand | nangs |  | ka rgyap |  |  |  | ' | zi-L | * ${ }^{\text {g-ryap (STC 246) }}$ |
| 136 | sit |  | kod | ka nyi | ka-ni | ka-mdzo | rje |  | dz u/o-H | **u-y (STC 361) |
| 137 | fall |  | ang | ka yok, no mjit | ka-3a | ka-nter | na $\chi$ p'oy |  | tsh o/y-(L), gui-L | *kla (STC 123) |
| 138 | climb, ascend |  |  | to to, kə yam to kshot |  |  |  |  |  | *l-tak (STC pp. 52, 110, 123), *syar ‘rise’ (STC 090, p. 28) |
| 139 | descend |  |  | no no, kə mbap, kə nə pzhot |  |  |  |  |  | descend *yu(W) (STC 289, p 101); *?-yuk [above 1 121(5E)]; *zak (TSR 121) |
| 140 | fly (V) |  |  | kə mbyam |  |  |  | , | gze-(L) | $\begin{aligned} & \text { *pur } \times{ }^{*} \text { pir (STC 398), *pyam (STC 093, p. 29; 171, p. 51), } \\ & \text { *pyaw 'fly, swim, float'(STC 176) } \end{aligned}$ |
| 141 | hide |  | bad | $\begin{aligned} & \text { kə ya pki, ki sha’a } \\ & \text { bki } \end{aligned}$ |  |  |  |  | c y/ye-L, pia -, k o/ye-L | *p(w)ak (STC 046); *wak æ*2-wak (PLB:TSR 178) |
| 142 | run, flee |  | ji | kə rgyik, kə pho | ke-cç ${ }^{\text {op }}$ | ka-cç ${ }^{\text {op }}$ | na t, 'py |  | I tşh - tşhi - | * ${ }^{\text {*plon (STC 140) }}$ |
| 143 | appear, emerge | khrun, da dod ci |  | ! ya we |  |  |  | ! | tct i/y-L | *twak (STC p. 17), *pro (STC 248) |
| 144 | fear | yang za, du khrun | zhur | kə yi sdar |  |  |  |  | $q \mathrm{o} / \mathrm{u}-\mathrm{L}$ | *grok ₹ *krok (STC 473), *kri(y) (STC 416), *b-ray (STC 450) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 145 | know |  | shin, shi-shin (knowledge), 'gu-ye sa-trig (knowledge), she-shin (knowledge) | ka shis | ka-nə mfi | ka-nə fsis | k2-ts'e |  | nue-L, si - | *m-kyen (STC 223), *syey (STC 182) |
| 146 | shameful |  | dil-byil (shameless), dmyi-byil (shameless) | kə na sra | t-srak | to-zrak | mbəm | , | ' | *kyen (STC 162), *s-rak (STC 431), *g-yak (STC 452) |
| 147 | forget |  |  | ke mur |  |  |  | , | ) $\mathrm{\chi mu}$-(L) | \% *-la.p (STC 335) |
| 148 | dream ( N ) |  |  | ta rmo | ta-rmo | tว-lma | rmo | *mang-B | र $\chi$ o/u-(L) | *man (STC 082); *s-mak *s-may (PLB:TSR) $^{\text {a }}$ |
| 149 | see |  | ta-tan, pu-phro (look for) | ka mo | ka-mto | ka-mta | vde si |  | tiu-(H) | - *mray (STC 149) |
| 150 | smell |  | shi-shim (N), shin-tsa (N) |  | spos | spos | spo | *hna:/hnang-A | Xmam-H | *m-nam (STC 464) |
| 1511 | thin |  |  | ka mba | kə-nə k'i | kə-nak me | кgi |  | Xua-H, bu-L | *ba (STC 025) |
| 152 | old | gcos | yog-ze (old woman), shang-ze (old person) | kə mtrho, kə mbi | kə-rgen (ke-mtşo) | ka-rgas |  |  | pe/2-L, ba-(H) | * ${ }^{\mathrm{r}-\mathrm{ga}}$ (STC 445) |
| 153 | alive | ta ka gyin |  | kə sa so | kə-sə so | kə-sə su | $\chi$ su |  | : se/a-L | *kruy (STC 382), *s-rin **s-ray (STC 404) |
| 154 | ill | gyang |  | to ngo | tz-wə (ta-myam) | tว-nga | ${ }^{\text {t }}$ ¢ rym | *hna-A, *sha | ! dzi - | : ${ }^{\text {na (STC 080), *nyuy (STC 194) }}$ |
| 155 | fat | tshos, tshas, rlab che |  | ku tsho | kz-ts ${ }^{\text {o }}$ | ka-vnam | ts'u |  | tshi -, so/a-L ie -, $\chi$ da - | **sow (STC 277) |
| 156 | itchy |  |  | kə ra jak | kə-ra jak | kə-re j $\varepsilon$ | sp |  | dzi-L dza-L | *g-ya (STC 451), *m-sak (STC 465) |
| 157 | full | rlab che |  | kə mə nyot | ka-pjot, kə-mnot | ka-fsot, kə-nə mts'ot | kə-psen, kə-psu ! |  | : sye-L | : *bliy $\times$ *plin (STC 142), *dyam * $^{\text {tyam (STC 226) }}$ |
| 158 | long | rko rin |  | kə skren, kə nbro | kə-skren | kə-rzan | sre |  | dzi-(L), br o/u-(H) | $\begin{aligned} & \text { *duy (STC 020; \#231, p 75), *low (STC 279), *s-riy (STC } \\ & 433) \end{aligned}$ |
| 159 | sweet |  | un-sing | ka chi | kə-cç ' i | kə-ç̧ ${ }^{\text {co }}$ | t's |  | tsh $\mathrm{u} / \mathrm{y}$-(H) | * *dz(y)im (STC 071), *twi(y) (STC 166) |
| 160 | cold | cil |  | kə mə shtak | wu tf'utf'u | ?2 t5'ə t5'ə | ? ${ }^{\text {tç }}$ 'ə tç ${ }^{\text {cu }}$ |  | xtu - | * *gray (STC 120), *kyam (STC 224) |
| 161 | painful, bitter |  |  | kə sa kha | kə-tfap | kə-ter | tcta |  | 1 qha-(L) | *ka (STC 008) |
| 162 | sour |  |  | ka cor | k--forV | kə-tfor | stjer |  | , tsuV | *kri(y) (STC 413), *s-kyur $\times$ *surr (STC 042) |
| 163 | red | pa ru, mang | ra-ga, ra, mang | ka wu rne |  |  |  |  | ¢n̆i-(H) | * *kyen (STC 162), *r-ni (STC pp. 46, 91), *tsyak (STC 184) |
| 1631 | blue | ting, zor tir | ting | syon, lay | syon mbo | ka ryui | syon mbu |  | - | *s-ngow??(STC \#296) |
| 164 | heavy | Iden |  | kə di |  |  |  |  | dzi-L | *s-liy (STC 095) |
| 165 | warm | khri seg, dung, mur zhi, ram me | mu-la | kə mpya |  |  |  |  | le -, si/f - dua - | * ${ }^{\text {lum (STC 381) }}$ |
| 166 | round | tung bu, zhing ri | zhing-ri | kə por lor |  |  |  | I | xgy - | *z-lum (STC 143), *wal (STC 91) |
| 167 | ripe | smar |  | kz smin | k2-smən | k2-smi | sme | *hmin-A | - | * ${ }_{\text {s-min ( }}$ (STC 432) |
| 168 | soft |  | bag-rtse, klang-sad (soft word) | kə mbyok, kə | kə-nd3em | kə-nd3em | kə-ndir |  | ma-L, la-L | * *now (STC 274) |
| 169 | white | ke ru, she po | shim, mang-wer (pale white) | kə pram | kə-pram | kə-prom | p'ram |  | phram-H | *bok (STC p. 181), * now (STC 296), *plu (STC pp. 41, 46, 60-61, 89)[cf. SILVER \#095] |
| 170 | black | kha, kha nig | kun, kha-rlon, khe-la, mu-gun | kə nak | kə-nek | nak | кni |  | ňi - | *tyay (STC 225); *(s-)nak (STC pp. 88, 102, 155; TSR 142); *sim $æ \operatorname{syim}($ STC 380$)$ |
| 171 | thick | dos drag, rngi ci, Iden, u mun |  | kə yak |  |  |  | ' | lia-L, pray-(L) | *r-tat (STC 426), *tow (STC 319), *tu-k (STC 356) |
| 172 | new |  |  | ka shik | ser pe |  | selpe | * *shar-A | khsi-H | *sar (STC pp. 147, 172, 189) |
| 173 | sharp | kha rtse, dpal, gze ma |  | kə \ jam cok | ka-mtJok | ka-mtJok | zoy |  | tsie $\sim$ tsa-L | *s-ryam (STC pp. 53, 171, 189), *tak (STC p. 87; TSR 41) |
| 174 | light (in weight) |  |  | kə jo | kə-joV | kə-ja | je |  | gz o/u-(H) | *r-ya.y |
| 175 | eat | dung dung |  | kə nə ndza | ka-za | ka-ndze | zi | *am-B, *tsa-B | dzi-L | * *am (STC 481), *dza (STC 066) |
| 176 | drink (V) | gung, chu ca |  | ka mot | ka-mot | ka-t ${ }^{\text {c }}$ | kə-te | *thung-A | thie -, qu/o-H | *am (STC 481); *Nday ${ }^{1}$ (PLB:TSR p 15) |
| 177 | give | he tor |  | ka nbi | ke-p'al | ka-p $\cdot \mathrm{l}$ | ka-p $\mathrm{rl}^{\text {l }}$ | *pin-B | Xda-(H), grə-H | *biy (STC 427), *pek (STC pp. 101, 149) |
| 178 | tie | khyig |  | ka tshi, kə trhok, ta mtut | ke-mt'ət | ka-mt ${ }^{\text {c }}$ | ldzə ndze | *khi-A, *tsung-B | di-L, dza - | *du-t ₹ *tu-t (STC 421), *kik (STC 484) |
| 179 | steal | kun mun, shod 'debs |  | ka smo |  |  |  |  | 攵u- | *r-kuw (STC 033) |
| 180 | lick |  |  | kə nə zok | ka-nə ntsok | ka-ldak | nnı | *lem-B | n na/e-(L) ta-H | \% ${ }^{\text {m/s-lyak (STC 211) }}$ |
| 181 | bite |  |  | kha mcik ka lat， kə ne ntshok |  |  |  |  | dz／zV－ | ＊gam（STC 491），＊hap（STC 089），＊ku•k（STC 388），＊wa （STC 424） |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 182 | scratch |  |  | ${ }^{\text {k } \mathrm{raja}}$ | ke－re－k＇rok | ka－ra－vrok | nsprer | ， | phra－ | ＊hyak（STC 230）；＊krak ₹＊Nkrak（TSR 096）；＊kret ※ Nkret （TSR 097）；＊kut（STC 383），＊pruk（STC 391） |
| 183 | boil（V） |  |  | ka ska | ka－ska | ka－sqa | sә кәi | ＊khwal－A | $\chi \mathrm{q}$ a－L | ＊klak（STC 124），＊prut（STC 131），＊pryo（STC 250） |
| 184 | grind |  |  | ，kə stsu，ka rbok |  |  |  | ， | 1 | ＊${ }^{\text {krit（STC 119）}}$ |
| 185 | wash |  |  | kə rkyi | ka－rifi | ka－⿲㇒⿻土㇒丂＇ə | rju | ＊khru－A | Хuә－（L）la－（L） | ＊kruw（STC 117），＊m－s（y）il（STC 492） |
| 186 | dig |  |  | ${ }^{\text {ka rwa }}$ | ka－lwa | ka－lwa | ทqa | － | lia－H | ＊klaw（STC 269），＊r－ko－t（STC 420），＊la．y（STC 288），＊tu （STC 258） |
| 187 | leave |  | sang | ka wa rdi | ke－te | ka－f¢¢ | ndi |  | I | ＊g－lwat（STC 209） |
| 188 | extinguish | ja＇lus | rbad，pe－brag（kill） | ka wa rmuk， ，ka sat | ka－wa－rlak | ka－wa－rlak |  | ， | mV－L | ＊mit（STC 374） |
| 189 | blow |  |  | ka phro，ka bjo | ke－k＇ rot | ka－k＇rat | cor | ， | Хphu－（H） | ＊s－mut（STC p．75） |
| 190 | buy |  |  | ，ka ki | ka－jok | ka－cç ${ }^{\text {co }}$ | ？a rge | ， | p o／u－H | ka bjo |
| 191 | sew，needlework |  |  | ka trho，ka mkhi | kə－tsop | vzu ve | tç ${ }^{\text {e ftc }}$＇ə pr |  | 1ra－ri－ | $\begin{aligned} & \text { *d-rup (STC } 456), *\left((-) \text { grup } æ * \text { ddrup; *byar } \not{ }^{*}\right. \text { pyar (STC } \\ & 178) \end{aligned}$ |
| 192 | kill | gshed | pe－brag，rbad， | ka sat | zdək－pe ka－pa | szdak－pr ka－pi | zdək－pe vi |  | tsV－L tsV－H | ＊g－sat（STC 058） |
| 193 | weave |  |  | t to tak ka pa | ka－tak | ka－tak | py | ， | － | ＊ tak（STC 017） |
| 194 | rub |  |  | ka phyis | ka－kliع | ka－$\chi$ tsov | lni |  | ， | ＊nu－1（STC 365），＊s（y）wiy（STC 180） |
| 195 | squeeze | chag bcol |  | ka ncir，ka ryo |  |  |  |  | I | ＊ nyap（STC 192），＊tsyur（STC 188） |
| 196 | strike，shoot | ther | bteg | ka lat | ka－top | ka－sdo | ts‘ə | ， | qhr o／a－L | ＊ga．p（STC 219） |
| 197 | kick（V） |  |  | I | ta－zbro ke－let | ta－रsu ka－trar | zbre ts＇a | ， | t tshu－（L） | ＊${ }^{\text {tek（PLB：TSR } 14)}$ |
| 198 | sell |  |  | ka mphar | ke－mp＇er | ka－ntswi | ntsray | ， | ！ | ＊${ }^{\text {par（STC p．35），＊ywar（STC pp．15，51，89）}}$ |
| 199 | place，put |  | nam－mu | ks to | ke－te | ka－fge | $\mathrm{t}^{\text {te }}$ | ＇ | kua－ | ＊s－ta（STC 019） |
| 200 | drive，hunt，expel |  |  | ka nrek | to－fp‘ $\varepsilon$ | ts＇am $\chi$ t 5 ot | $\chi$ tcot | ！ | qh／x o－（H） | ＊${ }^{\text {rak } \text { ® Ngak（PLB：TSR 162）}}$ |
| 2001 | burn | bzhop | bar，ar | kə sjop | ka－tfop | ka－t5ov | sna | *kro:-B | ua -, *tsu - | ＊bar $\begin{aligned} & \text {＊par（STC 220），plon（STC 139），＊tsow（STC 275），}\end{aligned}$ ＊ka•y（STC 330），＊duk æ＊？duk（TSR 62），＊put（TSR 8） |
| 2002 | cut | gnyigs | rbad，rtsod | kə ra ntsik，ka pri， ka rzuk，ka pot | ka－rzək | ka－q＇r ${ }^{\text {r }}$ | tsp | *tha:-A | qhr ə／ua－（L），$\chi$ tssua－H， tshua－H，khu（a）－，kh－H， H tia－（L） | ＊da－n（STC 22），＊lep（STC 351），＊mrak（STC 147），＊ra－t （STC 458），＊ri．t（STC 371），＊tsywar（STC 240），＊kut（STC 383），＊tsyat（STC 185），＊tuk（STC 387）；＊Ntök ₹＊？tök（TSR 101），＊Ttwap $*$＊－dwap（TSR 69） |

