

**A comparison of reconstructed Austronesian, Old Chinese and  
 Austro-Thai**

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Sagart 1993 is a valuable addition to the study of linguistic relationships in Asia.<sup>1</sup> He has compared Blust's and Dempwolff's reconstructions of Austronesian and Li Fang-kuei's reconstruction of Old Chinese (OC) to establish what he feels is a genetic relationship between these reconstructed languages.

The reconstructions of Blust (1980, 1983-84, 1985, 1988, and 1989) involve the following phonemes at the Proto-Austronesian (PAN) level, or "Level One" (ca. 5000 BC) [Blust 1980:13]:

*Blust's PAN consonants<sup>2</sup>*

	<i>Labial</i>	<i>D/A</i>	<i>Retroflex</i>	<i>Palatal</i>	<i>Velar</i>	<i>Post-velar</i>	<i>Laryngeal</i>
<i>Stops</i>	p b	t d	T D	j[g̯]	k g	q	?
<i>Affricates</i>		C		c z			
<i>Fricatives</i>		s S Z		(s)			h
<i>Nasals</i>	m	n	N	ñ	ng		
<i>Liquids</i>		L l	r (R)		R		
<i>Semi-vowels</i>	w			y			

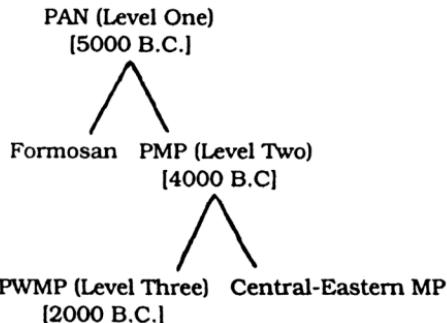
(The voiceless stops and affricates are unaspirated. The phoneme \*s may have been a voiceless palatal sibilant; \*L was probably a voiceless alveolar lateral; \*r was an alveolar tap; and \*R was probably an alveolar or uvular trill [Blust 1990b:233-34].)

*Blust's PAN vowels<sup>3</sup>*

i	u		iw		uy
e				ay	aw
a					

(The symbol e is an orthographic substitute for schwa.)

The phonemes of Proto-Malayo-Polynesian (PMP: all Austronesian languages except the Formosan languages Atayalic, Tsouic, and Paiwanic), "Level Two" (ca. 4000 B.C.) [Blust 1980:13] are essentially the same except that C, S, and N are lost: C merged with t, S may have shifted to some glottal spirant, at least word-finally, and the distinction between n and L is lost [Blust 1990b:237]. The PMP phonemes are reconstructed for Proto-Western Malayo-Polynesian (PWMP: languages of the Philippines and western Indonesia), "Level Three" (ca. 2000 B.C.). Following Blust [1980:11], these relationships can be represented as:



Dempwolff's reconstructions (as modified by Dyen 1971) involve the following system of phonemes (Wolff 1988:139):

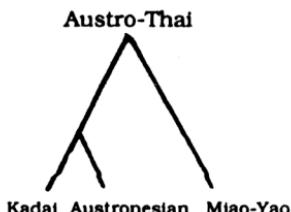
### Dyen's modification of Dempwolff's consonants<sup>4</sup>

	<i>Labial</i>	<i>Alveolar</i>	<i>Retroflex</i>	<i>Palatal</i>	<i>Velar</i>	<i>Post-velar</i>	<i>Laryngeal</i>
<i>Stops</i>	p b	t d	T D		k g	q	
<i>Affricates</i>				c			
<i>Fricatives</i>		s z		S Z			h
<i>Nasals</i>	m	n		ñ	ng		
<i>Liquids</i>		l	r			R	
<i>Semi-vowels</i>	w			y			

### Dyen's modification of Dempwolff's vowels

i e u  
a

Benedict (1975:135) postulates the following genetic relationship between Kadai and Austronesian and Miao-Yao:



The system of phonemes reconstructed for Austro-Thai by Benedict (1975:155,178) is:

#### *Austro-Thai consonants*

	<i>Labial</i>	<i>Dental</i>	<i>Palatal</i>	<i>Velar</i>	<i>Post-velar</i>	<i>Laryngeal</i>
<i>Stops</i>	p b mp mb	t d nt nd		k g ngk ngg	q G Nq NG	[?]
<i>Affricates</i>		ts dz nts ndz	č j			
<i>Fricatives</i>		s z ns nz	[š] [ž] [hš] [hž]	[x] χ		h
<i>Nasals</i>	m	n	ñ	ng	N	
<i>Liquids</i>		l r		ɺ	[R]	
<i>Semi-vowels</i>	w		y ny			

(The nasal/oral units, mp, etc. are a "special type of cluster." Doubtful reconstructions are in brackets [ ].)

#### *Austro-Thai vowels*

i		u
e	ə	o
a		

In addition to the radically different systems of phonemes for PAN and Austro-Thai, Benedict (1975:174-5) also reconstructs initial and medial consonant clusters while Blust and Dempwolff allow only medial clusters:

*Austro-Thai consonant clusters*

		r	-l	-ɿ
<i>Labials:</i>	p	pr	pl	pɿ
	b	br	bl	
	m		ml	
<i>Dentals:</i>	t	tr	tl	tɿ
	d	dr	dl	
<i>Velars:</i>	k	kr	kl	kɿ
	g	gr	gl	
	x		[xɿ]	
<i>Post-velars:</i>	q	qr		ql

For Old Chinese (ca. 800-500 B.C.), Sagart (1993:3-4) uses the system of Li (1971, 1976):

*Old Chinese consonants (Li 1975:1143-4)*

	<i>Labial</i>	<i>Alveolar</i>	<i>Velar</i>	<i>Labio-velar</i>	<i>Laryngeal</i>	<i>Labio-laryngeal</i>
<i>Stops</i>	p ph b	t th d	k kh g	kw kwh gw	?	?w
<i>Affricates</i>		ts tsh dz				
<i>Fricatives</i>		s			h	hw
<i>Nasals</i>	m	n	ng	ngw		
<i>Liquids</i>		l r				
<i>Semivowels</i>		j				

*Old Chinese vowels (Li 1975:1143-4)*

i	u		ie	ua
e				
a			ia	

## Old Chinese tones

Tone A	(level)	unmarked here
Tone B	(rising)	-x
Tone C	(departing)	-h
Tone D	(entering)	unmarked here (MC finals -p, -t, -k)

In the list of lexical comparisons the entries in Figure 1 are typical: (5) refers to the numerical sequence of the "semantic reconstruction" (Benedict 1975 is used when possible); "anger, angry-1" is the "semantic reconstruction"; the semantic reconstruction and its sequence number are in boldface; the abbreviation "(B)" refers to Blust's reconstructions (Blust 1970); "(1)" "(2)" "(3)" refer to the PAN, PMP and PWMP levels of Blust's reconstructions (Blust 1980, 1983-84, 1985, 1989); "ROOT" refers to PAN roots in Blust 1988, "D" to Dempwolff's reconstructions (wherein a sound in parentheses () is optional and one in brackets [] is ambiguous), and "Be" to Benedict's reconstructions (Benedict 1975). On the right the sequence "nagh" refers to a reconstruction based on Li 1971, 1975 (when Yakhontov differs, this follows in parentheses); the abbreviation "K94a" refers to the numbering in Karlgren 1964 (note that "KO" means "not in Karlgren", and that an asterisk next to the Karlgren reference means "not in the relevant GSR series"); and "Chi Yün," etc. refer to the source for the particular entry.

**Figure 1: Sample comparisons**

- |   |  |  |
|---|--|--|
| (5) <b>anger, angry-1</b>   |  |  |
| (2) <i>ganas / gana</i> 'raw energy'<br>(Old Javanese: 'wild, furious, savage') | ::    | nagh (K94a') 'anger, angry'<br>( <i>Shih Ching</i> ) <sup>5</sup>        |
| (6) <b>anger, angry-2</b>   |  |  |
| (D) <i>bengis</i> 'angry'   | ::   | ng-j-əgh (KO) 'angry' ( <i>Chi Yün</i> )                                 |
|   | ::  | ng-j-əgh id. ( <i>Kuang Yün, Chi Yün</i> )                               |
| (D) <i>embaq</i>  | ::  | ng-j-ədh 'angry boar, its hair<br>bristling' (K516a) ( <i>Shuo Wen</i> ) |
| (70) <b>father</b>  |  |  |
| (B) <i>sambaq</i>   | ::  | b-j-agx 'father' ( <i>Shih Ching</i> )                                   |
| (D) <i>sambaq</i> 'respect'   |  |  |
| Be: a/ba; (m)ba(/mba); (m)bapa  |  |  |

The following are abbreviations for the Austronesian languages and groupings:

AKL Akianon (WMP)	LgA Long Anap (WMP)
AMIS Amis (PW)	MAK Makasarese (WMP)
BAL Balinese (WMP)	MAL Malay (WMP)
BIL Bilaan (WMP)	Mandar (WMP)
BGS Buginese (WMP)	MAR Maranao (WMP)
BON Bontok (WMP)	Matu (WMP)
BM Bolaang Mongondow (WMP)	MGG Manggarai (CMP)
BUS Busang (WMP)	NgD Ngaju Dayak (WMP)
CEB Cebuano (WMP)	NIAS Nias (WMP)
CHM Chamorro (WMP)	PAI Paiwan (PW)
Embaloh (WMP)	PUY Puyuma (PW)
FI Fijian (OC)	OJ Old Javanese (WMP)
FU Futana (OC)	ROTI Roti (CMP)
HLG Hiligaynon (WMP)	SA'A Sa'a (OC)
HO Hova (WMP)	SAN Sangir (WMP)
IB Iban (WMP)	SAS Sasak (WMP)
ILK Ilokano (WMP)	SM Samoan (OC)
ISG Isneg (WMP)	SML Samal (WMP)
JA Javanese (WMP)	SND Sundanese (WMP)
KAY Kayan (WMP)	TAE Tae' (WMP)
KB Karo Batak (WMP)	TAG Tagalog (WMP)
KIP Kiput (WMP)	TB Toba Batak (WMP)
KMB Kambera (CMP)	TO Tonga (OC)
	WBM West Bukidnon Manobo (WMP)

CMP Central Malayo-Polynesian

OC Oceanic

PW Paiwanic (Formosa)

WMP Western Malayo-Polynesian

\*\*\*\*\*

**abate, to**

ref: satiate, to

**(1) able**

(D) uliq 'able, able to'

(MAL. 'using, by means of')

ref: cause

::

regx (l-j-) 'take, use, employ;  
using, by means of (*Shih Ching*)

**above**

ref: climb, ascend, mount, ride, lift, above/up

**accompany**

ref: carry (by several persons), accompany

## (2) active

(3) ku(n)zit 'busy, diligent'  
(ILK: 'diligent, active,  
energetic, assiduous, restless,  
unsettled, unquiet')

:: 疾

dz-j-it (K494ac) 'urgent, active,  
energetic' (*Shih Ching*)  
'hurried' (*Lün Yü*)  
'anxious' (*Kuan Tzu*)

## (3) adult, grown-up

(D) guDang

:: 長

d-rj-angx (K721a) 'grown-up,  
elder, senior' (*Shih Ching*);

'to grow tall' (*Meng Tzu*)  
id. (K722a) 'old man'

*NOTE: Tone B is unexplained.*

## (4) agree, consent

(D) zinak 'tame'  
(D) zinak 'agreeable'

:: 詰

nak (K777f) 'agree, say yes,  
consent' (*Shih Ching*)  
n-j-ak (K777a) 'to agree, conform  
to, accord with' (*Shih Ching*)  
'compliant' (*Shu Ching*, in  
reference to wild animals)

## (5) anger, angry-1

(2) ganas / gana 'raw energy'  
(OJ: 'wild, furious, savage')

:: 恥

nagh (K94a') 'anger, angry'  
(*Shih Ching*)

## (6) anger, angry-2

(D) bengis 'angry'

:: 憤

ng-j-agh (K0) 'angry' (*Chi Yün*)  
ng-j-agh (K516a) id. (*Kuana  
Yün, Chi Yün*)<sup>6</sup>

:: 毛

ng-j-edh 'angry boar, its hair  
bristling' (*Shuo Wen*)

anxious

ref: active

## (7) arrow, shoot

(D) panaq 'weapon for shooting,  
bow, arrow'

:: 弩

nagx (K94z) 'crossbow' (*Chou Lü*)

:: 石

nagx (K94d) 'a kind of stone used  
for arrowheads' (*Shu Ching*)

Be: pan[aq]; pa/pa[aq]

ref: bamboo

ref: bow, spear, arrow

**ascend**

ref: climb, ascend, mount, ride, lift, above/up

**(8) back, behind**

(D) balakang 'back' (body part)  
Be: (qa/,ka/)l̪i[kuz]

:: :: 

kang (K697a) 'spine (= ridge) of a mountain' (*Shih Ching*)  
k-j-ang (K711\*) 'ox with a long spine' (*Shuo Wen*)

**(9) bad**

(D) zaqat

:: 

?at (K313y) 'bad, rotten, of food'  
(*Lün Yü*)  
(*Kuang Yün*)

**(10) balance**

(D) Riwang 'to lose balance'

:: 

gw-r-ang (K748h) 'steelyard, balance' (*Shu Ching*)

**(11) bare**

(D) laklak 'bare' (NgD 'leafless, of trees having shed their leaves')

:: 

thak (hlak) (K790r) 'withered and fallen leaves' (*Shih Ching*)  
NOTE: voicelessness of initial may result from the PAN \*-kl- cluster or an OC prefix

**(12) basis, trunk (of tree, body), buttocks, heel**

(2) tiked 'heel'

:: 

kən (K416\*) 'heel' (*Chi Chiu Pien*)  
NOTE: Unexplained Tone A instead of B.

**(13) basket, sack**

(D) [r]aga 'wide-mesh basket'  
Be: k[a]rong

:: 

g-j-ag (K803\*) 'round basket used in feeding silkworms' (*Li Chu*); 'a kind of basket' (*Kuang Yün*)  
k-j-ag (K76j) 'round basket'  
NOTE: unexplained voiceless initial k-j-ag (K803j) id.

:: :: :: **beak**

ref: beat, drive in, pound, strike

**bean**

ref: husks, chaff of wheat

**beast of prey**

ref: tiger, cat

**(14) beat, drive in, flutter, wing**

(D) pukpuk 'to hit with a tool'

ROOT: -puk 'throb, thud, clap,  
break'Be: [ka](m)pak(/[ka](m)pak, pak/pak,  
pik/pik, (m)puk/(m)puk

ROOT: -pak 'to slap, clap'

:: 撲

phuk (K1211j) 'to hit (sc 'beat a  
fire out')' (*Shu Ching*)phuk (K1210e) 'whip, cane, rod'  
(*Shu Ching*)

:: 拍

ph-r-ak (K782m) 'to beat'  
(*Ch'u Tz'u*), 'to strike lightly with  
the hand' (*Han Fet Tzu*),  
'to pat, to clap' (*Mathews*);

:: 搏

pak (K771d) 'to beat' (*Shu Ching*)

ref: beat, drive in, pound, strike

ref: beat, hit, strike, hammer

ref: beat, strike, pound, wing

**(15) beat, drive in, pound, strike**

(D) pa(n)tuk 'to peck' (JA 'beak')

Be: [kə](n)təg, [kə](n)tok,

[kə]tug, [pa](n)tuk, [m/a]tuk

:: 啄

tuk / t-r-uk (K1218b) 'to peck up'  
(*Shih Ching*)

:: 窽

t-r-uk (K1224n) 'to peck' (*Kuo Tse*)

:: 桃

t-r-j-ugh 'beak' (Han text example)

:: 觸

t-r-uk 'to beat, strike'

(*Shih Ching*)

:: 扱

th-j-uk (K1224g) 'to butt'

(*Yi Ching*), 'knock against'

:: 扱

*Tso Chuan*)

:: 斫

t-r-j-uk (K1224t) 'to cut' (*Kuo Yü*)

ref: beat, drive in, flutter, wing

ref: beat, hit, strike, hammer

ref: beat, strike, pound, wing

ref: cut, chop

**bed**

ref: mat

**bell**

ref: sound, ringing sound

**bellow**

ref: howl, bellow

**(16) belly, intestines, mind, soul**

(1) nemnem 'think'

Be: \* $\textcircled{0}$ (m/) $\textcircled{n}$ [a]w[a]

:: 任

n-j-em (K667q) 'think' (late Chou inscription; *Hou Han Shu*)

NOTE: alternate readings in Tones B &amp; C.

**(17) bend/bent, arched, bow, n.**

(D) Deku 'curved'

ROOT: -ku 'bent, curved'

(2) leku? 'bend, fold, folding part of the body'

Be: [(n)d]ə(n)kong

:: 句

:: 鉤

:: 痴

kug (K108a) 'curved' (*Shih Ching*) 'hook, hooked' (*Li Chi*)kug (K108c) 'hook' (*Shih Ching*), 'crooked' (*Kuo Ts'e*)k-j-ug (K108q) 'crooked spine' (*Chuang Tzu*)

ref: bend/bent, arched, crooked

**(18) bend/bent, arched, crooked**

(2) pekuq 'bend, curve'

ROOT: -ku(q) 'bend, curve'

Be: [i](ng)kung, (m)b/[i](ng)kung, [i]ngkuk, (m)b/[i]ngkuk, b/ungkuk, uguk

:: 棋

:: 檼

ROOT: -kuk 'bent, crooked'

:: 曲

ROOT: -kug 'curl, curve'

:: 扱

k-j-ugx (K121e) 'low sacrificial table with curved legs' (*Li Chi*, *Kuang Yun*)k-j-ugx (K108\*) 'curved feathers' (*Kuang Yun*)k-j-ugx (K108\*) 'fruit [tree] with curved branches' (*Kuang Yun*)kh-j-uk (K1213a) 'bend, bent' (*Shih Ching*), 'crooked, unjust' (*Tso Chuan*)k-j-ungx (K1182e) 'hold round with both hands' (*Tso Chuan*); 'encircle, span with both hands' (*Meng Tzu*); 'an arch' (*Mathews*)

ref: bend/bent, arched, bow, n.

**bind**

ref: hair, topknot

ref: knot, tie

**bird**

ref: cry

ref: laugh

(19) **bite, gnaw, cut off**

(D) kaRat 'to gnaw, bit'  
 (Doublet: keRet)  
 Be: ()kaYap(/Yap); qaYap(/Yap);  
 ()keYap(/Yap)  
 ref: gnaw, chew, bit, grind teeth

::齒口

::齒

g-r-at (K393\*) 'sound made by  
 the teeth' (*Kuang Yün*)  
 gat (K313\*) 'sound of gnawing'  
 (*Chi Yün*)

(20) **bland**

(D) lamlam 'weak-tasting,  
 tasteless'

::酸

::暗啖

::淡

dam (l-) (K617\*) 'weak-tasting,  
 tasteless, of wine or vinegar'  
 (*Chi Yun*);  
 thamh (hl-) 'insipid' (*Chi Yun*)

?am-dam (?am-l-) 'tasteless'  
 NOTE: common word for 'tasteless,  
 insipid' is damx (K617o), with  
 unexplained Tone B.

(21) **blow, wind**

ROOT: -put 'puff'  
 Be: \*[ts]ə(m)put(/(m)put);  
 \*[s]ə(m)buts(/(m)buts)

::弗

p-j-ət (K500a) 'gust of wind'  
*Shih Ching*

(22) **blunt, dull**

(D) pu(n)dul 'blunt'

::鈍

(2) tultul 'blunt, dull'

::頓

dənh (K427i) 'dull, blunt' (*Kuo Yü*)

tənh (K427j) 'worn, dull, spoiled  
 (edge)' (*Tso Chuan*)

(23) **body, flesh**

(D) daging 'flesh' (TB 'body')  
 Be: [da]Ging  
 ref: flesh, meat, animal, deer  
 ref: flesh, meat, animal, deer, bird, pulp  
 ref: flesh, meat, deer, body-1  
 ref: flesh, meat, deer, body-2

::形

ging (K808d) 'body' (*Li Chi*)

(24) **boil, carbuncle**

(3) pi(R)sa?

::疽

tsh-j-ag (K46p) 'carbuncle' (*Shuo Wen*) (K: 'ulcer')

**bow**

ref: weapon for shooting etc.

**(25) brave**

(2) gagar 'brave, plucky'

:: 悍

ref: difficulty

ref: material, raw

ref: to support

ref: to resist

ganh (K139h) 'violent' (*Hsun Tzu*)  
'cruel, ruthless, violent, fierce'  
(*Mathews*)

**breadth of fingers**

ref: palm of the hand, sole of the foot

**(26) break, crack, split**

(3) sepak 'break, snap off at a joint' (TAE 'cut off at the the leg of upper end of the femur'

*NOTE: not in Blust (1988:135)*  
*under root -pak 'break, crack, split', but the semantics seem to justify it: ILK leppak 'separate at the joints (bones, roasted chickens, palm spines)'*

:: 脫

phak (K771l) 'to dismember< cut off the four members' (Tso Chuan),  
'meat cut into pieces' (*Shuo Wen*, written as 脫 )

*NOTE: unexplained aspirated initial*

ref: to split

ref: to hack

**(27) break, smash, split**

(3) sagsag 'break, crack'  
(TAG 'broken lengthwise (said of canes, wood, tubes, etc.) without being entirely so') also (O-387)  
sas[aelg] 'wattle'  
Be: trak; [(m)bə]trak

:: 斧

ts-j-angx (K727\*) 'to split bamboo and remove the nodes'  
(*Kuang Yün*)

**(28) break wind**

(3) ke(m)pes 'deflate'  
(doublet: ke(m)pis)  
ROOT: -pes 'empty, deflated'  
(KMB 'flatus; break wind')  
ref: blow, wind  
ref: fart

:: 風

ph-j-idh (K566\*) 'break wind'  
(*Yü Pien, Chi Yün*)

**(29) breathe, spirit, ghost**

- (2) puang (= puwang) 'title of respect' (KB 'title given by the Batak (...) to the Malay sultans'; TAE 'Sir, lord; (...); also used for those of heavenly origin, the nobility (...); God'; MAK 'royal/princely father or mother (...)'  
 Be: tsumbang(/t)  
 ref: spirit

:: 皇

gwang (K708a) 'august, sovereign; magnificent, brilliant'  
*(Shih Ching)*  
 gw-j-ang (K739a) 'king'  
*(Shih Ching)*

:: 王

**(30) bright**

- (2) nilaw 'bright light'  
 Root: -law 'dazzling light'  
 ref: shine

:: 桃

ragw (l-j-) (K1145\*) 'bright (as the sun and moon)' (*Hua Nan Tzu*)

**(31) burn, to**

- (3) sirab

ref: flame

:: 燐

lamx (r-) (K609\*) 'to set fire to'  
*(Kuang Yün)*

**(32) burn, blaze**

- (2) esak 'cooked, ripe'  
 Be: gl[a]l|[a]k

ref: cook (with steam), roast, singe

:: 糜

s-r-ak (K770\*) 'to cook rice in much water' (*Kuang Yün*), 'to boil rice' (*Chi Yun*)

**(33) burst open, to**

- (D) tela (JA: 'to split, burst')

:: 紙

dag (l-) (K82\*) 'to split open (bamboo).' (*Fan Yen* 13/81/17:  
 Kuo P'u says the word belongs to Chiangtung dialect).

**busy**

ref: active

**(34) call (of birds/animals), cackle, crow, v/n., fowl, bird**

- (2) kuk 'sound of sob, croak, etc.' :: 哭  
 (SA'A 'bark at')  
 Be: guk(/guk), ku[k]/kuk, ku[q]/kuq,  
 (ng)ga[k]/(ng)gak, ka[k]/kak

khuk (K1203a) 'weep, lament'

(*Tso Chuan*)

*NOTE: Unexplained aspirated initial*

*NOTE: seal character has 'dog' and two 'mouths,' suggesting meanings such as 'howl' or 'bark'*

ref: call out, call

ref: cry (of animals), bark, thunder

ref: dove, pigeon-1

ref: dove, pigeon-2

**(35) cane, staff**

ROOT: -kud 'cane, staff, walking stick'  
::棍 kwənh 'stick' (K417\*) 'stick'  
(Yuan text only)

**(36) carry (by several persons), accompany**

(D) usung 'carry (several bearers)' ::送 sungh (K1179a) 'to escort'  
(Ho. 'accompany')  
(Shih Ching)

Be: [o]tsong

**(37) cause**

(D) daliq 'cause, motive' ::以 rəgx (L-j-) (K976a) 'cause'  
(Shih Ching, cf. Tz'u Chuan)

ref: able

**chaff**

ref: husks, chaff of wheat

**(38) chew (soft/prepared foods)**

(D) se(m)paq 'to chew, chew up'  
Be: [ma/]maq; (q/)ma/m[aq]; (q/)məm[aq]  
::咬 p-j-agx (K102\*) 'to chew'  
(Kuang Yün)  
*NOTE: Chi Yun reads p-j-agx and ph-j-agx.*  
::嘸 bagh (K102i) 'to have food in the mouth'  
*NOTE: intransitive voicing and secondary tone C.*

ref: to taste

**chop**

ref: hack

ref: cut, chop

**clap**

ref: beat, drive in, flutter, wing

**(39) clear (of water)**

(2) ningning

:: 漣

ningh (K837\*) 'clear [of water, as indicated by 'water' signific]'  
*Kuang Ya, Chi Yün*

**(40) cleared area**

(B) na[Ct]aD 'cleared area around house'

See (B) bi(n)[CtT]aD

:: 地

d-j-anx (K147a) 'cleared area outside city gate' (*Shih Ching*) 'cleared area' (*Shu Ching*, *Kung Yang Chuan*)

*NOTE: unexplained initial voicing*

ref: open expanse of land or water

**(41) climb, ascend, mount, ride, lift, above/up**

(D) angkat 'to lift, lift up';

Be: [tsa]ka; [(n)tsa]ka/i;

[tsa]Nqa/i; [a]ngka/t; [a]qa/t;

[a]qa/t; [a](N)qa/n; [t]u(ng)ka/i;

[t]uka/t

:: 揭

kh-j-at/ g-j-iat/k-j-lat/kh-j-lat  
 (K313n) 'to lift, raise'

(*Shih Ching*)

*NOTE: unexplained loss of aspiration*

ref: (1) sakat 'rise, climb up'

**close**

ref: narrow

**(42) cloth**

(D) kapas 'cotton, thread'

:: 布

pagh (K102j) 'cloth' (*Shih Ching*)

**coal**

ref: cook (with steam), roast, singe

**color(ed), striped, variegated, mark**

ref: striped

**(43) come**

(1) ari 'come! let's go'

Be: ( )ma[yi]

:: 來

leg (r-) (K944f) 'to come'  
 (Ch'u Tz'u)

*NOTE: Character superseded by*

來

**concave**

ref: pierced, hollow, hole, cave

**condiment, salt**

ref: salt

## (44) confusion

(3) sigaw 'disturbance, confusion' :: g-r-agw/gagw (K1167e) 'mixed, confused' (*Chuang Tzu, Shuo Wen*)NOTE: gagw listed in *Chi Yun*

## contain, container

ref: seize, hold, close (fist), handful, bite

## (45) cook (with steam), roast, singe

(1) tuquR 'evaporate, dry up' :: 

(WBM 'roast something'; KB

'expose to heat')

Be: (q/)(n)drang(/(n)drang),

()tr[u]ng

ref: burn, blaze

?wed (K573f) 'glowing coals'

(*Chan Kuo Tse*)'to roast in ashes' (*Kuang Yün*)

## (46) cord, string, rope

(D) se(n)tagi 'band' (MAL 'a cord'); :: 

NgD 'necklace')

Be: (m)p[r,l]a[ti[s]

g-j-e<sup>g</sup> (K952z) 'a sandal cord'(*Yi Li*)

## cotton

ref: cloth

## (47) cover, turn upside down, lid, hat

ROOT: -keb<sup>1</sup> 'cover'

Be: kub/kub; k/ɿ/ub/kub;

[(n)ta](q)kub; [ta] (ng)kup;

[ta]k/l/up; kəb(/kəb);

k/ɿ/əb(kəb); [ta]kəp;

[ta](ng)k/l/əp

ROOT: -keb<sup>2</sup> 'face downward'kəmx (K1015\*) 'cover' (*Kuang Yün*)

kəmx (K671\*) 'cover with a stone'

(*Chi Yün*)kh-j-əmx (K651\*) 'walk quickly with head bent down' (*Chi Yün*)gəmx (K651n)<sup>7</sup> 'nod the head'(*Tso Chuan*)

NOTE: intransitive voicing.

kh-j-əmx (K652j) 'push down (sc. the chin of puppet)' (*Lieh Tzu*)

## (48) crab

(2) qali-mangaw 'mangrove crab' :: 蟹

ngagw (K1130k) 'type of crab'  
(*Kuang Yun*), 'crab with large  
claws' (*Chi Yun*), 'crab's claws'  
(*Hsün Tzu*)

## crack, to

ref: to break, to crack, to split

ref: to split

ref: to hack

## (49) cram

ROOT: -sek 'cram, crowd'

:: 塞

sək (K908a) 'stop up, block'  
(*Shih Ching*); 'fill' (*Meng Tzu*)

## (50) cross-beam

(3) atang

:: 檻

tangh (K725\*) 'a wooden cross-  
piece' (*Chi Yun*); 'a cross-piece,  
such as the round of a ladder,  
the rail of a chair' (*Mathews*);  
'a horizontal piece of wood used  
as support or separation' (*Cheng  
Tzu Tung*)

## (51) cry (of animals), bark, thunder

(2) uang (=uwang) 'howl, bellow' :: 皇  
Be: ɿo[ɿ]long, ɿo[ɿ]long(/a)(D) TungTung 'alarm instrument,  
dull sound' (MAL. 'wooden alarm-bell')gwang (K708n) 'to resound (as  
weeping or bells)' (*Shih Ching*)  
'to cry, as a child' (*Shuo Wen*)  
t-j-ung (K1188xz) 'bell'  
(*Shih Ching*)

ROOT: -Tung

ref: dove, pigeon-1

ref: dove, pigeon-2

ref: sound, resound, thunder, drum

## (52) cry out, call

(2) Ruak (= Ruwak) 'deep cry,  
bird with deep cry'(MGG 'shout from afar, call with  
a loud voice')

Be: yiyak

:: 薦

:: 言永

gw-r-ak (K784\*) 'loud shout'  
(*Shih Chi*, *Chi Yun*)NOTE: gw-j-angu (K764gi) 'to  
sing, of birds' (*Li Chi*)

**curl**

ref: bend/bent, arched, crooked

**curve**

ref: bend/bent, arched, crooked

**(53) cut, chop**

(1) saksak 'hack, chop into pieces'

Be: tak(/tak), t[ə]k/t[ə]k

ref: beat, drive in, pound, strike

::斬

ts-rj-ak (K798o) 'to cut off  
(Kung Yang Chuan)

*NOTE: the significant is 斧 'axe'  
not 刀 'knife' implying cutting  
done with an axe.*

**cut through, to**

(ref: to sever)

**(54) dark, fog/mist, gloomy, shade/shady, black, night**

(D) i(n)tem 'black'; (3) li(n)tem  
'deep black, shiny black'

Be: (ma:) / [il]əm / [əm]

::黒

thəmx (K658n) 'black color of  
mulberries' (Shuo Wen)

t-rj-əmx 'deep black' (Chi Yün)  
d-j-əmx (K658i) 'mulberry'

*NOTE: unexplained initial  
voicing.*

l-j-əmx id.

*NOTE: possible contamination  
with /ləmx/ 'dark' word family  
DeDem (next item)*

*NOTE: all with unexplained  
Tone B.*

::夜

dəmx / thəmx / h (K658n) 'dark'  
(Chuang Tzu)

*NOTE: unexplained Tone B.*

dəmh (K658\*) 'cloudy, overcast'  
(Chi Yün)

(D) DeDem 'dark'

ROOT: -Dem 'dark; overcast'

(D) lemlem 'dark'

ROOT: -lem 'dark'

**(55) dark, night, evening, black, red, purple**

(B) [dD]iRem 'darkness of hue'  
(MAR 'blacken')

Be: [l]kam; [l]k/½/ am; ( ) (ng)kəm;  
( ) (ng)l/½/ em

::黑今

g-j-əm / g-rj-əm (K651n) 'black'  
(Tso Chuan)

**day**

ref: light, shine, moon, sun, dawn, morning

**(56) deep**

(D) Dalem 'deep'  
Be: (q/)(n)za[ɿ]əm

:: 潛

dəm (l-) (K646b) 'deep, abyss'  
(Ch'u Tz'u)

:: 深

d-rj-əm (l-rj-) 'deep' (Chuang Tzu)  
sth-j-əm (hl-j) (K666ad) 'deep'  
(Shih Ching)**desire**

ref: impetuous

**(57) difficult**

(D) su(n)ka[r] 'difficulty,  
trouble, fatigue' [Mühe]  
Be: pa(n)yaql/pa(n)yaq

:: 艱

k-j-anx/k-j-ianx (K143f)  
'difficulty' (Yi Ching);

:: 謂

k-j-anx/k-j-ianx (K143e) 'speak  
with difficulty' (Ch'u Tz'u)

:: 懈

k-j-anx (K249h) 'weary, difficulty  
walking' (Chou Li)

:: 捷

k-j-anx/k-j-ianx (K249b) 'stutter'

:: 力

k-j-anx (K139\*) 'stutter' (Kuang  
Yün)NOTE: variant readings according  
to Chi Yun

ref: brave

ref: material, raw

ref: to oppose

ref: to resist

ref: support

**diligent**

ref: active

**(58) disclose, let appear**

(D) tara 'come to light'

:: 露

lagh (r-) (K766t) (Tso Chuang)

**(59) dog**

(2) u(n)kuq 'dog (= puppy ?)  
Be: [wa]kɿəwm(a)

:: 狗

kugx (K108d) 'dog' (Tso Chuan)

NOTE: word originally meant  
'puppy' (Wang Li 1982:182)

ref: bend/bent, arched, crooked

**double**

ref: pair, twin, two

**(60) dove, pigeon**

- (1) tuRtuR 'resonant sound'  
(PAI, PUY 'dove, pigeon'; MAL  
'coo of the dove')

Blust points out onomatopoeic parallel in Lat. *turtur* 'dove.'

Be: (m)pəw[nay]

- ref: call (of birds/animals), cackle, crow, v/n., fowl, bird  
ref: cry (of animals), bark, thunder  
ref: cry out, call

:: 雉

t-j-ed (K575a) 'a kind of dove'  
(*Shih Ching*)

NOTE: graph is drawing.

**(61) drink, distilled**

- (D) arak 'distilled drink'

:: 酈

lak (r-) (K766p) 'a kind of acid soy made of rice or millet'  
(*Li Chi*)

Ref: Karlgren 1926:138-139.

**(62) drip, leak**

- (2) titik  
(MAL: 'drop, liquid particle')  
ROOT: -cik 'fly out, splatter, splash'

:: 滴

tik (K877\*) 'drop of water'  
(Southern dynasties text example)**dry**

ref: cook (with steam), roast, singe

**(63) ear pendant, earring**

- (3) tinnga? 'ear pendants'

:: 璧

g-j-ag (K803\*) 'earrings' *Shan Hai Ching*; 'earrings worn by Jung and Yi tribesmen' (*Chi Yun*)  
g-j-ag (K95\*) 'earrings' (*Kuang Yun*)**(64) earth, field, mud**

- (2) bu(R)taq 'mud, earth'  
ROOT: -taq 'mud, earth; ground'  
Be: (q)(m)p̥lalaq

:: 土

thagx (K62a) 'soil, earth, land'

**(65) eat, food**

(D) ka

Be: [pa]ngal

:: 食

gag (K491\*) 'to eat at another person's expense' (*Shuo Wen*)  
 (intransitive voicing of the initial);  
 '[meal had at another person's expense =] rice gruel, congee'  
 (*Erh Ya*). The original voiceless initial is found in a variant list by  
 Chi Yun: kagh (K49\*) 'rice gruel, congee'

:: 食

**embankment**

ref: obstruction

ref: wide, broad (surface), plain, space

**(66) emphatic particle**

(2) lagl 'emphatic particle'  
 (MAL more; yet more; still';  
 IB 'presently, later on'; TAG  
 'always'; CEB emphatic particle)

:: 其

g-j-ag (K952a) 'will probably'  
 (*Shih Ching*)  
 Yang Shu-ta (*Tz'u Chuan*:161):  
 adverb marking future tense;  
 marker of rhetorical questions;  
 imperative marker

**empty**

ref: pierced, hollow, hole, cave

:: 健

**(67) energetic**

(3) sikaD 'energetic, active'  
 (TAG 'energy, force, potency')

k-j-anh (K249g) 'strong'  
 (*Yi Ching*)

*NOTE: word-base was originally in tone B in OC as proved by 力*  
 (K139\*) 'strength' (Chi Yun)

ref: active

**energy**

ref: anger, angry

**evaporate**

ref: cook (with steam), roast, singe

:: 揭

**(68) expose, unveil**

(3) bu(n)kas &lt; -kas2

kh-j-adh (K313n) 'to lift up one's clothes' (*Shih Ching*)

**expose to heat**

ref: cook (with steam), roast, singe

**(69) fall into ruin**

(3) rebas

(3) tu(m)bas (Bolaang Mogondow  
'waste')

::敗

b-r-adh (K320f) 'to ruin, ruined'  
(*Shih Ching*)

PERHAPS:

::敝

b-j-ladh (K341a) 'worn out'  
(*Shih Ching*), to damage, ruin'  
(*Tso Chuan*)

::斃

b-j-ladh (K341e) id. 'to ruin'  
(*Kuo Tse*) 'become spoiled, ruined'  
NOTE: /ia/ diphthong would be irregular.**(70) father**

(B) embaq

(D) sambaq 'respect'

Be: a/ba; (m)ba(/mba); (m)bapa

::父

b-j-agx (K102a) 'father' (*Shih Ching*)**(71) fear**

ROOT: -ter 'shiver, tremble'

Be: (ma/)(ng)ku; ku/at;

[l]k/l/u/a; m/ɿ/ku/t; m/taku;

(n)t/l/a[ku]; (m)/ta(ng)ku/t;

m/ki; [l]ngki/a

::振

t-j-iənh (K455p) 'shake  
(intransitive)', (*Shih Ching*);  
'scared' (*Kuo Tse*)t-j-iənh (K455s) 'shake, fear'  
(*Shih Ching*)**(72) feel (for), touch**

(2) zemak 'feel, grope'

Be: glam[aq]

::摸

mak (K802\*) 'to feel with the  
hand' (*San Kuo Chih*); 'to feel for  
or after, to grope' (*Mathews*)**(73) fibre, beard**

(D) rambu 'fiber, fringe'

(NgD. 'thread');

(2) kabu 'the kapok tree'

Be: (qa/)(m)b[u]ɿut

ref: fibre, bear, curly (hair)

ref: hair, topknot

ref: hair (body), beard

ref: hair (body), eyebrow

ref: hair (body), feather

::紺

b-j-ug (K136\*) 'a kind of cloth;  
coarse thread' (*Shuo Wen*)

**fire**

ref: to burn  
ref: flame

**(74) flame**

(2) kilab 'flash, sparkle'  
(CEB 'glitter, flash intermittently'; MAL 'flashing, flaming up'; MGG 'radiance of lightning')

:: 火  
:: 燥  
:: 閃

ramx/h (l-j-) (K617\*) 'sparks'  
(*Shuo Wen*)  
ramx/h (l-j-) (K617c) 'to flame up'  
(*Shih Ching*), 'flames' (*Chi Yun*)  
hr-j-amx (?) (NOT in GSR) 'to appear intermittently' (*Li Chi*)

ref: to burn

**(75) flat, flat surface, sole, foot, thigh**

(2) Da(m)paD 'flat, level'

Root -paD 'flat, level'

Be: [d]apal

:: 扌  
:: 板  
:: 版  
:: 鉛

phanx (K181\*) 'flat' (*Kuang Yün*)  
p-r-anx (K262j) 'plank, board, plaque'  
(*Shih Ching*)  
p-r-anx (K262k) id.  
p-r-anx (K262l) id.

ref: level, flat

ref: palm of the hand, sole of the foot

**flower**

ref: bare

**(76) foot, leg**

(D) kaki 'foot'

Be: \*\*[ko]koq; [qo]qoq

:: 跡  
:: 基

k-j-ag (K952\*) 'footsteps'  
(*Chi Yün*)  
g-j-ag id. (*Kuang Yün*)  
k-j-ag (K952g) 'base, foundation'  
(*Shih Ching*)

**(77) force, to use force**

(D) gagaq

(TB, NgD: 'to oppose, resist')

(D) sanggaq 'to defend oneself'

:: 戢  
:: 拒

gagx (K53a) 'to stop, check' (*Tso Chuan*)  
g-j-agx (K95i) 'to oppose, ward off' (*Lun Yü*)

**(78) fruit, testicle, oyster**

(D) tiRem 'oyster'

Be: (n)t[i]yəm; t[i]yam

:: 豆

gəm (K643\*) 'oyster' (*Erh Ya*)

**(79) gather, group**

ROOT: -bun 'heap, pile, cover; covered with earth; collect, assemble'

Be: [t][i](m)pun; [ti]mbu[n]

:: 墳

b-j-en (K437m) 'tumulus' (*Li Chi*)  
'raised bank' (*Shih Ching*)

**(80) gather(ed), crowd**

(2) pudun 'gather; wind thread, etc. into a ball' (MAR 'gather into one place, lump together'; KIP 'gather'; NIAS 'collection, gathering')

Be: puɻung

:: 聚

dən (K427a) 'accumulate' (*Yi Ching*) 'bring together soldiers as a garrison' (*Tso Chuan*)

**glitter**

ref: shine

**(81) glutinous, sticky**

(D) pulut 'sticky substance'

(1) puluC 'a plant: *Urena lobata*'

(MAL 'generic term for various mucilaginous plants'; KAY 'rubber tree'; MGG 'a mucilaginous plant: *Urena lobata*' )

Be: [da](m)p[u]ɻut; mbuɻut

:: 粰

d-j-ət (l-j-) (K497ac) 'glutinous millet' (oracle bone inscriptions)

**gnaw, chew, bite, grind teeth**

ref: bit, gnaw, cut off

**go**

ref: move back and forth, swing (arms), wag (tail), walk, run, go, swim, fly, row, paddle, fan

**grandfather**

ref: father

**grasp**

ref: seize, hold, close (fist), handful, bite

**grass**

ref: rice (plant)

ref: thatch (-grass), grass

(83) **grief**<sup>8</sup>

- (3) pungaw 'lonely, forlorn'  
Perhaps also: (D) lingaw 'quiet'  
ref: impetuous

:: 傲

ngagw (K1130\*) 'grief, worry'  
(Chi Yun)(84) **gums**

- (1) gusi(?) 'gums'  
(D) gus[i]

:: 魚心

səg (K973\*) 'the gills of a fish'  
(Wen Hsuan, Chin dynasty); 'jaw-bone of a fish' (Kuang Yü)

:: 胸心

səg (K973\*) 'the lower jaw' (Shao Ming Tai Tzu Chi, Liang dynasty;  
Kuang Yü)**hack**

ref: cut, chop

(85) **handle, stick, stem**

- (D) [t] angkay 'handle, stalk'  
Be: [ts]a(n)ka], [ts]a]nga]

:: 稹

k-r-id (K599\*) 'stalks of corn,  
hemp, etc.' (Shih Ching)NOTE: unexplained loss of  
aspiration.

ref: thigh

(86) **harm, hurt**

- (B) suRa[Ct] 'wound'

:: 罷

gat (K313d) 'to injure' (Shu Ching loan used for K314a)  
gadh (K314a) 'to hurt; be hurt'  
(Shih Ching)

:: 害

(87) **hard, heart (hard part), grain, stone**

- (D) makas  
Be: [ma/]ka; [ma/]ka/ts;  
(ma/)(ng)ka/n  
(2) te(n)ger 'unyielding,  
obstinate, inflexible, stubborn'  
ref: oppose

:: 固

kagh (K49f) 'strong, firm'  
(Shu Ching)

:: 限

gənx (K416d) 'disobedient,  
refractory' (Kuo Yü)(88) **heap**

- (D) kimpal 'heap, pile'

:: 墊

phan (K195) 'mound' (Meng Tzu,  
Kuang Ya, Chi Yun)**heel**

ref: basis, trunk (of tree, body), buttocks, heel

**(89) high, tall**

ROOT: -kaw

Be: s[u]lang

:: 高

kagw (K1129a) 'high' (*Shih Ching*); k-j-agw (K1138i) 'high, lift the head' (*Chuang Tzu*)**hold, take hold of**

ref: seize, hold, close (fist), handful, bite

**(90) hold (in hand, mouth), squeeze, handful, fist, mouthful, control**

(2) gem 'hold in the fist' :: 含 gem (K651i) 'hold in the mouth'

(MAR 'hold in the mouth')

ROOT: -gem 'grasp in the fist'

Be: kam/kam; kam/gam; kəm/kəm;

gəm/gəm; k[u]m/k[u]m

(D) kemkem 'enclose, contain' :: 謹

ROOT: -kem 'enclose, cover; grasp'

(Tso Chuan)

gem 'envelop, contain' (*Shih Ching*)

khəm 'to contain' (Fang Yen: Yang and Yueh dialects); 'niche for the effigy of a god' (T'ang text only)

**(91) hold firmly**

(3) pegeng 'hold firmly,

concentrate' (SAS 'stick to,

tenacious')

:: 恒

gəng (K881d) 'constant'

Shih Ching); 'tenacious' (Lun Yü)

**hollow**

ref: pierced, hollow, hole, cave

**(92) hop on one leg**

(3) kingking 'hop on one leg'

:: 跳

kh-j-ing/khingh (K831p) 'hop on one leg' (Tso Chuan)

**horse-hoof imprint**

ref: palm of the hand, sole of the foot

**(93) house, hut**

(D) Rumaq

Be: b[a]rong

:: 窟

m-j-agx (K103i) 'big house'  
(Kuan Tzu)**howl, bellow**

ref: cry (of animals), bark, thunder

**hurried**

ref: active

(94) **hurry**

(D) [r]ikat  
(FI 'to jump, run')

:: 驅 kat (K313\*) 'to go fast, of a horse' (*Shuo Wen, Kuang Yün, Chi Yün*)

:: 驅 k-j-at (K313\*, 313l) 'running'

:: 過 kh-j-iat (K313\*) 'fast, of a carriage' (*Chi Yün*)

NOTE: unexplained aspiration and diphthong

:: 趕 kh-j-iat (K313\*) 'fast' (*Chi Yün*)

NOTE: unexplained aspiration and diphthong

(95) **husk, chaff**

gempa 'husks'  
Be: xə(m)[pa]

:: 穀 ph-j-ag (K101\*) 'husks, chaff of wheat' (*Shuo Wen, Chi Yun*)

NOTE: the character is written with the GSR 102 phonetic 甫 in *Shuo Wen*.

:: 稗 phag (K102\*) 'large bean'

ref: skin

(96) **impetuous**

(1) lamlam  
(OJ 'carried away by desire (longing); being a prey to one's emotions; feeling uncertain; acting according to one's own desire/whim')

ref: bland

:: 憂

dam (l-) (K617k) 'burning with emotion or grief (*Shih Ching*)'

**injure, to**

ref: harm, hurt

**insipid**

ref: bland

(97) **join, unite, complete, pair, even (-numbered)**

(D) Ra(ng)kit 'tie together, raft'  
ROOT: -kit 'join along the length'  
Be: [r]a(n)kap, [ra]nggap, [za]kəp,  
[la]ngkəp, gəp, g/l/əp, g/l/əp

:: 結 kit (K393p) 'tie, knot'  
(*Shih Ching*)

ref: bind

ref: bind, tie, knot, squeeze

ref: tie, enlace

## (98) joint

(D) kukut 'joint'

:: 骨

kwət (K486a) 'bone' (*Tso Chuan*)

ROOT: -kut 'hunched over, bent'

:: 扈

khwət (K496k) 'bent' (*Yi Ching*)

## jump, to

ref: hurry

## (99) knife hilt, bolo hilt

sangga 'knife hilt, bolo hilt'

:: 胡

gag (K49a) 'dewlap of oxen'  
(*Shih*); 'part of a dagger-axe'  
(*Chou Li*; *Chi Yun* says: 'where  
the blade enters the shaft')

ILK: 'collar or flange'

supporting the base of a knife  
or bolo and used to prevent it  
from entering deeper in the blade'[ID: sangga 'to block, ward off,  
parry, deflect']

## (100) knot, tie

(D) Rapus 'to tie'

:: 紐

p-j-ugh (K136\*) 'to tie a knot; a  
knot [in one's hair]' (*Shuo Wen*)

Be: [iś][ə](N)qop[r,l][o]

ref: bind

ref: bind, tie, knot, squeeze

ref: hair, topknot

## (101) labial circle

(3) simuj 'labial circle'

:: 口

m-j-ənx (K503o) 'corner of the  
lips' (*Chou Li*)

## (102) ladder, staircase, steps

(D) tangga 'ladder, staircase, steps'

:: 梯

g-j-ag (K803\*) 'stairs' (*Chi Yun*)

## (103) laugh

ROOT: -kak 'cackle, laugh loudly'

:: 各

kak (K766\*) 'the call of a  
pheasant' (*Chi Yun*)

Be: (n)tlaw[a]; tla/tlaw[a];

:: 嘻

g-j-ak (K803\*) 'to laugh loudly'  
(*Han Shu*)

tla/tla; (ka/)tla

NOTE: intransitive voicing of  
initial

ref: cry

**leafless**

ref: bare

**leak**

ref: drip, leak

**(104) level, flat**

(2) pa(n)tar 'level, flat'

ref: flat, flat surface, sole, thigh

:: 坦

thanx (K149d) 'level' (*Yi Ching*)**(105) lick, tongue**

(D) dilap 'to lick'

(doublet of dilat)

:: 舔

thap (hl-) (K633\*) 'to sip, suck'  
(*Chi Yün*)

:: 犬

thap (hl-) (K633\*) 'to eat, of  
dogs' (*Chi Yün*)

:: 舌

thəp (hl-) (K678f) 'idem'  
(*Shuo Wen*)

(D) dilat 'to lick'

d-j-at (l-j-) (K288a) 'the tongue'  
(*Shih Ching*)

ref: to eat

**lift**

ref: climb, ascend, mount, ride, lift, above/up

**lift, raise**

ref: throw

**(106) light, shine, moon, sun, dawn, morning**

(D) singaR 'light'

:: 曙

(Fl 'sun', SA'A 'day'; TO, FU 'dawn')

hng-j-ar (K2\*) 'sunlight' (*Chin  
Lu Shih Lung Chü*)

Be: ts[i]nga[a]

**(107) lightning**

(B) [CtT]ek[ae]p 'deafening noise'

:: 磔

kap/khap (K642v) 'sound of  
knocking or beating' (*Ch'u Tz'u*)  
'thunder-like sound of drumming'  
(*Han Shu*); 'sound of collapsing  
rocks' (*Shuo Wen, Wen Hsüan*)

:: 燐

rep (l-j-) (K690f) 'gleaming'  
(*Shih Ching*)

(2) dilep 'flash, sparkle, shine'

Be: ɿi[dz]ap; m/ɿi[dz]ap;

m/ɿa[dz]ap; b/ɿa[dz]ap

**lonely**

ref: grief

**look, look at**

ref: see

**loosen, undo, untie**

ref: to expose

**loosening of the outer skin**

ref: skin

**lose balance**

ref: balance

**(108) mat**

(d) kazang

(D) [r]anzang 'plaitwork'

(JA, MAL 'bed')

ref: spread (out), fly, mat

:: 牀

dz-rj-ang (K727r) 'couch, bed'  
(*Shih Ching*)**(109) material, raw**

(D) bakal

(HO trunk, body)

:: 軸

kanh (K140d) 'stem' (*Tso Chuan*);  
'body, substance' (*Yi Ching*)  
'trunk of a tree or of the body'  
(*Mathews*)

ref: brave

ref: difficulty

ref: oppose

ref: resist

ref: support

**milk products, fermented**

ref: drink, distilled

**mixed**

ref: confusion

**moon**

ref: bright

**(110) mother, aunt, female**

(B) inang 'mother'

Be: [t/]l]na(/na)

:: 嫩

n-rj-ang (K730\*) 'mother'

:: 娘

n-rj-ang (K735\*) id. (*Yueh Fu Shih Chi, Tai Ping Kuang Chi*)

ref: female

**(111) mould(y), decay(ed), (worm-eaten), dust**

(D) lapuk 'mould, moulder, become' :: 酥

mouldy'  
Be: (q/)(m)buk(/buk),  
(q/)(m)bek(/bek)puk (K1211\*) 'white mould on wine or vinegar' (Northern Wei: *Chi Min Yao Shu*)

NOTE: pronunciation after Chi Yün. Other sources read phuk.

**mount**

ref: climb, ascend, mount, ride, lift, above/up

**(112) move back and forth, swing (arms), wag (tail), walk, run, go, swim, fly, row, paddle, fan**

(2) lampaq 'walk, go'

Doublet of (2) lampang 'go'  
Doublet of (3) lamba?, with reflexes in Embaloh and Mandar

(2) lampang 'go'

Doublet of lampaq 'go'

Be: [q]la(m)bay; k[ə]bay;

[k/]l]/ə(m)bay; k[a](m)pay;

[k/]l]/apay; [k]ap/l/ay;

k[i]pay; (ki)pay(/pay)

:: 步

bagh (K73a) 'walk' (*Tso Chuan*)

NOTE: intransitive voicing and secondary Tone C

:: 放

p-j-angh (K740i) [cause to go=] 'banish' (*Shu Ching*); 'expel' (*Li Chü*); 'loosen, let go'(Meng Tzu)  
NOTE: unexplained unaspirated initial; REF: Schüssler (1985) for causative function of secondary Tone C

(1) rakat 'walk' (AMIS 'movement, walk'; MOTU 'step, walk, go')

:: 行

kh-j-at/kh-j-iat (K313m) 'go away' (*Lü Shih Ch'u Ch'iü*)kh-j-iat (K313p) loan for (K313m) 'go away' (*Shih Ching*)

NOTE: unexplained initial aspirate.

ref: open, gape/stand open, force open/apart, oppose, separate, bay, river

ref: wide, broad (surface), plain, space

**mud, earth**

ref: earth, field, mud

**(113) narrow, close, bag, basket**

(3) kupid 'close, shut'

ROOT: -pit 'press, squeeze  
together, narrow'

Be: [tsu](m)pit

:: 陽

pit (K412ab) id. (*Tso Chuan*)**noise**

ref: lightning

**(114) open, gape/stand open, force open/apart, oppose, separate, bay, river**

(3) qangab 'open, of the mouth'

:: 開

(D) ungkab 'to open'  
(intransitive); root -kab 'open,  
uncover' (HLG 'open one's mouth')

:: 次

(D) empang 'obstruction'  
(SM 'wall')

:: 妨

Be: [(m)b]angaq; [b/]n/ang[aq];  
[(m)ba]nga[q/]nga[q]; [(m)b]akaq;  
[ba]ga[q/]gaq; [balgang(/gang);  
[ba]kang(/kang)

ref: side

ref: wide, broad (surface), plain, space

ng-j-amx/ng-rj-amx (K613\*) 'to  
come with open mouth to the  
surface of the water, of fish' (*Hua*  
*Nan Tzu, Shuo Wen*)kh-j-amh (K624a) 'to yawn' (*Lü Chi*)  
NOTE: *Hakka khEm<sup>3</sup>* 'to cough'  
reflects Tone B.ph-j-ang (K740q) 'to oppose'  
(*Tso Chuan*); 'obstacle' (*Han Yü*  
T'ang dynasty)**(115) open expanse of land or water**(3) bawang  
(LGa 'lake'; BUSANG 'swamp,  
pond, lake'; BM 'spaciousness of  
view') Root: -wang 'wide open  
space'

:: 漢

ref: land  
ref: water  
ref: cleared areagwang (K707e) 'lake, pool'  
(*Tso Chuan*), 'great, vast'  
(*Hsun Tzu*), 'expanse of water'  
(*Mathew*)gwang (K708f) 'stagnant water'  
(*Ta Tai Li Chi*)**(116) oppose**(D) bangkal 'to oppose'  
(D) sangkal 'to deny,  
contradict'

:: 妨

kan/k-r-an (K134cd)  
'treacherous; disobey; violate'  
(*Tso Chuan*)

:: 千

kan (K139a) 'shield' (*Shih Ching*)  
 'knock against, violate'  
*(Tso Chuan)*  
*NOTE: lack of aspiration is unexplained*

- ref: brave  
 ref: difficulty  
 ref: material, raw  
 ref: open, gape/stand open, force open/apart, oppose, separate, bay, river  
 ref: to resist  
 ref: support  
 ref: wide, broad (surface), plain, space

**(117) pain**

(D) ngilu 'rheumatic pain, shooting pain' (TB 'toothache'; JA 'headache')

:: 術

rug (l-j-) (K125j) 'sickness, suffering' (*Shih Ching*)  
*NOTE: word has alternate reading with tone B*

**(118) pair, twin, two**

(3) banDung 'pair of boats joined by a connecting platform' (MI. 'twin, in duplicate'; OJ 'together, at the same time')

:: 重

Be: [pa]ts[a]ng

d-rj-ung (K118a) 'double' (*Shih Ching*); 'twice' (*Tso Chuan*)

**(119) palm/sole, slap, hand, five**

ROOT: -pik 'tap, light slap'  
 (CEB: hagpik 'slap someone fairly hard on the shoulder')  
 Be: (ta)(m)pag, [ta](m)pa/plag], p/l/ag/l/ag], mp/l/a/mp/l/a[g], [l/p/r/a/p/r/ag], [ta](m)pak, [ta]pa/pak

:: 拍

bik (K853j) 'beat the breast' (*Shih Ching*)  
*NOTE: intransitive voicing*

**(120) palm of the hand, sole of the foot**

(3) Da(m)pa

:: 蹣

:: 扶

phag (K102\*) 'imprint of horse's hoof' (*Kuang Yün*)  
 p-j-ag (K101f) 'breadth of four fingers' (*Li Chi*)

ref: flat, flat surface, plateau, floor

**(121) pass, past, done (past tense)**

(D) lalu 'to pass, pass by'

(HO 'to pass, pass over,  
surpass')

Be: 0k[u]wa

:: 逾

:: 越

rug (l-j-) (K125o) 'to transgress,  
to pass over to' (*Shu Ching*);  
rug (l-j-) (K125n) 'to leap or  
pass over' (*Shih Ching*); 'to  
transgress' (*Lün Yü*)**path**

ref: road

**peck, peck up**

ref: beat, drive in, pound, strike

**pigeon**

ref: dove, pigeon 1

ref: dove, pigeon 2

**(122) pierced, hollow, hole cave**

(D) le(ng)kung 'concave'

(MAL 'hollow, of the eyes')

Doublet: li(ng)kung

ROOT: -kung 'bend, curve'

Be: [l]p[e]long, b[e]long

:: 空

khung (K1172h) 'hollow, empty'  
(*Shih Ching*)**(123) plant**(D) lenga (TAG, TB, MAL, NgD:  
'sesame'; JA 'oil')

:: 蕃

ngag (K58\*) '*Perilla ocimoides* (an  
oleaginous plant)'NOTE: *Kuo Pu* commentary on  
*Fan Yen*: word belongs to  
*Chiangtung dialect*.**(124) pleasure**

(D) dula

:: 愉

rag (l-j-) (K82\*) 'pleased'  
(*Chi Yun*);

:: 慈

ragh (l-j-) 'pleased' (*Shu Ching*)**(125) pluck**(D) puTik 'to pluck (pick, gather,  
as fruit/flowers);(1) peClik 'snap, as fingers or  
slingshot' (MAL 'plucking at, picking (flowers), ...');  
BAL 'pick fruit or flower ...')ROOT: -Cik 'spring up, flicking motion'  
ref: pierce, pick, poke (with stick), embroider, sew

:: 摘

t-r-ik (K877p) 'to pluck' (*Lieh Tzu*)

**press**

ref: squeeze

**(126) pulverize**

(D) buDbuD 'pulverize'

:: 分

b-j-enx (K471\*) 'dust' (Shuo Wen)

(3) bujbuj 'pour, sprinkle'  
(revision of (D) above)

:: 粉

p-j-enx (K471d) 'flour' (Li Chi)

NOTE: unexplained voiceless initial

**quiet**

ref: grief

**(127) radicle, rootlet**

(D) tunas

:: 根

n-j-agh (K94r) 'interlaced roots'  
(Yi Lu)

NOTE: Chi Yun reads n-ŋ-agh

**(128) rain, drizzle (fine rain), mist, snow, clouds, dusk, dark, sky**

(D) Ra(m)bun 'atmospheric turbulence' (MAL 'sleet')

:: 霧

b-j-en (K471j) 'mixed (sleet and snow)' (Shih Ching)

(doublet e(m)bun)

:: 氣

b-j-en (K471n) 'cludy vapours'  
(Tso Chuan)  
'dew, frost' (Li Chi)

(D) e(m)bun 'atmospheric (TB 'cloud', JA 'cloud, dew', MAL 'dew, mist')'

(doublet Ra(m)bun)

Be: γ[a](m)bon; [γa](m)pon

**raise, to**

ref: climb, ascend, mount, ride, lift, above/up

**(129) red, dark-colored, reddened, shame(d)**

(D) malu 'ashamed'

:: 媚

thug (hl-) (K125v) '[cause to be ashamed =] to slight, despise'  
(Tso Chuan)

Be: iyan, (q/)b/iyan,

(q/)m/iyay, iya(?), m(a)/iya(?)

[i]ya(?) /i, m(a)iyay(?) /i ]

**(130) red, reddish**

(2) siRa (dsj. of siRaq, dbl. of

:: 霽

g-r-ag (K33k) 'red clouds' (Ch'u Tz'u);

(D) iRaq, q.v.);

:: 赤霞

id. (K33\*) 'red morning sun'  
(Kuang Yün)

(D) baRa 'glowing coals, embers'

(ref. TAG kulay);

RAq 'red'

:: 駿

id. (K331) 'horse of mixed red and white color' (*Shih Ching*)

:: 戶

gagx (K53\*) 'red markings' (*Chi Yün*). *NOTE: the principal meaning of this character is 'clear' (*Shuo Wen*) or 'varicolored' (*Fang Yen*).*

## (131) regulate

(D) qatur 'regulate'

:: 準

t-j-ənx (K467d) 'regulate'  
(*Shu Ching*)

## (132) resist, to

(D) galgal (JA 'to thwart')

:: 扌

ganh (K139qr) 'to ward off' (*Li Chü*); 'protect, guard' (*Shu Ching*)

ref: brave

ref: difficulty

ref: material, raw

ref: to oppose

## respect

ref: father

## restless

ref: active

## (133) rice (plant)

(D) zelay 'grass species'

(MAL 'barley'; NgD 'name of a grain-bearing plant')

Be: [a]gra, [p/a]gra/i, [a]kra, [p/a]kra/i

ref: grass

:: 稗

did (I-) (K591g) 'a kind of panic grass' (*Chuang Tzu*)

:: 美

did (I-) (K551k) id.

## (134) rice, sugarcane, bamboo, tree

(D) imay 'rice'

Be: [q/]imay, [c/]umay

:: 米

midx (K598a) 'rice' (*Tso Chuan*)

NOTE: Tone B unexplained.

## ride

ref: climb, ascend, mount, ride, lift, above/up

## rip, to

ref: to sever

**(135) road**

(D) zalan 'path'

:: ran (l-j-) (K203a) 'path leading into a grave' (*Chuang Tzu*):: id. (K203e) 'make bricks' (*Wen Hsuan, Hou Han Shu, Chi Yun*):: id. (K203a) 'to extend' (*Shih Ching*), 'to travel far' (*Shuo Wen*)**root**

ref: basis, trunk (of tree, body), buttocks, heel

**rootlet**

ref: radicle, rootlet

**rotten**

ref: spoiled

**ruin, to**

ref: to fall into ruin

**(136) sad, stunned, quiet**

(B) dungu 'stupid'

:: ng-j-ug (K124g) 'ignorant, stupid'  
(*Shih Ching*)(3) angu angu 'silly, senile'  
(1) langu 'vertigo', ma-langu  
'dizzy, drunk' (SAN 'mentally dull')

Be: ㄉ[il]ngaw

ref: stupid

**(137) salt**

(D) siraq

:: lagx (r-) (K71a) 'salt, salty'  
(*Yi Ching, Tso Chuan*)Be: (qa/)k[k,ㄩ][i[r]a[h];  
]k[l,ㄩ]u[r]a[h]**(138) satiate**(2) puqas 'to abate, of strong feelings' (IB, MAL, MGG  
'satiated'):: ? -j-agh (K1242h) 'to satiate'  
(*Shih Ching*)**savory**

ref: to taste

**scab**

ref: scratch, scrape, dig, strike (line)

**scar**

ref: scratch, scrape, dig, strike (line)

**(139) scratch, scrape, dig, claw, nail**

(3) kutkut 'dig' ::   
 Be: (ng)kus(/kus); kuts/kuts;  
 (ng)kut(/kut);  
 (N)qui[t,ts]/(qui[t,ts]); kas(/kas); ::   
 (kus/)qas; (ng)ke[t,ts]/(ke[t,ts]);  
 kits(/kits); [kas/]ka[s];  
 kats(/kats)

khwet (K496d) 'dig in the  
ground, underground' (*Tso Chuan*);

khwet (K496q) 'cave, hole'  
(*Tso Chuan*)

**(140) scratch, scrape, dig, strike (line)**

(2) biras (dsj. birat) 'scar' ::   
 (2) kiras 'scar'  
 Be: (ng)g[a]ru[t,ts]; g[a]rits; ::   
 k[a]rits; g[a]ru[d]; k[a]rud :: 

lat (r-) (K272\*) 'a scabby itching  
skin disease' (*Chi Yün*);  
 lat (r-)/ladh (r-) 'leprosy'  
(*Yi Chieh Ching Yin Yi*)  
 l-j-adh (r-) (K340d) 'leper' (*Li Chi*)

**(141) screen**

(B) [Ct]ebing 'screen' :: 

bing (K824f) 'screen, protecting  
wall' (*Shih Ching*)

**(142) see**

(D) q(N)Tay 'to look, look at' ::   
 Be: [ki](n)tra, [ki]tra/i,  
 [ki]tra/n, [hi](n)tra/i

tid/d-j-idx/h (K590q) 'to look,  
see' (*Chou Li*)

th-j-id (K590q) (*Chi Yün*)

*NOTE: this character now  
superseded by 視. Unexplained  
alternation between Tones A & B.  
Tone A form is not listed by K  
but is in Kuang Yün.*

ref: look, look at

**(143) seize, hold, close (mouth), bite**

(D) tangkap 'take hold of, grasp, contain'  
 (Doublet: tanggap)  
 Be: [t]aNqap; [t]a(N)Gap :: 

khap (K642t) 'a wine container'  
(*Tso Chuan*)

**separate**

ref: split, separate

**(144) sever, rip, to /cut through, to**

ROOT: -tas

:: 利

t-j-adh (K335a) 'to cut out  
(clothes)' (*Shih Ching*).t-j-adh (K335b) 'to cut out, to  
cut out (parts of a victim for  
sacrifice)' *Li Chi*;t-j-adh (K335b) 'to cut out, to  
fashion (a garment)' (*Tso Chuan*)

:: 衣

**(145) sew, plait, weave**

(2) añem 'plait, braid'

:: 紅

BIL, SML 'weave a mat';

MAL 'interweaving':

BGS, ROTI 'plait, braid, twine,  
weave (baskets, but not cloth)'

Be: (m)plaq[i}s;

(m)pla/pl[aqis];

pl/m/[aqis]

n-j-əm/n-rj-əm (K667l) 'to  
weave' (*Tso Chuan*)**(146) shake, clean up by shaking**(D) paspas 'shake, clean up by  
shaking'

:: 滂

phadh (K521d) 'to shake in the  
wind (as a pennon)' (*Shih Ching*);  
'to wash floss by shaking it in  
water' (*Chi Yun*); 'to undulate, as  
a fish swimming in water' (*ibid.*).  
*NOTE: Also read as ph:j-iadh,*  
*with irregular /ia/ diphthong.*  
*cf. 犬 'ruined'***shake**

ref: fear

**(147) shell (of tortoise)**(D) karaq 'shell' (JA, MAL:  
'metal cover')

:: 檳

Be: ( )k[a]raq

lagx (r-) (K71a) 'large shield'  
(*Li Chü*)**shield**

ref: to oppose

**(148) shine, glitter, bright**(D) gilang 'to glitter' (TO, FU  
'to shine')

Be: NGilang; Nqilang

:: 陽

:: 曙

rang (l-j-) (K720e) 'light,  
brightness; the sun' (*Shih Ching*)  
id. (K720h) 'sunshine, bright'  
(*Shu Ching*)**shiver**

ref: fear

**(149) shoulder-blade**

(D) balikat

:: 故

khat (K1166p) 'shoulder-blade'  
(*Kuang Yun, Chi Yun*)  
NOTE: unexplained initial  
aspirate.**shout**

ref: cry

**(150) shy away, to (of animals)**

(3) dura

(MAL 'anxiety, disquiet')

:: 處

l-j-agh (r-j-) (K69f) 'be anxious  
about' (Lün Yü)**(151) sibling (older), brother (older)**

(D) kaka

(FI: tua-ka 'older brother';

SM: tua-a 'older sibling of the  
other sex.'

NOTE: tua = 'old' in FI, SM.

Be: /ka; k/l/a(/k/l/a;  
(ng)ka/(ng)ka; ma/l/ka/ka

:: 姑

kag (K49g) 'father's sister'  
(*Shih Ching*, cf. the SM meaning.)  
NOTE: Modern Chinese 叔 kar  
(K1p) 'elder brother' (Po Chu-yi,  
ca. 820 AD) seems to be late loan  
from another dialect (noted by  
Benedict 1976:66)**sickness**

ref: pain

**(152) side**(3) bangbang 'embankment' (KAY  
'steep riverbank, steep hillside')

:: 防

:: 方

b-j-ang (K740z) 'embankment,  
dyke' (*Shih Ching*)  
b-j-ang (K740x) 'dyke' (*Li Chü*)

ref: side, shore, bank

ref: wide, broad (surface), plain, space

**sing, to**

ref: cry

**sip, suck, drink**

ref: suck

**(153) skin**

(3) le(ng)kang 'loosening of the outer skin'

ref: husk of grain

:: 糜

khang (K746no) 'husk of grain'  
(*Chuang Tzu*)

**slap, to**

ref: to clap

ref: palm/sole, slap, hand, five

**(154) slope**

(B) la(N)Day 'gradual slope'  
(KB 'slope at the foot of a mountain')

:: 𩔤

d-rj-id (K590\*) 'slope on the side of a tumulus or mound' (Chin dialect, *Kuang Yün* after *Tzu Tung*)

**(155) snake-1**

(D) ulaR

Be: (q/)(n)śulaR ]

:: 蛇

d-j-ar (l-j-) (K41) 'snake'  
(*Shih Ching*)

NOTE: the character is also read as *dar* (l-) 'the looper caterpillar' (*Chi Yün*), *rar* (l-j-) 'venomous snake' (*Kuan Chung* dialect according to *Chi Yün*)  
*thař* (hl-) (K4a) 'snake' (*Shuo Wen*) 'danger' ([caused by a snake]? primary meaning of graph acc. to K)

:: 它

**(156) snake-2**

(D) sawa 'giant snake'

:: 蟒

gw-r-ag (K44\*) 'kind of large snake'  
(*Tzu Lin, Kuang Yün*)

:: 巴

(2) anipa 'large snake'  
Be: (u)ngata

p-r-ag (K39a) 'kind of large snake that eats elephants and ejects the bones after three years.' (*Shan Hai Ching, Wen Hsuan*; the seal is drawing of a snake)

**(157) snap, break off**

(2) lepik 'snap, break off  
(twigs, etc.)' (MGG 'break  
with the fingers')

:: 穗

:: 索

p-r-ik (K853p) 'to cleave, split'

(Li Chü; 'to open out' (Mathews))

NOTE: character has 'open'  
between two hands**sole of the foot**

ref: palm of the hand, sole of the foot

**(158) sound, resound, thunder, drum**

(3) rang 'harsh resonant sound'  
(NgD 'clashing, clacking (as  
when a cup breaks or two cups  
strike together)')

:: 狂

:: 破

lang (K735n) 'to tinkle, as jade'  
(Ch'u Tz'u)lang (K735\*) 'sound made by  
stones [crashing]' (Wen Hsuan)

Be: [g]ə(n)dang

ref: cry (of animals), bark, thunder

**(159) sound, ringing sound**

(1) kingking 'ringing sound'  
(ISG: 'a bell')

:: 铃

khingh (K832ac) 'musical stones'  
(Shih Ching)

Doublet: (2) king 'ringing sound.'

ROOT: -king 'clear ringing sound.'

**sovereign**

ref: breathe

ref: spirit

**(160) space**

(D) Ruqang 'space, open space,  
space between' [Zwischenraum]

:: 央

? -j-ang (K718a) 'center, middle'  
(Shih Ching)

Be: (q/)[a]wang

:: 或

gwək (K929ad) 'territory, state'

(B) raw[ae]k 'open space'  
(early Chou inscription)

:: 域

gw-j-e̥k (K929ef) 'territory, state'  
(Lun Yü)

ref: wide

**sparks, sparkle**

ref: flame

**(161) spin**

(D) antiq

:: 纏

th-j-e̥gx (K961\*) 'a certain  
amount of spun hemp' (Kuang  
Yün)

**(162) split, to**

ROOT:: -Tak 'sound of splitting,  
cracking, knocking'

Be: ( ) kr[i][t]ak

ref: to burst open

ref: to break, to crack, to split

ref: to hack

:: 扱

th-r-ak (K792d) 'to split, be rent'  
(*Shih Ching*)

**(163) split, separate**

(3) pisik 'split, cleave'

Be: (m)b[a]aq(/b[a]aq)

ref: break

ref: snap, break off

:: 分

sik (K857a) 'cleave, split'  
(*Shih Ching*)

**(164) spoiled**

(2) bang(e)qes 'unpleasant smell' (BON 'to have spoiled, as cooked rice, vegetables or cooked meat'; MGG 'beginning to smell badly, mawkish, foul (smell)'

ref: rotten

:: 糟

?-j-idh (K395h) 'food that has spoiled and smells badly' (*Lün Yü*); 'cooked rice that has spoiled due to humidity' (*Shuo Wen*)

**(165) spread (out)**

(B) bi(n)[CtT]aD  
(ILK 'spread open, esp.  
tobacco leaves')

Be: (m)bi[t]aj

:: 展

t-r-anx (K201a) 'to unfold, open'  
(*Yi Li*)

:: 開

th-j-anx (K147x) 'to open up,  
make clear, clear, explain'  
(*Yi Ching*)

**(166) sprout**

(D) suliq 'sucker' [D. Wurzel-schössling: a new shoot growing from the roots of a plant]

:: 筍

dəgx (l-) (K976q) 'bamboo shoot'  
(*Chou Lü*)

:: 竹

regx (l-j-) (K0) (same word with  
infixed yod) 'bamboo shoot'  
(*Chi Yün*)

:: 始

sth-j-əgx (hl-j-) (K976e) (perhaps)  
'beginning, begin' (*Shih Ching*)

:: 笃

dəg (l-) (K976\*) 'bamboo sprout'  
(*Chi Yün*)

:: 胎

thəg (hl-) (K976h) 'foetus'  
(*Li Chi*)

(3) seli 'young shoot'

(doublet: semi)

cf. (D) sliq 'sucker'

(167) **squeeze**

(D) tiNDes 'to press, squeeze'

:: 紮

d-rj-idh (K413\*) 'tightly pressed together' (Han, Yang Hsiüng)

(168) **squirt**

ROOT: -cut 'squirt, squeeze out, slip out'

:: 出

th-j-ət (K496a) 'come out, go out; bring out' (Shih Ching)

:: 點

th-rj-ət (K496f) 'expel' (Tso Chuan)

ref: spray

ref: squeeze

**stairs**

ref: ladder, staircase, steps

**stalk**

ref: handle, stick, stem

ref: thigh

(169) **stake, pole, post**

(2) te(n)dek/tenzeg 'upright, erect'

Be: [g][a]aq; [q][l]aq ]

:: 植

d-rj-ək (K919e) 'hold upright' (Shu Ching)

:: 值

d-rj-ək/d-rj-əgh (K919h) 'hold upright' (Shih Ching)

(170) **stand, person (self)**

(D) [t]uquD 'stand firm'

Be: \*(q/)(n) ɿ[u]γ[i]

:: 穩

?wənx (K449\*) 'stable, firm' (Shih Shuo Hsin Yü)

(171) **stare, fix the eyes on**

(3) mang mang

:: 望

m-j-ang/h (K742m) 'look from afar, look towards' (Shi Jina)

:: 聖

m-j-ang/h (K743d) 'to face, regard, look to' (oracle bones)

:: 瞳

d-rj-əng (K883\*) 'look fixedly' (Kuang Yun)

NOTE: intransitive voicing.

tengteng 'stare, look fixedly'

(doublet of (1) Neng,

(1) NengNeng, cf. Blust 1986:66

and 1988:128)

**steps**

ref: ladder, staircase, steps

**stiff, rigid; cramps**  
ref: stretch(ed), tight

**(172) strangle**

(B) cekig 'constriction around the neck' (MAL 'seizing the neck, throttling'  
Doublet (B) ce(n)gkik  
'constriction in the throat'  
(IB 'attempt to cough out, choke')

:: 窒

kingx (K831e) 'cut the throat'  
(*Tso Chuan*)

:: 頸

k-j-ingz (K831n) 'front part of neck, throat' (*Tso Chuan*)

:: 聲

khingx (K832e) 'cough, clear the throat'

:: 經

king (K831c) 'strangle' (*Lün Yü*)

**(173) stretch(ed), tight**

Root: -kang 'stiff, rigid; cramps' (esp. (2) kangkang '... rigor mortis'; MAL jengkang 'stark or stiff in death')  
Be: (kə)(ng) krəng

:: 緊

k-j-angh (K710e) 'rigor mortis' (*Kuang Yün*) K710a gives diff. meanings.

:: 瘫僵

Mand. chiang<sup>1</sup> 'stiff in death; numbed, stiff; dead' (*Mathew's* reflect the Tone A prototype, k-j-ang.

:: 剛

Perhaps also (K697b) kang 'hard, strong (=rigid)' (*Shih Ching*) and (K697h) id. 'steel' (*Lieh Tzu*)

:: 鋼

ng-j-əgh (K956\*) 'aspect [of one who is] laughing' (*Chi Yün*)

(2) riangis 'bare the teeth in smiling or laughing'

:: 機

kh-j-ag (K78\*) 'to strike' (*Kuang Yün*)

**(174) strike against**

pangka?

:: 磚

dangh (l-) (K720f) 'veined stone' (Han text example only)

**(175) striped**

(D) belang  
Root -lang 'striped'  
ref: color(ed), striped, variegated, mark

:: 積

hn-j-əmx (K670f) 'disappear under water, of frightened fish' (*Lü Chi*)

**(176) submerge, bury**

(3) leneb 'disappear under water'  
ROOT: -neb 'dive, sink, disappear under water'  
Be: ləb/ləb; (q/)lub/lub

:: 沦

**(177) suck**

ROOT: -sep 'sip, suck'  
 Be: tsəp/tsəp; ts[i]p/ts[i]p;  
 sup/sup  
 ref: sip

:: 舌

tsəp (K679\*) 'to suck, lick'  
 (Han text only)

**suffering**

ref: pain

**sun**

ref: bright

ref: light, shine, moon, sun, dawn, morning

**sunlight**

ref: light, shine, moon, sun, dawn, morning

**(178) support**

(3) tu(n)gkad 'prop, support;  
 staff'  
 Root -kad 'prop, support'

:: 稹

:: 桿

kanx (K140j) 'straw of grain'  
*(Tso Chuan)*

kanx (K140\*) 'the long, thin part  
 in various utensils (writing  
 brush, steelyard, etc.)' (*Yuan  
 Ts'u Hsuan*); 'a staff, a handle,  
 a pole' (*Mathews*)

kanh (K1e) 'shaft of an arrow'  
*(Chou Li)*

ref: brave

ref: difficulty

ref: material, raw

ref: to oppose

ref: to resist

**tall**

ref: high, tall

**tame**

ref: to agree, to consent

**tap**

ref: palm/sole, slap, hand, five

**(179) taste**

(2) namnam 'to taste, tasty'  
 (CHM 'chew, sound of chewing,  
 eat') Root -nam 'savory, tasty'  
 ref: to chew

::

n-j-am (K622e) 'to chew'  
*(Hsun Tzu)*

**tasteless**

ref: bland

**(180) that, there**

(2) inaq / ina / inan  
 'that, there (near listener)'  
 idi, ati 'there (distant from  
 both)'  
 Be: na; (q/)na/n

::

::

::

n-j-agx (K94j) 'you [the listener]'  
*(Shu Ching)*

n-rj-agx (K94a) 'you' (*Shih Ching*)  
 early Chou inscriptions

NOTE: n-j-ak (K777a) is a  
 doublet of in meaning 'you' ;  
 it is also used as a demonstrative  
 'this' (*Lun Yü*)

**(181) that, they**

(2) idi 'that, there (third person  
 deictic)  
 (ILK: 'formerly, in times past, at that  
 time, then')  
 Ref: (3) ati 'there (distant)' below

Be: (i)(n)tu  
 (3) ati 'there (distant)'  
 (BUSANG 'third person  
 demonstrative')

REF: (2) idi 'that, there' above  
 thread  
 ref: cloth

::

d-j-ag (K962a) 'then, now, this'  
*(Shih Ching)*

::

t-j-ag (K???) 'him, her, it, them'  
*(Shih Ching)*

**(182) thatch (-grass), grass**

(3) sedsed 'kind of grass or rush'  
 (WBM: 'a common matting sedge')  
 Be: (a)(N)qa(n)[təp];

( )NGa(n)[təp]

(D) atep 'roof, roof covering'

::

tsienh (K477a) 'grass, fodder'  
*(Chuang Tzu); 'straw mat'*  
*(Ch'u Tz'u)*

::

thəp (K677\*) 'roof of a tent'  
*(Kuang Yün)*  
 NOTE: unexplained initial  
 aspirate.

**top** (K677\*) 'wooden beams or rafters on top of pillars [in a building]' (*Kuang Yün*)

**(183) throw, fling**

(B) [Ct]alang 'throw into the air'; (D) balang 'throw with a sling'

Be: (m)b[al]ang



rang(l-j-) (K720j) 'lift, raise' (*Shu Ching*); '(throw into the air =) to winnow' (*Shu Ching*)

**thunder**

ref: lightning

**(184) tickle, armpit**

(B) (q)irek 'armpit'

Be: k[i]ɿi(/k[i]ɿi);

k[i]ɿl(/k[i]ɿl); keɿe(/ke,e);

qeɿe/q(eɿe); q[e]le(/q[e]le)



lek (r-) (K928\*) 'ribs, side'  
(*Shih Ching*)

**tie**

ref: bind

ref: bind, tie, knot, squeeze

ref: knot, tie

**(185) tiger, cat**

(D) qarimaw

(TB, NgD 'panther'; MAL 'tiger')

Be: s[a]rimaw



m-r-agw/m-j-agw (K1159c) 'a kind of tiger' (*Shih Ching*)

**tongue**

ref: lick

**(186) tooth**

(D) gigl 'tooth'

Be: [t]aGi(/Gi)



\*g-j-əg (K952\*) 'to bite, gnaw'  
(*Kuang Yün*)

**tremble**

ref: fear

**twice**

ref: pair, twin, two/pair, two

**two**

ref: pair, twin, two/pair, two

**unsettled**

ref: active

**urgent**

ref: active

**(187) vessel, jar, pan, basin**

(D) bu[i] 'jar (earthenware)'

Be: bang[a]; b/ㄤ/ang[a] ]

NOTE: the signific indicates  
earthenware pot.

:: 飯

rog (l-j-) (K976\*) 'pot' (*Erh Ya*,  
*Kuang Yün*: Ou dialect)**vinegar**

ref: drink, distilled

**violate**

ref: to oppose

**violent**

ref: brave

**(188) vomit**

(D) u(n)taq

:: 吐

thagx (K62d) 'to eject from the  
mouth' (*Shih Ching*);  
thagh 'to vomit' (*Kuang Yün*)**walk, go**

ref: move back and forth, swing (arms), wag (tail), walk, run, go, swim, fly, row, paddle, fan

**(189) wash**

(3) biseq 'wet, wash'

Be: (m)b[a](n)tsag, b[a]ts[ə]q,

b[a](n)tsuk

ref: wet, damp

:: 洗

sidx (K478j) 'to wash' (*Shih Ching*)**(190) water**

(D) aluR 'waters'

ROOT: -luR 'flow'

Be: q/wah[a]R

:: 水

h-rj-ədx (hl-j-) (K576a) 'water'  
(*Shih Ching*); 'body of water'  
(*Kuo Yü*)

Unexplained Tone B.

## (191) wattle

(B) sas[ae]g 'wattle, bamboo plaitwork' (MAL 'wattle, plait-work of lath'; TAG 'walling of split bamboo')

ref: break, smash, split

## weapon for shooting, bow, arrow

ref: arrow, shoot

:: 篱

ts-j-angx (K727\*) 'to split bamboo and remove the nodes' (*Kuang Yün*)

'to split bamboo and remove the nodes; squared or hewn timber; bamboo laths; mats' (*Chi Yun*)

## (192) weed

(D) babaw 'to weed'

:: 瘦

b-r-agw (K1170a) 'to weed' (*Shih Ching*);

:: 糜

b-j-agw/p-j-agw (K1170d) (*Tso Chuan*)

(1st Tz'u Yuan, 2nd after *Kuang Yün*)

## (193) wet, damp

basaq

:: 滴

s-j-agx (K90f) 'wet with dew' (*Kuang Yün*); 'abundantly dripping' (*Shih Ching*)

ref: wash

## (194) white, silver

(b) burak 'white'

Be: (m)pirak; (m)bu[r]ak

:: 雉

lak (KO) 'extremely white' (*Kuang Yün*, *Shuo Wen* glosses 'white birds');

:: 白

lak (K766\*) 'white' (*Yu Pian*, *Chi Yun*; *Kuang Yün* glosses

**大貌**, probably scribal error for **大白貌** 'very white aspect'. possibly also: lak (K766s) 'white horse with black mane' (*Shih Ching*)

:: 白

*NOTE:* brak (K782a) 'white' (*Shih Ching*) is apparently derived from \*burak through loss of first vowel

**(195) wide, too wide**(3) ruqag 'wide, spacious' (KB  
'spacious, wide, of an opening')

Be: (q/)lu[q]ay

ref: space

:: 盞

?angx/h (K718j) 'an earthenware  
jar with a large body and a small  
opening' (*Chuang Tzu*)  
?angh (K718i) 'full, ample'  
(*Meng Tzu*)**(196) wide, broad (surface), plain, space**

(D) bangbang 'broad, wide'

Be: (q/)bang/(q/)bang

:: 广

bang (K740f) 'extensive, wide'  
(*Shu Ching*); 'wide' (*Hsun Tzu*)  
'side' (*Tso Chuan*)

ref: embankment

ref: obstruction

ref: side

ref: side, shore, bank

**wing**

ref: to clap

**withered**

ref: bare

**worry**

ref: grief

**wound**

ref: harm, hurt

**yawn**

ref: to open

**yes**

ref: to agree, to consent

**you**

ref: that, there

<sup>1</sup> This is essentially a re-arrangement of Sagart 1993 to facilitate comparison with the Austro-Thai reconstructions in Benedict 1975 and the Sino-Tibetan reconstructions in Coblin 1983. Benedict's Austro-Thai semantics are followed as much as possible even when the phonological comparisons are weak.

PAN, etc., reconstructed systems of phonemes. More problematical here are the phonemes T, D, and N (ref. Wolff 1988).

Sagart 1993:54 admits that the shared basic vocabulary items in the 200-word Swadesh word list are minimal (only 17). Using the 100-word Swadesh list and Benedict's semantic reconstructions, the following, at least, seem to be shared:

- (16) **belly**, intestines, mind, soul
- (19) **bite**, gnaw, cut off
- (54) dark, fog/mist, gloomy, shade/shady, **black**, night
- (55) dark, night, evening, **black**, red, purple
- (31) burn
- (128) rain, drizzle (fine rain), mist, snow, **clouds**, dusk, dark, sky
- (43) come
- (59) dog
- (65) **eat**, food
- (64) **earth**, field, mud
- (112) move back and forth, swing (arms), wag (tail), walk, run, go, swim, fly
- (76) **foot**, leg
- (106) light, shine, **moon**, sun, dawn, morning
- (54) dark, fog/mist, gloomy, shade/shady, **black**, night
- (55) dark, night, evening, black, red, purple
- (128) rain, drizzle (fine rain), mist, snow, clouds, dusk, dark, sky
- (55) dark, night, evening, black, **red**, purple
- (129) **red**, dark-colored, reddens, shame(d)
- (130) **red**, reddish
- (142) see
- (170) **stand**, person (self)
- (106) light, shine, moon, **sun**, dawn, morning
- (112) move back and forth, swing (arms), wag (tail), walk, run, go, swim, fly
- (180) **that**, there 1
- (181) **that**, they
- (105) lick, **tongue**
- (185) tooth
- (118) pair, twin, **two**
- (112) move back and forth, swing (arms), wag (tail), **walk**, run, go, swim, fly
- (190) water 2
- (194) **white**, silver 1

If the genetic relationship between PAN and OC is accepted, several problems remain, such as the proper relationship between PAN-OC and Austro-Thai and PAN and Sino-Tibetan.

<sup>2</sup> Wolff 1988:138 has proposed an alternate system of consonants for PAN:

	labial	apical	palatal	velar	postvelar
stop	p	t	c	k	q
(?spirant)	b	d	j	g	v
nasal	m	n	ñ	ng	
lateral		l	ʎ		
sibilant		s	ś		
semivowel	w		y		

<sup>3</sup> Blust 1985:4 has admitted that there are reflexes that argue for the mid-vowels e' and o. but "consistent criteria for the reconstruction ... remain to be established...." The diphthongs usually behave as VC sequences word internally (Blust 1990b:236).

<sup>4</sup> Dempwolff (quoted in Dyen 1971:22-23) actually used the following consonant phonemes in his reconstructions:

#### DEMPWOLFF'S CONSONANTS

	labial	alveolar	retroflex	palatal	velar	laryngeal
Stops	p	t	t̪	t' k'	k	?
	b	d	d̪	d' g'	g	
Fricatives		s			χ	h
Nasals	m	n	ɳ	n' ɳ'	ŋ	
Liquids		l	ɺ			
Semi-vowels	v	r		j		

(The symbols t̪, d̪, and n̪ represent *frontal* palatal stops and k', g', and ɳ' *dorsal* palatal stops. ? represents what "... we call smooth transition...." (Dyen 1971:36). χ represents a voiced velar spirant (Dyen 1971:35 quoting Dempwolff 1934-38:1.54).

Not only is the system of phonemes reconstructed by Dempwolff (1938) radically different from that of Blust and Wolff, but the reconstructions are not readily assigned to any specific level, such as PAN, PMP, etc. (This is also a problem with Blust 1970 [Blust 1980:10-11].) Dempwolff also did not include the Formosan languages in his reconstruction (Blust 1990b:272).

<sup>5</sup> LTBA is deeply indebted to Professor Shiro Yabu of Osaka Foreign Languages University for taking precious time out of his visit to the STEDT project to insert the hundreds of Chinese characters in this article by hand.

<sup>6</sup> The character 饒, is glossed 'endure; cruel' (Shih Ching) in GSR 456c, reconstructed as OC \*níən. The character given as GSR 516a is different 鬯; it is glossed 'enraged boar' (Shuo Wen), and reconstructed as OC \*ngjəd, though it appears in no text. [Ed.]

<sup>7</sup> The character given in GSR 651n' is 頑, not 離.

<sup>8</sup> Through a numbering error of the author, there is no # (82). [Ed.]

<sup>9</sup> This character is glossed 'beat; fustigate' in GSR 976b'. [Ed.]

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