

# Fiat Lingua

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Welcome to the Garden of Linguistic Delights

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The twenty consonant phonemes of **béu** are shown in the table below.

This table uses IPA characters.

Below you can see how this looks in the **béu** script.

p	t	tʃ	k	ʔ	𐄀	𐄁	𐄂	𐄃	𐄄	𐄅	𐄆	𐄇
b	d	dʒ	g		𐄈	𐄉	𐄊	𐄋				
f		s	ʃ		𐄌		𐄍	𐄎				𐄏
m	n	l	ŋ		𐄐	𐄑	𐄒		𐄓			
w		y			𐄔		𐄕					
ɱ					𐄖							

𐄗	𐄘	𐄙	𐄚	𐄛	𐄜	𐄝	𐄞	𐄟	𐄠	𐄡	𐄢	𐄣
"uai"	"ua"	"u"	"oi"	"o"	"ai"	"a"	"au"	"e"	"eu"	"i"	"ia"	"iau"

There are 20 consonants and 5 vowels. Also 6 diphthongs and two triphthongs.

**béu** has three tones, a low tone, a middle tone and a high tone. All multi-syllable words have the middle tone. All single-syllable words are either high tone or low tone. You come across low tones about twice as often as high tones. Now this feature is hardly naturalistic, but **béu** is not shy about being a constructed language. In fact, this whole project would not have happened, if not for the belief that a planned garden has the potential to top any wild landscape.

One should not be put off from learning **béu** because of the tones. Firstly - hardly any single-syllable words pairs are distinguished only by tone. Secondly - failure to master the tones will not make you unintelligible. It will merely mark you as a non-native-speaker.

It is always the first syllable of a word that receives the stress, although the difference between stressed and unstressed syllables is less marked than in English. Vowels in unstressed syllables keep their full quality.

Also we have intonation. Intonation is the same as tone but it varies gradually over a sentence. Three intonation pitch contours can be identified.

- 1) The **CONTINUATION CONTOUR** is a level underlying pitch over the entire utterance. This signals that the speaker intends to continue talking.
- 2) The **FINALITY CONTOUR** is a fall in pitch over the last few syllables of a declarative statement. This signals that the speaker has said all he has to say.
- 3) The **QUESTION CONTOUR** is a sharp rise in pitch occurring on the last syllable.

It is at the end of the utterance that the three contours really diverge. These contours apply to the whole utterance. The three word-tones (i.e low, high, middle) are applied over and above the three intonation contours.

## Three Phonological Processes

1) Word finally the pairs p/b, t/d c/j and k/g undergo neutralization. That is, word finally the voicing contrast is lost : no voicing occurs. However in the **béu** script and in my Latin transcriptions the “underlying” form will continue to be used. For example ...

written	meaning	pronounced					
<b>bilig</b>	embryo	<b>bilik</b>	p	t	ʈʂ	k	
<b>bilgi</b>	embryos	<b>bilgi</b>	b	d	ɖʐ	g	
<b>polok</b>	a helmet	<b>polok</b>	f	s	ʃ	x	h
<b>polko</b>	helmets	<b>polko</b>	v	z	ʒ		

2) Between two vowels (but in one word) or between a vowel and a sonorant (sonorants are **m n l ŋ w** or **y**) **s** and **ʃ** acquire voice. For example ... **ʔaswo** = milk = **ʔazwo** : **usaba** = north = **uzaba** : **ufon** = moss = **uvon** : **ʔufya** = wife = **ʔuzya**

3) And finally, **h**'s pronunciation is fronted to an unvoiced velar fricative when it is the last phoneme in a syllable. For example **dah** = house = **dax**.

The processes above only apply if you plan to speak **béu**. They can be disregarded if you will be only reading and writing it.

From now on I will not be using the IPA. Instead I will be using a (phonemic) system with these characters =====>

So “c” for ʈʂ, “?” for ʔ, “j” for ɖʐ, “x” for ʃ, “q” for ŋ and “hw” for ɰ ... 6 divergencies from the IPA.

Important : up to now “x” represented a velar fricative. But from now on ... it will represents a post-alveolar fricative.

p	t	c	k	ʔ
b	d	j	g	
f		s	x	h
m	n	l	q	
w		y		
hw				

We should note here that syllabic “n” can occur. However it doesn't occur not in any roots, only as a result of a derivational process. For example ... **saug** = to suck = **sauk** **saugn** = to suckle = **saugn** OR **saugen**

But actually a good percentage of the **beumin** put a schwa between the “n” and the root. Either pronunciation is acceptable .

It is quite common to find a voiced and unvoiced consonants abutting each other inside a word. For example **ogtai** “to force”/“to compel”. This even extends to the consonants having the same place of articulation ... **hat** “a hat” : **hudat** “a top hat : **hudta** “top hats”.

We briefly introduced our writing system at the very beginning and have given a few brief glimpses since then. But now is time to go a bit deeper into it.

The word directly equivalent to alphabet is **puatusoi**.

This refers to the 20 consonants and how they are ordered. The **noqoh** refers to the 13 vowels/diphthongs/triphthongs and how they are ordered. Here is the **puatusoi** ...

m	p	t	s	k	b	j	g	f	d	x
ℓ	ℓ	ℓ	ℓ	ℓ	ℓ	ℓ	ℓ	ℓ	ℓ	ℓ
q	ℓ	3	ℓ	+	ℓ	ψ	↑	Υ		
h	c	n	l	?	q	w	y	<u>hw</u>		

And here is the **noqoh** ...

ℓ	ℓ	ℓ	ℓ	ℓ	ℓ	ℓ	ℓ	ℓ	ℓ	ℓ	ℓ	ℓ
"uai"	"ua"	"u"	"oi"	"o"	"ai"	"a"	"au"	"e"	"eu"	"i"	"ia"	"iau"

Now each of the consonants has a distinct name ... like **alfa** and **beta** ... or **romeo sierra tango**. The initial letter of the name is the sound that the sign/character represents ... of course, pretty stupid to have it any other way. These names are given below (arranged as you often see the IPA consonants) ...

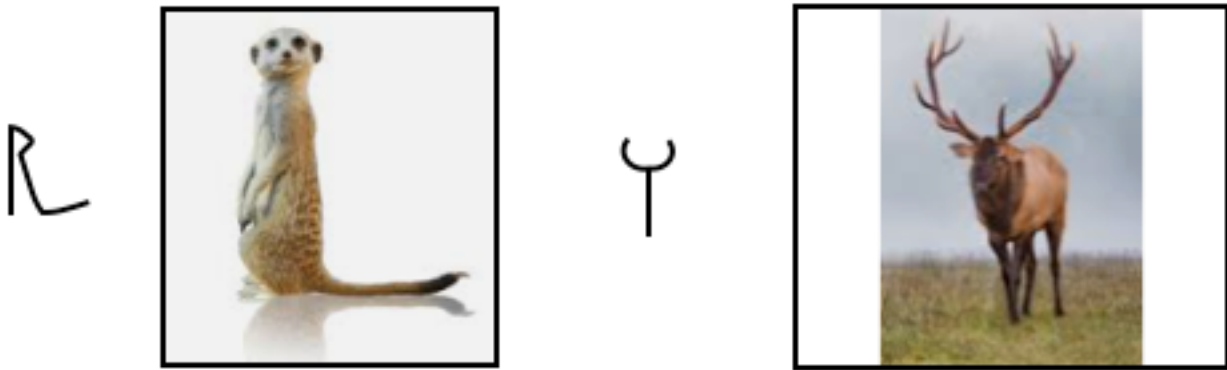
Seventeen of your characters are named after natural objects. Three of the names had no (known) antecedent. These are shown in yellow.

However the three words attained meaning from the shape of the characters they represent. **soiko** came to mean "flamboyant". And **?aquq** came to mean "staid". Later still the word **dixia** came to mean "unremarkable", "plain", "common-or-garden" ... presumably in contradistinction to **soiko** and **?aquq**.

If you learn the 20 words to the right, it is trivial to learn the order of both the **puatusoi** and the **noqoh**.

puatu	tusoi	cinua	kobai	?aquq
bajau	dixia	jauge	gefeu	
feudi	soiko	xíau	hiaci	
mapuai	nuala	la'a	quqwan	
wanyi	yihwon			
hwón				
hammer-caterpillar	-head shark	dragonfly	fruit bat	?aquq
butterfly	dixia	palm tree	bullfrog	
oryx	soiko	elephant	flamingo	
gibbon	mouse	sea-horse	meerkat	
peacock	fir tree			
elk				

## Some mnemonic devices



Well **quqwan** and **hwón** are obvious enough.

And if you introduce **bajau** to a mirror you get =>  $\varepsilon|3$   
 and if you turn it upside down =>  $\varepsilon|3$  ... even better.

If we introduce **kobai** and **tusoi** to a mirror we get =>



AND

I can see a big bat roosting for the night (can you),  
 and perhaps a birds eye view of a hammerhead shark.



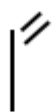
And for **nuala** and **wanyi** ... well if you turn the mouse 90 degrees against the clock ... I can see a small head joined to a bigger body. And as for the peacock ... yeah, I can see that one too.

And for **yihwon** and **jauge** ...



... I get it.

For the remaining 8 ... maybe we need to take more drugs to get through the “doors of perception”.



For **feudi** ... well oryx have long horns ... remarkably parallel. Don't know about the vertical line ... guess it's just a connecting line to make the **béu** orthography work.



And for **cinua** ... well dragonflies are known for having two pairs of wings ... so I guess the **X** is appropriate. They are always alighting on, or taking off from convenient vantage points. So I guess the vertical is some sort of stem. No sign of any leaves ... but OK ... we'll take it.

OK ... more drugs needed. We endeavour to give every single character a totally different ... a totally different ... well *character*. However **xíau** and **hiaci** have a certain “sameness” (hopefully this doesn't lead to too much confusion).



For **xíau** ... try and imagine an elephant from the rear. He is very pleased with himself/life as he flicks his tail to the left and up.

And **hiaci** ... well obviously standing on one leg ... as flamingos do. The neck making a beautiful curve to the left and up. His head ending up to the left of his body.



Fun fact ... the more ridiculous the image (or “mental movie”) you use as a mnemonic ... the more it sticks in your brain.

OK ... four left.

Talking about **puatu** ... I suppose the squiggle to the right of could be a caterpillar. And the vertical is some sort of stem. No leaf visible ... but you can't have everything.

As for **la?a** ... well I guess the vertical is some sort of undersea vegetation. Seahorses like to be tethered to something (they wrap their tail around it) and feed on passing morsels. So I guess (the figure to the left) would be appropriate.

However this (to the left) is the official **la?a** character. Maybe the little critter is approaching the vegetation to take up residence ?

And as for **mapuai** and **gefeu** ... snaking down to the right ...

well obviously the vertical is a tree trunk. The line ... the gibbon's tail. The other line ... his left hand ?

Imagine a bullfrog (side view) ... extended throat, as he tries (inexplicably) invisible.

looking to the left. The character is basically his to croak as loudly as he can. The rest of his body

As for the vowels ... well not so many mnemonics for them. However is you can memorize the base 5, then the others are trivial. Also **i** is a bit like a sawd-off **y** and **u** a bit like a sawd-off **w**.

Another thing worth mentioning ... the consonants change their shape, depending on whether they are word-initial, word-medial or word-final. The Arabic script is famous for this as well. But I guess this is inevitable for any sort of joined-up-writing. Most changes are trivial. Here is a list of the non-trivial changes.

One last thing ... the high tone is represented by a dot ... preferably on the LHS but can be RHS if more fitting.

For example **glén** (man's name) is written as ... the dot is usually level with the vowel.

In this case ("e") the dot fits in better on the RHS.

If there is no dot, we have "low tone".

As we have joined-up-writing", it is easy to recognize multi-syllable words ... of necessity "middle tone".

To spell "glén" you would say **gefeu la?a nís é nuala**  
To spell "glen" (low tone) ... **gefeu la?a noh e nuala**

**nís** and **noh** have no other roll, apart from spelling out loud.

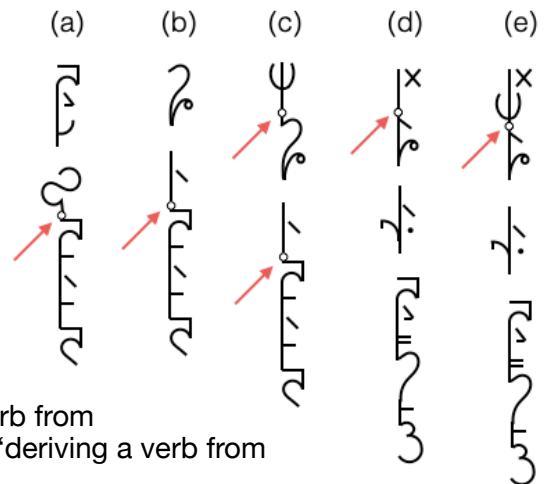
	initial	middle	final
t			
s			
k			
d			
x			
h			
?			
q			
w			
hw			

I should address the issue of **tison** here. **tison** is a small loop. Some people say that it represents the schwa sound ... this is only partially true.

**tison** is used in three situations ...

1) It is used with the 20 **glia** (see chapter 19) ... [actually the 20 **glia** plus the contraction **cw-**]. The **glia** are the twenty most common particles. Usually described as clitics. Here are five examples ...

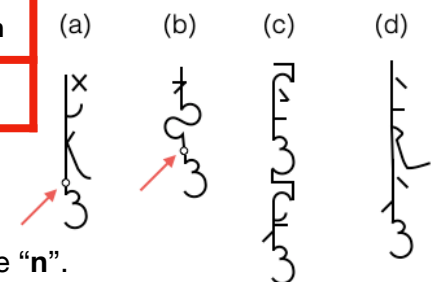
- a) **tu s-dalat** = to come from the market
- b) **go l-dalat** = to go to the market
- c) **w-go l-dalat** = to not go to the market
- d) **c-ko lé taugan** = Do you know mathematics ?
- e) **cw-ko lé taugan** = Do you not know mathematics ?



It can be said that **tison** represents schwa in these situations.

2) It is used with the “**n**” suffix. The “**n**” suffix is really widespread. Among its uses are “deriving a transitive verb from an intransitive verb”, “deriving a verb from a noun” and “deriving a verb from an adjective. Here are four examples of this suffix ...

an adjective. Here are four examples of this suffix ...					pronunciation	pronunciation
(a)	cum	to eat	cumn	to feed	ʈumṇ	ʈumən
(b)	ais	a threat	aisn	to threaten	aizṇ	aizən
(c)	tanduai	an extention	tanduain	to extend	tanduain	(a) (b)
(d)	laqli	clear	laqlin	to explain	laṇlin	ᵝ ᵞ



As for the phonetic realization of this suffix, well that varies. When “**n**” is suffixed to a consonant final word, some people pronounce a syllabic “**n**”. and some people insert a schwa before the “**n**”.

In the **béu** script a **tison** is always written.

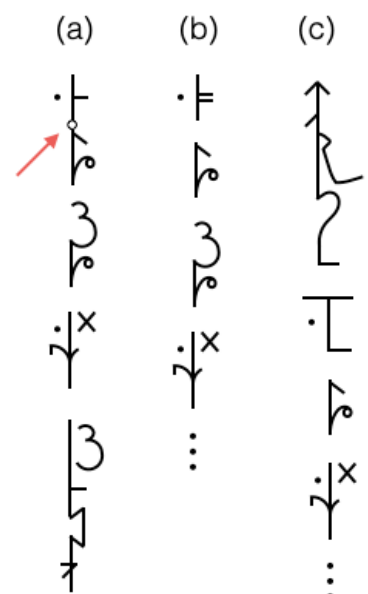
So, in this case, **tison** sometimes represents schwa, sometimes not.

3) When certain activators (tense particles) are placed before a verb. These activators are ...

**ú á i é o** and **oi** (see chapter 8) . These 6 particles are joined to the verb via **tison**, for aesthetic reasons (also slightly quicker to write if you don't have to lift your pen off the paper). If these activators combine with any other element, their connection to the verb is severed. Three examples ...

- a) **á-ko no céu bakai** = She knows how to cook
- b) **áu ko no céu bakai** = She doesn't know how ...
- c) **yiqga ?á ko céu bakai** = The young woman who knows how ...

No schwas are involved in this case.



Note ... For my Latin transliteration, I use a dash “—” to represent **tison** in situations 1 and 3 . For situation 2, I just juxtapose the “**n**” .

The pronouns are not complicated ...

- pa = I, me      pai = we, us (excluding you)      pau = we, us (including you)
- lé = you      léu = you (lot)
- no = he/she, him/her      noi = they, them
- jo = it      joi = they, them (inanimate)

With the addition of the reflexive particle qá, we have a 10 word system.

Note the acute accent on lé, léu and qá. These represent high tones. All the other pronouns have low tones. The absence of an acute accent on a single-syllable word indicates a low tone.

Now many languages fuse elements which occur side by side on a regular basis.

For instance in Gaelic we have agam “my” and agat “your” which are derived from aig mé and aig tú ... “at me” and “at you”.

Portuguese has duma and no which are derived from de uma and in o ... “of a” and “in the”.

English has I’ve and won’t ... derived from I have and will not ... {unfortunately uglified by the insertion of apostrophes}

Now the béu sentence order is strictly VSO. Because of this, S and O are habitually neighbours. And following the way of Gaelic, Portuguese and English, they have become fused. Example ...

ú-píg nop = she will hit me ..... where nop <== no pa

i-píg joq = it hit itself ..... where joq <== jo qa

oi-píg lép = you used to hit me ..... where lép <== lé pa

However if the object is plural, no contraction occurs ...

ú-píg pa noi = “I will hit them”

Also when the subject and object are both third person.

e-dontwa pa pau = I let us down (earlier today).

i-tía no no = He/she saw him/her

The 36 elements given to the left catalog all the pronoun contracted forms.

We will come across more contracted forms later though. The 5 most common verbs and the commonest aspect particle ...

sau ha ni pón xúg and ti combine with their “activators” and the glia w- ?- c- to give a further 92 contracted forms.

So total contractions = 128 = 2<sup>7</sup>

But we must wait a few more chapters before these delectable morsels will be revealed.

(earlier today).

		object				
		pa	lé	no	jo	
subject	16 elements	paq	pal	pan	paj	
	lé	lép	léq	lén	léj	
	no	nop	nol	noq	noj	
	jo	jop	jol	jon	joq	
subject (plural)	20 elements	pai	paiq	pail	pain	paij
		pau	pauq	paul	paun	pauj
		léu	léup	léuq	léun	léuj
		noi	noip	noil	noiq	noij
		joi	joip	joil	join	joiq



## Possession

**túq d-joi** = their size

**ixmi d-jo** = its duties

**kasap d-noi** = their butcher

**waulo náí** = his dog

**dah d-léu** = your house

**cumu láí** = your restaurant

**bán d-pai** = out table (not yours)

**kesi yé d-pau** = our chairs

**kesban wái** = my furniture

The basic way to express possession is very simple. For example **laban d-tomo** means “Thomas’s car”. Or “car of-Thomas” if you want a word for word translation.

“**d**” means “of” and is one of 20 particles consisting of a single letter. They are called the **glia** and are keystones of **béu** grammar.

I guess the **glia** are clitics. They are half words that always want to lean on a full word. They are pronounced with a following schwa. The schwa doesn’t exist anywhere else in the language. Only following the 20 **glia**. I use a dash in my transliteration to represent the schwa. The script of **béu** uses a small loop. However be warned ... representing the **glia** schwa is not the only job of either the dash or the small loop.

I suppose the **glia** don’t count as words as such. If they were they would be single-syllable words hence they would have to take either a high tone or a low tone. They have neither.

Above are shown some examples of possession with **d-** cliticized to pronouns. But note ... four pronouns do not follow this system ... **pa**, **lé**, **no** (and **qa**). Instead of **\*d-pa**, **\*d-lé**, **\*d-no** and **\*d-qa** we have four special possessive pronouns ... **wái**, **láí**, **nái** and **qái**. These are probably connected to the **-ai** adjective trend, which will be covered in chapter 53.

One little quirk to remember. OK ... in English one would say ...

1) That is my car.

If one would drop the noun possessed you must change my => mine.

2) That is mine.

However no change happens with ... say, “his”.

3) That is his car.

4) That is his.

In a similar way, in **béu**, if you drop the noun, and the noun is singular, **wái** => **waia\***, **láí** => **laia**, **nái** => **naia** and **qái** => **qaia** {I am placing a dot in these words, to show where the syllable break is, in **béu**, words such as **wa.ia**, **la.ia**, **na.ia** are theoretically possible}. So ...

5) **de laban wái** = That is my car

6) **de waia** = That is mine

7) **yede labna wái** = Those are my cars

8) **yede wái** = Those are mine

The elements **d-joi**, **d-jo**, **d-noi**, **d-léu**, **d-pai** and, **d-pau** never change ... similar to “his” in English.

\* **waia** is a two syllable word. Breaking apart the syllables you get **wai** - **a**. In theory, it could be **wa** - **ia** but it’s not. In fact every time you come across the string **aia** it can be analyzed as **ai** - **a**.

One other point. The reflexive particle is **qá** ... equivalent to myself, ourself, yourself, yourselves, himself, herself, itself, themselves. If an argument is owned by the subject, **qái** is used instead instead of **nái**. For example ...

**é-go tomo dalat / é-?au no waulo qái duai**

= Thomas went to the market (earlier today), he took along his dog as well.



**dí** = “this”

**de** = “that”

Usage is similar to English. They can either be a noun (standing by themselves) or an attribute when they follow a noun.

Their plural forms are ... **yedi** = these ones : **yede** = those ones

**día** = here

**dene** = there

In English “that” often refers to what has just been said. Like ... “That’s right”. In **béu** we would use the determiner **dau** for this. For example ... **dau toki** = that’s right

**dau** often appears attributively to the noun **xau** which means “affair”, “matter”, “business”

So ... **xau dau keu** = “that was bad” or “that affair was bad”

In English “this” sometimes refers to something just about to be said. Such as “This is what I want you to do”. In **béu** we would use the determiner **hwái?** for this. For example ...

1) **ás hwái?** < **án pa bu lé cai** > ... = this is what I want you to do ...

[In the above example we haven’t covered what is going on inside < ... > , so don’t worry about it.]

If there is more than one thing that the speaker wants done, they would be numbered off. For example ... **q-tói** bla bla bla ... **q-náu** bla bla bla ... **q-sái** bla bla bla

**dau** and **hwái?** have no plural forms. Normally they refer to the gist of “what has just been said” and “what is to be said soon”. However in certain situations (relative clauses), **dau** refers back to a specific nouns. We will cover relative clause in chapter 33.



The four determiners are shown schematically to the left. In **beugan** the future is quite often considered as going down. Probably something to do with the direction of the script. **dí** and **de** nearly always detail objects. The absolute distance is not so important. However relative distance (from the speakers) is useful when distinguishing two objects.

**dau** and **hwái?** sometimes do the job that “complementizers” do in other languages. For example ...

2) **ás hwái? bóí / wáh pau gog byedi** = It’s good that we don’t have to go to school today.

OK ... lets analyze this. **ás** basically means “is” [we will cover the copula in chapter 15]. So **ás** links **hwái?** and **bóí**. And **hwái?** embodies the next clause [the last clause means “we don’t have to go to school today” ... **wáh** = “not necessary” : **pau** = us “inclusive” : **gog** = “study at secondary school” : **byedi** = today]. The English expression “that we don’t have to go to school today is good” (with “that” functioning as a complementizer here) is closest in shape to the **béu** expression. The **béu** expression comprises two clauses ... “/” represents a slight pause between clauses.

The same sentiment can be expressed using **dau**. (3) **wáh pau gog byedi / ás dau bóí**

Both expressions can be curtailed. The copula could be dropped in fast speech to give ...

(2a) **hwái? bóí / wáh pau gog byedi** ... (3a) **wáh pau gog byedi / dau bóí**

And they can be curtailed even more. The determiners, on occasion also being dropped ...

(2b) **bóí / wáh pau gog byedi** ..... (3b) **wáh pau gog byedi / bóí**

where X and Y  
are any event

- (1) before Y / X      (2) Y // before that / X  
(3) after X / Y      (4) X // after that / Y

/ = a pause  
// = a longer pause

The above shows the four ways you can represent the order of two events. This is true for both English and **béu**. Here is an example of method (4) ...

**i-go pa l-kemi / aule dau i-go pa l-kecin**

= I went to the Chemist, after that I went to the post office.

**aule** = after : **kepe** = before

Everything is simple enough with the above. Except that English can be a bit quirky. As well as “after that” (with the “that” referring back to the previous clause), English also permits “afterwards” and “after\_” (the “\_” represents a slightly longer pause). **béu** only allows **aule dau** . [just a little thing to remember when translating English => **béu** ]

By the way ... **béu** has an alternative way of expressing the above ... **i-go pa l-kemi fo go pa l-kecin**. And, in this case, a further contraction is possible ... **i-go pa l-kemi fo l-kecin**.

All these expressions mean exactly the same. It mostly depends on how well the speaker has his thought in order. If his thoughts are well arranged he might choose the latter shorter expression. Although the former longer expression might be chosen to give emphasis.

Actually **fo** is actually an “activator”. More on activators in chapter 8. Also there will be more on **fo** in chapter 45.

**dau** also covers one of the functions of “so” in English ... when “so” acts as an anaphora particle. For example ... **á-mu dau** = **á-jub dau** = I think so = I believe so

## The prefixes **no-** and **jo-**

**no-** and **jo-** are used for deriving nouns from verbs. For example ...

**bala** = to open

**jobala** = an opener (non-human)

**nobala** = an opener

**jobala** is the one most commonly used. This is the tool used to de-cap bottles or the tool used to de-lid tins/cans. **nobala** is not so widespread ... the guy that opens the door for you in hotels maybe?

Anyway ... these two can be applied to many many words. The **no-** prefix is about as common as the English “-r” suffix. The uses of **béu no-** and the English “-er” overlap to a great extent.

Notice that **no** and **jo** are also pronouns. Actually in English (however applied to nouns to specify gender rather than applied to verbs to specify agent) we sometimes append pronouns to nouns. For example, one sometimes hears such terms as “he-donkey” or “she-donkey” .

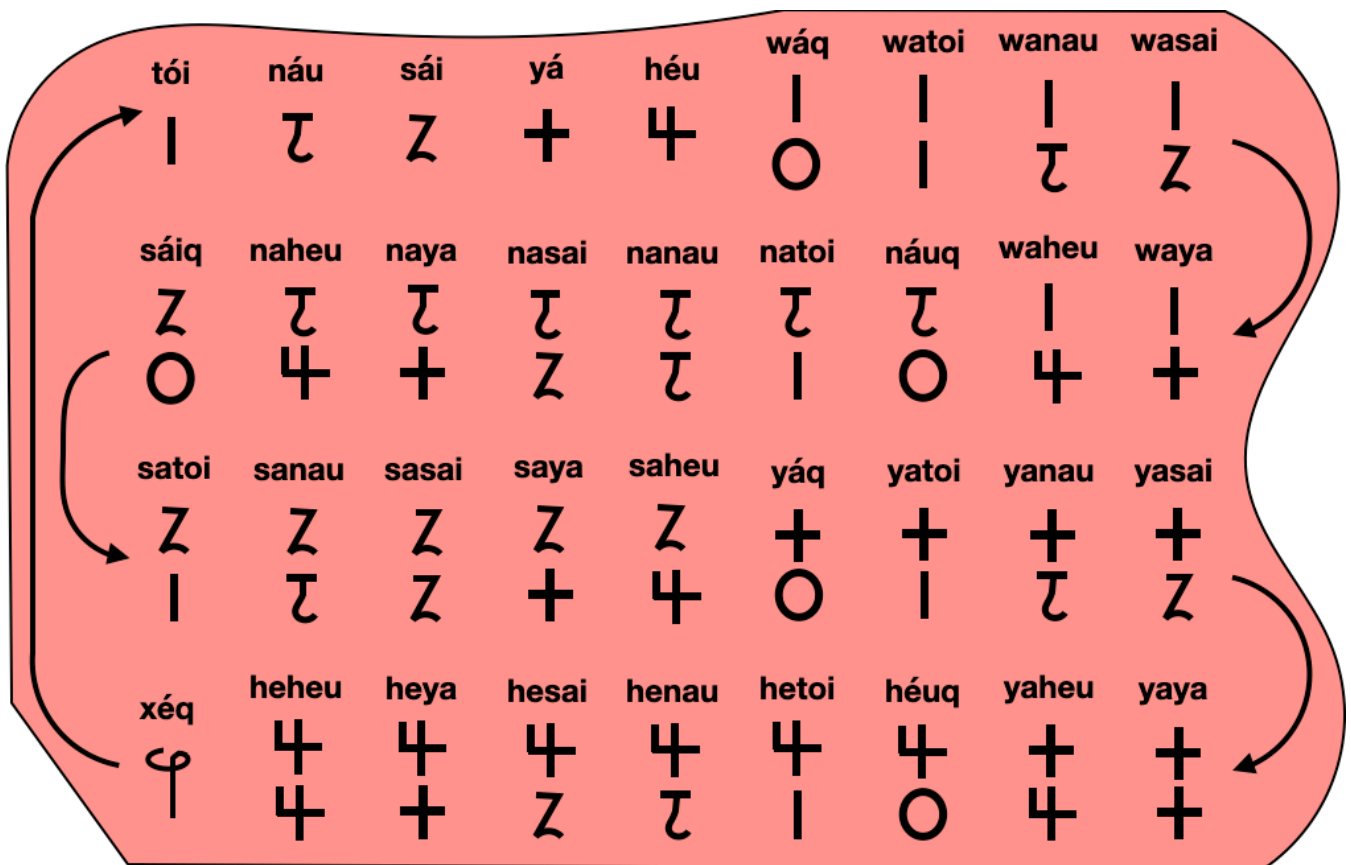
Curious fact ... the term for animal is **noxad**. **xad** means to move. Usually **no-** is the derivational prefix for humans only. Nobody knows why the term for animal is **noxad** rather than **\*joxad**.

The time of day

The **béu** day is divided into twelve parts. Each division being named after a common animal.

**waulo** dog**bwe** cow**jig** rooster**kendo** goat**kad** cat**mit** pig**xobot** rabbit**eski** squirrel**fanaf** horse**lát** bat**yemu** frog**kepa** rat

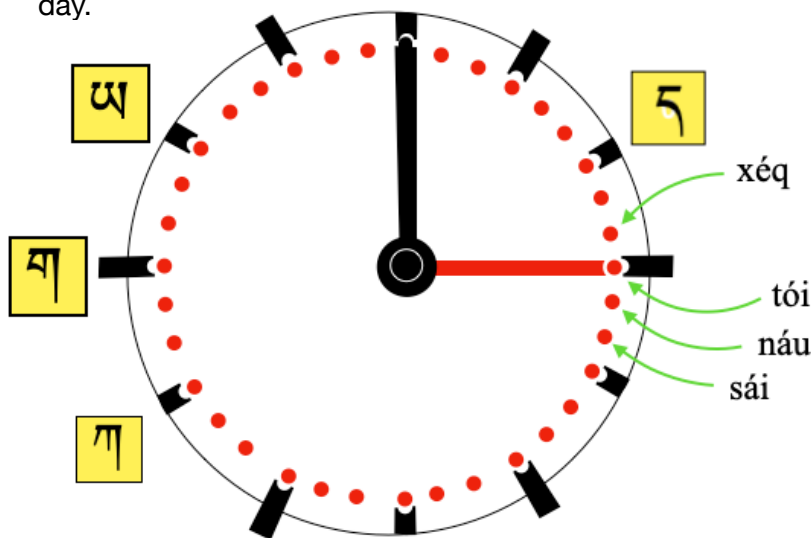
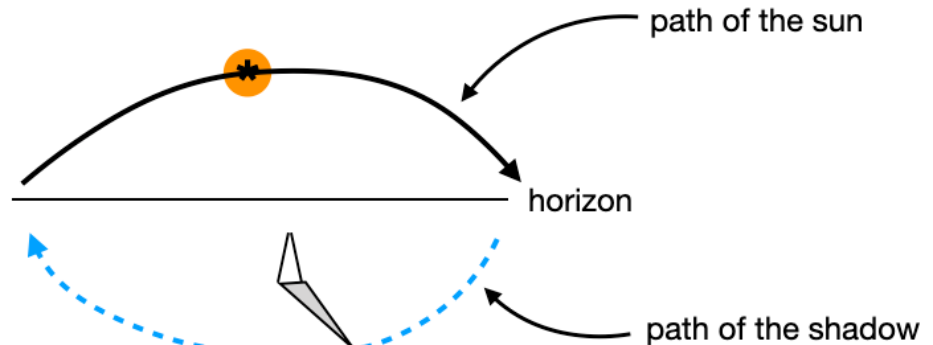
These twelve divisions are further divided into 36 parts. These parts are shown below. The first part ... **tói** ... is top left, followed by **náu**, then **sái** ... follow the arrows around. As in the table above, the pronunciation is shown above and the symbol shown below.



The Northern half of the world was the first to develop. Sundials were the original way to mark the passing of time. So there existed the following ...

Of course this tracking of time was not possible at night, only when the sun was up.

When the first mechanical clocks were fabricated, their hands were designed to follow the general path that the sundial shadow marked out during the day.



The **beugan** clock is shown to the left here. The clock will have this position from midnight until 3 minutes and 20 seconds after midnight. At that time the red hand advance to the next red dot. And after a further 200 seconds it will step again, to the next red dot.

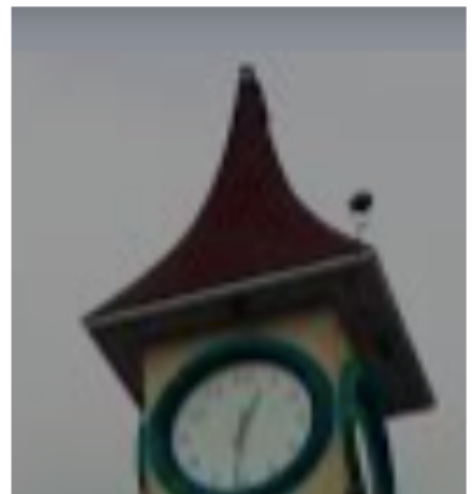
This will continue for two hour. After this time the red hand will be at the right-most dot again. At this time the black hand will move 30 degrees in a clockwise direction. It will align with the second dowel and will remain there for two of our hours.

Note ... the **beugan** clock cycle is 24 hours, not 12 hours. Usually the clock is unadorned. In the figure above I have included 4 numbers ... also four animal symbols. This is to try and enlighten my readers as to what is going on. Normally these do not appear on clock faces.

Every good-sized population centre will have a clock tower. There will be 4 clock faces facing the cardinal directions. The clock faces are illuminated from within at night. The clock faces are 10 degrees off vertical, i.e. that are looking down the way, slightly (not shown on the image to the right here). The clock tower is surmounted by a green roof. The angle of the roof varies with height (shown on the image to the right here).

Usually when the black hand moves there is some sort of audible signal as well.

In **béu** society the this clock is so ubiquitous and are so entrenched in everyday life that certain clock parts have become iconic. For example the black hand is called **gúl**. And **gúl** is also the term used for hypotenuse in trigonometry. The red arm is called **kelna**. And **kelna** also means "spoke" and "radius". **kelnau** = diameter



So, if you heard **é-kulau pa glén kad saheu**, you would know that the speaker met Glen (by chance) at ten past nine in the morning.

Actually **kad saheu** is a length of time rather than a point in time. **kad saheu** lasts for 3 minutes and 20 seconds. However for most everyday human activity it can be thought of as a point of time.

The above usage reveals a little about the psychology of **beume**. If they have an appointment with an acquaintance and are kept waiting for 3 minutes 20 seconds, they are cool with it.

Though there are limits to their patience ... they would probably be miffed if they were kept waiting much longer.

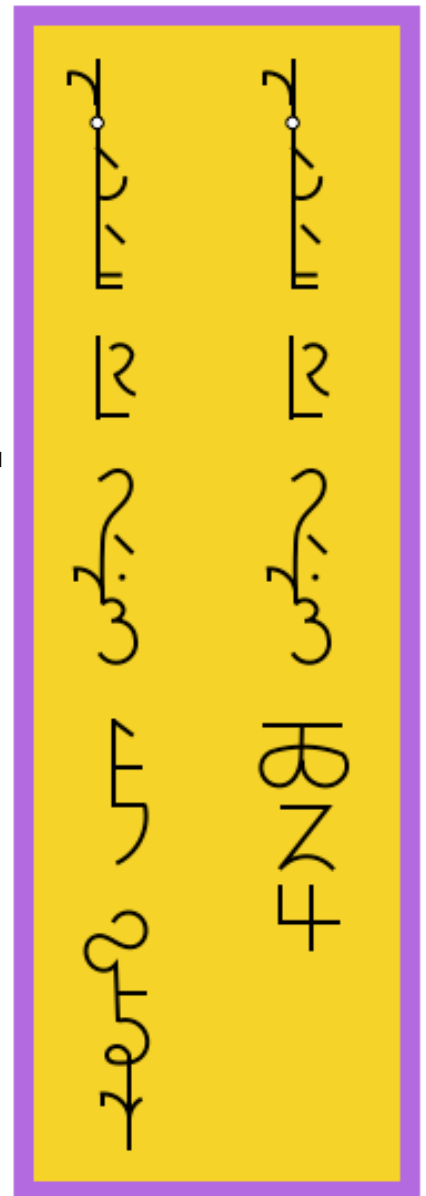
To the right is shown **é-kulau pa glén kad saheu** written in the **béu** script. Now on the far left we show everything if it was written phonetically. However the 432 time slots that divide up the day are never spelt out. Instead they are always given by a combination of the symbols given on the last page. So the RHS string is considered *good style* and the LHS string is considered *bad style*.

The **béu** script is a bit like Arabic in that some characters have a slightly different shape depending upon whether they occur at the start of a word, in the middle of a word or at the end of a word.

Point of interest ... one day ends and the next starts in the middle of the night, when the sun is right under our feet. So midnight is an important transition point ... one day closes and another opens.

Scholars have long debated whether **aule** “after” and **kepe** “before” are connected in some way with the animal totems sitting at the opposite sides of the day. As yet there is no consensus one way or the other.

Fun Fact ... **dontwa** “to disappoint”/“to let down” comprises **dón** “to lose”/“to drop” and **twa** “a meeting”/“to meet” (that is to meet as scheduled, to meet by chance is **kulau**)



## The time of year

The **beumin** are no respecters of nature. There is one clock for the entire globe ... no time zones. If you stand exactly on the border between the **ki?tasik** (West Pacific) and the **neltasik** (East Pacific) the sun will be directly under you as one day changes into the next. {If not at sea you would be on the eastern side of Saint Lawrence Island or on the western side of Umnak Island}

Also their year is 216 days long. No attempt to get in synch with the sun or the moon. They really don't care what nature is up to ... they believe themselves to be so, so superior.

The **béu** year ... the **muak** (216 days) is divided into six parts ...

sun	geu	dun	hia	nel	ki?

The name for a solar year is **mwaka**. But in **beugan** you come across the term **muak** a lot more frequently than you come across the term **mwaka**.

And these parts are in turn further subdivided into 36 parts. Just as the time of day was. These 36 divisions are the same ones that divide up the day.

## The time of your life

In **beugan** certain things follow the **mwaka** cycle. For instances the big five yearly festivals. And of course activities associated with agriculture, hunting and sports. Most other things follow the **muak** cycle. Things like schooling and work.

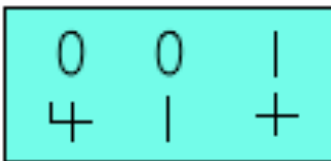
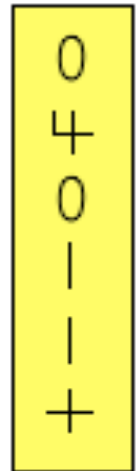
But actually for the majority of things, an extended **muak** cycle is preferred. This cycle is called **dai** (translated “century” or “generation” sometimes) and is  $\approx 127.7$  years long (46,656 days).

It is represented by three basic numbers. If one hears **bye** (day) followed by three basic number in succession you know that one day is being specified out of the 127.7 year period.

For example, the day represented on the right here is Wednesday the 18 of Aug 2021. In **béugan** it is **bye yá tói waya**. Notice that the maximum human lifetime is just under a **dai**. Hence if we have a historical figure (or not so historical figure) whose dates of birth and death are known. And if we know they wrote or did something on day **yá tói waya**. Then that is enough to fix the writing or the action absolutely ... with respect to all time, a pretty efficient system.

Every person alive has a **telbye**... their day of birth. Every deceased person also has a **menbye**. These two numbers being important for administrative purposes.

Notice that **yá tói waya** is embedded in a rectangular border. This is always the case. The example to the right is how the day is written in “text” form. It also occurs in “stamp” form. This is shown below.



Usually a **beume**, when they start to write on a sheet of paper, will put the stamp corresponding to the current date, up on the top left hand side of the sheet. They are taught this at school and most do it automatically, without thinking.

The current **dai** started on 7th October 2003.  
The stamp for that date is =====>

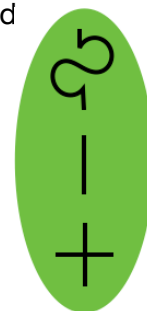


This is pronounced **bye wau wau tói**. The last day of a **dai** is **bye wau wau wau**, But for some reason people dislike pronouncing three **wau**'s on the trot. So more commonly called **bye dulu**. **dulu** = featureless, dull, bland, flat, uninteresting, boring, insipid

It should not be forgotten that **bye yá tói waya** is also **sun waya** ==>

It is always called just **sun waya** not **\*bye sun waya** . If one is writing or recording something one would always use **bye yá tói waya** .

However if you were a school administrator or a plant manager you would specify geography would be studied **sun waya xobot yatoi** or that the main oil filter should be replaced **sun waya** .



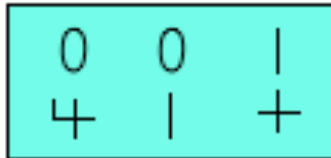
By the way, there are two ways of asking what day it is. You say simply **c-bye** if you want to know the day of the **muak**. You say **bye c-lau** if you want to know the day of the **dai**. That's makes sense. Iconic ... you ask the longer question if you want the longer answer.

The days of the **muak** are numbered 1 -> 216 and the days of the **dai** are numbered 1 -> 46656.

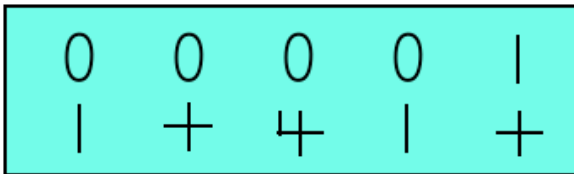


## The time of history

**beugan** history started on 3,106 BC. This sort of coincides with the start of writing. It was only with writing that events could be narrowed down to the exact day. Before 3,106 BC was **keptaun** “prehistory”. After 3,106 BC was **aultaun**. **aultaun** can also mean historical (in the sense that an event is historical if it was recorded and dated in a contemporaneous document).

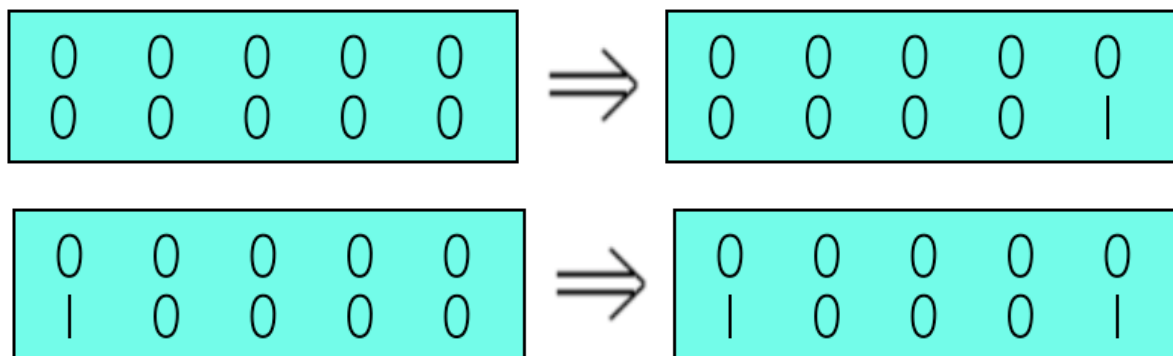
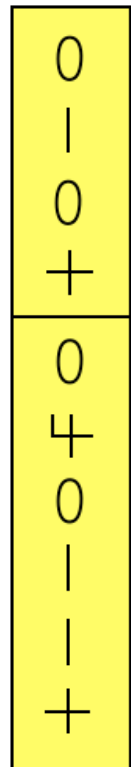


We have already seen this “stamp”. It represents [Wednesday the 18 of Aug 2021] This stamp is called the short count stamp ... **cila d-taun tam** .



The **cila d-taun tam** is the system commonly used, used by everyday situations by everyday people. However there is a more extended count ... the **cila d-taun nagai**. This count is found in historical books. It is given here in stamp form (left) and in text embedded form (right).

When all the entries in the **cila d-taun nagai** were zero we were at the start of history. On midnight (too-lazy-to-work-out-exact-day but  $\approx$  3,106 BC) the bottom rightmost number changed from 0  $\Rightarrow$  1 and history began.



The above transition was also significant. It happened on 21st October 1492, the first full day in which men from the old world experienced the new.

## Counting down the years

There are 1,296 **dai** . They each have a unique designation. Usually a noun followed by an adjective. The nouns are mostly simple things you come across in nature ... some are alive, but they don't as a rule move that much. The adjectives are usually emotional states experienced by humans. So the combination usually has quite a whimsical effect.

Let's whet our appetite for **béu** by examining these 1,296 names. Let's break them down and have a bit of fun.

Usually historians talk about a particular **dai** and that **dai** is referenced by “noun + adjective”. Very very occasionally a  $\approx$ 4,500 year period is referenced ...

For example [3106 BC - 1492] would be **gamuq dói** .

We are currently in **yoki ?á domo** “the worried stream” [7 Oct 2003 - 3 Jul 2131]  
**yoki** is a stream with a flow of less than  $\approx 8 \text{ m}^3/\text{s}$  (see chapter 18). **domo** is a verb. It means “to be anxious”. **á-** is a present tense marker and **?** introduces a relative clause.

So **dói ?á-domo** means “the little stream that is worrying”.

[Well maybe “the little hill that is worried” is a better translation ... as worry is an A=S ambitr verb and you half expect a following object when you hear “the little hill that is worrying”]

**yoki otko** “the inquisitive stream” [10 Jan 1876 - 6 Oct 2003]

**ko** is a verb meaning “to know”. **ot-** is a derivational prefix that means “being inclined to -”

**yoki nafu** “the cute stream” [14 Apr 1748 - 9 Jan 1876]

**fú** is a verb meaning “to love” and **na-** being the derivational prefix that means “worthy of -”

**yoki qaujai** “the lonely stream” [18 Jul 1620 - 13 Apr 1748]

**yoki hwiau** “the excellent stream” [21 Oct 1492 - 17 Jul 1620]

Going further back **yoki** changes to **dói**. Actually the **dói** => **yoki** transition date is significant. It is when men from the Old World discovered the New World.

**dói qiap** “the silent hill” [16 Jan 1365 - 20 Oct 1492]

In English we have “hill” and “mountain”. In **béu** we have three words **dói dutse** and **hwaq** (getting progressively bigger). The exact formula for determining which is which is a bit complicated so we won't include it here.

**dói mupeli** “the thoughtful hill” [22 Apr 1237 - 15 Jan 1365]

**mu** means “to think”. **mupe** means “a thought” **-li** is a derivational suffix that means “having -” (see chapter 17).

**dói ?-?undwam** “the bewildered hill” or “the confused hill” [27 Jul 1109 - 26 Jul 1237]

**?undwa** is actually a verb meaning “to feel confused”. **-m** is a present tense marker and **?-** introduces a relative clause. So **dói ?-?undwam** actually means “the hill that is bewildered”

**dói lohkai** “the silver hill” [21 Oct 981 - 26 Jul 1109]

**lohkai** is an adjective derived from the noun **lohik** “silver” (see chapter 26).

**dói kaidu** “the cunning hill” or “the sly hill” [25 Jan 854 - 20 Oct 981]

**dói otnu** “the generous hill” [1 May 726 - 24 Jan 854]

**nú** is a verb meaning “to give”. **ot-** is a derivational prefix meaning “inclined to -”

**dói kiniau** “the mean hill” [5 Aug 598 - 30 April 726]

**níau** is a verb meaning “to stick”. **ki-** is a derivational prefix that means “having the bad habit of always -” (see chapter 37) ... I think the idea is that their money sticks to their bodies.

**dói dalwa** “the black hill” [9 Nov 470 - 4 Aug 598]

**dói loso** “the grey hill” [13 Feb 343 - 8 Nov 470]

**dói molya** “the white hill” [20 May 215 - 12 Feb 343]

**dói winai** “the friendly hill” [24 Aug 87 - 19 May 215]

**winai** is an adjective derived from the noun **wín** “friend” (see chapter 26)

**dói ?-taudem** “the angry hill” [ $\approx 40 \text{ BC}$  - 24 Aug 87].

**taude** is actually a verb meaning “to be angry”. **-m** is a present tense marker and **?-** introduces a relative clause. So **yoki ?-taudem** actually means “the little stream that is being angry”.

**dói hyolnai** “the golden hill” [167 BC - 40 BC]

**hyolnai** is an adjective derived from the noun **hyolun** “gold” (see chapter 26).

**dói ?á heuqo** “the sad hill” [295 BC - 167 BC]

**heuqo** is actually a verb not an adjective. It means “to be sad/down”. **á-** is a present tense marker and **?** introduces a relative clause. So **dói ?á-heuqo** “the little hill that is being sad”. The state is temporary (one entire **dai** of sadness would be too much to contemplate :-)).



**dóí ot?oim** “the happy hill” or “the contented hill” [422 BC - 295 BC].

**ot?oim** is an adjective meaning “inclined to be happy”. It is derived from the verb **?oime** meaning “to feel joy”.

**dóí na?awus** “the dangerous hill” [550 BC - 422 BC]. At first brush, this composition might seem a bit strange. But it is not any stranger than many compositions we have in English. For example “beautiful” ... quite strange if you think about it. **?awus** is a particle (well it doesn't fit in as a noun, verb or an adjective, so I guess it must be a particle). It is what you shout out if you think someone is in danger. That is ... it means “watch out”. **na-** is a derivational prefix that means “worthy of -” (see chapter 37)

**dóí laqli** “the bright hill” [678 BC - 550 BC]

**laq** is a noun meaning “light”. **-li** is a derivational suffix that means “having -” (see chapter 17)

**dóí laqlu** “the dark hill” [805 BC - 678 BC].

**laq** is a noun meaning “light”. **-lu** is a derivational suffix that means “lacking -” (see chapter 17)

**dóí tiad** “the nice hill” [933 BC - 805 BC]

**tiad** means “nice”/“pleasant” when applied to a person. When applied to a thing it means something like efficient ... getting the most bang for your buck. For instance getting a lot of beauty points per unit spent on decoration. Connotations of neither too ostentatious or too plain. With regard to people, has connotation of “frugal”/“dependable” ... possibly “not ugly”.

**dóí linau** “the calm hill” or “the peaceful hill” [1060 BC - 933 BC]

**linau** is an interesting word. On the one hand, it is an adjective meaning “calm”. On the other hand, it is a noun meaning “a body of water from 812,000 m<sup>2</sup> to 5,080 m<sup>2</sup> in size”.

**dóí ?-?ut?atam** “the frustrated hill” [1188 BC - 1060 BC]

**?ut?at** is actually a verb meaning “to be feeling frustrated”. **-m** is a present tense marker and **?-** introduces a relative clause. So **dóí ?-?ut?atam** actually means “the hill that feels frustrated”.

**dóí dalmai** “the iron hill” [1315 BC - 1188 BC]

**dalmai** is an adjective derived from the noun **dalma** “iron” (see chapter 26). Actually there is a bit confusion here. **dalmai** can be interpreted as meaning both “made of iron” or “metallic”. One can say **dalmai pyú** “pure iron” to specify “made of iron” as opposed to “metallic”.

**dóí bwai** “the brave hill” [1443 BC - 1315 BC]

**bwai** is an adjective derived from the noun **bwo** “a bull”.

Courage is a quality exemplified by the bull ... in **beugan** anyway (see chapter 26)

**dóí otlod** “the diligent hill” or “the industrious hill”. [1571 BC - 1443 BC]

**otlod** is an adjective derived from the verb **loda** “to work”. **ot-** is a derivational prefix that means “being inclined to -” (see chapter 37)

**dóí kikiat** “the lazy hill” [1699 BC - 1571 BC]

**kikiat** is an adjective derived from the verb **kiat** meaning “to rest”/“to relax”/“to take it easy”.

**ki-** is a derivational prefix that means “having the bad habit of always -”.

**dóí helau** “the purple hill” [1826 BC - 1699 BC]

**dóí celai** “the pink hill” [1953 BC - 1826 BC]

**dóí nelau** “the dark blue hill” [2081 BC - 1953 BC]

**dóí ganli** “the careful hill” [2209 BC - 2081 BC]

**ganli** is derived from the noun **gan** “care” (see chapter 17)

**dóí ?-itsim** “the excited hill” [2336 BC - 2209 BC]

**itsi** is actually a verb meaning “to feel excited”. **-m** is a present tense marker and **?-** introduces a relative clause. So **dóí ?-itsim** actually means “the hill that is excited”.

**dóí aqgai** “the wooden hill” [2464 BC - 2336 BC]

**aqgai** is derived from noun **aqga** “wood” (see chapter 26).

And now we have completed the cycle. We arrive back at where we started. But we must count down 5 more dai to get to the start of history.

**dói ?á domo** [2592 BC - 2464 BC]

**dói otko** [2720 BC - 2592 BC]

**dói nafu** [2847 BC - 2720 BC]

**dói qaujai** [2975 BC - 2847 BC]

**dói hwiau** [3106 BC - 2975 BC]

And now we are in prehistory [ **keptaun** ]. It is said “writing circa 3200 BC”. So to start off history at 3106 is quite appropriate.

Above we covered the first 5,237 years of the **beugan** calendar. However there is still another  $\approx$  160,000 years to go before the calendar repeats.

We have covered the calendar-nouns **yoki** and **dói** already. There is a further 34 to be introduced. They are given below in the order in which they will happen ... inshallah.

**yoki** : **dói** : **búk** “thorn” : **sataghon** “staghorn coral” : **aicen** “berry” : **telaga** “a small lake”

**klojib** “a limpet”/“barnacle” : **jem** “a gem”/“a precious stone” : **pempon** “lichen”

**kaus** “a cloud” : **fos** “a small stream” : **gefa** “a leaf” : **dutse** “a small mountain”

**het** “a mushroom” : **danau** “a lake” : **blo?ma** “brain coral” : **ka?on** “a pine cone”

**alha** “a flower” : **?ubdi** “a screw shell ==>

**kogi** “a pretty big river” : **helgia** “a starfish”

**bexak** “a waterfall” : **sapot** “a sea anemone

**situ** “a pretty large body of water”



**hwaq** “a mountain” : **gefau** “a frond”/“a big leaf ... like a banana plant leaf” : **ufon** “moss”

**antawe?i** “acropora clathrata ... a type of coral” ==>

**loca** “a huge river” : **nefim** “a fern”

**ha?jau** “a clam”/“a bivalve” : **elemxi** “a jellyfish”

**moin** “a sea” : **qailos** “a rainbow”

**hweleq** “kelp” ...

and finally ... **gafton** “a giant water lily”



The words of **béu** can be divided into four broad categories. Nouns, Verbs, Adjectives and Particles. Nouns, Verbs and Adjectives are sets of words that can identified by how they are used ... by how they act. Not so with Particles. It is as if each individual particle is a category by itself.

However the commonalities of the other three categories can be discussed. Three chapters will be given over to this. Starting with adjectives.

When it comes to word shapes, adjectives are overly represented by the CVCV form. For example ...

**linau** = calm

**mutu** = important

**mula** = great

## The comparative

The comparative is formed using the particle **bí**.

**ás duntasik linau bí suntasik** = the Indian Ocean is calmer than the North Atlantic

word by word, this is ... “is Indian-Ocean calm beyond North-Atlantic”

**bí** is a special particle used only in the comparative. Presumably it was once a verb meaning something like “to pass”/“to exceed” or maybe something like “compare”.

Of course, if the final element is salient (whizzing around the mind-loft of the speech-mates involved) ... one can simply say ...

**ás duntasik linau bí** = the Indian Ocean is calmer

It is not that common to use the comparative as a noun attribute ... however if occasion demanded, a relative clause could be used (relative clauses will be explained in chapter 33).

## The superlative

The superlative is formed using either the particle **tái** or **ten**.

These two words can be used interchangeably.

**ás hiatasik linau g-tái** = the South Pacific is calmest = **ás hiatasik linau g-ten**

The **g-** is another of these **glia** I mentioned before. It is translated as “at”/“in” or “on” ... **tái** is a noun meaning “peak”/“pinnacle”/“summit”/“zenith” ... **ten** can be translated as “end”, however only in the spacial sense, not in the time sense.

The superlative is often used as a noun attribute.

**i-tu xáu jutu g-ten nía l-sumbuq l-jím**

= The biggest elephant came down to the waterhole to drink.

By the way ... **l-** is another of those **glia** ... when cliticized to a noun, it can be translated as “to”. When cliticized to a verb, it can be translated as “in order to”.

There are a handful of adjectives/adverbs that have irregular comparatives and superlatives ...

**mula** = great

**mulwa** = greater

**mulya** = greatest

**bói** = good

**bowo** = better

**boyo** = best

**keu** = bad

**kewe** = worse

**keye** = worst

**late** = late

**latwe** = later

**lacce** = latest

**jiage** = early

**jiagwe** = earlier

**jiajje** = earliest

These pattern as regular comparatives and superlatives. For example ...

**i-tu níq jiage** = Ning came early : **i-tu níq jiagwe bí jian** = Ning came earlier than lan

**i-tu níq jiajje** = Ning came earliest

## Adjectives transforming to other parts of speech

### ADJECTIVES => VERBS

**dunu** = brown      **dunute** = to become brown      **dunuten** = to make something brown

### ADJECTIVES => NOUNS

In natural languages it is common for adjective forms to represent nouns. Particularly in languages where adjectives change to reflect the class/number of the noun they qualify. **béu** doesn't do this that much. At least when it comes to animates. Probably due to the following useful suffixes ...

**dunuq** = brown-ness      **dunume** = a/the brown person      **dunumin** = a/the brown people  
**dunubo** = a/the brown man      **dunuga** = a/the brown woman

### ADJECTIVES => ADVERBS

In a very similar way to English, **béu** uses the **glia q-** to change an adjective into an adverb.

**jaqkam ál q-saco** = Allan is running quickly

If the adverb finds itself immediately after the verb, the **glia** can be dropped.

**á-henda? ál jaqka saco** = Allan intends to run fast

As well as being a particle, **ten** is also a normal noun. It means the ends of any one dimensional object (time is not included here as a 1D object. The two words **he** and **ho** fulfill the function of **ten** when it comes to time). A **xa?it-ten** means a cul-de-sac. A **matehten** is a bus terminus ... the place where everybody must get off. For a **hwaupaga** (log) or a **fok** (post), there are two extremities, each with an equal right to be called **ten**. However with tools, such as **puan** (a spear) or **gin** (a pen or pencil), it is the sharp end that tends to be designated **ten**.

If one is discussing, say ... the pros and cons of owning a small dog compared to a big dog. One could start to talk about **jututen** "big-one" and **tijiten** "small-one". To refer to them as such promotes the idea that the two dogs are at opposite ends of a spectrum ... the size spectrum.

From the above usage, the terms **maten** and **poten** developed ... "mother" and "father". Later, from this trend, developed **balten** "husband", **dahten** "wife", **haupten** "son" and **?uxten** "daughter".

**tentiau** = dichotomy <= **ten** + **tíau** = end [ with plural (i.e. dual) meaning ] + only

**tendiqten** = a continuum <= **ten** + **diq** + **ten** = end + body + end

And **ten** also turns up in the words **pauten** "the variable x" and **saten** "the variable y". Not really used in equations with more than two variables. But should always be used for situations with exactly two variables.

The word for "even" is **tengiau** <= **ten** + **giau** with **giau** meaning "position". For example ...

**tengiau jene dweli / áu ko no klai** = Even old Jane doesn't know the answer

Notice in the above example **tengiau jene dweli** has been bought forward, being represented in the clause proper by **no** "she". This happens quite a lot with **tengiau**.

**ten ?il** (& **ten lau**) correspond to "even if". This indicates that the action in the clause, is an extreme action. For example ... **ten ?il lód lé bye.bye / u w-ganya ?upu pwo l-osta dah**  
 = Even if you work every day, you won't earn enough money to buy a house.

The nouns are quite boring ... they don't change much. Sometimes they change form to indicate plurality. About twenty or so of them have a dual form.

If a noun has the form CVCVC then the plural is always of the form CVCCV.

**xobot** = a rabbit      **xobto** = rabbits      **kasap** = a butcher      **kaspa** = butchers  
**fanaf** = a horse      **fanfa** = horses      **bilig** = an embryo      **bilgi** = embryos

Also if a noun has the form VCVV the plural will be VCCV.

**ixim** = a duty      **ixmi** = duties

For other word forms, things are not so predictable. For example ...

**wín** = a friend      **wían** = friends  
**joc** = a chicken      **joic** = hens  
**jig** = a cock      **jiag** = roosters  
**lát** = a bat      **láit** = bats  
but **mit** = pig      does not have a plural form **\*miat**

About half the nouns do not have a plural form. However just because a plural form doesn't exist doesn't mean that plurality can not be expressed. In fact the singular/plural and the definite/indefinite distinction is given by three particles ... **to** **xa** and **yé**. But maybe it's better to talk about a four way distinction ... **to** **xa**  $\emptyset$  and **yé**.

	SINGLE	PLURAL
INDEFINITE	<b>to</b>	<b>xa</b>
DEFINITE	$\emptyset$	<b>yé</b>

So **mit to** = a pig ..... the form use when it is first introduced.  
and **mit** = the pig ... the form use after it is introduced ... and for more than one pig ...

**mit xa** = some pigs ... the form use when they are first introduced.  
and **mit yé** = the pigs ..... the form use after they are introduced.

And for nouns that do have a plural form, the paradigm is ....

**fanaf to** = a horse  
**fanaf** = the horse  
**fanfa xa** = some horses  
**fanfa** = the horses

	SINGLE	PLURAL
INDEFINITE	<b>to</b>	<b>xa</b>
DEFINITE	$\emptyset$	$\emptyset$

Just as the word "some" in English, has fused with certain elements that were habitual neighbours, the words **to** and **xa** fuse with frequently adjoining elements, to gave ...

<b>xaito</b>	something	<b>xaixa</b>	some things
<b>puto</b>	someone/somebody	<b>puxa</b>	some people
<b>lauto</b>	somewhere	<b>lauxa</b>	some places
<b>kyuto</b>	sometime	<b>kyuxa</b>	sometimes
<b>weto</b>	somehow	<b>wexa</b>	somehow

The table above is pretty straight forward. **wexa** is used instead of **weto**, when the objective under consideration is a bit complicated.

Note ... the particle **yé** is never used with a noun that has a plural form.

Getting back to the disparate plural forms ... from singular to plural, you always have one of these transforms happening to the last vowel ... **u** => **ua**, **o** => **oi**, **a** => **ai**, **e** => **eu** and **i** => **ia**.

So we have ... **kobo** = pot, **koboi** = pots ; **jwado** = (big) bird, **jwadoi** = (big) birds

but ... **waulo** = dog, **waloi** = dogs : **kendo** = goat, **kedoi** = goat

**wían** is the plural of friend. However the plural of **uwin** “enemy” is not \***uwian** but **uwin yé**.

Every time a noun introduces the plural form will be given also ... if one exists. Plurals of CVCVC and VCVC forms will not be given as they are totally regular. One other thing. Compound words never have a plural form, even though the final element might when occurring alone.

There are 14 nouns that have a dual form ...

<b>ab?i</b> = an arm /arms	<b>ab?iau</b> = two arms	
<b>kaupa</b> = a leg	<b>kaupau</b> = two legs	
<b>man</b> = a hand / hands	<b>manau</b> = two hands	
<b>?eli</b> = an ear/ ears	<b>?elau</b> = two ears	( <b>?el</b> = to hear )
<b>nya</b> = an eye / eyes	<b>nyau</b> = two eyes	( <b>tía</b> = to hear )
<b>eje</b> = a lung	<b>ejau</b> = a pair of lungs	
<b>dupos</b> = a kidney	<b>dupsau</b> = a pair if kidneys	
<b>bomon</b> = a breast / breasts	<b>bomnau</b> = two breasts	( <b>bomno</b> = garbage )
<b>bolak</b> = a testicle	<b>bolkau</b> = two testicles	( <b>bolka</b> = rubbish )
<b>kloga</b> = a shoe	<b>klogau</b> = a pair of shoes	
<b>gempa</b> = a sock	<b>gempau</b> = a pair of socks	
<b>naiti</b> = a knitting needle	<b>naitau</b> = a pair of knitting needles	
—	<b>pantau</b> = trousers	
—	<b>jiandau</b> = scissors	

The last two are believed to be the result of affixing the dual suffix to something. But nobody can remember what. Lost in the mists of time.

Now all the words in the first two columns above, pattern with **mit** when it comes to **to xa** and **yé**. Obviously they usually come in pairs, so more common to hear **klogau yé** than **kloga yé**. But **kloga yé** is definitely a thing ... a pile of unsorted shoes for example.

The forms **main**, **elia**, **?ejeu**, **klogai** and **naitia** are not plural forms ... though they could be.

The forms **bomno** and **bolka** are usually used to negatively comment on something someone has said ... rather than referring to actual rubbish/garbage. I don't understand the connection to the body part usage myself. But the **béu** pundits assure me that this is the case ... and who am I to argue.

### The man-made World

A settlement of under 96 people is called a **doqah**  
 A settlement of 96 to 5040 people is called a **laun**  
 A settlement of 5040 to 264,600 people is called a **ludau**  
 A settlement of over 264,600 people is called a **benaf**



Verbs can be divided into two classes ... dynamic verbs and stative verbs. Every verb is either one or the other. From now on, when a verb is introduced, it will be followed by D if it is a dynamic and S if it is a stative. S verbs typically take a longer time to do.

An example of a D verb is **piga** “to hit”. An example of an S verb is **ko** “to know”. Perhaps a typical “on” time of about a day divides S verbs from D verbs.

Semantically it doesn't make any difference. Whether S or D is just something one must know so you can apply the proper “activators”. An activator is basically a tense particle that comes before the verb. Maybe you can think of the verb with no activator as “infinite” and the verb with the activator as “finite” [ I won't mention the terms “infinite” and “finite” again. The terms being a hand-down from the study of Latin and Greek].

Let's activate **piga** “to hit” first.

**i-píg noj** = he hit it in the past

**ú-píg noj** = he will hit it

**o-píg noj** = he usually hits it ... (usually rendered in English as plain “he hits it”)

**oi-píg noj** = he used to hit it

**é-píg noj** = he hit it earlier today

So we have a set of five particles that give a quite fine-grained tense paradigm.

But first I should explain why “to hit” sometimes appears as **piga** and sometimes as **píg**.

### Tail-shedding verb

Maybe about 15% of verbs are tail-shedding verbs. Some example ... **kata** = cut, **doika** = walk, **yoma** = read, **sana** = to be healthy, **loda** = to work, **poda** = to check, to view over.

When directly activated by an activator particle, the tail “a” is lost and the remaining word takes a high tone. All tail-shedding verbs end in “a” and become monosyllabic when this final “a” is dropped. Verbs such as **jaqka** “to run” are not tail-shedding as they would be impossible to pronounce without their final “a”.

Verbs without activators can be thought of as verbal nouns ... **kata** = the cutting, **doika** = a walk, **yoma** = the reading, etc. etc.

Or verbs without activators can be thought of as heads of noun phrases ...

**kata jene alem** = Jane cutting paper, **doika jono** = John walking, **yoma telma** = Thelma reading

Note ... **kata** is transitive, hence two arguments : **doika** is intransitive hence one argument **yoma** is transitive, however it is OK to drop the object. It would not be OK to drop the subject. To drop the subject you must use the passive transformation ... **yomas oned** = the reading of the book.

Sometimes one of the nine aspect operators appears immediately in front of the verb (see chapter 24). In these cases the activator appear immediately in front of the aspect particle.

In these cases the aspect operator and the verb are considered one unit. Hence it is considered that the verb has been “directly” activated. For example ...

**át kát jene alem** = Jane has cut the paper

And for some of the aspect operators, the **á** activator is dropped. Or it can be considered to be there in an “underlying” form. In these cases the verb tail is still dropped. For example ...

**ke kát jene alem** = Jane has already cut the paper

And that's it for tail shedding verbs.

Let's see the activators available for the S verb **ko** ...

**i-ko pa glén** = I knew Glen

**á-ko pa ilya** = I know Ilya

**ú-ko pa jian** = I will know Ian

So only three tense distinctions for S verbs. But I guess that makes sense ... if the action lasts longer there is less need to specify "when" the action takes place.

OK ... we have finished explaining the S verb activators ... there is not much to them. However the D verb activators require more work.

## The activating suffix

You may have noticed that no present tense activator was given for **piga** ... there was no equivalent to **á-** for the D verb. If you did, award yourself 10 points for paying attention :-)

The present tense activator for D verbs is the suffix **-m** (or **-am** if the verb is consonant final). So ...

**pigam noj** = He is hitting it

And actually the **-m** form can be combined with the 5 activators already given, to give ...

**i-pigam noj** = he was hitting it

**ú-pigam noj** = he will be hitting it

**o-pigam noj** = he is usually hitting it

**oi-pigam noj** = he used to be hitting it

**é-pigam noj** = he was hitting it earlier today

Now the five forms above have an iterative vibe compared to their **-píg** equivalents. All punctual D verbs such as **piga** take an iterative vibe ("punctual" meaning "happening more or less instantaneously"). More durative D verbs ... such as **tía** "to see" the distinction is of time taken.

I am not going to go into when **-tía** versus **tíam** should be used much (but actually it should be pretty instinctive for a native English speaker). But one thing I will say ... When one action fits inside another action the **-m** form is used for the longer action. For example ...

**i-doikam pa dah h-tía pan** = "I was walking home when I saw her"

There are two other particles that can be used to activate D verbs ... **ipe** and **upe** .

**ipe píg noj** = "He just hit it" : **upe píg noj** = "he is just about to hit it".

These have the same status as **i- ú- o- oi-** and **é-** ... all non-**m** activators are all independent words (although the **béu** graphical convention might obscure this fact). **ipe** and **upe** can also co-occur with the aspect suffix **-m**.

So 15 ways to activate a dynamic verb / **i / ú / o / oi / é / -m /** 6

/ **i -m / ú -m / o -m / oi -m / é -m** 5

and ..... / **ipe / upe / ipe -m / upe -m /** as well 4

So 15 ways to activate a dynamic verb. And 3 ways (**i á ú**) to activate a static verb.

[ Actually 16 ways and 4 ways if we include **fo** ... see chapter 45 ]

As a considerable percentage of the occurrence of the **-m** form will be in "one action fits inside another action" constructions and the **-m** forms, are of necessity, unfinished in these constructions, then ... inevitably ... the / **i -m** / form will take on some connotation of incompleteness in comparison to the plain / **i** / form.



## Keeping Dynamic and Static apart

There are two distinct tense systems. The Static Verb System with **ú á** and **i**, and the Dynamic Verb System with **/ i / ú / o / oi / é / -m / i -m / ú -m / o -m / oi -m / é -m / ipe / upe / ipe -m / upe -m /**. It is not out of the question for a verb to transition from one system to another.

Take the verb **pelga** “to sail” [**pelga** is also a noun meaning the sheet used to catch the wind]. It has been traditionally been designated S. I guess typically sailing ships took many days to reach their destination. Hence it was appropriate that the verb take **ú á** and **i**. However nowadays commercial sailing ships don’t exist and a typical “sail” might last only a few hours on a small pleasure craft.

In fact there have been reports of well-off people that live on the coast, starting to use the dynamic activators with **pelga**. This doesn’t cause a problem. It’s not as if the whole communication system breaks down. It just means that certain people experience a “that’s a bit strange” moment.

It’s a bit equivalent the “dive” in English. Traditionally the past tense of “dive” is “dived”. However ... no doubt under the influence of “to drive” ... of late, have started to use “dove” as the past tense of “dive”. It’s no biggie. The first time you hear it you have a “that’s a bit strange” moment. But half a second later you have processed it. From then on you can handle both “dived” and “dove” with hardly any disorientation.

The connotation “many times” with regard to punctual verbs with the **-m** suffix is interesting. Let’s take **piga** as a typical punctual verb. In terms of human consciousness the action time can be considered as a line of zero length lying along the time axis. It is impossible to report on the action in real time. The closest you can come is **ipe píg noj** = “He just hit it” or **upe píg noj** = “he is just about to hit it”. So **-m** is an affix without a meaning (for punctual verbs). It is good that it found useful employment and took up the burden of expressive “multiple times”. It could have taken up the burden of expressing habitualness, however this task is already done with **o-** in **béu**. So it picked up the “iterative” meaning. Fascinating how language works.

All verbs are either D or S. However some D verbs can be converted to S verbs with the addition of **du-**. And conversely, some S verbs can be converted to D verbs with the addition of **di-**. As you might expect, there is a difference in meaning involving “total time of the action” between the two forms that these transformations produce. However, there can also be an idiomatic change of meaning also. **For example** ...

**kwáu** = “to notice” has connotations of “by accident”. However **dukwau** = “to monitor” has connotations of “deliberateness” if anything.

**heca** = “to look for” ... has the connotation of a small scale operation i.e. looking under the bed for your socks. However **duheca** “to search” has connotations of a big operation, maybe involving many people.

**fú** means about the same as “to love” in English (with the subtraction of the “to like” meaning). However **difu** has a meaning something like “to be infatuated with”. So the transformation hints at a less intensity of emotion. [this example is a bit strange ... both forms hint at a “typical duration of action” well in the S range (i.e longer than a day or two). **Other examples** ...

**swú** D = to be frightened : **duswu** S = to dread

**hwe** D = to visit (ie a day visit) : **duhwe** S = to be on holiday

**xad** D = to move (the slightest (translational) move) : **duxad** S = to move (like the Visigoths in the fifth century or the Gnu in the Masai Mara

**jub** S = to believe : **dijub** D = to be under the impression

**hata** S = to harvest (like spending 3 weeks harvesting a large rice field) : **dihata** D = to harvest (like going into the back garden to get some parsley for the soup you are making.

We have 4 very useful prefixes ... **-bo**, **-ga**, **-me**, **-min** suffixes “male human, female human, human, human (plural)”. Here we will introduce 5 institutions that make use of the 4 suffixes.

<b>saqha</b>	the priesthood	<b>polis</b>	the police
saqbo	a monk	polbo	a policeman
saqga	a nun	polga	a policewoman
		polme	a police officer
		polmin	police officers

<b>kecin</b>	the Post Office	<b>hemel</b>		<b>hedum</b>	slavery
kecbo	a postman	hembo	a bin man	hedbo	a slave (male)
kecga	a postman (female)			hedga	a female slave
				hedme	a slave
kecmin	postmen	hemmin	bin men	hedmin	slaves

The empty slots above can of course be used if the need arises. I left them blank because they are quite rare.

Note that I left the name of one institution blank. In the language I speak, there is no real term for it. “Refuse collection department” is far too “highfalutin” ... it can not be a serious term. I guess most people from around my way would say “the bins”. But this has the opposite problem from “Refuse collection department”. I guess some Americans would be happy with “sanitation department” ... but does that have anything to do with sewerage ? Sewerage has nothing to do with **hemel**. Every village, town and city must have people tasked with sweeping the streets and collecting rubbish from peoples homes. I am not sure what to call these people as a collective whole.

Actually I have come to realize that there are a number of such gaps in the language I speak.

## Another suffix producing “a person”

**pu-** does the same job as **-me**. However it's not like they're interchangeable ... you can't say \***pupolis** instead of **polme**. Each one is applicable in different contexts. One context in which **pu-** is used is to assign people to age ranges.

<b>puxeq</b>	an adult ... someone over ≈21.3 years old
<b>puxeqtoi</b>	a person between ≈21.3 and ≈42.6 years old
<b>puxeqnau</b>	a person between ≈42.6 and ≈63.9 years old
<b>puxeqsai</b>	a person between ≈63.9 and ≈85.2 years old
<b>puxeqya</b>	a person between ≈85.2 and ≈106.4 years old
<b>puxeqheu</b>	a person between ≈106.4 and ≈127.7 years old ... and that's as far as it goes.

Fun fact ... **xéq** =  $36_{10} = 6^2 = 100_6$     Fun fact ... **pume** = person/man : **pumin** = people/men

Another institution

The institution we will cover here is schools/colleges/universities.

**háu** “to learn” (**ko** = “to know” : **háu** is like “a step function” ... it covers a change of state ... the instant when you began to know).

Maybe a child goes to **kliandah** “kindergarten” when very young. Kids play at **kliandah**. Then when the young **beume** is about 5 or 6 he will go to **gigu** “primary school”. What he does at **gigu** is **gig**. That’s right, “learning at primary school” = **gig** .

And maybe after 6 or 7 years at **gigu** he will go to secondary school (usually called “high school” around my way). Now secondary school is called **gogu** and there our growing protagonist will hopefully **gog** a lot.

Perhaps he will **kaleg** as well at the **gogu**. **kaleg** refers to studying a specialist subject as opposed to the general curriculum which all must do. Usually people start to choose what to concentrate during there last year or two at **gogu**.

If no specialization happened in **gogu** it will certainly happen at **kalgu** “university/college”.

Common words ... **nogig** = pupil (primary school) : **nogog** = pupil (secondary school) : **tom** = boy : **tem** = girl ... then we have **gigom** = male primary school pupil (probably the result of of erosion of **nogig tom**). And in a similar manner **gigem**, **gogom** and **gogom**.

When you are at college you are **nokaleg** (no sex distinction for this one). FEMALE STUDENT  
The term for “education” is **goskal** .

**gig** also refers to “primary school curriculum. And **gog** also refers to what you study at high school. And **kaleg** what you study at college.

The act of teaching is considered the same at all three levels (not at the kindergarten level though).

If you teach you are a **ján** and what you do is **háun** .

(**ján** = teacher : **jáin** = teachers : you are not a **nohaun**. There is no such word as **nohaun**).

A minor trend

The **o/e** alternation for male/female is a very minor trend. Besides **tom/tem** and **bwo** bull / **bwe** cow, we have three pairs of names ...

**jono** John / **jene** Jane : **boto** Robert / **bete** Elizabeth : **gil?o** Giles / **gil?e** Gillian

The -pe suffix

In chapter 8 we came across the particles **ipe** and **upe**. These are in fact derived from **i** and **ú** with the addition of the **-pe** suffix. The meaning of **-pe** is “the smallest possible part of”. Here are some more examples ...

<b>so</b>	a row, a line of stitching	<b>sope</b>	a stitch
<b>doika</b> (D)	to walk, a walk	<b>doipe</b> (D)	a step / to take a step
<b>gós</b>	an orange	<b>gospe</b>	a segment of an orange
<b>homa</b>	bread	<b>hompe</b>	a crumb
<b>nwa</b>	snow	<b>nwape</b>	a snowdrop
<b>sum</b>	water	<b>sumpe</b>	a drop of water, a drop
<b>cep</b>	a chain	<b>ceppe</b>	a link
<b>kúap</b> (D)	to move (translational movement)	<b>kuappe</b> (D)	to budge

In chapter 6 we came across six familial names.

The six terms on the right are the proper formal names in **béu** for these family members. The terms on the right have connotations of informality. Maybe we can compare the two columns to the house/home distinction in English.

Actually, with most people, the second column means “my mother”, “my father” etc. etc. etc. Hence you don’t come across such strings as **maten wái, poten wái, balten wái** etc. etc.

Usually the first column refers to the relatives of OTHER PEOPLE.

Also such string as **maten d-pau, poten d-pau, balten d-pau** etc. etc.

Also such string as **maten d-pai, poten d-pai, balten d-pai** etc. etc. are very uncommon.

And the five ego-centric forms never occur with any genitive or possessive pronoun. It is known that the family member talked about is related to the speaker. Of course, the six general names above can occur when possessed by a second person or a third person.

The ego-centric kinship terms are sometimes referred to as **héu jufok**.

**balten** <= **balau** “the open air” + **ten**

**dahten** <= **dah** “house” + **ten**

It is thought that **haupten** is related to **haupi** “kindling”/“dry wood”. In **beugan**, collecting wood for burning was considered a chore for the oldest son. It is thought that **?uxten** is related to **?ux** “to sweep”. In **beugan**, sweeping the house was considered a chore for the oldest daughter. It is not known where the elements **ma** and **po** come from.

**aqya** is a collective term. I guess you would call it a collective noun. It means “all my/our sons and daughters”. -q is the suffix used for adjective => noun

**jutu** “big” => **jutuq** “size”

It seems this suffix also attached to **aqya** => **aqyaq**. This means “progeny”/“descendants”.

By the way **posmaq** means “ancestors”/“forefathers”.

<b>ildo</b>	big brother	<b>mado</b>	uncle	one’s mother’s big brother	<b>podo</b>	one’s father’s big brother
<b>ilde</b>	big sister	<b>made</b>	aunt	one’s mother’s big sister	<b>pode</b>	one’s father’s big sister
<b>wó</b>	wee brother	<b>mabo</b>	uncle	one’s mother’s wee brother	<b>pobo</b>	one’s father’s wee brother
<b>wé</b>	wee sister	<b>mabe</b>	aunt	one’s mother’s wee sister	<b>pobe</b>	one’s father’s wee sister

<b>popo</b>	grandfather	one’s father’s father
<b>poma</b>	grandmother	one’s father’s mother
<b>mapo</b>	grandfather	one’s mother’s father
<b>mama</b>	grandmother	one’s mother’s mother

And you can continue naming your ancestors in this style.

**popopo** = one’s father’s father’s father  
etc. etc etc.

By the way ... **bagya** = family

This suffix produces a word that designates a place. It is non-productive. That is, you can not just stick it on any old words. Some of the more common words produced in this way are ...

<b>onde</b> = books	<b>ondeu</b> = library
<b>xoqa</b> = sand	<b>xoqau</b> = a beach
<b>kia</b> = to defecate	<b>kiau</b> = a toilet
<b>oga</b> = to wash face or body	<b>ogau</b> = bathroom, shower
<b>lauda</b> = to wash clothes	<b>laudau</b> = laundry room
<b>teú?</b> = to stand	<b>teu?u</b> = a porch, a lobby, bus stop
<b>seu</b> = to sit	<b>seu.u</b> = a sitting room, living room
<b>bakai</b> = to cook	<b>bakayu</b> = kitchen
<b>cum</b> = to eat	<b>cumu</b> = restaurant
<b>maum</b> = to sleep	<b>maumau</b> = bedroom
<b>loda</b> = to work	<b>lodau</b> = place of work, work
<b>nia</b> = to go down	<b>niau</b> = the West
<b>pia</b> = to rise	<b>piau</b> = the East
<b>bala</b> = to open	<b>balau</b> = the open air
<b>ga</b> = to enter	<b>gau</b> = interior, inside
<b>cuk</b> = to exit	<b>cuku</b> = outside
<b>jím</b> = to drink	<b>jimu</b> = a tavern, bar
<b>lâq</b> = light + <b>ga</b> = to enter =>	<b>laqqau</b> = a window

..... the above list is not exhaustive .....

We have another word for “window” **koine**, there is no real distinction between **laqqau** and **koine**, a bit like “bucket” and “pail” in English.

**ondeu** corresponds to a room rather than a public building. A library (building) is called **hisag d-onde**. Also **laudau** corresponds to a room rather than a commercial property.

The normal name for “door” is **gacuk**. Sometimes you come across the term **gacuku**. This can best be translated as “doorway” ... like “door and area by the door”. When talking about “door” as a thing (rather than a place) one says **bán d-gacuk**. A window shutter would be **bán d-koine** or **bán d-laqqau**. While on this subject ... “door frame” **yade d-gacuk** and “window frame” **yade d-koine**. **yade** means a frame or a framework and is ultimately a contraction of **yaiade** “rectangle”. **yaiadai** means orthodox/orthogonal/“shipshape”/neat/tidy. **yade** picked up the connotation of “supporting”, “holding up”, which is why we see it in the word **?enyade** “skeleton”.

There is one more word I should mention here. That is **leu?u** meaning a couch or sofa. Here we have a piece of furniture ( **leu?** = “to lie down” ) as opposed to a room. Most of the **u**-forms in the list above are names of rooms.

We also have **yaiau** meaning plaza or town square. **beugan** doesn't really have town squares. However other cultures have ... to be a rich language, **béu** should have a word for this outlandish concept.

One last thing ... we came across **bán** above. When it comes alone it means “table”. When it occurs in a compound expression { **bán d-laqqau** } it usually means something like “board”.

**tiau** = only : **duai** = also, too

These two words (to me) seem to complement each other, hence I have given them sort of complementary phonological realizations.

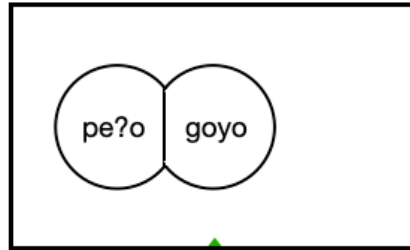
I am not saying they are exact opposites ... but they kinda complement each other.

On the schematic here, (2) is the original statement. The "scope" of "those who can lift that log" is uncertain.

If statement (1) is added to statement (2) the scope of "those who can lift that log" has been expanded.

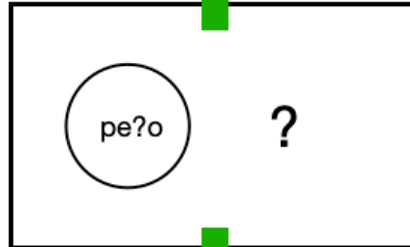
If (3) is heard, it locks down the scope of "those who can lift that log".

1



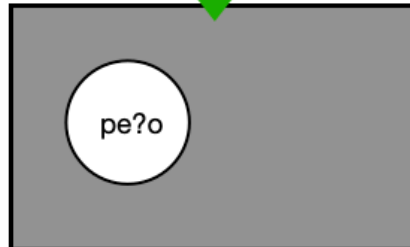
**áp goyo pian hwauppeg de duai**  
= George can lift that log as well

2



**áp pe?o pian hwauppeg de**  
= Peter can lift that log

3

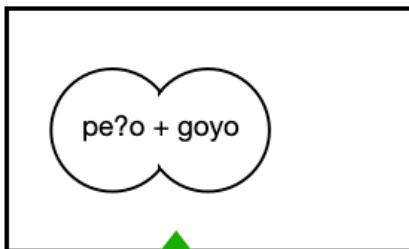


**áp pe?o tiau pian hwauppeg de**  
= Only Peter can lift that log

Both **tiau** and **duai** follow the noun phrase (or adjective, or verb, or adverb) that they qualify.

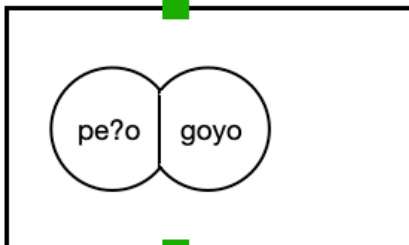
**tiau** and **duai** have been more or less explained. I guess every language has words more or less equivalent to **tiau/duai**. However the examples chosen to explain **tiau/duai** engender further explanation.

4



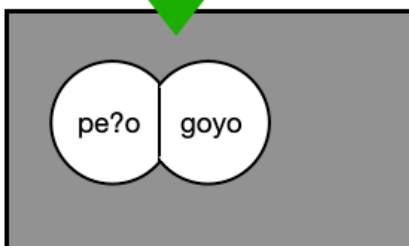
**áp pe?o tan goyo pian hwauppeg de kaqkaq**  
= Peter and George can lift that log together

5



**áp pe?o tan goyo pian hwauppeg de**  
= Peter and George can lift that log

6



**áp pe?o tan goyo tiau pian hwauppeg de**  
= Only Peter and George can lift that log

Looking at (5) first. Instead of having (2) followed by (1), from the outset, one can express the same by the construction (5). The scope of “those who can lift that log” can be locked down by appending **tiau** ... just as when we had a single protagonist as subject (see (6)).

Now, as with English, there can be slight confusion as to whether Peter and George can lift the log individually, or whether they must combine their powers. Maybe the situation can resolve this potential disambiguity. Maybe the conversation that has previously occurred can resolve this disambiguity.

The adverb **kaqkaq** can be added to make things clear (see 4). **káq** ? means flank, so **kaqkaq** means something like “side to side”. In fact (4) can be rewritten ... **kaqkaq** can replace **tan** ?. So **áp pe?o kaqkaq goyo pian hwaupég** = **áp pe?o tan goyo pian hwaupég kaqkaq** .

**kaqkaq** can be translated as “with” in such statements as “The Stewarts fought with the Jacobites in 1745”. However no such replacement can occur in statements such as “Jane went to the market with Elizabeth”. In this case “with” sort of introduces a “sidekick” ... a person not as salient as the main protagonist. In **béu** we don’t have this “sidekick” option for arguments.

The above English example ... namely “The Stewarts fought with the Jacobites in 1745” ... is ambiguous. It could mean “The Stewarts fought against the Jacobites in 1745”. For this meaning, **béu** would use the **glia y-** , which means “against”.

When with has an instrumental meaning, the **glia t-** is used. For example ...

**lenam tibu t-gwót** = Trevor is playing with the ball

When the thing being played with is sort of sentient, you have a choice of two constructions ...

**lenam tibu t-winau** = Trevor is playing with the puppy

**lenam tibu tan winau (wom)** = Trevor and the puppy are playing (together)

Generally the **glia t-** can not be cliticized to a human. But one exception to this rule. It can be used to introduce the underlying subject in clauses that have been passivized (see the next chapter).

Either one must say “Jane and Elizabeth went to the market” [ **i-go jene tan bete dalat** ] or “Jane went to the market” followed by “Elizabeth went too” [ **i-go jene dalat // i-go jene duai** ] { The second clause can occur sometime after the first. However **i-go jene dalat** should still be in short term memory. Often different people express the two clauses, the second person sort of clarifying/ correcting what the first has said.

By the way **tan** is usually used between elements (I mean noun phrases, adjectives or adverbs). It is not used between clauses. Usually we just have a slight pause between clause ... or if the second clause seems to go against the expectations set up by the first clause ... **wá** “but” can be used.

Fun Fact ... **tanduai** is a noun meaning addition or extension.

**káq** means side as in “side of the body”. It does not mean “side” as in “whose side are you on?”. That “side”/“party”/“faction” is **benca** . Derived from **benta** “to divide”/“to share”.

By the way, one wouldn’t use **benca** in “where is my share”. This “share”/“portion” is **xeqa?** (also meaning percent or percentage ... see chapter 38).



The passive voice is quite simple. You simply add **-s** (or **-es** if the verb ends in a consonant) to the verb. For example ...

1) **i-píg jene pa** = Jane hit me

2) **i-pigas pa** = I was hit

The ex-subject (or underlying subject if you will) can be introduced with the instrumental **glia t-** .

**i-pigas pa t-jene** = I was hit by Jane

Now we can have two instances of “**t-**” in a clause.

3) **i-pigas pa t-jene t-koin** = I was hit by Jane with a hammer

The human agent will always come before the instrument. Another example ...

Now for example (2), even though the agent is totally absent, human volition is strongly implied. Actually there is a second passive voice which strongly implies a lack of human volition. For this one you add **-f** (or **-of** if the verb ends in a consonant) to the verb.

4) **i-pigaf pa** = I was hit

As before the ex-subject can be introduced with the **glia t-** ...

5) **i-pigaf pa t-degge** = I was brought down by Dengue Fever.

The different reasons for choosing **-s** over **-f** (or **-f** over **-s**) can be interesting.

Imagine a mother is multi-tasking in her house, and sends her son into the kitchen to see if the water is boiling yet. He would shout out ...

a) **ke boiles sum** = The water is already boiling .... OR

b) **kwe boiles sum** = The water is not yet boiling

Obviously the **-es** form should be used. We have human volition ... the mother initiated and was controlling the process.

Now imagine another occasion when the same son goes into the kitchen and sees water boiling on the stove. He would shout out ...

c) **ke boilof sum** = The water is boiling already

Here the **-of** suffix is a form of warning ... there is no (apparent) human volition.

It is said that the Turkana language also has two passives. One showing human volition, and the other ... lack of human volition.

## Linguistic Side Note

“boil” is an example of a certain type of English verb. Let’s take two instances of “boil”.

1) “Mum boiled the water” AND 2) “The water boiled”

Following the terminology established by RMW Dixon ... “boil” in (1) is transitive AND “boil” in (2) is intransitive. In (1) “mum” is the A argument and “water” is the O argument. In (2) “water” is the S argument. Dixon designates English “boil” as a “O=S ambitransitive verb”.

Now, in **béu** there are no “O=S ambitransitive verb”. **boil** “boil” (yes ... the same word) in **béu** is a strictly transitive verb. However, it is like the option of two passives gives **béu** the same semantic precision as English (while keeping the grammar simple).



Let's have some further examples ...

6) **át doskaf susik** = The patch of snow has melted (presumably by the sun)

7) **át doska jene hias** = Jane has melted the wax

8) **át doskas hias** = The wax has been melted (presumably by a person)

9) **e-wilaf pa h-mit** = I woke up at six

10) **e-wilas pa h-mit** = I was woken up at six (presumably deliberately by a person)

11) **e-wíl pa gilmet h-mit** = I woke up Gillian at six

12) **e-wíl paq h-mit** = I woke up at six (presumably by setting alarm clock before going to sleep)

If one were accidentally woken up by a person, one could use (10). The adverb **henda?ua** could be added to specify that it was by accident.

13) **i-bala polo gacuk** = Paul opened the door

14) The door opened => **i-balas gacuk** ... Since the majority of doors opening is due to people

15) The door opened => **i-balaf gacuk** ... If in a horror movie, where your group are meant to be the only people around.

Supernatural beings (i.e. ghosts, spirits gods etc) tend to get the **-f** suffix, when they are suspected of being behind something. Elves, goblins etc. (being more solid) tend to get the **-s** suffix.

### A further linguistic side note

"knit" is an example of a certain type of English verb. Let's take two instances of "knit".

1) "Janice knitted a jersey" AND 2) "Janice knitted"

Following the language established by RMW Dixon ... "knit" in (1) is transitive AND

"knit" in (2) is intransitive. In (1) "Janice" is the A argument and "jersey" is the O argument.

In (2) "Janice" is the S argument. Dixon designates English "knit" as a "A=S ambitransitive verb".

Now for nominative/accusative languages (like **béu** and English) the difference between (1) and (2) is not a big deal. It just like an unimportant detail (the object) has been dropped in (2). It is still the same situation.

Let's consider a "O=S ambitransitive verb" now ...

3) "I turned the screw" AND 4) "I turned"

This is a big deal. (3) and (4) describe completely different situations.

**béu** does have constructions corresponding to (1) and (2). It's not a big deal. In fact I am not going to call it "A=S ambitransitivity". I am just going to call it "object dropping".

FUN FACT ... if **béu** were an ergative/absolutive language, then (3)(4) would not be a big deal but (1)/(2) would be a big deal. But **béu** (like English) is a nominative/accusative language.

### A Note on the side note

The names we give can greatly affect how we categorize the things so named. I really think we should have two terms instead of one ... namely ambitransitive. I think we should have one designation for the big deal cases ... i.e. "O=S ambitransitive in a nominative/accusative language" and "A=S ambitransitive in an ergative/absolutive language".

And a different designation for the no big deal cases ... i.e. "O=S ambitransitive in an ergative/absolutive language" and "A=S ambitransitive in a nominative/accusative language".

**boisan ?o dwo** means “copula clause”. **boisan** = “construction” and **dwo** means to tie, to bind, to link. So **boisan ?o dwo** means “the clause that links”, **?o dwo** being a relative clause.

The **béu** copula is **sau** (S). However the form “**sau**” is often missing in action. However you do find this form after blue or purple (see chapter 58) verbs ...

**á-henda?** **pa sau bóí** = I intend to be good

**i-cúb** **no sau bóí** = She tried to be good

**i-cuai** **pan sau bóí** = “I helped her to be good”

**án** **pa sau bóí** = I want to be good

You can find this form as a verbal noun ...

**sau bóí cose w-sau bóí / dau qen** = to be good or not to be good, this is the question.

And also after the nine aspect operators (see chapter 24) ...

**i-ke sau no bóí** = She already was good

**ú-he sau no bóí** = She will start to be good

But it is quite rare to find **sau** doing its most basic function => **á-sau pa bóí** = “I am good”.

This is, in part, because contracted forms are usually used when **sau** directly follows an activator. That is **ú-sau** nearly always contracts to **ús**, **á-sau** to **ás**, and **i-sau** to **is**. However contractions are not the full story ... often **sau** is replaced by a zero morpheme  $\emptyset$  ... two examples ...

**pa bóí** = I am good

**bau bóí** = The man is good

Now here is a good time to introduce two important particles ... **punya** and **tulu**. **punya** is derived from **pune** “to pass” {with a bit of phonological erosion}, and **tulu** is derived from **tu** “to come”. Actually **punya** and **tulu** in most positions are simple nouns meaning “the past” and “the future” respectively. However, when they come at the very start of a sentence ... when they come even before the activator and first-verb, they are definitely adverbs. Adverbs with the meaning “in the past”/“in the future”.

In roughly a third of cases **punya** and **tulu** are used to tense a copula clause. In roughly a third of cases **kepe** and **aule** are used to tense a copula clause. And in the remaining copula clauses, the actual copula ... in the guise of **ús** **ás** and **is** are used to tense the copula clause.

So for simple copular clauses, the situation is as in the schematic here =====>

About a third of the time, tense defined by **punya**,  $\emptyset$  and **tulu**. For example ...

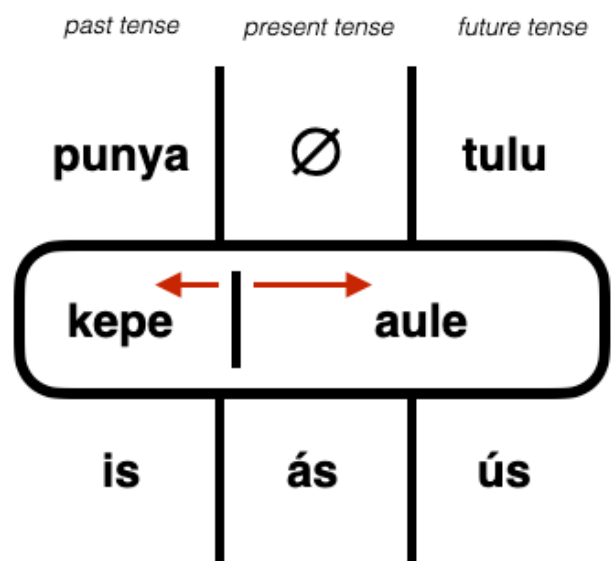
**punya / jene otlod** = Before, Jane hard working

And about a third of the time, tense defined by a separate clause. The clause containing either **kepe** or **aule**. For example ...

**kepe i-he-mala no / jene otlod** = Before she became sick, Jane hard working

And, of course, about a third of the time the copula clause actually has a copula ...

**is jene otlod** = Jane was hard working.



Quite often, when the copula is dropped (and even a few times when the copula is not dropped) **béu** employs a “resumptive pronoun” (RP) [well that’s the term I use]. They are restricted to the third person pronouns ... **no noi jo** and **joi**. Two example ...

**bau bóí no jutu** = “the good man is big” ... literally “man good he big”

**gla ?-maumam m-laban no hubog** = the woman (who is) sleeping in the car is drunk  
literally ... the woman who is sleeping in the car she drunk

As the copular subject gets longer the chance that a RP makes an appearance increases. Also, as the copular subject gets longer, the chance of an initial **ás** decreases.

RP’s are useful when the copula subject noun phrase contains a trailing adjective. For example, there is no ambiguity with **bau wú no bóí** = “the big man is good”

Whereas such forms as **bau wú bóí** and **ás bau wú bóí**, might be ambiguous.

Fun fact ... the Chinese copula shì 是, was originally an RP. It meant something like “that”.

One shouldn’t worry too much about which of the three methods to use.

Of course, when there is some pivotal event involved, the **kepe**, **aule** option is appropriate. But the other two options are more or less in free variation.

There is one situation in which the copula is nearly invariably used ... in answer to a question.

In English we have contractions such as “we’ll”, “I’ve” etc. etc. They are all over the place.

**béu** too uses contractions. especially with the five most common verbs **sau ha ni xúg** and **pón**.

Now these contractions will be explained in the next chapter. **sau** initially enters into three contractions. They are ...

**ú-sau** => **ús** “will be” : **á-sau** => **ás** “is/are/am” : **i-sau** => **is** “was/were”.

And these three ... **ús** **ás** and **is** ... amalgamate with other elements to produce yet more contractions. The six further amalgamation (needed here) are shown in brackets below.

**c-** is the **glia** that indicates a yes/no question and **w-** is the negating **glia**.

{ **c-ús** => **cús** : **c-ás** => **cás** : **c-is** => **cis** : see chapter 34}

{ **w-ús** => **wús** : **w-ás** => **wás** : **w-is** => **wis** => : see chapter 32}

A simple copula question must use one of the contractions **cis**, **cás** or **cús**. See below ...

<b>cús bau bóí</b>		Will the man be good ?	
<b>da / ús no bóí</b>	Yes, he will be good.	<b>wáu / wús no bóí</b>	No, he won’t be good.
<b>cás bau bóí</b>		Is the man good ?	
<b>da / ás no bóí</b>	Yes, he is good.	<b>wáu / wás no bóí</b>	No, he isn’t good.
<b>cis bau bóí</b>		Was the man good ?	
<b>da / is no bóí</b>	Yes, he was good.	<b>wáu / wis no bóí</b>	No, he wasn’t good.

Above are simple copula questions in the three tenses. The copula is an integral part of the contractions **cás**, **cús** and **cis**. Almost invariably, the person answering the question will reflect the copula back ... using either the simple or the negated form.

<b>c-wús bau bóí</b>		Won't the man be good ?	
<b>ús no bóí</b>	He will be good.	<b>wáu / wús no bóí</b>	No, he won't be good.
<b>c-wás bau bóí</b>		Isn't the man good ?	
<b>ás no bóí</b>	He is good.	<b>wáu / wás no bóí</b>	No, he isn't good.
<b>c-wis bau bóí</b>		Wasn't the man good ?	
<b>is no bóí</b>	He was good.	<b>wáu / wis no bóí</b>	No, he wasn't good.

And above are the negated copula questions in the three tenses. As with English, these forms are used, when the enquirer expects a positive reply. That is, the enquirer would be surprised by a negative reply.

Again the copula is an integral part of the contractions **c-wás**, **c-wús** and **c-wis** and the copula is reflected back to the enquirer in the answer.

So we see that a copula is mandatory for asking questions. And (almost) mandatory when answering said questions. The copula is also mandatory in negative copula clauses ...

**wis no bóí** = She wasn't good

OK let's do a bit of rehashing ...

As in many languages the copula links a noun to an adjective ...

1) **ás goyo dweli** = Gordon is old

And can also link a noun to an noun ...

2) **ás tebu kasap** = Trevor is a butcher

But actually **ás** is dropped more often than it is retained.

3) **goyo dweli** = Gordon is old

4) **tebu kasap** = Trevor is a butcher

OK ... This green section is a bit of a side trip. **béu** has apposition ... just as English has. There is some superficial resemblance between an appositional structure and a copula construction with the copula dropped. But actually there is no confusion.

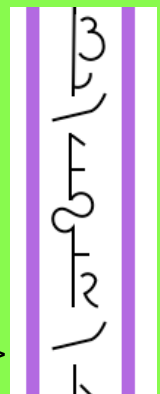
5) **ú-go tebu / kasap / l-Oban t-mateh** = Trevor, the butcher, is going to Oban by bus.

The above example is not an example of a copula clause. However it was thrown in here as some might say it has some superficial resemblance to copula clause {such as (4)}.

The example above shows an example of what is called "apposition". In the **béu** script (and the Latin orthography that I use) the item in apposition is surrounded by **tig** "pauses".

The rules as to where to put **tig** are quite definite in the **béu** writing system (I shall faithfully represent these pauses in my Latin transcription with a forward slash). However the actual quality of the "pause" varies greatly when actually speaking **béu**. In some situations, rapid speech can nearly obliterate a "pause". However it will always be recognizable in careful/formal speech. What in writing is one symbol, is expressed many many ways, phonologically.

... **bu / kasap / l** ... =====>



OK ... back to taking about the copula ...

There is a strong tendency for the copula to be dropped from positive indicative copula clauses in the present tense, when the subject is a simple pronoun or determiner. Well actually this tendency is not so strong for first and second person pronouns ... but very strong for third person pronouns.

[This sort of pattern can be observed in natural languages. For example in Scottish Gaelic the copula is always dropped when the subject of the copula clause is a determiner]

So we can have ... 1) **sian hau?e** = Sheena's beautiful ... (**ás sian hau?e** also possible)

But 2) **no hau?e** = She's beautiful ... (however **ás-no hau?e** feels a bit off)

But for Y/N questions and negated clauses, the copula is needed ...

3) **cás sian hau?e** = Is Sheena beautiful ?

4) **c-wás sian hau?e** = Isn't Sheena beautiful ?

5) **wás sian hau?e** = Sheena isn't beautiful

So we can have ... 6) **auge dweli yé jubau** = The old trees are strong  
... (**ás auge dweli yé jubau** also possible)

But 7) **yede jubau** = Those are strong ... (**ás-yede jubau** not possible)

8) **dau toki** = that's right ... (**ás-dau toki** not possible)

9) **cás dau toki** = Is that right ?

10) **wás dau toki** = That's not right ?

11) **c-wás dau toki** = Is that not right ?

12) **de cai** = What is that ? ... (**ás-de cai** not possible)

13) **de waux** = That is nothing ... (**ás-de waux** not possible)

14) **dí c-pu** = Who is this ? ... (**ás-dí c-pu** not possible)

15) **yedi c-me** = These are what people ? ... (**ás-yedi c-me** not allowed)

Note 12/14/15 are content questions rather than Y/N questions. Hence the copula is dropped.

In the last section we talked about the copula being dropped when the copula subject was **dí de yedi yede dau no noi jo** or **joi**, and we were in the present tense.

When we wish to express future or past time, there is a certain tendency to drop the copula in conjunction with **dí de yedi yede dau no noi jo** or **joi**.

So ... although **is no jebu** "he was wrong" is possible, you are more likely to hear **kepe / no jebu** "before, he wrong" or **punya / no jebu** "In the past / he wrong".

Similarly, while **ús no hau?e** "she will be beautiful" is possible, you are more likely to hear **aule / no hau?e** "after, she beautiful" or **tulu / no hau?e** "In the future / she beautiful".

The Big Five have the functions that are covered by the so-called Modal Verbs\* in English.

Wikipedia says ... the modal verbs commonly used are can, could, may, might shall, should, will, would, ought to, used to and dare .That is eleven. I am going to delete four straight away. They are not in my language [while of course I understanding the four little words, I would be surprised if they ever passed through my mouth]. I say “might” instead of “may”, “will” instead of “shall”, “should” instead of “ought to”, and “not scared to” instead of “dare”. So now we have ... can, could, might, should, will, would, used to.

Two of these can be dropped as the **béu** activators fulfill their function. **ú** does for “will” and **oi** does for “used to”. So five left ... can, could, might, should, would. Well we can drop “might”, that concept is covered by the adverbs **tuhab**, **ponja** and **jihab** (see chapter 20).

So four left ... can, could, should and would. And these are **áp ip áx in** in **béu**.

There ... that was easy ... next chapter.

Well perhaps not. There is more to say here. Although the closest equivalents to can, could, should and would are **áp, íp, áx** and **in** .

The base form of the 4 words equivalent to can/could/should/would are **pón xúg** and **ni**. If we add the copula **sau** (see the last chapter) and the verb for possession **ha** to this set we have what is called the big five (B5) ... [or **héu wú** in the **béu** linguistic tradition]

\* As far as I know, there is no good semantic criterion for defining the English Modal Verb ... they are more a collection of miscellaneous items.

	Element in object position	Future	Present	Past
<b>sau</b>	Adjective / Noun	<b>ús &lt; ú-sau</b>	<b>ás &lt; á-sau</b>	<b>is &lt; i-sau</b>
<b>ha</b>	Noun / Verb	<b>úh &lt; ú-ha</b>	<b>áh &lt; á-ha</b>	<b>ih &lt; i-ha</b>
<b>ni</b>	Noun / Verb	<b>ún &lt; ú-ni</b>	<b>án &lt; á-ni</b>	<b>in &lt; i-ni</b>
<b>xúg</b>	Verb	<b>úx &lt; ú-xúg</b>	<b>áx &lt; á-xúg</b>	<b>ix &lt; i-xúg</b>
<b>pón</b>	Verb	<b>úp &lt; ú-pón</b>	<b>áp &lt; á-pón</b>	<b>ip &lt; i-pón</b>

In chapter 3 we came across 36 contracted forms. Above we introduce a further 15. As the B5 occur very frequently it is only natural that certain contractions arose. All 5 of these verbs are stative and hence take the energizers **ú, á** and **i** .

Each of the B5 (Big 5) connects to two elements. The subject (which immediately follows the verb) is a noun ... typically a person. The other element varies. The second column in the table above shows what can occupy the object position.

The ones highlighted are past tense in form but not in meaning. This will be explained later.

#### ha for POSSESSION

When a noun has the role of object. **ha** covers the same semantic ground as “have” in English. For example ... **áh pa laban** = “I have a car”

#### ha for EXISTENCE

The passive form of **ha** is used to signify existence.

**á-has nwa** = there is snow : **áu has nwa** = there is no snow : **ác has nwa** = is there snow ?

The unmentioned underlying subject presumably being something like “the environment” or “the world” or “our surroundings”. As well as using the passive form, the active form can also be used, along with the dummy subject **jo**.

**áh jo nwa** = there is snow : **wáh jo nwa** = there is no snow : **ác ha jo nwa** = is there snow ?

[The grey-highlighted forms used in the above examples have not been covered yet. I apologize for that ... keep with the program and all will be revealed :-). Here is another example ...

**áh jo jwadoi m-auge de** = there are big birds in that tree

Notice that the same meaning can be conveyed by ...

**áh auge de jwadoi** = “that tree has big birds” ... where **auge de** is the subject of **ha**.

OK ... that is about it for the complement of **ha** being a noun. When the complement is a verb, **ha** functions like “have to” in English. In other words, it functions as “must” ...

### ha for HEAVY OBLIGATION

**áh no jaqka l-sau dah b-kyu** = he must run to be/get home on time  
( the above is used when considering the immediate future )

**úh no jaqka l-sau dah b-kyu** = he will have to run to be/get home on time  
( the above is used when considering some occasion in the future )

Of course when translating English -> **béu** , you must be aware that the meaning of the word “must” has spread ... from the meaning in “you must leave now” to the meaning in “you must be starving”. The second meaning should be translated by the adverb **g-halo** ... if you want to speak **béu** properly.

### ni for WANTING

Unlike **ha**, **ni** can be said to have only one function. However ... perhaps one can say this function has three facets.

1) **án pa laban** = I want a car

2) **án pa go dah** = I want to go home

3) **án pa kon maya sliah l-pa** = I want Mum to read(tell) me a story

Some might analyze (1) as **án pa ha laban** = “I want to have a car” with the **ha** “to have” dropped.

However I prefer the explanation that the object of **ha** can either be a noun or a verb. It is a sort of rule of **béu** that only two elements can follow the initial verb. If more than two elements are needed to fully get your point across the third one must be introduced by a **glia** (or a preposition). However (2) seems to contradict this rule. And indeed (2) is an exception to this rule. One way to explain it is to say **án pa go dah** is really **án pa go l-dah** but the **l-** has been dropped. Another way to explain it, is to say that **go dah** has become one unit of meaning through frequent juxtaposition ( like Chinese 吃饭 chī fàn “eat rice” => “eat” ). The two explanations are not mutually exclusive.

When things get too complicated, there is always the option to split things into two clauses ...

4) **in pa hwái? / i-kon maten sliah l-pa m-yiqkiq wái**

= I wish my mother had told me bedtime stories in my youth.

In (3) the whole thing is “future orientated”. If the situation is not “future orientated” (as in (4) ) then a two-clause construction is necessary.



## pón for ABILITY/OPPORTUNITY

Actually not much to say about **pón**. It more or less equates to English “can”.

### ni xúg and ha compared

Let's compare the semantics of **ni xúg** and **ha**.

The three above can all be thought to have something to do with “desire”. This is most clear with the case of **ni** “want” ... often occurring with a first person subject ... so straight from the heart ... the personal desire of an individual. With the case of **xúg** things are not so direct. As with English “should” this construction is used to convey the desires of society ... these (sometimes shadowy) people that surround you and interact with you. One interesting facet of this construction is that an individual's conscience (the brain module that makes one feel guilty) equates to one of these shadowy individuals outside the “self”. **ha** is the one most difficult to associate with “desire”. Unless it be the “desire” of a totally powerful force ... the laws of nature perhaps ... considered as one entity. **ha** is a lot more powerful than **ni** or **xúg**.

With actions being introduced by **ni** or **xúg** ... well it is possible to imagine chance thwarting these desires and these actions not coming to fruition. However with an action introduced by **ha** ... a lot harder to imagine.

### The counterfactuality of in ix and ip

Two pages ago I said that **in ix ip** are past tense in form but not in meaning. They can be considered separate words from **ni xúg** and **pón**. But this is debatable. There is also debate in English as to whether would and could are the same words as will and can ... let's go off on a bit of a tangent and discuss the will/would, can/could debate ...

In one aspect, will/would, can/could can be said to be one word ... as they were thousands of years ago ... in reported speech.

1) “I will/can give you the car for the weekend” ... John speaking on Monday

On Tuesday, someone reporting what John said on Monday ...

2) “He said (that) he would/could give us the car for the weekend”

The above is following an English grammatical rule that the tense in the reported verb, matches the tense in the verb of reporting (i.e. “said” in the above example). Compare ...

3) “I think your house is wonderful” ..... James speaking on Wednesday

4) “Jim said (that) he thought our house was wonderful” .... Irene reporting what James said

However, the above does NOT prove that “would/could” are the past tense of “will/can”. The above is a RELIC ... a relic from an earlier time.

With **ni/in xúg/ix pón/ip** things are not so clear. In the present tense the verbs are split. **in ix** and **ip** being irrealis versions of **án áx** and **áp** [and when I say irrealis I don't mean absolute irrealis, I mean an irrealis that means “unlikely”]. In the past tense the verbs are also split

... they are also irregular in that the perfect aspect marker has been roped in to show past tense.

They are **át ni/át in : át xúg/át ix : át pón/át ip**.

However the future tense is not split. There is only one future tense **ún, úx** and **úp**.

Also the infinite form is not split. There is only **ni xúg** and **pón**.

## More on would, could, should

Two examples to demonstrate that “could” is an irrealis version of “can” ...

- 1) An ant can lift 25 times its own weight.
- 2) An ant could lift a bus if it was man-size.

And two examples to demonstrate that “would” is an irrealis version of “will” ...

- 3) I will give you the money.
- 4) I would give you the money but ...

Of course in reported speech “could” and “would” retain their ancient meaning ... a straight past tense of “can” and “will” (discussed on the previous page).

The habitual use of “would” is quite a recent innovation, hence not really relevant to the discussion here.

- 5) During the long summer evenings they would go down to the river bank and play amongst the reeds.

The above would go can be replaced by used to go. In **béu** it would be **oi-go** .

... “should” is a bit of a mystery to me. It has no hint of counterfactuality in present day English (well not in the variety of English that I speak). However I find it difficult to believe that it was not the same process that tore “would” from “will” and “could” from “can”, that tore “should” from “shall” (and “might” from “may”, AND “ought” from “owe”).

Interesting fact ... if you put very heavily stress on “should” ... like shou-ould. Then it becomes very irrealis ... very counterfactual.

So to re-iterate ... **in ix** and **ip** are present tense irrealis. And what does irrealis mean ? Well it means that the action is highly unlikely to actually happen. Often I translated **in** as “wish” instead of “want” or “wanted”. In English if you “wish” for something you are unlikely to get it. If you “want” something you have a chance of getting it. **in** can also be translated as “would like” in English ...

- (5) I would like to help you but I don't have enough time = **in pa cuai lé wá wáh pa pwo kyu**  
[ literally ... “would like” 1SG “help” 2SG “but” “haven't 1SG enough time ]

Note ... in English the above sentiment can also be (approximately) expressed as ...

- (6) I would help you but I don't have enough time
- (7) I could help you but I don't have enough time
- (8) I should help you but I don't have enough time

I say approximately, the above three English sentences have subtle distinctions in meaning ...

“would” in (6) is purely irrealis, there is no remaining connotation of “wanting”/“yearning”  
“could” in (7) still has some “abilitative” connotation ... although a lot has been bleached out.  
And as for “should” in (8), well the situation in (8) logically demands a pretty irrealis interpretation. But normally “should” is free of any irrealis meaning (well in the variety of English I speak). Normally (when you are not talking to the potential beneficiary of your benevolence) it conveys “social pressure” pure and simple. For example “I should visit my Mother”.

In **béu** in contrast **in ix** and **ip** all are pretty irrealis. However all three carry a substantial echo of the original meanings of the verbs **ni xúg** and **pón**. That is “yearning” : “social pressure” : “ability” .  
So to translate “I would like to help you but I don't have enough time” into **béu** ... which one to use ... **in ix** or **ip** ? Well if the subject would consider the “helping” to give personal pleasure, **in** should be used. If instead the subject would consider the “helping” to assuage his/her personal conscience. **ix** should be used. **ip** probably should not be used. But maybe appropriate if the subjects ability to help had been questioned immediately prior.

## More on the history of will/would etc. in English

In English there once was a verb meaning something like “want”. It split into two and now exists as “will” and “would”. There was a verb meaning something like “know”. It split in two and now exists as “can” and “could”. There was a verb meaning something like “owe”. It split in two and now exists as “shall” and “should”. There was a verb meaning something like “can”. It too split in two and now exists as “may” and “might”. And finally ... there was a verb that meant “owe”. It split in two and now exists as “ought” and “owe”.

It was the application of the past tense morpheme that brought about this split. Now it is inconceivable that “run” and “ran” should be considered to have two meanings. One is simply the past tense of the other.

Well when you have a grammaticization process the string under consideration must be very very frequent. Modals are very frequent. “run” is not. The past tense versions of our three lexemes were always occurring in irrealis context. So over time they took on the meaning irrealis and lost (to a great) their original meaning. The same with **béu** ... **in ix** and **ip** can be considered separate lexemes to **ni xúg** and **pón**.

Now you might worry about the past tense. *We have just lost the past tense. That is a pretty handy tense. Not so good to just lose it like that.* And you would be right.

Well to express the counterfactual past we use the perfect aspect particle. The main job/function/purpose of the perfect aspect particle is to give a state : the state of having done the action. But a logical by-product of this is to say that the action happened in the past. This logical by-product is co-opted to reclaim a past meaning. The past meaning that has been lost. So ...

**at in pa** = I would have      **at ix pa** = I should have      **at ip pa** = I could have

If **in ix** and **ip** are not considered as separate lexemes the above expressions are ungrammatical. Usually there is only one activator per clause. The above expressions have two if **in ix** and **ip** are simply considered the past-tensed versions of **ni xúg** and **pón**.

By the way ... **at ni pa** = “I have wanted to”/“I have been wanting to”

**at xúg pa** = “I have been under obligation to”      **at pón pa** = “I have had the ability to”

So the perfect aspect marker has been co-opted to show simple past tense in these expressions. The exact same thing that happened in English. The big difference is that in **béu** the modal have been attached to **ti** (as it logically should be) while in English, it is the non-modal verb that has been attached to the perfect aspect marker.

So we know what the past irrealis looks like. But what about the past realis. Well actually this sentiment is very rare. If you did something, you obviously “wanted” to do it (well either that or you were acting under societal pressure). Also if you did something obviously had the “ability” to do it.

In fact it was because these sentiments were so rarely expressed that “wanting” + “past tense” : “pressure of society” + “past tense” : “ability” + “past tense” came to take on strong connotations of irrealis. If you hear “wanting” + “past tense” : “pressure of society” + “past tense” : “ability” + “past tense” year after year in situations where the matrix verb virtually never comes to fruition. Well, you start to use these constructions yourself to convey “matrix verb didn’t come to fruition”. In other words irrealis (“counterfactual” is just another word for irrealis).

But occasionally you will need past realis. I guess **at ni**, **at xúg** and **at pón** fit the bill. If not exactly realis, they are definitely “open”. “open” is the state when the actualization of the matrix verb has not yet been attempted, or if attempted the success/failure is, as yet, unknown.

One last point to make. In English you can't have more than one modal verb. If you want (the semantics) of two modals in one clause you must revert to expressing one by a so called "semi modal". For example "you must can speak English" is a big no no. One must say "you must be able to speak English" {"to able to" being the semi-modal equivalent to "must"}.

There is no such restriction in **béu**.

Some of the more common combinations are shown to the right, here =====>

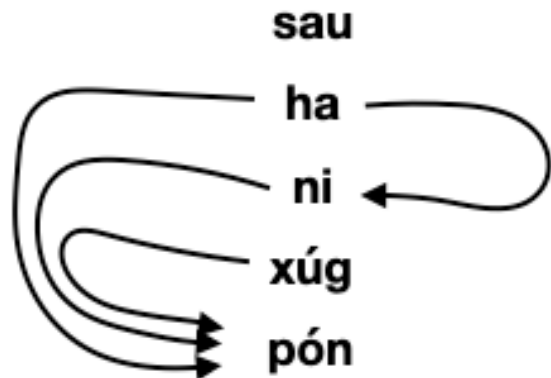
And here is a three B5 combination ...

**áh lé ni pón woh iqglanai**

= You must want to be able to speak English.

In analyzing this ... one could count

**ni pón woh iqglanai** as a chunk ... a nominal phrase : meaning "to want to be able to speak English". And **pón woh iqglanai** as a chunk ... "to be able to speak English". And also **woh iqglanai** as a chunk ... "to speak English".

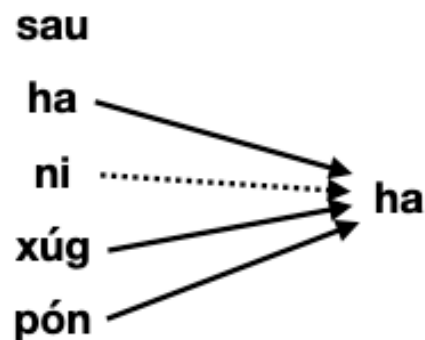


Of course when **ha** has the meaning "to possess" it is quite common to find it as the final B5 of a B5 pair.

**áh lé ha laban** = You must have a car

The connection from **ni** to **ha** is shown as a dotted line. That is because

**án pa ha laban** "I want to have a car", while valid, is unnecessary. 99 times out of 100 **án pa laban** "I want a car" suffices.



Some Adjectives

<b>dweli</b>	old	<b>hía</b>	red	<b>suná</b>	orange
<b>yiqli</b>	young	<b>geu</b>	green	<b>dunu</b>	brown
<b>yeni</b>	new	<b>ki?o</b>	yellow	<b>celai</b>	pink
<b>wutu</b>	fat, obese	<b>nela</b>	sky blue	<b>helau</b>	purple
<b>yeteu</b>	thin	<b>nelau</b>	dark blue	<b>loso</b>	grey
<b>molía</b>	white	<b>laqli</b>	bright, clear		
<b>dalua</b>	black	<b>laqlu</b>	dark, murky		

On the right are some common nouns derived from the above adjectives.

<b>dwelbo</b>	an old man	<b>dwelme</b>	an old person
<b>dwelga</b>	an old woman	<b>dwelmin</b>	old people
<b>yiqlbo</b>	a young man	<b>yiqlme</b>	a youngster
<b>yiqlga</b>	a young woman	<b>yiqlmin</b>	young people

Here would be a good place to introduce the suffix **-xi**, equivalent to the English **-ish**.

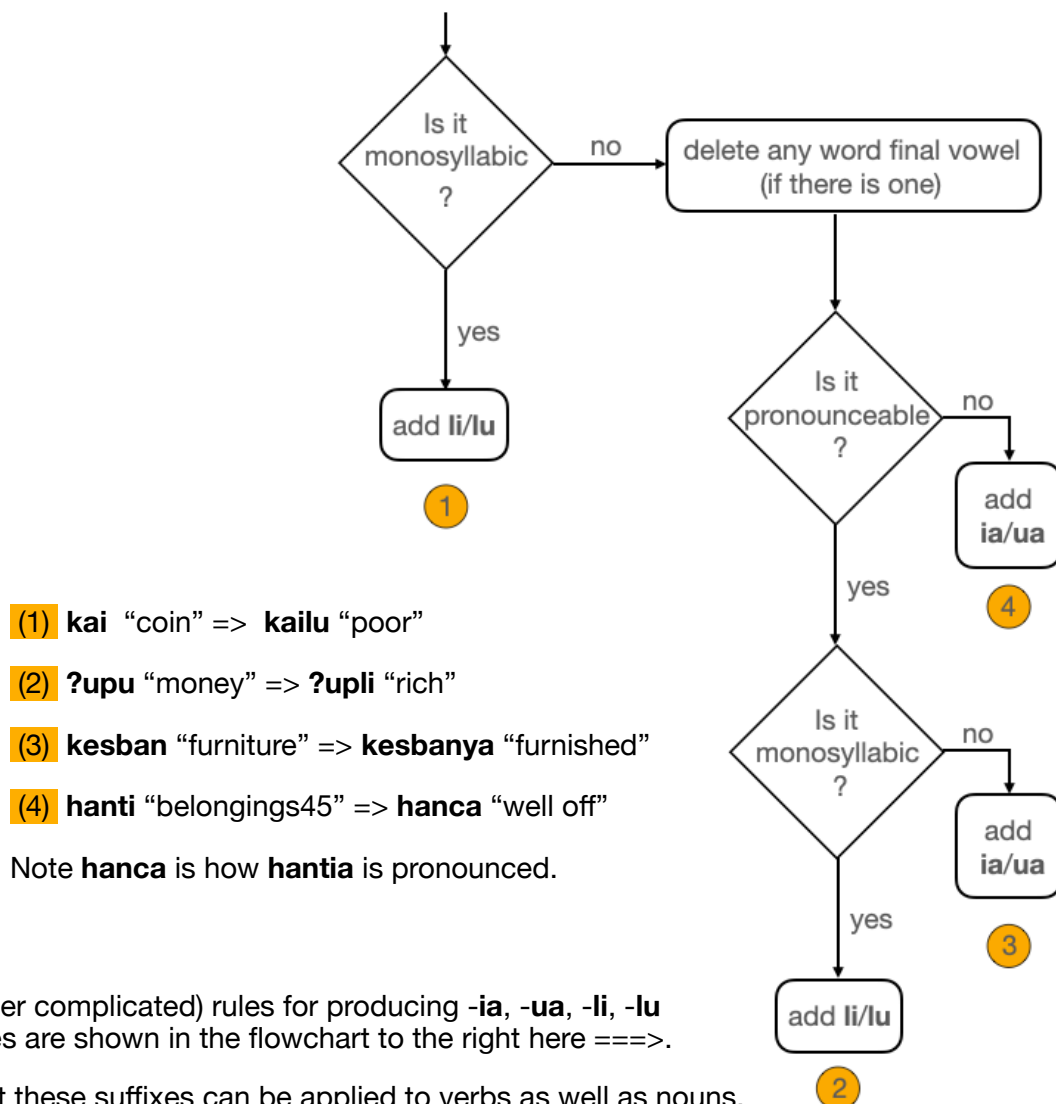
<b>hiáxi</b>	reddish	<b>celaíxi</b>	pinkish
<b>geuxi</b>	greenish	<b>helauxi</b>	sort of purple
<b>jutuxi</b>	somewhat big	<b>yiqlkíxi</b>	youngish
<b>mutuxi</b>	quite important	<b>yeníxi</b>	quite new

<b>hodan</b>	well off	<b>hodniq</b>	comfort, ease, lack of money worries
<b>?upli</b>	rich, prosperous	<b>?upliq</b>	wealth, prosperity
<b>?upu</b>	money		
<b>?uplu</b>	poor		
<b>seqin</b>	wealthy, opulent	<b>seqniq</b>	wealth, opulence
<b>hamak</b>	humble, petty, pitiable, poor, scarce	<b>hamkiq</b>	deficiency
<b>hantia</b>	well off, prosperous	<b>hantiaq</b>	comfort
<b>hanti</b>	property, belongings, wealth		
<b>hantua</b>	needy	<b>hantuaq</b>	insufficiency, want, need
<b>sama</b>	bad, unfavourable, adverse, nasty	<b>samaq</b>	adversity
<b>dukha</b>	poor, needy, destitute, impecunious	<b>dukhaq</b>	destitution
<b>kaili</b>	rich		
<b>kai</b>	round, a coin, coins		
<b>kailu</b>	poor	<b>kailuq</b>	impecuniousness
<b>kabus</b>	bad quality, bad style, shoddy second-rate, cheap, crude	<b>kabsiq</b>	shoddiness

The **yellow** words are nouns. But actually **kai** has dual status. It is both a noun and an adjective. The above table demonstrates how to derive adjectives from nouns. **kai** is an open mono-syllabic noun. If you add the suffix **-li** you get a word meaning “having coins”. If you add the suffix **-lu** you get a word meaning “lacking coins”. **?upu** is a bi-syllabic word. However if you delete the final vowel you get a monosyllable. From there you can add the same suffixes as before to obtain two adjectives. **hanti** is a bi-syllabic word. However you can not delete the final vowel ... **\*hant** would not be pronounceable for a **beume**. In this case you delete the final vowel and add **-ia** for the “having **hanti**” meaning, and add **-ua** for the “lacking **hanti**” meaning. Sometimes **-ya** is used instead of **-ia**, and **-wa** is used instead of **-ua** ... it is sort of free variation.

Note ... **?uplu** is a valid word. But the **kailu** is overwhelmingly preferred for the concept “poor”. Also **kaili** is a valid word. But the **?upli** is overwhelmingly preferred for the concept “rich”.

**ubos** “low” sort of “resonates” with **kabus**. Like in English ... *green, grow* and *grass* sort of “resonate”.



The (rather complicated) rules for producing **-ia**, **-ua**, **-li**, **-lu** adjectives are shown in the flowchart to the right here ==>.

Note that these suffixes can be applied to verbs as well as nouns.

For example **lauda** “to launder” gives **laudli** and **laudlu**. Meaning “which has been washed” and “which has to be washed” respectively. If you wanted to give these forms a highfalutin title, maybe *past passive participle* and *future passive participle* would be appropriate.

Actually, because **béu** has so many tense options in its activator particles AND handy relative clause construction, there is no great need for any participles at all.

Sometimes a word is considered to be both a noun and a verb equally. For example **túa** means “use” (noun) and “use” (verb). In the case of **túa** it is the nounal use which takes the **-ia**, **-ua**, **-li**, **-lu** suffixes ... **tuali** = “useful” and **tualu** = “useless”.

And for the verb ...

**tauskene ?át túas** = The cutlery which has been used

**tauskene ?áh túas** = The cutlery which must be used

... well, we use the good old relative clause construction for that.

Below is a list of common adjectives formed from **-ia**, **-ua**, **-li**, **-lu** suffixed to nouns.

<b>du</b> = a point of interest, a feature	<b>duli</b> = interesting, spicy	<b>dulu</b> = featureless, dull, bland
<b>lác</b> = light	<b>laqli</b> = bright	<b>laqlu</b> = dark
<b>dah</b> = house	<b>dahli</b> = a home owner	<b>dahlu</b> = homeless
<b>wildo</b> = power	<b>wildia</b> = powerful, strong	<b>wildua</b> = feeble, weak
<b>wol</b> = volume, room	<b>wolli</b> = spacious, roomy	<b>wollu</b> = pokey
<b>yel</b> = area	<b>yelli</b> = vast, spacious	<b>yellu</b> = small
<b>yel</b> = garden	<b>yelya</b> = having a garden	<b>yelwa</b> = lacking a garden
<b>fanaf</b> = a horse	<b>fanfia</b> = cavalry	
<b>hwelom</b> = acceleration	<b>hwelmia</b> = nippy, powerful	<b>hwelmua</b> = sluggish
<b>xlaspuá</b> = a weapon	<b>xlaspia</b> = armed	<b>uxlaspia</b> = unarmed
<b>plesgem</b> = clothes, clothing	<b>gemya</b> = clothed	<b>gemwa</b> = naked
<b>auge</b> = a tree	<b>augya</b> = forested	<b>augwa</b> = treeless
<b>dutse</b> = a hill	<b>dutsia</b> = hilly	<b>dutsua</b> = flat (land)
<b>telaga</b> = a lake	<b>telgia</b> = having lakes	<b>telgua</b> = lacking lakes
<b>gwái</b> = an island	<b>gwaili</b> = having islands	<b>gwailu</b> = lacking islands
<b>moin</b> = a sea		<b>moinlu</b> = landlocked

**gemya** and **gemwa** are from an earlier **plesgemya** and **plesgemwa**. Sometime older versions are still heard. The word for unarmed does not fit the pattern. If the pattern was applied we would have a sort of homonym. The name for the infantry is not **\*fanfua** but **pahun**. **pahun** is from an earlier **\*kaupahun**. It also means foot soldier. Maybe **pahun yé** is a more accurate term for infantry.

Notice that **yel** means both area and garden {as **wol** means both volume and “a room”}. **yelya** and **yelwa** are slightly irregular ... going by the flowchart on the previous page.

In **béu** many adjectives can act as nouns. If they do not follow a noun they can be assumed to be nounal themselves {or you can assume that a generic noun such as **xai** “thing” or **pumin** “person” is there in spirit, just you didn’t hear it ... either analysis is acceptable.

Words vary in their adjectival/nounal split. For example ... it is very rare for **yellu** = “small in area” to be used as a noun. But it is common for **dahlu** “homeless” to be used as a noun. In fact most instances of **dahlu** are nounal. Well ... it is only “**pumin**” that can be “**dahlu**”, so unless you are talking about a subset of human (i.e. **dwelga dahlu** “homeless old woman”), **dahlu** will be nounal.

Fun Facts with regard to **lác** “light” : **laqit** = sky : **laqlin** = explain



In Chapter 5 we introduced 36 divisions ... **tói** to **xéq**. If you thought about this at all you might have suspected that these were numbers. If you thought so ... you were right !

**tói** up to **xéq** are the numbers 1 up to 36. These are called the basic numbers. Superficially it might be claimed that base 36 is used, but for all practicalities it is actually base 6.

wau

**absolute numbers**

tói	watoi	natoi	satoi	yatoi	hetoi
náu	wanau	nanau	sanau	yanau	henau
sái	wasai	nasai	sasai	yasai	hesai
yá	waya	naya	saya	yaya	heya
héu	waheu	naheu	saheu	yaheu	heheu
wáq	náuq	sáiq	yáq	héuq	xéq

0

1	11	21	31	41	51
2	12	22	32	42	52
3	13	23	33	43	53
4	14	24	34	44	54
5	15	25	35	45	55
10	20	30	40	50	100

Base 6

Above we have the numbers 1 => 36. Some effort must be put in to learn the order of these 36 forms.

At first sight, it looks like we have 36 unique words ... so base 36, right ? But if you look closer ... especially if you look at how these numbers are designated with number symbols ==> you can see that it is more correct to describe it as base 6.

Now on first hearing “base 6” the thought “inefficient” might flash across the minds of some people. If you are one of these people, I would say “you are grossly over-estimating the dynamic range that is needed”. It’s not a loss to get rid of four numbers ... the ones you have left are so much more precious ... more iconic. And as for practicalities like learning times-tables. Well a six by six table is trivial to learn. The difficulty is a lot less than 60% of the difficulty of a ten by ten times-table ... more like 25 %.

The basic numbers shown above in the table are what are called *absolute numbers*.

**sái tan yá bila watoi** = “three plus four equals seven”

As well as *absolute numbers* we have *ordinal numbers*, *reciprocal numbers* and *times numbers* ... four types in all.

0

1	1	1	2	1	3	1	4	1
2	1	2	2	2	3	2	4	2
3	1	3	2	3	3	3	4	3
4	1	4	2	4	3	4	4	4
5	1	5	2	5	3	5	4	5
10	2	0	3	0	4	0	5	0

0

1	1	2	3	4	5
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
10	2	0	3	0	5

Numbers can either be written vertically {i.e. when embedded in text} or horizontally. Horizontal numbers is an option when you are doing arithmetic. It is definitely the preferred option for algebra.

## ordinal numbers

Ordinal numbers are actually adjectives so come after the noun, as other adjectives do. Ordinal numbers are actually a two word expression {the two words should be considered a unit}.

To make an ordinal number you stick **lau** in front of the number.

**polbo lau náu** = the second policeman : **laban lau wáq** = the sixth car

Note ... there is a special word for “first” ... **toyo** . Also the word for “last” is special ... **ho?o** .

## reciprocal numbers

Reciprocal numbers are produced by adding “f” to 1 =>5. So we have **tóif** = a unit :

**náuf** = a half : **sáif** = a third : **yáf** = a quarter : **héuf** = a fifth.

For 6 we add “af” ... **waqaf** = a sixth.

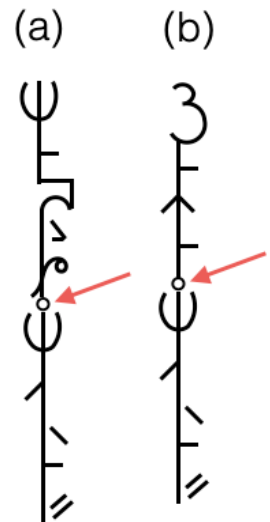
For 7 and up one adds **wilaf**. **wilaf** is appended to the number by a dot {my transliteration} or a small loop {the **béu** script} to make a compound word.

(a) one seventh =  $1/11_6$  = **watoi.wilaf** (b) one sixteenth =  $1/24_6$  = **naya.wilaf**

When reciprocals qualify nouns **d-** always leans on the front of the noun. If the noun has a plural form, that form should be used if you mean plurality ...

**náuf d-polmin** = half the police officers **náuf d-náuq polme** = half the 12 police officers

**naya.wilaf d-bwe to** = a sixteenth of a cow ... Note **bwe** has no plural, but **to** fixes it as “one”.



## times numbers

What I call *times numbers* are the number of occasions a particular act was performed. These are actually adverbs and there is a bit of leeway as to where they appear in a clause.

Times numbers are produced by adding “s” to 1 =>5.

**i-tía pan tóis byedi** = I saw her once today

For 6 and up *times numbers* are represented by a compound word with **kyu** the second component.

**át go telma l-glasgo wáq.kyu** = Thelma has been to Glasgow six times.

In the last section we saw **-s** being appended to five words to make adverbs. Actually there are four other words that take **-s** and make adverbs.

**tuge** = more : **tugis** = again ... nobody knows why it is **tugis** rather than **\*tuges** .

**tundu** = much : **tundus** = many times

**iyó** = a little : **iyos** = a few times

**wau** = zero : **waus** = never And one word takes **-s** and makes a conjunction ...

**ái** = same : **áis** = as, while

In **béu**, **wau** behaves just like the numbers **tói** to **xéq** . [ It is the **béu** mathematicians who deny it equal status, **béu** linguists would see no problem ]

Like English, the two constructions below mean the same thing.

1) **áh no wau wín** = He has no friends

2) **wáh no ín wín** = He doesn't have any friend(s)

**wau** occurs as a component in some words. They are listed below ...

<b>waux</b>	nothing	<b>wauwe</b>	noway
<b>waum</b>	nobody, no one	<b>waut</b>	none
<b>waus</b>	never	<b>wauduq</b>	no amount
<b>waulau</b>	nowhere		

**waux** is a contraction of **wauxai** “nothing”. **waum** is a contraction of **waume** “no person”.  
**waut** is a contraction of **wautoi** “no one”

### An interesting aside

In Sanskrit the numbers 60 70 80 90 and 100 were derived from 6 7 8 9 and ten by the addition of -ti- ... the suffix that produced nouns (the equivalent of -ness In English). For example *šaś* = “six” ... *šaś-ti-h* = sixty ... literally “a six-ness (of tens)”. Something similar exists in **béu**. However it might just be a co-incidence.

### The Natural World

**tufa** = grass  
**tufau** = elephant grass ... tall enough to conceal a tiger

**hafta** = a branch ... thicker than the forearm of an adult  
**hafti** = a branch .... thinner than a finger of an adult  
**hafteu** = a branch ... intermediate in size, between **hafta** and **hafti** .

**gefa** = a leaf  
**gefau** = a frond

We have discussed **tasik** “ocean” and **moin** “sea” before . Any body of water smaller than the baikal sea is a type of lake. The baikal has an area of 20,679 km sq .

A body of water from 20,500 km<sup>2</sup> to 130 km<sup>2</sup> is called a **situ** .  
A body of water from 130 km<sup>2</sup> to 0.812 km<sup>2</sup> is called a **danau** .  
A body of water from 812,000 m<sup>2</sup> to 5,080 m<sup>2</sup> is called a **linau** .  
Any body of water under 5,080 m<sup>2</sup> is called a **telaga** .

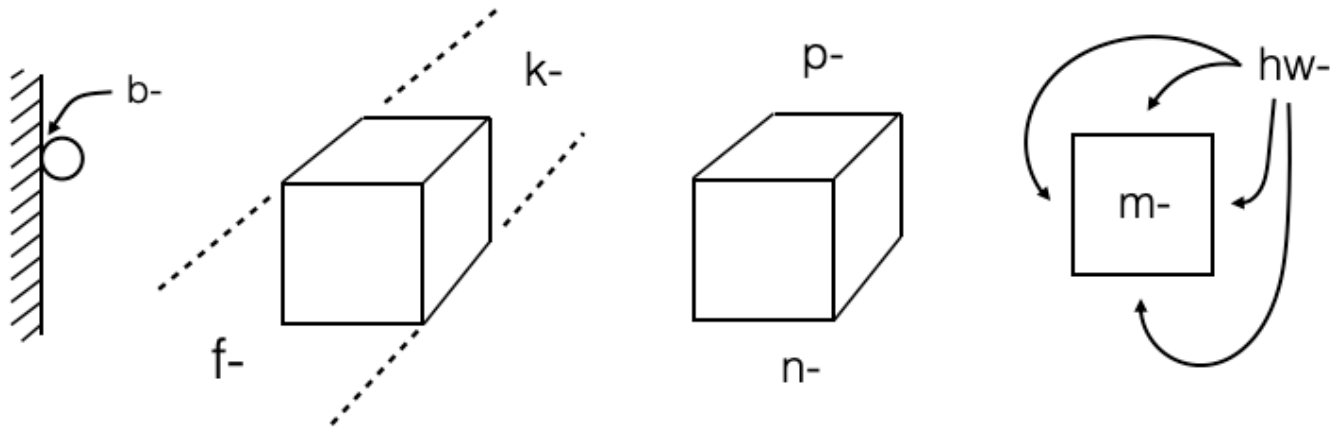
A man-made body of water (must be under 5,080 m<sup>2</sup>) is called a **kolam** .

A famous **béu** expression is **hwoi dau waux**, meaning “it doesn’t matter”, “no problem”, “don’t worry about it”. Word by word we have ... **hwoi** “to amount to”/“to make” : **dau** “an anaphoric particle, basically referring back to what has just been said” : **waux** “nothing”. You will hear this expression a lot in **beugan**. Basically **hwoi dau waux** confirms that **beumin** are pretty cool dudes that don’t let much upset their equanimity.

**hwoi dau waux** is a bit idiomatic. To be fully grammatical, it would of course need an energizer. That is **á-hwoi dau waux** would be the proscribed version.

Lets have a round-up of all the **glia** ... those little particles that lean against the front of words [ in **béu** they talk of the **glia** as resting **b-cabe** “on the word”. This is because the **béu** direction of writing is downward, and it looks like the **glia** is atop the word it qualifies ... (fixed there by gravity)]

## The 7 positional glia



**b-** means “touching” ... roughly equivalent to the English word “on”.

**f-** means “in front of” ... as a memory aid think of “in front of”

**k-** means “behind” or “at the backu of”

**p-** means “above” or “over” ... as a memory aid think of **pia** ... meaning “to go up”

**n-** means “under” or “underneath” ... as a memory aid think of **nia** ... meaning “to go down”

**m-** means “in” ... as a memory aid think of “in the middle”

**hw-** means “around” ... it takes up the same semantic space as the English word “around”.  
Well when we are not talking about motion.

Here are the other 14 **glia** ... these have disparate functions.

**g-** means “at”. It is like a general positional that can subsume the 7 more specific positionals listed above.

**h-** ... well as **g-** is to space, **h-** is to time. (in English “at/on/in” can fulfill this function). Example ...  
**ú-tu pa h-paqqil lé** = will come when you call (**tu** “come” : **paqqil** “call”)

the above sentiment could also be expressed as ...

**ú-tu pa kyu paqqil lé** ... (see chapter 21)

**d-** means “of”. This one does not operate on the clause level. It operates within a noun phrase.

**l-** means “to”. When leaning on a nouns it means motion towards. When leaning on a verb it means “in order to”.

**s-** means “from”. In many ways the opposite of **l-** . But this one never leans on a verb.

**x-** means “about” or “with respect to”

A common **béu** construction is to take an element out of a clause and stick it at the front, lean **x-** against its front and give a slight pause after it. For example ...

**x-xíau d-hindi / no tuge jiti** = The Indian Elephant is smaller.

Maybe a better translation would be “As for the Indian Elephant, he is smaller”

**w-** ... is needed to negate a sentence

**?-** ... is needed for a relative clause.

**c-** ... is needed for a YES/NO question.

The above three will be discussed further in chapters 32, 33 and 34. All three of these **glia** are often involved in contractions. (see chapter 59) .

**t-** ... this **glia** marks out a noun as an instrument. For example ...

**pigam jian tapu t-koin** = Ian is hitting a nail with the hammer

**j-** ... this **glia** marks out a noun as a beneficiary. For example ...

**i-osta jian tapuah j-jene** = Ian bought the apple for Jane

**y-** means “against”. This **glia** marks out a noun as an adversary. For example ...

**ú-woh ewoi jene y-uwin náí** = Jane will speak out against her enemies  
(**woh ewoi** meaning “to speak out”)

**q-** ... this **glia** is used to make adverbs and adverbial clauses. For example ...

**i-woh ewoi jene y-uwin náí q-wildia** = Jane spoke out forcefully against her enemies

Maybe here would be a good place to introduce the particle **wom** . It means “mutually” or “each other”. Usually used when an action is reciprocated. For example ...

**i-pigam talmi tan mali wom** = Talmy and Mary were exchanging blows.

On occasion the adverb can come at the start of the clause. So ...

**wom i-pigam talmi tan mali** = Talmy and Mary were hitting each other

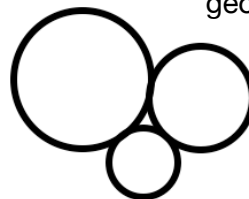
Now normally all the **glia** cliticize to the front of substantives (i.e. solid nouns). However **glia** (7) does cliticize to the particle **wom** on occasion.

**sál sonxi b-wom** = The three circles are touching ... {obviously the example is from some sort of geometry exercise}

For an object resting on top of another object, either (7) or (10) can be used. For example ...

**ás tauskene b-bán** = The cutlery is on the table

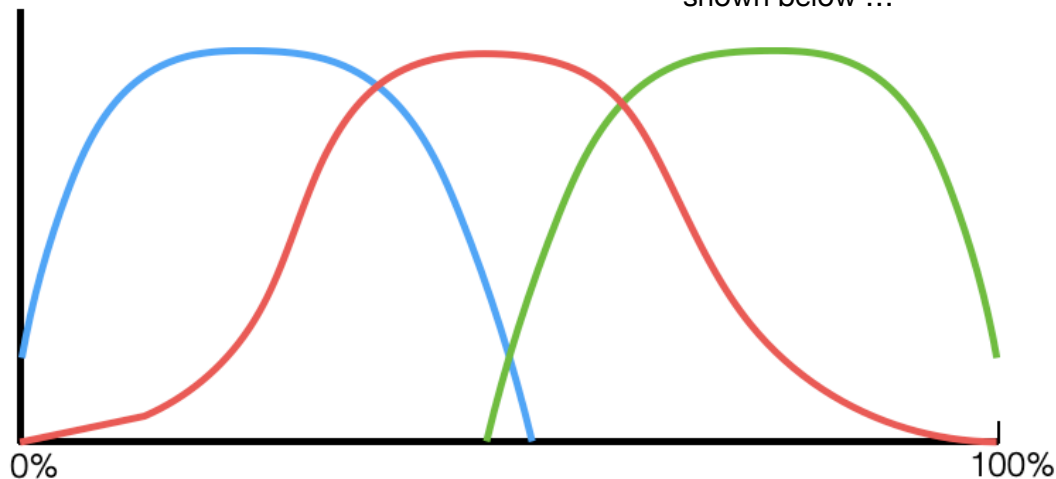
**ás tauskene p-bán** = The cutlery is on the table



In life nothing is certain. However, us humans don't often take into account of these vagaries. Usually a statement gives the impression that the possibility of it being wrong is negligible. And the same with negative statements ... we are a far cry from the Vulcan way, where every statement comes with a probability value.

Well **béu** is a language for humans, so it would not be appropriate for **béu** to exhibit graduations of possibility greater than any existing human language. So **béu** is limited to three particles (adverbs) that give possibilities.

These particles are **juhab** (green), **ponja** (red) and **tihab** (blue) shown below ...



**ponja** is equivalent to “maybe” or “possibly” or “perhaps”. It is normally put before anything else in the sentence. It is normal for a pause to occur between **ponja** and the next sentence element (usually an activator).

**juhab** is equivalent to “probably”. It patterns as **ponja**.

**tihab** is equivalent to “probably” plus “not”. It patterns with **juhab** and **ponja**.

**ponja** / **át go goyo dah** = Maybe George has gone home =====>

**ponja** is perhaps derived from **pondi** “talent, ability, power” plus **-ia** meaning “having”. If a protagonist has the power to do something ... maybe, just maybe, that thing will happen ... given time.

**juhab** / **ke go goyo dah** = Probably George has gone home already =====>

Fun fact ... **pón** and **pondi** are reckoned to be cognates.

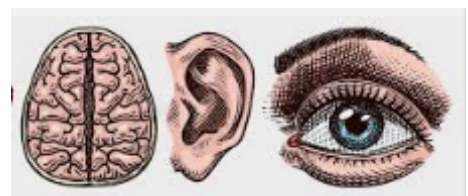
For the etymology of **juhab** and **tihab** ... refer to chapter 57.

**juhab**, **tihab** and **ponja** usually come before any other element. However it is allowed to stick them at the very end of an utterance ... as a sort of afterthought.

The next of these sentence spanning adverbs is **g-halo** which means “inevitably” (it also is one of the meanings imparted by the word “must”). **g-halo** <= **g-halho** which can be deconstructed as “at all ends”. This word can appear either sentence initial or sentence final (equal chance).

The final three particles can only occur at the tail end of a sentence. They are **mudau**, **?edau** and **tidau**. These can be thought of as evidentials, meaning “I worked it out”, “I heard it from other people” and “I saw it with my own eyes” Perhaps equivalent to the English strings ...

I guess (that) ... , They say (that) ... and I saw (that) ...



What I call “blocks” are called “complement clauses” by some linguistics. I definitely prefer my term. Two reasons ...

1) “blocks” = one syllable : “complement clauses” = five syllables

2) A “complement clauses” is by definition a clause (that’s how the English language works). My idea of a clause is ... John washes the dishes while Peter chops the firewood. Here we have two clauses, joined by “while”. My idea of a clause is something that can stand alone and make sense.

Under the naming scheme used by RMW Dixon and others, “go” is a clause in the string “I want to go”. As the whole thing is also considered a clause ... well this naming convention is obviously a mess.

Now someone wanting to defend the existing naming scheme, might say ... “well if you expand go ... perhaps to “I want to go home quickly” ... well the three concepts are in the same order as in a clause.

Mmmh ... well to that I would say ... it would be perverse if the order of concepts in a “block” was different from that in a “clause”. Maybe such a language exist, but it would be an outlier.

**béu** has 6 blocks. The first three of these blocks are also clauses. I call them ...

- |                    |         |  |
|--------------------|---------|--|
| 1) statement block | < ... > | ... a clause (namely a statement) in its own right.  |
| 2) question block  | < ... > | ... a clause (namely a Y/N question) in its own right.   |
| 3) X block         | x ... x | ... a clause (namely a content question) in its own right.   |
| 4) wheretogo block | * ... * | ... a reduced X block  |
| 5) hertogo block   | < ... > | ... this can be considered a nominalization. Not of a verb to a noun (cf. remove => removal), but of a clause to a NP. |
| 6) togo block      | < ... > | ... a reduced statement block  |

I will use fancy brackets to set off the block from the rest of the utterance. Let’s talk about these blocks ... one by one.

### **SOME MUSINGS ABOUT LIFE AND LANGUAGE**

We live in a world that has an independent reality. And what do I mean by that ? Well we have that old chestnut often forwarded in course about philosophy “ If a tree fell in a forest and nobody witnessed it, would the tree have fallen ?”. I believe the answer is YES. Or in other words ... reality is independent of intelligent outside observers (i.e. us humans).

On the other hand, there are people who claim that “reality” doesn’t exist. It’s all a simulation inside our brain. I guess the most famous proponent of this point of view is the philosopher George Berkeley (1685–1753). George was either a fool or a liar. Well maybe liar is to strong a word ... maybe he was just trying to challenge our established notions about how things work.

Anyway ... enough of this nonsense. Two things obviously exist. There is a world that exists outside our brain, and there is a model of that world that exists inside our brain.

Every adult human carries an (imperfect) model of his environment in his mind and uses this model to plan his actions. The main reason humans have been so successful compared to other animals is that we have a more complete model than ... say ... our primate cousins.



One reason that our model is so good is that we have language and hence get information from our fellows. Probably the building of this model and language were co-developments and could well be reflected in the size of the human brain over the last few million years. I believe that this world model and language are to some extent intertwined and I don't think it is a good idea to consider either in isolation.

Now usually when we communicate ... we just talk about reality. For example ... "John is tall". We do not acknowledge the actual more complicated situation ... "In my world model, John is tall". But sometimes we do .... usually when we are talking about activities related to our mind ... like "thinking", "knowing" ... disseminating knowledge to our fellows "telling", "saying" ... gathering knowledge first hand "seeing", "hearing" ... trying to gather knowledge from our fellows "asking". All these bracketed verbs can take what are called complement clauses. When you see a complement clause you are seeing an admission that what we are talking about is not in fact reality per se, but some model of reality. Maybe you could say that it is an admission that we are using meta-reality rather than reality.

## STATEMENT BLOCKS

State blocks can all stand on their own and make sense (I guess every statement is a fact).

These are equivalent to that-clauses in English. Example ...

1) **i-gói no < áh no maup gacuk >** = He remembered (that) he must lock the door

[ **gói** = to remember : **no** = he/she : **áh** : must : **maup** : to lock : **gacuk** : door ]

The above example is definitely an example of what I was talking about in the "some musings about life and language". But sometimes you find statement blocks in more pedestrian situations (in both English and **béu**). For example ...

2) **á-heuqo pa < áh pa tafi >** = I am sad that I must leave

However the above can also be written using two clauses (in both English and **béu**)

2a) **á-heuqo pa / siase áh pa tafi** = I am sad because I must leave

In fact (2) can be further curtailed and become a togo block ...

3) **á-heuqo pa < tafi >** = I am sad that I must leave

## TOGO BLOCKS

Four of the B5 ( **ha ni xúg pón** ) take togo blocks so this type of block is very common.

With **ha ni xúg pón** the togo blocks are definitely future orientated (DIXON calls this "potential type"). But not all instances of togo blocks are future orientated. It depends entirely on the block-taking-verb.

**á-kyom no < hwoi cúaq >** = She regrets making the beds = She regrets (that) she made the beds.

(actually hard to say if the above is "fact type" or "activity type" (in DIXON's paradigm). But it is certainly not "future orientated".

## HERTOGO BLOCKS

These mostly represent “activity type” blocks. Exemplified in the verbs of seeing and hearing ...

4) **tíam pa < piga jono mali >** = I see John hitting Mary

5) **mum pa < piga jono mali >** = I’m thinking about John hitting Mary

Not much difference in form between hertogo blocks, and togo blocks.

If the above example were to take a togo block it would designate a “future orientated” situation.

6) **mum pa < piga mali >** = I’m thinking about hitting Mary = I am thinking to hit Mary

## QUESTION BLOCKS

These only occur when questions are being asked. The verbs associated with this block are severely restricted ... to think (about), to wonder, to ponder, etc. ... a very small group of words.

“to not know” commonly takes this block. “to have not decided” also takes this block. Occasionally “to know” and “to decide” takes this block. But this is quite a strange usage ... the speaker knows the whether the answer is YES or NO but for whatever reason is withholding that information from the hearer.

Also the speaking verb “to ask” takes a question block ... obviously. “to tell” can on occasion take a question block, But this one is a bit strange ... for the same reason as “to know”.

I once had a question “are there any languages that only use question words in questions?”. I found it hard to get an answer to this. No text book I have come across broaches this subject. However I currently believe the answer is NO. Every language has a question block ... at a minimum used with “to not know” and “to ask”. I really wish WALS (or anybody) would do a cross-linguistic survey on this subject. Some examples ...

**wát xaukat pa < cás jono tumu >** = I haven’t decided whether Johnny is stupid (or not).

English versions of this block always start with “if” or “whither” (the only particle used exclusively with complement clauses in English). The **béu** question block always starts with the **c- glia** leaning on a verb. Some more examples ...

**mum pa ic píg jono mali** = I am thinking (about) whether John hit Mary

**mum pa úc píg jono mali** = I am thinking (about) whether John hit Mary

**mum pa cát píg jono mali** = I am thinking (about) if John has hit Mary

Next ... some more musings about life and language.

## What I call x blocks

All through the Greek Age and the Roman age and the Middle Ages mathematics was divided into two subfields, arithmetic and geometry. Then in the 16th century Algebra appeared. The key idea behind algebra is to use a symbol to represent a number that can vary. Commonly a number of these symbols/variables co-exist in an equation and when you solve an equation for a certain symbol/variable, you have reduced the range that that symbol /variable can represent as far as possible (in beginner's algebra, invariably the range is reduced to one particular number) given the constraints of the equation or equations available.

Today algebra is a unifying thread of almost all of mathematics. It seems like mathematics only really got into its stride when symbols were devised for variables along with rules for manipulating them. Algebra is at heart the adoption of an efficient notation that lets us manipulate quantities relatively rather than absolutely. In the Western Mathematical Tradition,  $x$  is the preeminent name/symbol used for an independent variable. This tradition was started by René Descartes in *La Géométrie* (1637). As a result of its use in algebra,  $X$  is often used to represent unknowns in other circumstances (e.g. X-rays, Generation X, The X-Files, and The Man from Planet X).

It seems to me that  $X$  is useful in three situations (but probably these situations run into each other and what we have some sort of continuum rather than three discrete situations)

- 1) General .....  $1 = x^2 + y^2$  .....  $x$  and  $y$  can vary, but the expression will always hold.
- 2) Unknown .....  $X$  is unknown (but at a certain point in time, maybe new data will come forward which will allow  $X$  to be resolved).
- 3) "Too awkward to express" .....  $X = \sqrt{9-2}$  .... You can not express this absolutely. It is an irrational number and never ends. However you can express it relatively by means of  $\frac{1}{2}$ , 9 and 2.

There seems to be the equivalent in language. I call them  $x$  blocks and it seems the same things that make them useful in algebra, makes them useful in language ...

- 1) General ..... Geese fly South  $x$  when the first snow falls  $x$
- 2) Unknown ..... I will leave  $x$  when you arrive  $x$
- 3) "Too awkward to express" .....  $x$  When John last talked to Mary  $x$  ..... If you wanted to express this absolutely you could say "at three fifty five in the morning of Monday the twenty eighth of November, 2018". However you can express it relatively by means of "John", "last talked" and "to Mary".  
( I show  $x$  blocks between  $x$ 's in the above examples)

In English,  $x$  blocks are based on QW's (question words). For example "why" = "the reason is unknown (to me)" + "I want to know". When "why" is used in an  $x$ -block the meaning has been reduced to "the reason is unknown".

English has 7 question words ... when, where, who, what, how, why, which ... enquiring about time, place, thing, person, manner, reason and "one from a group of identical things". Dropping "which" (which is a slightly different kettle of fish), we have ... when, where, who, what, how and why.

$x$  blocks derived from the above 6 QW's are particularly common as copular subjects and copular complements, cf. "what you see is what you get". The ability to stand in for nouns in other situations is sometimes restricted though. i.e. if the underlying situation is "John gave Mary a flower on Monday". We can substitute for "John" by "who gave Mary a flower on Monday" in copular subjects and copular complements, but if you wanted to use it as a sentence subject, it sounds a lot better to say "the guy who gave Mary a flower on Monday ...".

The first 2 QW's (when and where) however can form  $X$ -blocks almost anywhere. The other 4 have varying degrees of restriction on their usage.

English obviously has  $x$  blocks. Some languages do not. For example Swahili. In Swahili the questions words are not so "iconic" (they are rarer and not so important). Instead generic nouns like *mtu* "man", *kitu* "thing", *waktu* "time" etc are more iconic. They are used in conjunction with relative clauses (Swahili has quite a neat way of forming relative clauses) to take up much of the functional load born by  $x$  blocks in English.

The thing with x blocks is, they must be differentiated from questions. [ I suspect this need might have had something to do with the rise of “do” in English as an auxiliary used in questions. If one reads “who hit Harry ...” one doesn’t know if you have a question or an x block. I am sure that this sort of situation is disliked and that language develop in such a way to minimize this ambiguity. Of course, once you hear the full utterance “who hit Harry ?” / “who hit Harry is a total moron” all is revealed. But I can help thinking, even a few mili-seconds of ambiguity is best to be avoided. Hence English’s preference for “That guy who hit Harry is a total moron”.

Because of **béu**’s VSO structure, there is no chance of ambiguity (of course copula dropping is not allowed when it comes to x blocks ... copula dropping is only allowed for present tense copulas that do not contain any blocks).

So as you can imagine a huge number of verbs can take x blocks (as opposed to question blocks). An example of a non-x-block taking verb is “to regret”. It doesn’t take an object, not really. “I regret the sixth double whiskey” is actually short for “I regret (that) I drank the sixth double whiskey”. Because “regret” doesn’t take an object, it can’t take a concrete x block. Well actually it can take an x block when the x block designates an action.

English x blocks can be nouns (starting with “what” or “who”) or adverbials (starting with “how”, “when”, “where” or “why”). If the x block represents a noun then the block-taking-verb can take a concrete object. x-blocks can also be actions.

“I regret what I did last night” ... the “do” within the x block being responsible for the “action” interpretation.

## X BLOCKS

**béu** uses x blocks to the max. The fact that **béu** is verb initial cut out any chance of confusion with questions. For example ...

7) **céu án lé á-bugan** = How do you want to behave ?  
[ being a question there is a sharp rise in pitch occurring on the **-gan** ]

8) **bugani céu án lé bugan** = Behave as you want to behave.  
[ being a final statement, having a fall in pitch over **lé á-bugan** ]

There will (nearly) always be an initial verb with statements.

Also (4) can be changed to **bugani inceu án lé á-bugan** = Behave however you want to behave

See chapter 51 to see where **inceu** comes from.

## WHERE TO GO BLOCKS

Wheretogo blocks are always reduced x blocks ...

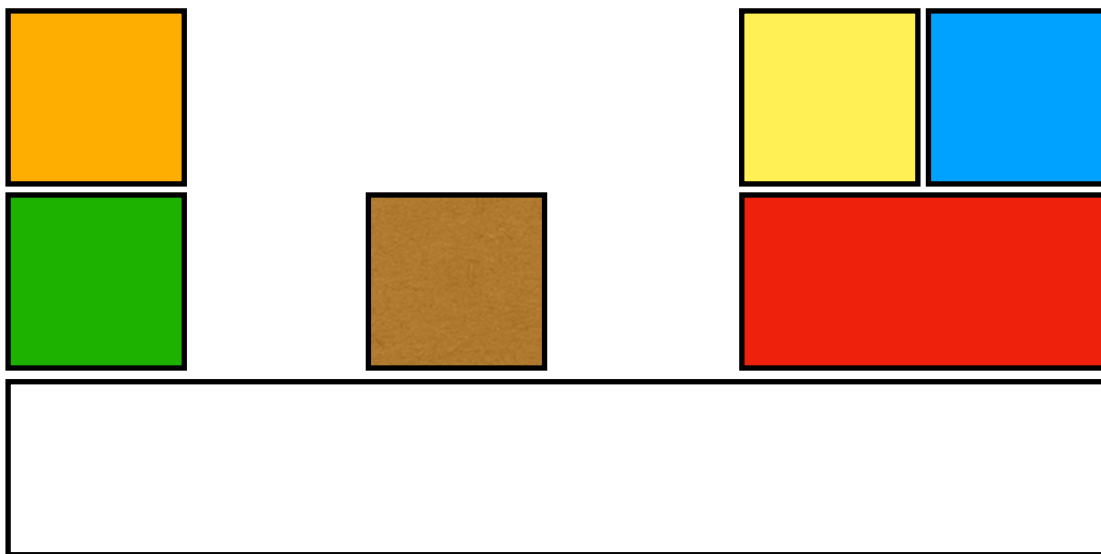
**á-ko pa \* c-lau go \*** = “I know where to go” is a reduction of ...

**á-ko pa x áx pa go c-lau x** = “I know where I should go”

**á-gamuh no \* c-lau go \*** = “She understands where to go” is a reduction of ...

**á-gamuh no x c-lau áh no go x** = “She understands where she must go” etc. etc.

It does not go the other way though. You can get x blocks that have no corresponding wheretogo block. For example ... **in pa x cumam no cai x** = “I wish I had what she is eating” has no corresponding wheretogo block .



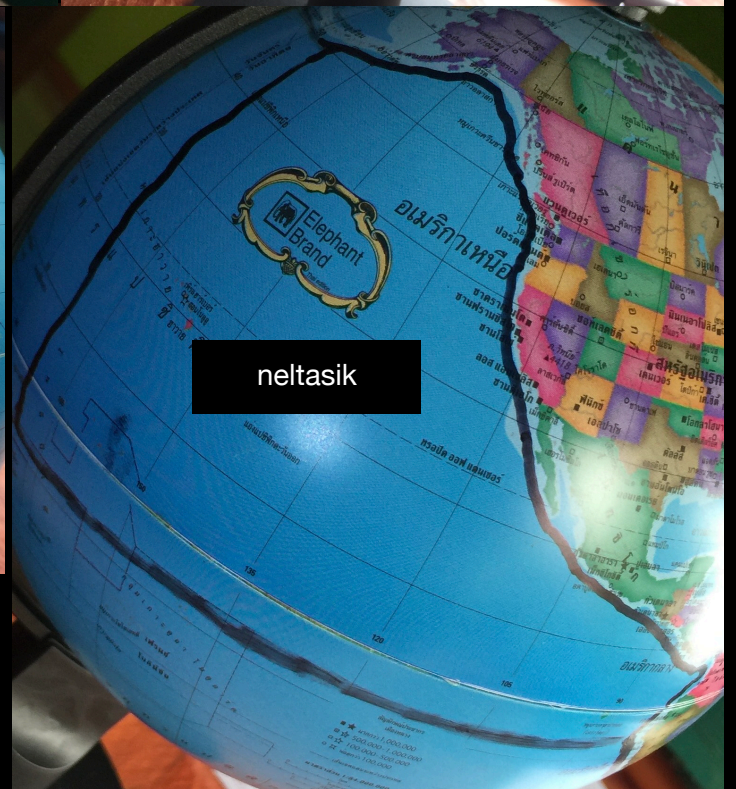
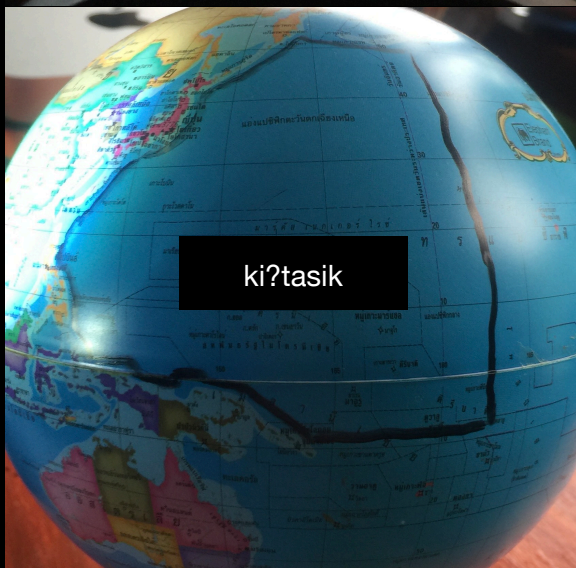
Above, you can see how the 7 oceans fit together. And in the table below, their extents are given.

The units used are “million km square”. They are so approximate in fact that the order given here might be wrong. **hiatasik** in particular will have its area cut down considerably because of the many **gwoqai** it contains.

On the final column, is given how these bodies of water might be described in the Western Geographic Tradition (WGT)

<b>moltasik</b>	c. 60	Great Southern Ocean
<b>hiatasik</b>	c. 53	
<b>neltasik</b>	c. 52	North East Pacific
<b>kiʔtasik</b>	c. 45	North West Pacific
<b>duntasik</b>	c. 39	The Indian Ocean
<b>suntasik</b>	c. 35	The North Atlantic
<b>geutasik</b>	c. 33	The South Atlantic

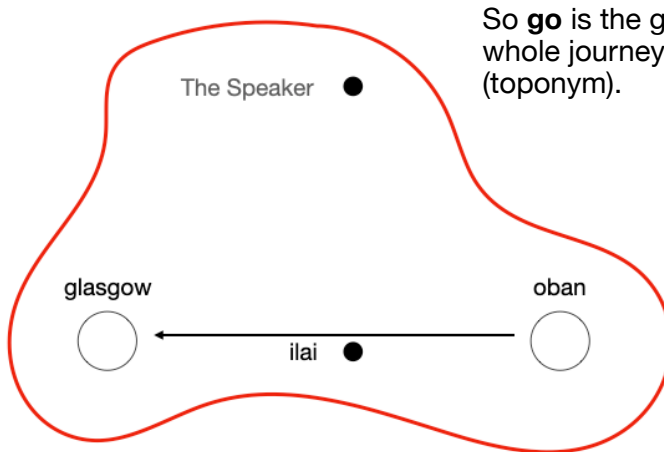




The general word used to express movement (translation movement not body movement) is **go**. Let's begin to delineate **go**. Look at the chart below. This event can be expressed by either ...

(1) **i-go ilai glasgow** = Ilai went to Glasgow

(2) **i-go ilai glasgow s-oban** = Ilai went to Glasgow from Oban



So **go** is the general term and semantically encompasses the whole journey. Notice that glasgow is a place-name (toponym).

If you were to replace "Glasgow" with "old tree" you must say ...

**i-go ilai l-auge dweli** = Ilai went to the old tree

Notice that in this case we need **I-** to qualify the objective. When the objective is human we have two options. When the human is at home

**i-go ilai lau d-jono** = Ilai went to John's place

When the human is out-and-about ... **i-go ilai l-kulau jono** = Ilai went to find John

However the case for human objective is really a different situation, not really comparable to toponym objective or a inanimate noun objective.

When the inanimate noun objective is next to **go** we also drop **I-**. For example ...

Ilai wants to go to the old tree = **án ilai go auge dweli** NOT **\*án ilai go l-auge dweli**

	toponym	non-toponym
objective directly after <b>go</b>	Ø	Ø
objective not directly after <b>go</b>	Ø	<b>I-</b>

The following words qualify as toponyms (in **béu** anyway) ... **dah**, **dalat**, **lodau**, **gigu**, **gogu**, **doqah**, **laun**, **ludau**, and **benaf**. However these words are subject specific. For example ...

**i-go ilai dah** = Ilai went home : **i-go ilai l-dah d-ildo qái** = Ilai went to his (older) brother's house

So you only drop **I-** for the **dah** specific to **ilai**.

Similarly with **dalat**, you only drop the **I-** when **ilai** goes to his normal market.

Similarly with **lodau**, you only drop the **I-** when **ilai** goes to his normal place of work.

As for **doqah**, **laun**, **ludau**, **benaf** (village, town, city). Well it is normal in **beugan** to be born in a smaller place but to go and seek work in a larger place. Many old friends and family remaining in the smaller place. Consider our friend **ilai** again. Say he was born in a **doqah** but works in a **ludau**. His life might consist of frequent trips between these two places. Hence when talking about **ilai**, one could say **i-go no doqah** or **i-go no ludau** {of course only valid when it is the specific **doqah**, or specific **ludau** that **ilai** was going to}.

**kemi** (chemist) or **kecin** (post office) etc. might also be added to the list of destinations that work without **I-**. For example if the protagonist lived in a village with only one chemist shop.



As we said before, **go** is the general term and semantically encompasses the whole journey. To focus on the leaving/departing or the arriving/reaching we use **tafi** and **tiba**. For example ...

**i-tafi ilai oban** = Ilai left Oban = Ilai departed from Oban

**i-tiba ilai g-glasgow** = Ilai arrived at Glasgow = ilai reached Glasgow



The two examples above the schematic can also be extended ...

**i-tafi ilai oban l-glasgow** = Ilai left Oban for Glasgow

**i-tiba ilai g-glasgow s-oban** = Ilai arrived at Glasgow from Oban

**tafi** often has a human object ... **át tafi pe?o ?uxya** = Peter has left his wife

Notice that for **tiba**, the toponym must take the locative **glai l-**. Actually, of the two, **tiba** is the more interesting by far. It is often used in passive form and with the **glai h-**. For example ...

**tibas h-lát** ... = Come six o'clock (we were both exhausted)

Also **tiba** is use to encode ... finish, complete, achieve, manage and succeed. A togo-block is put in the place the location/target usually goes. For example ...

**i-tiba hugo < hig dah >** = Hugo finished building his house = Hugo has finished building his house

So **tiba** is a very common word.

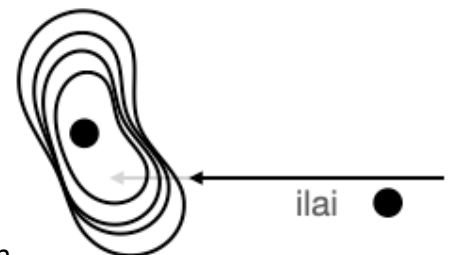
In the next chapter we will learn about the perfect aspect marker **ti**. Actually the use of **ti** with **tiba** is considered bad style for some reason. But notice **i-tiba hugo < hig dah >** "Hugo finished building his house" means the same as **át hig hugo dah** "Hugo has built his house".

But I am getting ahead of myself here. The perfect particle **át** will be introduced in the next chapter.

**tu** means "come", and means "motion here". "here" can be defined in different ways depending on the situation.

For instance, on the RHS the outer ring represents "this country", the second outer "this county", the second inner "this town", and the inner ring "this building". **ilai** penetrating any one of these perimeters could be expressed as **i-tu ilai** ... it depends on the situation.

The Speaker



The first schematic on the last page had the destination and the origin equidistant from the speaker/observer. In fact in our modern world many people have a poor understanding of the relative layout of neighboring places ... they tend to always use **go** for any translation movement as long as the destination is not "here". If the destination is identified as "here" then **tu** must be used.

The origin can be added to the expression **i-tu ilai** "Ilai came" => **i-tu ilai s-toqqa** "Ilai came from Tonga". Now this could merely mean that **ilai** touched down in Tonga before continuing to "here". If one heard, however, **o-tu ilai s-toqqa** one would assume that **ilai** is a visitor from Tonga and will be returning there. On the other hand, if you heard **oi-tu ilai s-toqqa** one would assume that **ilai** was born and bred in Tonga but has no plans to go back (the most likely explanation being that he is an immigrant from Tonga).

**tu** is found in the compounds **tume/tumin** meaning stranger/strangers. These words are in contradistinction to **byume/byumin** meaning local person, local people. By the way, **byu** means soil/ground/earth.

The perfect aspect, to me is the most fantastic facet of all with regard to grammar ... the fact that a neural network with eyes for deducing the state of society and ears for hearing language, can construct a “present relevance” implication is just amazing.

The perfect aspect... that strange operation that indicates that some event that happened in the past is relevant to our present situation.

Basically to give a verb perfect aspect, you slip the particle **ti** in front of the verb. The aspect particle takes the activator. However aspect particles don't affect the position of the subject. The subject still follows the verb as before. So aspect particles don't pattern the same as **sau ha ni xúg** and **pón**, which are verbs.

We have met “contractions before” (when two words fuse into one phonological unit). We came across 36 in chapter 3 where the pronouns amalgamated. Also we came across 15 in chapter 16 where the B5 amalgamate to their activators and such. **ti** gives us a further 3 ...

	Future	Present	Past
<b>ti</b>	<b>út &lt; ú-ti</b>	<b>át &lt; á-ti</b>	<b>it &lt; i-ti</b>

All the aspect particles take the static verb activators, even if the verb they precede is a dynamic verb.

**ti** differs from the other aspect particles. For one thing, it is the only one to fuse with its activators. [We have talked about the B5 before, namely **sau ha ni xúg pón**. sometimes **ti** is included in this august assembly. With **ti** included we refer to the Big Six ... B6 ... **wáq wú** ]. For another thing it is the only one to take **a-** for the present tense. But more of that later. Here are a few examples of **ti** in action ...

0) **é-go no dah** = He went home (earlier today)

1) **át go no dah** = he has gone home

2) **it go no dah** = he had gone home

3) **út go no dah** = he will have gone home

4) **ti go dah** = to have gone home

1) implies that “he” is not here now. This can be contrasted with (0), which simply states that an action happened in the past, no connotation about our present situation.

5) **át yóm jono onde x-taугan** = “John has read books on maths” ... implying that John has some knowledge of maths.

Note that tail-shedding verbs, still shed their tail when hijacked by an aspect particle.

In chapter 15 it was noted how the particle **ti** gives past tense meaning to the verbs **ni ix** and **ip** .

**mwo mo ke** and **kwe** are the four aspectual particles that focus on the starting or stopping of an action with respect to the present. These particles are used in situations where people are expecting an action to start imminently, or to stop imminently. To use mathematical language ... these 4 particles concerning the rising/falling edge of a step function with respect to that infinitely thick period of time that we call "the present".

**mo** indicates ...

- 1) An activity is ongoing.
- 2) The activity must stop some time in the future, possibly quite soon.
- 3) There is a certain **expectation** that the activity should have stopped by now.

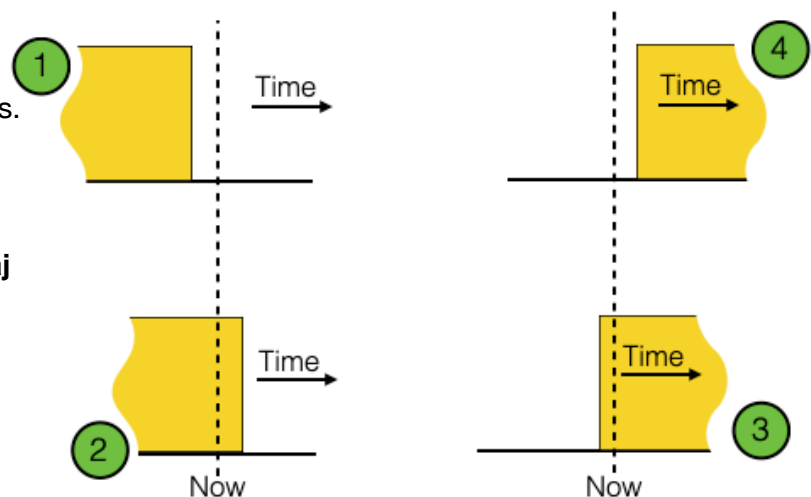
**ke** indicates ...

- 1) An activity is ongoing.
- 2) The activity was not ongoing some time in the past, possibly quite recently.
- 3) There is a certain **expectation** that the activity should not have started yet.

Inevitably a connotation of "contrary to expectation" will develop to a certain degree. This is because if the situation was according to expectation often nothing would need be uttered. Hence **mo** and **ke** are often found in contrary to expectation situation which in turn colours their meaning.

The four situations depicted ==> must be expressed in all languages. English uses 4 different constructions to express the 4 different situations.

- (1) I no longer do it => **mwo bu paj**
- (2) I still do it => **mo bu paj**
- (3) I already do it => **ke bu paj**
- (4) I don't do it yet => **kwe bu paj**  
I haven't done it yet



Notice that in situation (4), there are two ways to express it in English. When translating from English to **béu** one must be careful if you have a clause containing both "have" and "yet". One must resist using the "perfect particle" **ti** negated and use the particle **kwe** instead.

**mwo mo ke kwe** are called "aspectual operators" or "aspectual particles". From a logical point of view it is very interesting to look at these operators cross-linguistically. The system has an interesting symmetry. We can call (2) and (3) the positive situations ... the action is happening "now" within these.

- (2) can change to (1) is you negate the operator : ?I don't still do it = I no longer do it
- (3) can change to (4) is you negate the operator : ?I don't already do it = I don't do it yet

- (2) can change to (4) is you negate the verb : ?I still don't do it = I no longer do it
- (3) can change to (1) is you negate the verb : ?I already don't do it = I no longer do it

With **béu** I guess the best analysis is to say **mwo** is **mo** negated. And say that **kwe** is **ke** negated. So to express all 4 situations, **béu** doesn't negate the verb but used the negative operators. It is thought that **mo** is related to **molde** ... a verb meaning "to continue". Also it is thought that **ke** is related to **kende** ... an adjective meaning "ready".

In linguistics there is the concept of the zero morpheme. Which says that “zero” can be significant. (there must be a demarcated “slot” for this to work). For example ... imaging a language where the subject noun or pronoun must precede the verb. However sometimes this slot is empty. In these situations the meaning is that the most salient third person singular is the agent behind the action. In that situation we can say 3SG as subject is a zero morpheme (represented by  $\emptyset$  in interlinear text).

In **béu** one can say that the infinitive form (the action isolated from agent and tense) is usually represented by a zero morpheme. For example ...

**ú-go pa dah** = I will go home

$\emptyset$ ? **go dah** = to go home

[One could argue that the imperative is a zero morpheme in English ...  $\emptyset$ ? go home ! However the English imperative and the **béu** infinitive lack a well defined “slot” ... they lack a paradigm]

However with the aspectual particles, it is the **á** activator which is the zero morpheme. Well ... with all the aspectual particles apart from **ti** . This explains the forms which we encountered one page back ...

(1) I no longer do it =>  $\emptyset$ -**mwo bu paj**

(2) I still do it =>  $\emptyset$ -**mo bu paj**

(3) I already do it =>  $\emptyset$ -**ke bu paj**

(4) I don't do it yet =>  $\emptyset$ -**kwe bu paj**

I am not going to continue with writing the “ $\emptyset$ ”. The above is just to give a hint as to what is going on.

With **mwo mo ke** and **kwe**, the time of the rising or falling edge of the action can be compared to “reference time” instead of “now”. For example ... **h-tusau pa puxeq / i-mwo cum pa man** = When I became an adult (i.e. at 21.3 years old), I had already become a vegetarian

[ A word for word translation is ...

at-time become 1SG 21.3-years-old / PST no-longer eat 1SG meat ]

So **mwo mo ke** and **kwe** must take either **i** or **ú** when they are up against “reference time”, but when up against “now” they are on their own.

The next aspectual particle is **múai**. **múai** is equivalent to something like “in the process of”. Applicable to any involved task that takes a bit of time. For example ...

1) **i-muai hig no dah to / h-helkas kaupa qái**

= He was (in the process of) building a house when he broke his leg

2) **i-higam no dah to / h-helkas kaupa qái**

= He was building a house when he broke his leg

(2) Implies that the accident took place on the building site ... (1) Has a strong connotation that the accident happened during some leisure activity ... maybe playing soccer.

The next aspectual particles are **he** and **ho**. These two support the dynamic verb activator set. The present tense activator **-m/-am** goes on rather than on the following verb. For example ...

**hem go pa dah** = I am setting off for home now

**i-he ko pa is waulo menya** = I realized (that) the dog was dead

In the above examples the string **he ko** is equivalent to the English word “realize”.

The final aspectual particle is **twi**. **twi** is equivalent to “never” or “have never”. For example ...

3) **twi cum léu nopsi d-gogu** = You (lot) have never eaten a school meal.

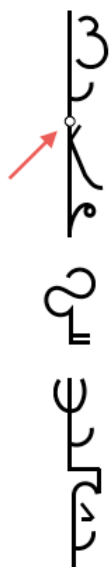
4) **wát cum léu nopsi d-gogu** = You (lot) haven't eaten a school meal.

Well the difference between (3) and (4) is time of validity. They are both statements. The lower time of validity varies according to the situation. In the case of (4) it could be one day ... maybe the situation the speech participants are talking about is only salient for one day. However using a construction like (3) boosts the time validity of the statement to the maximum ... forever.

The perfect aspect has two facets, two connotations. Usually called “current relevance” and “experiential”. Experiential means “having done it at least once”. One can say that **twi** is the negative of **ti** when it comes to the experiential meaning.

So, in summary ... there are nine aspectual particles ... **ti mwo mo ke kwe muai he ho** and **twi**. They pattern differently from any other part of speech. Also **ti** patterns differently from **mwo mo ke kwe muai he ho** and **twi**.

To get the infinitive (the action isolated from agent and tense) of **mwo mo ke kwe muai he ho** and **twi** one adds the prefix **bu-**



Note ... a **tison** is used when joining **bu** to these eight aspect particles, in order to make the infinitive form.

See red arrow ...

<b>bu-mwo sau wutu</b>	to no longer be fat
<b>bu-mo sau wutu</b>	to still be fat
<b>bu-ke sau wutu</b>	to already be fat
<b>bu-kwe sau wutu</b>	to still not be fat
	to not be fat yet
<b>bu-muai hig dah</b>	to be in the process of building a house
<b>bu-he hig dah</b>	to start to build a house
<b>bu-ho hig dah</b>	to stop building a house
<b>bu-twi hig dah</b>	to never have built a house

At the beginning of this chapter, we had the example ... **ti go dah** = to have gone home. Actually this sentiment is sometimes expressed as **bu-ti go dah**. You can use either ... **ti** and **bu-ti** are in free variation.

Where as **ti** takes after the B5 in amalgamating with **ú á** and **i**, and also with the question clitic **c-**, **mwo mo ke kwe muai** and **twi** take after normal verbs ...

**mo cum no baha** = He is still eating breakfast {Note ... never the form **cumam** “eating” after **mo**}

**mo w-cum no baha** = He is still not eating breakfast = He isn't eating breakfast yet  
= **kwe cum no baha**

**i-mo cum no baha** = He was still eating breakfast

**ú-mo cum no baha** ... = He will still be eating breakfast

**ú-mo w-cum no baha** ... = He will still not be eating breakfast

**c-mo cum no baha** = Is he still eating breakfast ?

**ic mo cum no baha** = Was he still eating breakfast ? ... etc. etc. etc.

Note ... we never have **\*w-mo**

**\*w-mo cum no baha** => **mwo cum no baha** = He is no longer eating breakfast

**góim pa jene** = I remember Jane

**i-góim no < áh no maup gacuk >** = He remembered that he had to lock the door

**i-góim no < át maup no gacuk >** = He remembered that he had locked the door

**w-góim no < ic maup no gacuk >** = He doesn't remember if he locked the door

**i-góim no x ás c-pu wutu x** = He remembered who is fat

**i-góim no x c-lau áh no go x** = He remembered where he had to go

**i-góim no \* c-lau go \*** = He remembered where to go

**i-góim no < maup mali gacuk >** = He remembered Mary locking the door

**i-góim no < maup no gacuk >** = He remembered locking the door

**i-góim no < maup gacuk >** = He remembered to lock the door

In this chapter we are revisiting “blocks”. Presented again here for your convenience ...

- |                    |         |  |
|--------------------|---------|--|
| 1) statement block | < ... > | ... a clause (namely a statement) in its own right.        |
| 2) question block  | < ... > | ... a clause (namely a Y/N question) in its own right.     |
| 3) X block         | x ... x | ... a clause (namely a content question) in its own right. |
| 4) wheretogo block | * ... * | ... a reduced X block                                      |
| 5) hertogo block   | < ... > | ... this can be considered a clause nominalized.           |
| 6) togo block      | < ... > | ... a reduced statement block                              |

**góim** and **luam** are unique in that they are the only verbs that take all six blocks. **luam** patterns exactly the same as **góim** so no need to mention it further. A few points can be made ...

1) **góim** can take a concrete object ... see **jene**/Jane at the top of the page. If a verb can take a concrete object, it will always also take an x block.

2) If a wheretogo is present then an x block also be present. The red lines with arrows means “simplifies to”. now we have three red arrows above , one from statement block to togo block, one from statement block to hertogo block and one from x block to wheretogo block.

Statement blocks that get simplified to togo blocks are not uncommon. Why not, we all like to drop words that are not needed ... and if no confusion arises. So why not reduce ...

**á-heuqo pa < áh pa tafi >**      ==> **á-heuqo pa < tafi >**  
 I am sad that I must leave      ==> I am sad to leave

Statement blocks that get simplified to hertogo blocks are uncommon. But they exist, as can be seen with the examples on the top of this page.

But (and I am repeating myself here), you never get a \* ... \* without a x ... x .

hertogo and togo blocks are ad-hoc reductions of statement blocks, however the link between wheretogo blocks and x blocks appears to be something more fundamental.

3) question blocks do not seem to have any reduced equivalent. This is true for all block-taking-verbs in **béu**.

OK in contrast to **gói/luam** that take all six blocks, lets consider a verb that only takes one block ...

**tíam pa jene** = I see Jane

---

< ... >

< ... >

x ... x

---

\* ... \*

**tíam pa** < **piga jono mali** > = I see John hitting Mary  
**tíam pa** < **ti piga jono mali** > = I see John (has) hit Mary  
**tíam pa** < **sau olga hau?e** > = I see Olga to be beautiful

< ... >

Well I tell a lie. **tía** can take x blocks. But I find it unnecessary to stress this as I have already mentioned that this verb can take a concrete object ... **tíam pa jene** / I see Jane ...

We have already said “concrete objects implies x block”. However “x block does not necessary imply the matrix verb can take a concrete object. For example ...

**á-kyom pa x bu pau cai byég noic x** = I regret what we did last night

Now you may say “regret” **kyom** can take a concrete object, as in “I regret the ninth vodka slammer last night”. However this example can be view as a contraction, the underlying expression is “I regret drinking the ninth vodka slammer last night”. So no concrete object.

Maybe you think that a statement block is warranted for **tía** . As in “I see that Peter is drunk”. Mmmh ... well perhaps you could say **tíam pa < ás pe?o hubog >** . But this is considered not quite proper. Better style to say **ás pe?o hubog tidau** (see chapter 20) .

## The Natural World

Any river with a flow less than  $\text{goi}^3/\text{tig}$  ( $\approx 8 \text{ m}^3/\text{s}$ ) is called a **yoki** .

A river with a flow between  $\approx 8 \text{ m}^3/\text{s}$  to  $\approx 243 \text{ m}^3/\text{s}$  is called a **fos** .

A river with a flow between  $\approx 243 \text{ m}^3/\text{s}$  to  $\approx 7,376 \text{ m}^3/\text{s}$  is called a **kogi** .

A river with a flow between  $\approx 7,376 \text{ m}^3/\text{s}$  to  $\approx 224,00 \text{ m}^3/\text{s}$  is called a **loca** .

There are only 37 **loca** in the world. The flow of the Amazon is  $\approx 224,00 \text{ m}^3/\text{s}$

---

There are three names for hill/mountain ... **hwaq dói** and **dutse** ... from largest to smallest. The classification scheme is quite complicated. Involving not only height and prominence but quite a few other factors. Also the terms **dinoi** and **dudoi** are often heard.



There are other adverbs apart from the seven introduced in chapter 20 ...

**tigdi** = now [ **tigdi** <= **tig dí** ... this moment ]

**wom** = “mutually” ... this word was chosen because of how it looks in the Latin alphabet the symmetry under 180 rotation seemed appropriate



**tundus** = many times

**dús** = often ... **tundus** and **dús** are actually cognates. There are some subtle distinctions in usage.

**kaqkaq** = together ... **kag** means “flank” “one of the two side of an animal having left/right symmetry”

**duai** = also, too

**tiau** = only ... **duai** and **tiau** sometimes qualify nouns, in which case they immediately follow the noun. Sometimes they qualify a whole clause, in which case they have the positional possibilities as any other adverb.

**dugai** = for a long time

**dile** = for a short time

**iyos** = seldom

**tugis** = again

**sialu** = inexplicably, “for no reason” <= **sia** + **lu** (see chapter 17) : **sia** = incentive, inducement

**pauclic** = in vane, to no avail (irregularly formed from **pauca** “to block up” and **lia** = objective, purpose)

So that’s another 13 adverbs. Enough to be getting on with for now ...

Let’s discuss the placement of adverbials ...

● / i-píg ● pa jene ●

Adverbs qualify the entire clause, and as such, in many languages have a few placement options. The red spots show the legal adverb positions in two typical sentences.

● / mwo mu ● no dau ●

In **béu** the default is “the modifier” immediately after “the modifies”, so it is no surprising to see adverbs are allowed immediately after the verb.

The above is “I hit Jane” followed by “She no longer thinks like that”. By the way **mwo** is an aspect operator. These will be explained in chapter 24 .

Adverbs can also come clause initially. In this position they are emphasized a bit more compared to the position just after the verb. There is a slight pause between the clause initial adverb and the rest of the clause. This pause represented by **tig** in the **béu** script ... represents by a slash in my transliteration. The adverb can also appear at the very end of the clause. In this position it is de-emphasized compared to the position just after the verb.

Many adverbs are derived from adjectives. For example **saco** “quick” => **q-saco** “quickly” . As I’m sure you notice, this patterns very closely to English. When these derived adverbs are used the **q-** affix can be dropped when the adverb comes immediately after the verb. In any other position the **q-** prefix can not be dropped ...

She wants to go home quickly {   
 án no go saco dah   
 q-saco / án no go dah   
 án no go dah q-saco

To request an action

The imperative verb form is the form of the verb which you use to tell somebody what to do. In many languages { such as English } the imperative form is the base form ... that is the imperative is the simplest form you can get. Not so in **béu**. The **béu** verb is made into an imperative by suffixing either **-k**, **-i** or **-ki**.

**cuha** = to wrap ... **cuhak nuxai náí** = wrap up her present

**kupe** = to kick ... **kupek waulo dweli de** = kick that old dog

**kúap** = to move along/up a bit ... **kuapi** = move up a little

**xad** = to move ... **xadi kaupá láí iyo** = move your leg a little

**dón** = to drop .... **doni xlaspuá láí** = drop your weapon

**twa** = to meet (by appointment) ... **twaki pa byetu** = meet me tomorrow

**ha** = to have ..... **haki bye bóí** = have a good day

When you are talking to more than one person the plural second person pronoun can be used ... **haki léu bye bóí** = “have a good day gentlemen” if you want to make it clear you are talking to them all.

Here are the rules on where to use **-k**, **-i**, **-ki** =>

For multisyllabic open verb ... .. add **-k**  
 For a closed verb ..... add **-i**  
 For a monosyllabic open verb .... add **-ki**

Now imperatives can be used to children, to employees, to people a bit lower than you in social status. To soften the command you can append **-si** to the verb. For example you could ask your wife ...

1) **hwoiksi mogaskek ?á súk pa** = Could you make that chocolate cake that I like.

2) **twaksi pa byetu d-byetu** = Could you meet me the day after tomorrow.

3) **xadisi xlá láí s-kwa wái** = Could you move your sword from my neck.

Note ... the imperative form **-ki** reduces to **-k** when **-si** is appended.

Of course if your conversation partner's status was too high above yours you would have to resort to even more elaborate circumlocutions.

The negative imperative is very easy, simply put the particle **kya** in front of the verb.

**kya kupe waulo dweli de** = Don't kick that old dog.

**kya kupe léu waulo dweli de** = Hey (you lot) don't kick that old dog.

To request an object

The suffixes **-k**, **-i**, **-ki** are special grammatical bits used to request an action (a verb). With this particle, the subject “**lé**” is dropped. **béu** also has a particle used to request an object (a noun). This particle is **lú**. With this particle, the potential recipient “**pa**” as well as the subject are dropped. So instead of **\*nuksi pa** or **\*nuksi l-pa** one would use **lú**. For example ...

**lú sum** = can I have some water = have you any water = how about some water

It is important to remember that **lú** is not a verb (for instance it never takes any tense). It is a particle. If you consider particles and affixes as one (which you should), **lú** has similar status and function to **-k**, **-i**, **-ki**.

## To request a third person or first person be allowed to do something

The same particle is used to request a third person be allowed to do something. For example ...

**lú < cum bakke nopsi >** = Let bakke (female name) eat lunch = Allow bakke to eat lunch

**lú < cum pai nopsi >** = Can we eat lunch ?

The form above is all that is needed between equals. However it is possible to make the request politer ... maybe necessary if the speech mate has his/her heart set against the action proposed. You add the particle **si** at the very end of the utterance to make it politer.

**lú < cum bakke nopsi > si** = Plea - ease let bakke (female name) eat lunch.

This politeness particle can also be used when requesting objects ...

**lú sum si** = Plea - ease can I have some water

[ Notice that I have exaggerated the “please”. This is because **si** is rarer in **béu** than “please” is in English. It would be thought strange to ask an equal to “please pass the sugar” in **beugan** ]

To suggest that one or more people join you in a certain activity, you use the double **glia** prefix **c-l-** stuck on to the verb. For example ...

**c-l-go dah** = Let's go home. This is discussed further in chapter 46.

## To report the three types of request

OK ... so far we have just used particles ... **-k, -i, -ki, lú** . These don't take activators of course. And we need activators to gave tense distinctions. **lúk** is the verb that covers the speech acts we have been discussing in this chapter up to now. **lúk** covers all three types of request.

1) **i-lúk anauf jene < piga jono >** = Arnold told Jane to hit John  
= Arnold asked Jane to hit John

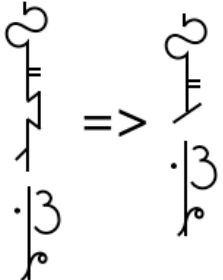
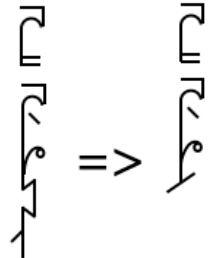
2) **i-lúk iqgo (kwifa) x-sum** = Ingo asked (kwifa) (female name) for water

3) **i-lúk iqgo bakke x-< cum jono nopsi >** = Ingo told bakke to let John eat lunch  
= Ingo asked bakke to let John eat lunch

Notice that the English translation of **i-lúk** is sometimes “told” and sometimes “asked”.

**lúk** has an alternative form ... **lusi** [ in IPA this would be **luzi** ... see the second phonological rule in chapter 1]. If the politeness particle **si** was used in the original request, then **lusi** should be used instead of **lúk**.

So maybe you can say that **lúk** translates as “tell” and **lusi** as “ask”.

<p>This would be a good point to mention a little quirk of the orthography. Words ending with <b>-ki</b> have a special curt form.</p>	<p><b>sauki bói</b> be good</p> 	<p><b>dau toki</b> that's right</p> 
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## The extended numbers

The numbers 1 - 35 are called **tau** “numbers”.

Any larger number is called **tudau**. By necessity a **tudau** will include one of these terms ...

**balu, gilu, dailu, legau, jogau** or **saugau**.

The number system that includes **tudau** is called **tudaustinau**. This system ranges from zero up to  $78,364,164,095_{10}$  ... over 78 trillion.

Of course there is yet another system to go even higher than this {a scientific notation} ... however this system is not commonly used.

The numbers in the left column are base ten. The name corresponding to these values are shown in the right column. They are called **cabe d-túq** “magnitude words” ... corresponding to our “hundred”, “thousand”, “million” etc.

To construct a **tudau** ... first chose the **tau** needed, then the magnitude word needed, then the second **tau** needed, etc. etc.

$36^6$	[ 1-35 ]	<b>saugau</b>
$36^5$	[ 1-35 ]	<b>jogau</b>
$36^4$	[ 1-35 ]	<b>legau</b>
$36^3$	[ 1-35 ]	<b>dailu</b>
$36^2$	[ 1-35 ]	<b>gilu</b>
$36^1$	[ 1-35 ]	<b>balu</b>
	[ 1-35 ]	
$36^{-1}$	[ 1-35 ]	<b>habi</b>
$36^{-2}$	[ 1-35 ]	<b>nibi</b>
$36^{-3}$	[ 1-35 ]	<b>wubi</b>
$36^{-4}$	[ 1-35 ]	<b>tewai</b>
$36^{-5}$	[ 1-35 ]	<b>powai</b>
$36^{-6}$	[ 1-35 ]	<b>kaiwai</b>

Here are some examples ...

1)  $2,861_{10} = 21,125_6 = 2 \ 11 \ 25 = \text{náu gilu watoi balu naheu}$

2)  $6,501_{10} = 50,033_6 = 5 \ 00 \ 33 = \text{héu gilu sasai}$

11.452<sub>6</sub> = \***watoi kaxai yaheu habi náu** <= This is wrong {actually amounts to 11.4502<sub>6</sub>}

3) 11.452<sub>6</sub> = 11 45 20 = **watoi kaxai yaheu habi náuq (nibi)** <= This is correct  
{usually **nibi** would be dropped}

By the way ... any number including **habi, nibi, wubi, tewai, powai** or **kaiwai** are called **tinau**.

{Some numbers are both **tudau** and **tinau** ... however this implies a large dynamic range which actually you don't come across that often}.

You may have noticed that **balu** and **xéq** are identical ... “36”. If you have a **tudau** it is usual to use **balu**. Above I said 1 - 35 are **tau**, well actually 1 - 36 are **tau** ... as long as 36 is expressed as **xéq**. Also **xéq** is used in many idiomatic expressions. For example **áh pa xéq yé** = I've hundreds.

Here is how our three examples would be written “text-wise” (i.e. vertically) =>

And below is how they would be written horizontally.

You might come across this style in science textbooks, or in the classroom, with the teacher writing on the blackboard.

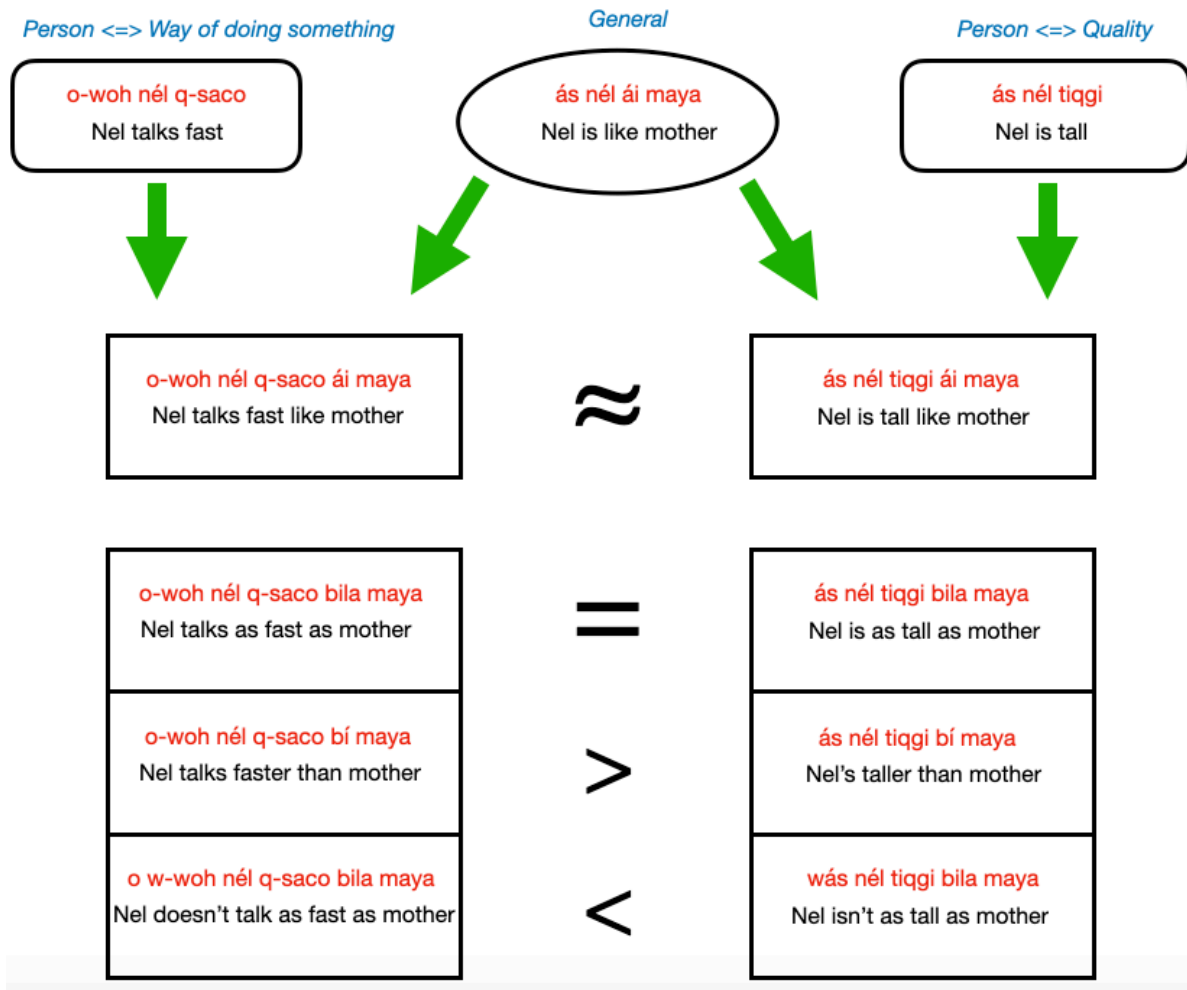
①  $\tau \ ? \ | \ | \ | \ 3 \ \tau \ 4$

②  $4 \ ? \ Z \ Z$

③  $| \ | \ : \ + \ 4 \ ? \ Z$

Note ... the first letter of the magnitude words represents them when they appear among the numbers.

①  $\tau \ ? \ | \ | \ | \ 3 \ \tau \ 4$   
②  $4 \ ? \ Z \ Z$   
③  $| \ | \ : \ + \ 4 \ ? \ Z \ 0$   
Normally would be dropped



Basically **ái** means “like” (not the verb “like”, the other one). Maybe the prototypical use of “like” is between family members. Quite a rare use ... but an important use. By the way, in the examples above, the speech-mates are probably siblings, hence the use of **maya** instead of **maten**. In fact, the chances are that **nél** (girl's name) is also a sibling.

The examples on the left equate a “way of doing something” to a person and the examples on the right equate a “quality” (i.e. an adjective) to a person. Of course “person” can be replaced by any noun phrase.

The eight square boxes also have a “standard of comparison”. The top two square boxes have a sort of non-exact comparison. The second-top two boxes are examples of an exact comparison: the type of construction that uses “as ... as ...” in English. **béu** uses the particle **bila**. **bila** is used in mathematics also and is how one would translate “equals”. However **bila** is not a verb (it never takes an activator). Maybe we can call it an “operator” ... if we really need to hang a name-tag around it's neck.

The second-bottom two boxes are examples comparative constructions. We touched on these already in the chapter about adjectives. We can designate **bí** as an operator too (a subtype of particle).

And the bottom two boxes are examples negative-comparative constructions. In the very last example, **áus** could be substituted for **wás** ... they mean the same.

Note ... all instances of **ás** are droppable. Like if you want to talk fast. However **wás** (or **áus**) is not droppable (they contain the concept “negation”). Also such forms as **ús** (will be) and **is** (was) would not be droppable (they would contain the concept “future tense” and “past tense”).

We have seen how the oceans are divided up. Here is how they divide up their landmasses.

<b>ploni</b>	North America	<=	<b>plona</b>	North American Bison
<b>caltini</b>	South America	<=	<b>caltin</b>	The Lama
<b>blauni</b>	Europe	<=	<b>blaun</b>	Irish Elk
<b>jiani</b>	Africa	<=	<b>jiau</b>	The Lion
<b>paibi</b>	Asia	<=	<b>paibian</b>	The Panda
<b>wombani</b>	Australia	<=	<b>wombana</b>	Kangaroo
<b>piqqoli</b>	Antarctica	<=	<b>piqqolo</b>	Penguin
<b>kwuhani</b>	The Arctic	<=	<b>kwuha</b>	Polar Bear
<b>hindi</b>	india			
<b>fiadani</b>	The Middle East			
<b>sunda</b>	Indonesia et al.			

The world's water was divided into 7 major areas . For the world's land we have 11 major divisions. The names of 8 of them have their origins in animal names.

Two of the divisions are quite strange ... **kwuhani** and **sunda**. **sunda** is shown to the right here. It stretches from the Solomon Islands in the East to Ceylon in the West. In the North it extends all the way up to Kamchatka. Three substantial peninsula sticking out of the Asian mainland are included ... Kamchatka, Korean and Malaysian Peninsula.

The red line on the map only shows what land areas belong in **sunda**. It has no bearing to how the varies **moin** are arranged in this area.

There are three unaffiliated (large) island in the world. Madagascar (587,041 km<sup>2</sup>), New Zealand (268,021 km<sup>2</sup>) and Iceland (102,775 km<sup>2</sup>) lying off **jiani**, **wombani**, **kwuhani** respectively.

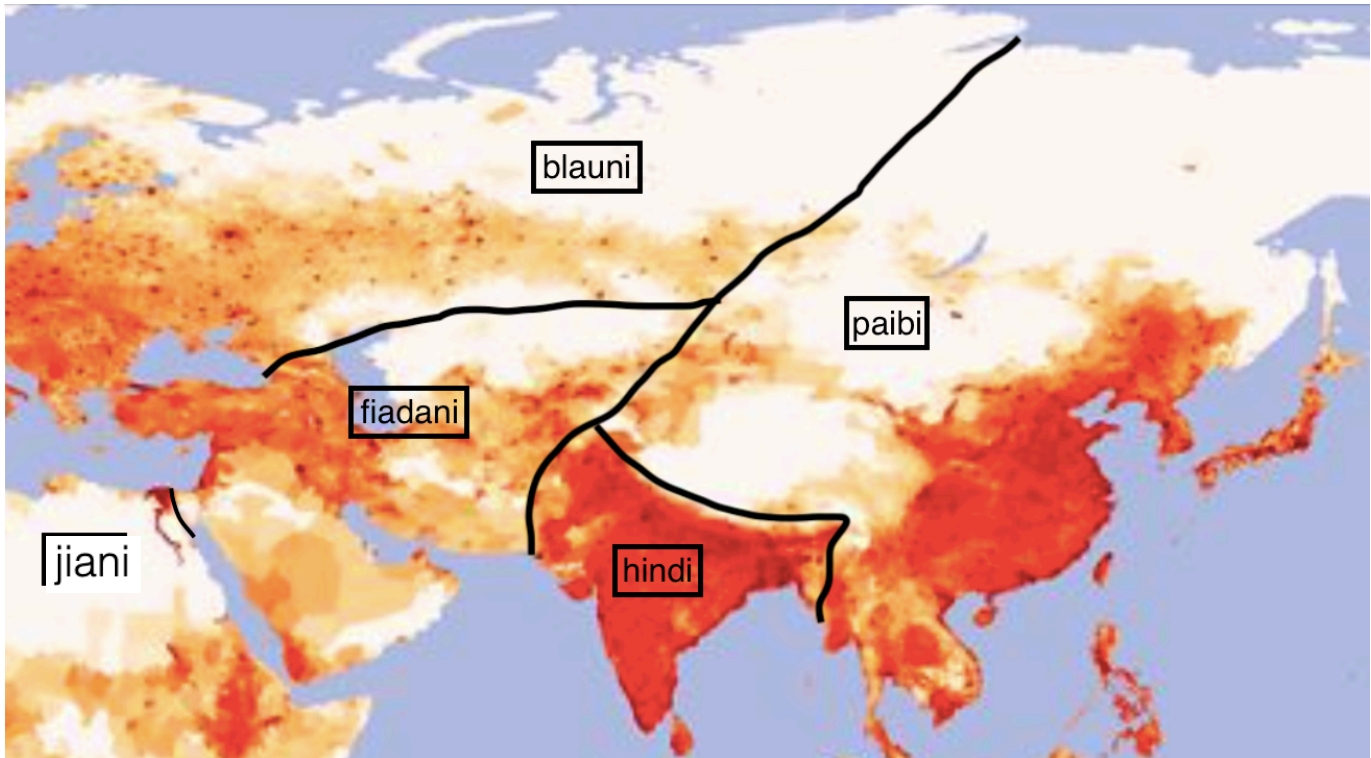
One thing that they have in common is their history of surprisingly recent human settlement.





The border between Europe and Asia is not the Ural Mountains. It follows roughly a line from the Khyber pass, up the east side of Kazakstan, passing close to Krasnoyarsk and up to Anabar bay on the Arctic Sea.

**fia** = middle : **dani** = region hence **fiadani** = the middle region



<b>kwuhani</b>	c. 3.0	Around the Arctic
<b>sunda</b>	c. 3.4	Indonesia + +
<b>hindi</b>	c. 4.4	India +
<b>fiadani</b>	c. 5.7	The Middle East
<b>wombani</b>	c. 7.7	Australia
<b>blauni</b>	c. 11.5	Europe +
<b>piqqoli</b>	c. 14.2	The Antarctic
<b>caltini</b>	c. 17.8	South America
<b>ploni</b>	c. 24.7	North America
<b>jiani</b>	c. 30.4	Africa
<b>paibi</b>	c. 33.2	Asia - -



Above are the approximate extent of these landmasses are given. The units used are "million km<sup>2</sup>". They are very approximate.

The extent of **kwuhani** is shown above. It entails all the dark green area. Also the white area. The white area is ice whose extent varies throughout the year. So actually the "area" of **kwuhani** varies and sometimes surpasses **sunda** ... sometimes even surpassing **hindi**.

The area of **piqqoli** also varies throughout the year.



There are eight particles used for introducing adverbial phrases. Namely **tí mwó mó ké kwé twí sái** and **sáu**. The first six reflect six of the nine aspectual particles defined in chapter 24. They facilitate a construction much loved by my **beumin**. A similar construction exists in English. Consider ...

- a) Being drunk, he didn't want to drive home.
- b) He didn't want to drive home because he was drunk.

In (a) "being drunk" can be considered an adverbial phrase. The subject and tense information is missing but can be had from the main part of the clause.

Here are some of such like constructions in **béu**.

- 1) **tí kulau jene** / i-"lose" no "any interest in going back to sea"  
= Having met Jane, he lost any interest in going back to sea.
- 2) **mwó yiqki** / .....  
= No longer young /
- 3) **mó ni jimxai** / i-ga no jimu  
= Still wanting a drink, he entered the tavern.
- 4) **ké hubog** / win no "drive" dah  
= Already being drunk, he didn't want to drive home
- 5) **kwé** "content" / "he insisted we do it again"
- 6) **twí go glasgo** / "he didn't know where to go to hear some live music"

The aspectual particle **múai** "in the process of" seems to have a construction analogous to the six examples above. For example ...

**q-múai hig dah** / "he didn't go to the World Cup". **q-** being the X<sup>th</sup> **glia** with the meaning "in the manner of". We will talk more about **q-** later. However let's continue with the particles that result from a tone change.

7) **sé** is based on the verb **sai**, meaning "to say" but instead of just converting low tone => high tone as the previous 6 particles, this one also involves a falling together of the two vowels ... the diphthong became a pure vowel [ Fun fact ... the same happened with the english word "say"]

**sé** is equivalent to certain instances of "saying" in English. For example ...

**i-lifn no goyo sé { tum uwin yé láí }** = He warned George saying "your enemies are coming"

**sé** is directly followed by a string of "direct speech" ... that is speech just as it came out the speakers mouth, with all frames of reference as they were to the speaker at the time he spoke.

In my transliteration I enclose direct speech in curly brackets.

Many verbs, that are "basically speech acts" use **sai** to deliver the actual message. "threaten", "warn", "shout", "whisper", "chat", etc. etc. Here is another example ...

**i-cík nop sé an pa go dah** = When chatting to me he said (that) he wanted to go home

or literally "He chatted to me saying "I want to go home". OK it sounds slightly "off" in English. But perfectly normal in **béu** . [ **cika** and "chat" pattern slightly differently ]

8) **sáu** is based on the verb **sau**, meaning “to be”. It means “namely” or “that is”.  
Example ...

**áh pa sáu wé / sáu / nél / gilmet tan bakke** = I have three younger sisters, namely Nel, Gilmet and Bakke .

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So there we have it, 8 adverbials. Six heading an subjectless, tenseless expression that acts as a preposed adjunct to a main clause. One introducing direct speech. And one introducing examples : specific examples of a concept mentioned in the previous main clause.

Here would be a good place to introduce 4 adverbs that are derived from verbs in a similar way. However these are postposed adjunct to a main clause that give extra information about motion. They are individual words rather than particles introducing a phrase.

**gó** “away from here” is derived from the verb **go** “to go”

**tú** “towards here” is derived from the verb **tu** “to come”

**pía** “up” is derived from the verb **pia** “to go up”

**nía** “down” is derived from the verb **nia** “to go down”

Some examples ...

a) **i-dóik no l-auge gó** = He walked (away) to the tree.

The above is similar to **i-dóik no l-auge** = He walked to the tree. The addition of **gó** adds the meaning “away from the speaker”.

b) **i-dóik no l-auge tú** = He walked to the tree. The addition of **tú** adds the meaning “towards the speaker”.

There is no perfect translation into English for (7) and (8). Perhaps the best you can do is to replace “walk” with “go” or “come” ... but then, no convenient way to show the manner of locomotion.

c) **i-dóik no l-auge pía** = He walked (up) to the tree.

d) **i-dóik no l-auge nía** = He walked down to the tree.

Of the two above, the first means the “path” of the “walking” was rising due to the lie of the land. And the second means the “path” of the “walking” was descending due to the lie of the land. (10) is the easiest to translate into English. This is because “up to” has taken on the meaning of “all the way to” in English.

Also ... it is quite common to combine these adverbials. For example ...

**i-dóik no l-yoki tú nía** = He walked down to the stream = He came walking down to the stream.

(a) to (d) can be considered “extra” information that **beumin** often like to throw in. This can be compared to ... say ... singular/plural information, which the **beumin**, on occasion leave out.

## Negating a normal verb

It is pretty simple to negate a clause ...

The particle for negation is “**w-**” a **glia**. It leans on the front of the verb.

**ú-píg jono jene** = Johnny will hit Jane      **ú w-píg jono jene** = Johnny will not hit Jane

**pigam jono jene** = Johnny is hitting Jane      **w-pigam jono jene** = Johnny is not hitting Jane

However when the activator is **á** it fuses with **w-** to give **áu** <= **QUITE IMPORTANT**

**áu ko pa** = I don't know

By the way ... don't worry too much about what element is joined by a dash (by a small loop, in the **béu** script) to the verb. The conventions have nothing to do with phonology or grammar but are purely based on graphical aesthetics. Basically, when one phoneme is in front (above, in the **beugan** way of looking at things) the verb. It is joined to the verb by a dash.

## Negating **wáq wú**

However when it comes to negating the B6 (refer back to chapter 24) and the first aspect particle there is a slight twist.

The table to the right has been copied from chapter 16 ... for convenient reference (the last row shows the contractions of the perfect particle **ti** (see chapter 24)).

The eighteen forms presented are the result of the tense particles fusing with the modals. Now, although these fused forms are not obligatory [ **ú-sau pa bóí** “I will be good” is permissible :

although **ús pa bóí** is preferred ]

the bond between the two constituent parts is pretty strong. So **w-** is usually prefixed to the fused form instead of trying to push itself in between the tense particle and the modal. So we get ...

	Present	Past	Future
<b>sau</b>	<b>ás</b>	<b>is</b>	<b>ús</b>
<b>ha</b>	<b>áh</b>	<b>ih</b>	<b>úh</b>
<b>ni</b>	<b>án</b>	<b>in</b>	<b>ún</b>
<b>xúg</b>	<b>áx</b>	<b>ix</b>	<b>úx</b>
<b>pón</b>	<b>áp</b>	<b>ip</b>	<b>úp</b>
<b>ti</b>	<b>át</b>	<b>it</b>	<b>úp</b>

You must go home

Handwritten B6 script for "You must go home": **ú-sau pa bóí**

	Present		Past		Future	
<b>sau</b>	<b>wás/áus</b>	isn't	<b>wis</b>	wasn't	<b>wús</b>	won't be
<b>ha</b>	<b>wáh</b>	hasn't	<b>wih</b>	hadn't	<b>wúh</b>	won't have
<b>ni</b>	<b>wán</b>	doesn't want	<b>win</b>	didn't want	<b>wún</b>	won't want
<b>xúg</b>	<b>wáx</b>	doesn't have to	<b>wix</b>	didn't have to	<b>wúx</b>	won't have to
<b>pón</b>	<b>wáp</b>	can't	<b>wip</b>	couldn't	<b>wúp</b>	will not be able to
<b>ti</b>	<b>wát</b>	hasn't	<b>wit</b>	hadn't	<b>wút</b>	will have not

You don't have to go home

Handwritten B6 script for "You don't have to go home": **ú-w-sau pa bóí**

We have talked about how **béu** likes to drop the copula whenever possible. However the copula can not be dropped in a negative sentence [same with a YES/NO interrogative sentence]. So the term **wás** is nearly as common as **ás**. **áus** is an alternative to **wás** [**áus** <- **áu** + **sau** : **wás** <- **w** + **ás**]. Similar to how in English, one can either say “I’ve not got a problem” or “I haven’t got a problem”, one has a choice of which contraction to use. **áu**, if you remember, is the contraction introduced at the top of this page

The full form is always legitimate, although the contraction is usually preferred. **ú w-sau pa bóí** “I will not be good” is permissible : although **wús pa bóí** is much preferred.

## Chapter 33 : Relative Clauses and the corresponding contractions

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**béu** has a special particle for introducing relative clauses ... the **glia** “?-”.

Cross-linguistically relative clauses come in a gob-smacking variety of shapes and flavours.

A relative clause (RC) is a clause that modifies an argument in another clause ... the main clause (MC). There is a common argument (CA) that is common to both clauses.

The following 6 rules define the **béu** RC construction.

- 1) The CA appears in its usual place in the MC.
- 2) The RC appears immediately after the argument it modifies (i.e. after the CA).
- 3) The RC is introduced by the particle “?-” which leans against the front of the verb complex.
- 4) The CA is dropped from the RC if it is the RC’s subject (copular subject included)
- 5) The CA is represented in the RC by **dau** if the CA has any other roll in the RC

Let’s have a few examples ...

	The underlying clause	The RC in situ is shown in brackets below
1	<b>maumam gla m-laban</b> The woman is sleeping in the car	<b>gla ?-maumam m-laban no hubog</b> The woman ( who’s sleeping in the car ) is drunk
2	<b>ás bau dweli</b> The man is old	<b>i-go bau / ?ás dweli / l-dalat</b> The man ( who is old ) went to the market
3	<b>át caim waulo bau</b> The dog has bitten the man	<b>ás waulo ?át caim bau molua yú</b> The dog ( that’s bitten the man) is very black
4	”	<b>bau ?át caim waulo dau no dweli tundu</b> The man ( that the dog bit ) is very old
5	<b>i-pelga pau baina gwái yede</b> We sailed between those islands	<b>ás gwái yede ?i pelga pau baina dau hau?e</b> Those islands ( which we sailed between ) are beautiful
6	<b>ú-nú jian nuxai l-níq</b> Ian will give a gift to Ning	<b>oi-gomel níq ?ú nú jian nuxai l-dau ?ubya náí</b> Ning (who Ian will give a gift to) used to nag her husband
7	<b>i-caim waulo d-dwelga pa</b> The old woman’s dog bit me	<b>bakaim dwelga ?i caim waulo d-dau j-pai</b> The old woman ( whose dog bit me ) is baking for us
8	<b>bau ú w-dóik dah</b> The man will not walk home	<b>bau ?ú w-dóik dah no kikiat</b> The man who will not walk home is lazy

4) could also be **ás bau ?át caim waulo dau dweli tundu**

Here the verb “to be” has not been dropped. Hence not so much need for a resumptive pronoun (RP).

OR ... **ás bau ?át caimes t-waulo no dweli tundu** ... This possible construction has both “to be” and RP.

The likelihood of a RP turning up is proportional to the amount of “phonetic weight” between the copula and the copula complement.

Indefinite nouns are always qualified by a RC instead of a plain adjective. For example ...

tell me something new = **koni pa xaito ?ás yeni ... \*koni pa xaito yeni**

Of the 8 examples on the previous page, the only place you actually see the special particle is in (1) . In all other examples it has been amalgamated to the activators. This happens with all six energizers that come to the left of the verb root ... the usual schwa is dropped and we get these eight contractions ...

?-i => ?i : ?-ú => ?ú : ?-o => ?o : ?-oi => ?oi : ?-é => ?é  
 ?-á => ?á : ?-upe => ?upe : ?-ipe => ?ipe

There is no actual problem to pronounce a schwa up against another verb. For example ...

**tom ?-ogam nawoq qái** = “the boy (who is) washing his face” in the IPA is ...

**tom ?əogam nawoŋ ɲái** one syllable ends in the schwa and the next syllable begins with “o”.

I guess a few milli-seconds gap is needed to reconfigure the shape of the mouth. But there is no need to stick in an extra glottal stop. The vowels do not run into each other but remain distinct.

However the glia ?- enters into 27 contractions. 8 of these involve the activators and were given above. A further 18 involve the B5 and the first aspectual particle **ti** . Tabulated below ...

	Present	Past	Future
<b>sau</b>	<b>?ás</b>	<b>?is</b>	<b>?ús</b>
<b>ha</b>	<b>?áh</b>	<b>?ih</b>	<b>?úh</b>
<b>ni</b>	<b>?án</b>	<b>?in</b>	<b>?ún</b>
<b>xúg</b>	<b>?áx</b>	<b>?ix</b>	<b>?úx</b>
<b>pón</b>	<b>?áp</b>	<b>?ip</b>	<b>?úp</b>
<b>ti</b>	<b>?át</b>	<b>?it</b>	<b>?út</b>

I haven't written out the meaning of these 18 entries above, but they should be easy to work out ... **?ás** = “that is”/“who is”/“who are” : **?án** = “who wants”/“who want” : etc. etc.

And we need one more contraction to make 27. That is **?áus** = “that isn't”/“that aren't”

It may seem complicated ... getting the order of activator, negation **glia w-** and RC **glia ?-** in the right order, but you soon get the hang of it. Here are two more examples ...

**dwelga ?-w-góim fá qái ... dwelga ?əwəgóim fá ɲái**  
 = the old woman who doesn't remember her own name

**dwelbo ?á w-súk winau ..... dwelbo ?á wəsúk winau**  
 = the old man who doesn't like puppies

And one other small point ... in example 2 (previous page) we see that the RC is bracketed off by two pauses. This means that the information given in the RC is extra information. In example (2), **bau** “the man” was already definite in the hearers mind, before he hears the RC. The fact that he is old is new information. Or maybe not new information exactly, maybe just the saliency of that information to the present situation is being pointed out.

## Chapter 34 : Yes/No questions and the corresponding contractions

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I guess every language has Yes/No questions. However not every language has a word equivalent to Yes ... or equivalent to No. Sometimes you have to answer with a full clause ... in the unmarked positive or the marked negative form.

However **béu** has a Yes and a No ... **da** = yes : **wáu** = no

Now when these words are used as the short answer to Yes/No questions, they always stand alone. OK a fuller answer can follow. But there is always a pause, a pause between **da/wáu** and the extended answer.

Interestingly **wau** is also used for “zero”. When used as zero it is embedded in other numbers or immediately before a none. Also it has low tone. It is only when expressed in splendid isolation that it takes the high tone.

Also **da** is used for emphasis (well the consensus is that **da** and **dá** are the same word, some hold that they are two separate words and it is just a co-incidence that they are so similar). When **dá** is used for emphasis it follows a noun or noun phrase and it is this noun or noun phrase that gets emphasized. {occasionally it can be a different element getting emphasized. But usually it is a noun ... typically someone's name). When functioning as an emphasizer it always has high tone. When in splendid isolation it always has low tone.

To ask a Yes/No question the **glia c-** is cliticized to the verb ...

### Questioning a normal verb

**pigam jono mali** = John is hitting Mary

**c-pigam jono mali** = Is John hitting Mary ?

Like the negation **glia w-**, the question **glia c-** likes to insert itself between the activator and the verb ...

**i-piga jono mali** = John hit Mary

**ic piga jono mali** = Did John hit Mary ?

As you can see above, the question **glia c-** fuses with the activator. It can fuse with the activators **ú á i o é oi** ... but not with **upe** and **ipe** .

### Questioning the B6

Again, the bond between the activator and the B6 is quite strong.

Present		Past		Future	
<b>cás no</b>	is he	<b>cis no</b>	was he	<b>cús no</b>	will he be
<b>cáh no</b>	has he	<b>cih no</b>	had he	<b>cúh no</b>	will he have
<b>cán no</b>	does he want	<b>cin no</b>	did he want	<b>cún no</b>	will he want
<b>cáx no</b>	should he	<b>cix no</b>	had he to	<b>cúx no</b>	will he have to
<b>cáp no</b>	can he	<b>cip no</b>	could he	<b>cúp no</b>	will he be able to
<b>cát no</b>	has he	<b>cit no</b>	had he	<b>cút no</b>	will he have

So the **glia** attaches to the very front.

### Questioning a negated normal verb

**w-pigam jono mali** = John is not hitting Mary

**cw-pigam jono mali** = Isn't John hitting Mary ?

**i w-piga jono mali** = John didn't hit Mary

**ic w-piga jono mali** = Did John not hit Mary ?

### Questioning a negated B6 [ we must use a subject for the translation to English ]

Present		Past		Future	
<b>c-wás no*</b>	is he not	<b>c-wis no</b>	was he not	<b>c-wús no</b>	won't he be
<b>c-wáh no</b>	has he not	<b>c-wih no</b>	had he not	<b>c-wúh no</b>	won't he have
<b>c-wán no</b>	doesn't he want	<b>c-win no</b>	didn't he want	<b>c-wún no</b>	won't he want
<b>c-wáx no</b>	should he not	<b>c-wix no</b>	had he not to	<b>c-wúx no</b>	won't he have to
<b>c-wáp no</b>	can he not	<b>c-wip no</b>	could he not	<b>c-wúp no</b>	won't he be able to
<b>c-wát no</b>	has he not	<b>c-wit no</b>	had he not	<b>c-wút no</b>	won't he have

\* For some reason, the form **cáus no** is not allowed.

### Singling out a particular element

With **c-** being attached to the verb, it is the whole proposition that is being questioned. There is a particle **dá** that allows a particular element to be questioned.

Actually **dá** is a general emphasis particle. It can be used for emphasizing arguments in statements as well as questions ...

**i-píg jono dá mali** = It was John that hit Mary

The above would typically occur when the other party had said, something like ...

**i-píg ilya mali** = Ilya hit Mary

In another case one might hear ... **i-píg jono mali dá** = It was Mary who was hit by John

The above would typically occur when the other party had said, something like ...

**i-píg jono ?uxi** = John hit uschi

Actually the full responses would be ... **wáu / i-píg jono dá mali**

**wáu / i-píg jono mali dá**

In English we use a technique called "fronting" to emphasize arguments ... in both statements and questions ...

1) John hit Mary {plain statement} 2) It was John who hit Mary {statement with subject emphasized}

3) Did John hit Mary ? {plain question} 4) Was it John who hit Mary ? {questioning the subject}

The **béu** equivalents of the above are ...

1) **i-píg jono mali** 2) **i-píg jono dá mali** 3) **ic píg jono mali** 4) **ic píg jono dá mali**



Let's summarize the rules governing order of activator (A), w-, ?- and c- ... 4 elements.

First we can recognize that ?- and c- never coincide. So we can divide the total field into two subsets ...

- |    |            |                                  |
|----|------------|----------------------------------|
| 1) | ?-A-w-verb | Where A is one of the activators |
| 2) | A-c-w-verb | ú á i o é oi upe ipe             |
|    | x y z      |                                  |

So for (1) ... the relative subtype, we have three elements to be ordered a, b and c. When there is only one element present there is no problem ...

**?-pigam mali** = that is hitting Mary      **i-píg jono mali** = John hit Mary

**w-pigam jono mali** = John is not hitting Mary

But what about when we have two or more elements. Well then we have 4 possibilities ...

a b c) **?ú w-doika** = that will not walk

a b) **?ú nú** = that will give

b c) **i w-mauma** = did not sleep

a c) **?-w-góim** = that can not remember

So for (2) ... the Y/N question subtype, we have three elements to be ordered x, y and z. As before ... when only one element present, things are straight forward. And when we have two or more elements, we have 4 possibilities ...

x y z) **ic w-piga jono mali** = Did John not hit Mary

**áuc ko jono taugan** = Does John not know mathematics

x y) **ic píg jono mali** = Did John hit Mary

y z) **cw-pigam jono mali** = Isn't John hitting Mary

x z) **i w-piga jono mali** = John didn't hit Mary

Notice the two examples joined by the red line. These have the exact same elements. And ... the top one is not a relative clause, the lower one is not a question. Also note ( x y z ) patterns differently for the present tense static activator á .

One interesting thing to note here. The presence of the negation particle w- between the activator and the verb seems to stop the tail-shedding operation. Notice that in example (a b c) it is not **\*?ú w-dóik** ... in example (b c) it is not **\*i w-máum** ... in example (x y z) it is not **\*ic w-píg jono mali** ... in example (x z) it is not **\*i w-píg jono mali** .

The B6 are special cases in that the activator is usually absorbed into the body of the word. Again we have two subtypes ...

- |    |        |                                 |
|----|--------|---------------------------------|
| 1) | ?-w-B6 | Where B6 is                     |
| 2) | c-w-B6 | sau ha ni xúg pón ti            |
|    | y z    | along with a captured activator |

The B6 are special cases in that the activator is usually absorbed into the body of the word. We have already covered what happens when only one element is present. To recap and taking **ás** as a typical B6 we get **?ás wás cás wás** ... again two elements being identical.

And when we have to elements, we have **?-wás** and **c-wás** (only two patterns instead of eight). The only thing to note is that **c-** and **w-** do not amalgamate as they do with normal verbs. It is **c-wás** ... **tfəwás** not **\*cwás** **tfwás** as it would be if it patterned with example (y z).

**c-** is the **glai** for questions. It leans on a set of generic nouns to produce the equivalent of Question Words (QWs). There appears to be three free-standing QW ... **cai** “what”, **céu** “how” and **cose** “or”. However even these are thought to have been **c-xai**, **c-we** and **c-ose** at one time.

<b>cai</b>	what	Discussed above
<b>c-pu</b>	who	<b>pu</b> is not a word in its own right. Just a derivational prefix
<b>c-min</b>	who	<b>min</b> is not a word in its own right. Just a derivational suffix
<b>c-lau</b>	where	<b>lau</b> means place/location
<b>c-kyu</b>	when	<b>kyu</b> means “time”/“point in time”/“occasion”
<b>c-lia</b>	why	<b>lia</b> means reason.
<b>céu</b>	how	Discussed above

The first three ... **cai**, **c-pu** and **c-min** remain *in situ*. That is, they appear where the corresponding answer would appear.

- 1) **i-tía c-pu mali byég xonaf** = Who saw Mary see yesterday afternoon ?
- 2) **i-tía jono mali byég xonaf** = John saw Mary yesterday afternoon yesterday afternoon.
- 3) **pigam jian cai t-koin** = What is Ian hitting with the hammer ?
- 4) **pigam jian tapu t-koin** = Ian is hitting a nail with the hammer.

**c-lau c-kyu c-lai** and **céu** are adverbial so theoretically can appear wherever an adverb can (see chapter 26). That is clause initially, after the verb and clause finally.

However in reality you mostly find **c-lau c-kyu c-lai** clause initially and **céu** clause finally. There is a semantic and a phonological reason for this pattern. All question words are emphasized when clause initial. So it really is a no brainer, you stick them at the front. But what about **céu**. Well it is the only high tone QW. And as we learnt before ... all questions have a sharp rise in pitch occurring on the last syllable. It seems there is a tendency to place the inherent high tone of **céu** with the high tone occasioned by the utterance being a question. This tendency apparently overrode the tendency to emphasize the QW's by fronting them.

**i-bu lé dí céu** = how did you do that ? [The speaker here is reacting to something he has seen. If he/she was reacting to something heard, **dau** would be used instead of **dí**]

Any QW qualified by a the **glai** ... **t- l- x- s- j- y- q-** and **d-** can come before the verb.

- 5) **t-c-pu i-tías jono byég noic** = By who(m) was John seen last night ?
- 6) **l-c-min ú-nú lé nimas to** = to who will you give an ice cream ?
- 7) **x-c-pu woham** = Who are you talking about ?
- 8) **s-c-pu át lup lé gós yé** = Who did you get the oranges from ?
- 9) **j-c-pu i-osta lé gós yé** = Who did you buy the oranges for ?
- 10) **y-c-pu pigam** = Who are you fighting against ?
- 11) **q-cai oi-lód no** = What did he used to work as ?
- 12) **d-c-pu waulo de** = Who does that dog belong to ?

But all the above can be recast with the questioning element *in situ* ... **pigam lé y-c-pu** .

Notice in (7) and (10) the final **lé** is dropped ... but it is understood to be there.

Notice in (11) **loda** “to work” is a dynamic verb.

And it is not just **glai yé** that can drag a QW to the beginning of a sentence. Other prepositions can do this as well.

16) **baina c-min úx pa seu** = Between who should I sit ?

In English one can say “Who should I sit between”. This is a big no-no in **béu**. The preposition and the QW have to keep their normal positions.

Now the above are clause level QWs. We also have 4 Noun Phrase level QWs.

<b>c-dúq</b>	how much/ how many	<b>dúq</b> means amount. Formerly <b>tunduq</b> .
<b>c-tói</b>	which (one)	<b>tói</b> means one
<b>c-yé</b>	which ones	<b>yé</b> is a particle (discussed in chapter 7)
<b>c-kái</b>	what type of	<b>kái</b> means type/kind/sort

These all occur in Noun Phrases. These NPs remain *in situ* and are not promoted to the beginning of the sentence ...

**i-tu pumin c-dúq l-yawaia byég noic** = How many people came to the party last night

**ú-nú owe noi waulo c-tói** = Which dog will they give away

**ú-nú owe noi waulo c-yé** = Which of the dogs will they give away

**án lé osta dah c-kái** = What kind of house do you want to buy ?

QW's in copula constructions also stay *in situ* ... **de c-pu** = Who's that : **dí cai** = What's this.

It may seem a bit superfluous to have both a person-question-word, singular AND a person-question-word, plural. After all it is an unknown ... in most cases the plurality is unknown as well. Still, in certain situations it is obvious that more than one person was involved so having a person-question-word, plural makes **béu** that little bit richer. **c-pu** is the one to use if you have no clue to the plurality.

The same goes for **c-tói** and **c-yé**. However for these two, if you have no idea about the plurality the term to use is **c-lau** . That's right ... **c-lau** *in situ* and following a NP means “which one” or “which ones”.

**ú-nú ewo noi waulo c-lau** = Which dog or dogs will they give away ?

The reason for this is interesting. **béu** is similar to English (I believe Latin is different) in that a location phrase can refer to either the location of the action or the location of one of the arguments involved in the action. For example “the man ate the banana on the table” ... well probably the banana was on the table in this case, but “the monkey ate the banana on the table” ... not so easy. Was it the banana that was on the table ... or, the act of eating itself. So the QW **c-lau** can either have scope over an entire clause, or it can have scope over just one element of that clause.

If you are viewing the choices while asking the “which” question it is not unreasonable to use the “where” word. After all the relevant ones (dogs or whatever) can be pointed out. A number of natlangs, in fact, do this. Let me quote from Basic Linguistic Theory, Volume 3, Page 416 ...

In the Papuan language Amele (Roberts 1987: 21), *ai* is used for “which” and also for “where”, ‘when location is proximal, i.e. within view’, with *ana* being used for “where” when ‘the location is not proximal, i.e. not necessary within view’.

There is one more expression that can be counted as a QW ... **cose**. Like **cai** being in the recent past **c-xai**, **cose** was **c-ose** in the recent past. **ose** means “or”.

**cán lé joc / mit ose sikan** = Do you want chicken, pork or fish.

The above can be shortened to **joc / mit cose sikan**

Anyway, with 12, **béu** is well appointed with QWs (if we do, in fact consider the forms introduced here to be words in their own right). RMW Dixon {the author of Basic Linguistic Theory} talks of eight canonical QWs [who, what, why, where, which, how many/how much, how, when]. **béu** has even more if we consider **c-nál**, **c-sál** etc to be QWs as well.

**ú-nú owe noi waulo c-nál** = Which two dogs will they give away ?

**ú-nú owe noi waulo c-sál** = Which three dogs will they give away ?

One word of warning here. Sometimes “what” qualifies a noun in English ... as in “what socket do you want ? in **béu** , **cai** never qualifies a noun, it is always an argument by itself.

**án lé gempau c-tói** = Which socks do you want ? versus **án lé cai** = what do you want ?

### Joining Clauses

If two clauses are somehow relevant to each other and have different subjects they are usually just said one after the other, with a slight pause in between. If the same subject the word **duai** is needed in the second clause.

**i-osta mali mogas / i-osta duai no nimas** = Mary bought chocolate, she also bought ice cream.

[ Of course the above can also be expressed in one clause ...

**i-osta mali mogas tan nimas** = Mary bought chocolate and ice cream ]

If it is wanted to emphasize that the two actions happen at the same time, we use the particle **áis** “as”/“while” between the clauses.

Sometimes you find two clauses standing together, which (in some way) are pulling in opposite directions ... for example ...

1) **át tu no s-dogan ubos** = he comes from a humble background

2) **ás no pwadu d-gwehan qái** = he is proud of his heritage

When these “sort of contradictory” clauses occur together, they must be marked in some way.

We could put the particle **mé** “though” in front of the first clause ... **mé át tu no s-dogan ubos / ás no pwadu d-gwehan qái** = though he comes from a humble background, he is proud of his heritage

Or we could put the particle **wá** “but” in front of the second clause ... **át tu no s-dogan ubos wá ás no pwadu d-gwehan qái**

= he comes from a humble background but he is proud of his heritage

It is not considered good style to use both **mé** and **wá** at the same time ...

✱ **mé át tu no s-dogan ubos wá ás no pwadu d-gwehan qái**

{ Although this pattern is acceptable in some languages ... like Thai can use both มั่น and แต่ }

It is also possible to emphasize both **mé** and **wá** ... **meye át tu no s-dogan ubos / ás no pwadu d-gwehan qái** = although he comes from a humble background, he is proud of his heritage

= he comes from a humble background however he is proud of his heritage

Note ... it is thought the element **-ye** in **meye** and **waye** is somehow related to the **glia y-** .

In chapter 4 we discussed how to combine clauses to show how they are ordered timewise. And in the last section we saw how to combine clauses that seem to be at odds with each other. The two clauses contain concepts (qualities or actions) that are misaligned with respect to the completion of some task or attainment of some state.

Now it is time to think about connecting clauses “logically” ... to ask “why” or “to what end” an action happened or a state exists. **liase** is used to introduce a clause which explains in terms of future action or a future state, the import of the previous clause ... **siase** is used to introduce a clause which explains in terms of past action or a past state, the import of the previous clause.

**liase** = “in order that” : **siase** = “because”.

**liase** aligns with **l-**, the **glia** which indicates “motion to” (also aligning with **liau** “destination”).

**siase** aligns with **s-** “from” ... also aligning with **siau** “origin”/“source”

We also have the words **lia** meaning intention, purpose, aim, target, goal, objective, ambition, aspiration, and **sia** meaning cause, motivation, impetus, incentive, inducement, motive force, driving force, inspiration. When translating the English word “reason”, one must choose between **lia** and **sia**. **lia** if the reason is related to some future (desired state), **sia** if the reason relates to some past action or state.

When **l-** and **s-** are followed by a location, we can say they are opposites

When **liase** and **siase** are followed by a clause, we can say they are opposites. However, this opposition soon breaks down. We can have **siase** qualifying a noun or noun phrase, for example ... **i-go pai dah siase ?uxten yiqki d-jene** = we went home because of Jane’s young daughter

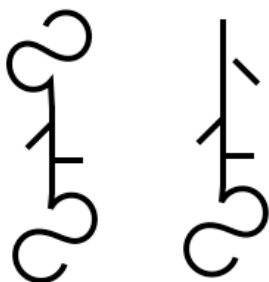
[ which might be considered as a contraction of ... **i-go pai dah siase ús ?uxten yiqki d-jene nuai** = we went home because Jane’s young daughter was tired ]

However **liase** can not qualifying a noun or noun phrase ... **i-osta pa tapuah liase cum jene** “I bought an apple (in order) for Jane to eat it” would not be contracted to ~~✗~~ **i-osta pa tapuah liase jene**. Instead one would say ... **i-osta pa tapuah j-jene**. “I bought the apple for Jane” ... where **j-** is the **glia** meaning “for the benefit of”.

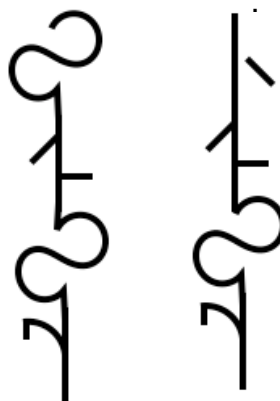
**liase** and **siase** are a bit unusual phonetically. By the normal rules of **béu** phonology the word internal **s** would be voiced : so actually

**siaze** and **liaze** . However many **beumin** ... especially in rapid speech ... make these two words monosyllabic by dropping the final **e** . Now by the normal rules of **béu** phonology, the **z** sound should revert to **s** ( any sibilant either word initial or word final should be devoiced ). However not so with these two words. Often you hear the monosyllabic **siaz** and **liaz** in casual

conversations. Sometimes this pronunciation is reflected in the writing system where one can find



instead of



At present it is not known of this is an innovation that might spread to other parts of the language.

Some linguists have suggested that this usage is a “hold-out” from an earlier stage of **béu** .

In chapter 31 we saw that some common particles and verbs become adverbials when transitioned from low tone to high tone. And [ looking at the case of **muai** ] this LT => HT transition seems to have the same result as prefixing **q-** to a verb (or relevant particle).

We have already seen **q-** being prefixed to adjectives to make adverbs (chapter 6). Here we will discuss **q-** being prefixed to verbs to make adverbial phrases.

Actually, when **q-** is prefixed to a verb it acts as a “deactivator”. Now as we have seen, when an activator is cliticized on to the front of a verbal noun, the verbal noun becomes a proper verb. In fact it becomes the matrix verb of a clause ... a tensed matrix verb. And when **q-** is cliticized to the front of such a matrix verb the clause ceases to be a main clause, it becomes an adjunct clause. An adjunct clause that retains it's tense. Examples ...

**i-cum pa baha** = I ate breakfast

**q-i-cum baha / i-he mu pa nopsi** = Having eaten breakfast, I started to think about lunch.

**ŋə i ʃum**

**cumam pa baha** = I am eating breakfast

**q-cumam baha / i-he ko pa céu is jamuqki xwéuk**

= Eating breakfast, I noticed how tasty the marmalade was.

**ŋə ʃumam**

**upe cum pa baha** = I am about to eat breakfast

**q-upe cum baha / i-xaukat pa oga manau wái**

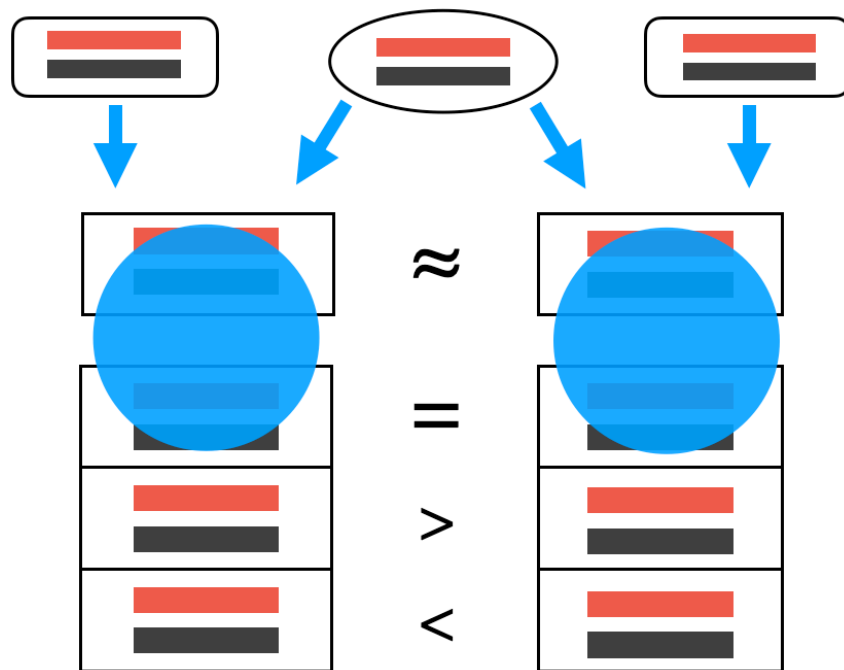
= About to eat breakfast, I decided to wash my hands.

**ŋə upe ʃum**

Even though these constructions are written with hyphens (in my transliteration) and small loops (in the **béu** script) they can be considered phonologically as separate words. Well ... maybe not totally separate words. Nothing can come between these elements.

Maybe on the continuum from one-word-hood (0%) to separate-word-hood (100%), the above score about 70%.





The schematic above refers back to the constructions discussed in chapter 29. As you might remember the two square boxes covered by the blue circle gave the meaning of approximate similarity and exact similarity. The lefthand boxes designating similarity between two people with respect to “a way of doing something”. The righthand boxes designating similarity between two people with respect to “a quality”.

These sentiments can be expressed using a **q-** phrase. The distinction between approximate and exact is lost. However tense is gained. For example, say the mother “**maya**” died last year. Then it might be preferred to say ...

**o-woh nél q-saco q-oi-woh maya** = “Nel talks fast like mother used to talk”

instead of **o-woh nél q-saco ái maya** OR **o-woh nél q-saco bila maya**

Or it might be preferred to say ...

**ás nél tiqqi q-is maya (tiqqi)** = “Nel is tall as mother was (tall)”

instead of **ás nél tiqqi ái maya** OR **ás nél tiqqi bila maya**

**q-** the 16th? **glai**, means something equivalent to “in the manner of” or “in the manner that”. Often it can lean against a nouns. Examples ...

1) **o-dóik no q-hun** = He walks like a soldier

2) **oi-lód no q-ján** = She used to work as a teacher

Notice that in the English translations above, “like” introduces “soldier” in (a) and “as” introduces “teacher” in (2). However (1) can be also translated as (1a), especially if the verb is echoed.

1a) **o-dóik no q-hun** = He walks as a soldier (walks)

In **béu**, **ái** is used for similarity between two objects and **q-** is used for similarity between two actions.



## Unbound Numbers

We have seen the number system that goes up to  $78,364,164,095_{10}$ . Of course sometimes one needs numbers even bigger than this (well, the scientist do ... most people are happy with the system that stops at  $78,364,164,095_{10}$ ).

The number to the right equals  $8.23... \times 10^{58}$ . The expression to the right would be called **q-wáq náu wau yá kaxai sái sái sái**. Note that only the digits 0-5 are used. The symbol that looks like an omega is called the **waqkaxai** symbol or just **waqkaxai**.

The expression actually means  $0.333_6 \times 6^{204(\text{base } 6)}$ .

Which equals  $0.333_6 \times 6^{76(\text{base } 10)}$  ... you can work it out for yourself.

7  
0  
+  
Ω  
Z  
Z  
Z  
Z



## Percentage Numbers

Sometimes one comes across two things/variables whose magnitude varies proportionally. For example ...

- 1) The area ploughed by an oxen team.
- 2) The time that the oxen team spend toiling.

These proportions/ratios are usually expressed by normalizing one variable (i.e. setting it equal to one) and measuring the corresponding dimension of the other variable. For example ... the variable couplet above could be expressed as ... 0.3 hectares per day.

In **béu** this sort of construction would be expressed as “day á? 0.3 hectares”.

In English, the variable that has been normalized comes last and is preceded by the particle “per”. In **béu** the variable that has been normalized comes first and is followed by the particle **á?**. So English and **béu** are sort of complements to each other in this respect.

Following the above convention, the **béu** equivalent to “percent” (per hundred) is **xéq á?**.

There is a special symbol for it ...

If you were to try and write the 4 characters on the left very quickly, you might come up with something similar to the **béu** percentage symbol (the question-mark-like symbol). It is called **xeqa?** symbol or just **xeqa?**.

1  
0  
0  
T



Ω = %

Let's have an example ...

37 % of American adults say they have a valid unexpired passport.

So  $37/100 = X/36$

So  $X = (37 \times 36)/100 = 13.32_{10} \approx 21.2_6$

So **xeqa? natoí kaxai náuq** “of American adults say they have a valid unexpired passport”

Written as =====>

Ω  
T  
I  
T

The dangers of getting “direct speech” and “indirect speech” mixed up lies in the frames of reference. Confusing frames of reference could convey the wrong “place”, the wrong “time” or even “the wrong protagonist”.

Most languages have both “direct speech” and “indirect speech”. Some languages have only “indirect speech”. It is very very rare for a language to have only “direct speech”.

**béu** has both “direct speech” and “indirect speech”.

According to an online source

Question ... How can you tell the difference between direct and indirect speech

Answer ... The direct speech always contains quotation marks.

The above makes me wonder ... surely when it comes to language, the spoken language should be our primary consideration. Now “quotation marks” don’t have anything to do with the spoken language.

I would suggest that if a writer finds it necessary to use a graphical device to inform a reader on what is direct speech, in the actual language itself, the distinction between direct speech and indirect must be a bit fuzzy.

Now I could go deeper into this subject, but I will resist the temptation. This treatise is to teach people about the language of **béu**. And in **béu** the distinction between direct speech and indirect speech could not be clearer.

Direct speech only comes after the verb **sai** “to say” and the adverbial particle **sé**. Indirect speech [basically in the form of the first three blocks (see chapter 21) occur elsewhere]. I will use curly brackets to indicate direct speech ... but there is hardly any need, **béu** being so orderly :-) ... in the **béu** script, there is no such things as quotation marks.

**i-sai kofoi I-?uxi {bwedi máí yú} = i-sai kofoi {bwedi máí yú} I-?uxi**

Kevin said to Uschi “it’s very hot today” = Kevin said “it’s very hot today” to Uschi

The above is direct speech introduced by **sai**. As an example of direct speech introduced by **sé** let’s consider **saube** “to praise”. Two patterns are possible with **saube** ...

The first pattern has 4 potential elements ...

1) **i-saube pa jene sé { ... } ( I-huaia náí )** = I praised Jane (to her boss) saying “ .... “ .

**pa** ... the first element, the subject : **jene** ... the second element, the object

**sé { ... }** ... the third element, the actual words used in the original speech act

Up until now it is unclear as to whether Jane was being praised to her face or her praises were being given to another person. The addition of the optional fourth element (**I-huaia náí**) answers this question. [Note ... third and fourth element can switch position]

The second pattern is to use two clauses, the two clauses being joined by **siase** “because”.

2) **i-saube pa jene ( I-huaia náí ) siase ás no otlod**

= I praised Jane (to her boss) because she is hard-working.

Two other verbs pattern as **saube** ... **taube** “to complain”/“to nag” and **kombe** “to criticize”. The difference between **taube** and **kombe** being that with the latter, the subject is probably angry, he/she is probably venting their anger. The situation around **kombe** is likely to be more cool headed, more constructive. Also with **kombe** the object has a greater chance of being non-human compared to **saube** and **taube** ... for example “the plans”.

OK we have exemplified the two ways that direct speech can be presented. How about indirect speech. Well for examples of direct speech let's consider **qen** "to ask" and **klai** "to answer"/"to reply". **klai** can take a "statement block". While **qen** can take "question block", "x block" and "wheretogo block".

**i-klai no < ás tebu kikiat >** = She replied (that) Trevor is lazy

**i-qen pa < cás tebu kikiat >** = I asked whether Trevor is lazy (or not)

**i-qen pa x ás c-pu wutu x** = I asked who is fat

**i-qen pa x c-lau áx pa go x** = I asked where I should go

**i-qen pa \* c-lau go \*** = I asked where to go

I would tend to ignore the "wheretogo block". I consider it just a truncation of the "X block". Who doesn't want to take short cuts (as long as no ambiguities introduced). Nothing to see here.

The other three blocks are more noteworthy. As I have said before, the "statement block", the "question block" and the "X block" are complete in themselves. They can stand alone and make perfect sense.

**i-klai no sé { ás tebu kikiat }** = She replied "Trevor is lazy" = "Trevor is lazy" she replied

**i-qen pa sé { cás tebu kikiat }** = I asked "Is Trevor lazy (or not)"

**i-qen pa sé { ás c-pu wutu }** = I asked "who is fat"

**i-qen pa sé { c-lau áx pa go }** = I asked "where should I go"

Now **klai** and **qen** can also take direct speech. This is demonstrated above. Notice the direct speech and indirect speech is exactly the same (well for these examples anyway ... sometimes you have a change in time reference, spacial reference and pronouns). This was a deliberate design consideration.

Unlike English, the present tense in **béu** does not become past in indirect speech, and there is no change in constituent order. I think present tense => past in English is called "back-stepping". It is demonstrated below ...

original speech	reported speech	
Peter is stupid	I said (that) Peter was stupid	the original "is" becoming "was" d/t past tense on "say"
Peter was stupid	I said (that) Peter had been stupid	the original "was" becoming "had been" (for the same reason)

In English certain words like “decide” and “to think” can take direct speech. The idea is “the internal monologue is comparable to actual spoken words”. This also happens in **béu** ... introduced by **sé** , of course.

---

Let’s talk about x blocks for a bit. Well it turns out that x blocks are also pretty similar to direct speech also. However it is only for a very small set of block-taking verbs ... namely **qen** “to ask” : **kon** “tell” that direct speech makes sense. For instance ...

**án pa x cumam no cai x** = I want what she is eating

The x block in the above example, obviously isn’t reporting what someone else has said.

It seems to me that the genesis of x blocks would be direct-speech-taking verbs meaning “to ask” and “to not know”. I believe that all languages have x-block-like constructions after these two verbs. However it was only in certain languages that the use of x blocks took off. An example of a non-x-block language is Swahili (which uses relative clauses where other languages use x blocks).

The first thing that you notice is that the question block has the exact same form as direct speech. This is very interesting. The English block that corresponds to the **béu** block must be introduced by, either “whether” or “if”. Also the English block has the form of a statement not a question.

So it seem (for question blocks anyway) that direct speech and indirect speech run into each other. Sometimes you can distinguish between the two by the pronoun, but sometimes not.

Let’s check out the statement block ... we need another block-taking-verb. How about **kon** “to tell” ...

**i-kon pan < ás jono tumu >** = I told her (that) Johnny is stupid

OK ... the statement block has the exact same form as direct speech as well (this is true also in English ... well, if you drop the “that”).

Now what about x blocks. Well it turns out that x blocks are also pretty similar to direct speech also. However it is only for a very small set of block-taking verbs ... namely **qen** “to ask” : **kon** “tell” that direct speech makes sense. For instance ...

**án pa x cumam no cai x** = I want what she is eating

The x block in the above example, obviously isn’t reporting what someone else has said.

It seems to me that the genesis of x blocks would be direct-speech-taking verbs meaning “to ask” and “to not know”. I believe that all languages have x-block-like constructions after these two verbs. However it was only in certain languages that the use of x blocks took off. An example of a non-x-block language is Swahili (which uses relative clauses where other languages use x blocks).

I asked where he was going => niliuliza anakwenda wapi

I don’t know where to go => sijui niende wapi

I know where to go => Najua pa kwenda <= Ninajua pa kwenda

I told him where to go => Nikamwambia pa kwenda

ni-li-uliza 1SG.SUBJ-PST-ask	a-na-kwenda 3SG-PRES-go.INF	wapi where	
si-ju-i 1SG.SUBJ.NEG-know-NEG	ni-ende 1SG.SUBJ-go.SUBJECTIVE	wapi where	
Ni-na-jua 1SG.SUBJ-PRES-know.INF	pa of. LOCATION	kwenda go.INF	
Ni-ka-mw-ambia 1SG.SUBJ-TENSE-3SG.OBJ-tell	pa of. LOCATION	kwenda go.INF	

It was originally planned that **béu** should only have QWs in questions ... nice and clean ... just like the lojbanist would have it.

However I also wanted **béu** to have the characteristics of a natural language.

I have always been fascinated by QW. These words are the ones that go furthest back. Also they have been co-opted to many secondary functions. However I have found it hard to get information about where/how QWs are used cross-linguistically. Not so many textbook cover this (or at least the textbooks that I have come across) question.

Fortunately I managed to contact Martin Dryer (via WALS), who assured me that EVERY language has constructions such as ...

4) **i-qen pan** < **kum c-pu waulo wái** > = I asked her who killed my dog  
OR **i-qen pan** { **kum c-pu waulo wái** } = I asked her who killed my dog

5) **áu ko pa kum c-pu waulo wái** = I don't know who killed my dog.

And I can confirm this interesting fact with my (*Google Translate derived*) examples from Swahili.

After it was decided that QW were valid in two non-question situations, it was decided x blocks (by definition, containing a QW) should take as wide a functional load as possible (at the expense of relative clauses).

I don't think languages like the possible ambiguity between x blocks and questions. For instance ... in English (ignoring the tonal differences for now), if one came across "Who hit Harry ... " could you be sure you had an x block or a question. (of course what comes after would disambiguate ["Who hit Harry is a total moron" versus "Who hit Harry?"] but I think it is an undesirable feature to have people confused at point "...".

In **béu** there can be no ambiguity as there is always material to the left ✱ of the x block ✱✱ (which, remember, is identical to a question) to mark it as an x block. For example ...

**i-píg c-pu Harry** = Who hit Harry

**ás x i-píg c-pu Harry x tumu** = The one who hit Harry is stupid

In the above example it would be possible to add an extra **no**, say if you needed to differentiate "Harry" from "stupid Harry".

**ás x i-píg c-pu Harry x no tumu** = The one who hit Harry is stupid (see chapter 15)

✱ In **beugan**, of course, they talk of the need for a bunch of words ABOVE the X block.

✱✱ It is for this reason, that **béu** is a strict VSO language. SOV or SVO would not consistently give "stuff" to the right of the x block. VSO was chosen over VOS because it represents about 10% of the worlds languages.  
VOS represents about 3 % of the worlds languages.



In **béu**, “to give” is **nú**. Now in English you can either say ...

“I gave an ice cream to Mary” / “I gave Mary an ice cream”

And the same with **béu** ... **i-nú pa nimas l-mali** / **i-nú pa mali t-nimas**

**t-** being the instrumental **glai**

And, of course, both **nimas** and **mali** can be promoted to subject ...

**i-nús nimas l-mali (t-pa)** = The ice cream was given to Mary (by me).

**i-nús mali t-nimas (t-pa)** = Mary was given the ice cream (by me).

In **béu -n** is a very productive suffix. It is thought that this suffix was originally **nú**. Here are three examples of this suffix ...

<b>ko</b> (S)	to know	<b>kon</b> (D)	to tell
<b>háu</b> (S)	to learn	<b>háun</b> (S)	to teach
<b>tía</b> (D)	to see	<b>tían</b> (D)	to show

Now **ko háu** and **tía** are all two place (transitive) verbs ...

**á-ko no tolai d-laban** = He knows car maintenance.

**ú-háu pa tolai d-laban** = I will learn car maintenance.

**cát tía lé laban yeni nái** = Have you seen his new car ?

**kon háun** and **tían** are three place verbs ...

**konam pai laban yeni l-no** = We are telling about the new car to him.

**konam pain x-laban yeni** = We are telling him about the new car.

**ú-háun pau tolai d-laban l-no** = We will teach car maintenance to him.

**ú-háun paun x-tolai d-laban** = We will teach him car maintenance.

**i-tían no laban yeni qái l-pa** = He showed his new car to me.

**i-tían nop x-laban yeni qái** = He showed me his new car.

**nú/kon/háun/tían** are three place verbs. That is for a full account of the action three elements are necessary. However there is a rule in **béu** grammar that only two unmarked elements allowed after any verb, if you have a third element, it must be marked somehow.

With **nú** the third element can be marked with **l-** or **t-**. With **kon/háun/tían** the third element can be marked with **l-** or **x-**.

I will mention a little quirk here. It doesn't amount to a hill of beans. I guess every language has thousands of these little quirks.

With **tían** you can, on occasion, have the **l-** or **t-** pairing. For example ...

**i-tían pa maya t-pwasat d-klin** = I showed my mother the child's drawing

Especially when the object shown is small and the action might involve touching and/or re-orienting. A large object such as a car or a house would be introduced with **l-** or **x-**.

To the right we have three other verbs that take on another argument when suffixed with “n”.

And what is with the other six words you might ask. Ah ... those demonstrate that **béu** does not slavishly follow any one pattern. If a concept is important enough, it gets its own root :-).

<b>yó</b>	to fly	<b>yón</b>	to throw
<b>pia</b>	to go up	<b>pian</b>	to raise
<b>nia</b>	to descend	<b>nian</b>	to put down
<b>ga</b>	to enter	<b>páum</b>	to insert, to put in
<b>cuk</b>	to exit	<b>sale</b>	to extract, to take out
<b>men</b>	to die	<b>kum</b>	to kill

The **yó/yón** pair above might be thought a bit idiosyncratic. But I believe Swahili has a similar pair. **pia** and **nia** are strictly intransitive. **x** is used to introduce anything gone up or came down.

**i-pia jene x-dói** = Jane went up the hill

**i-pia iqgo x-auge (tú)** = Ingo came down the tree

**i-pia iqgo x-auge (gó)** = Ingo went down the tree

If the tree had a lot of leaves and Ingo's progress could not easily be followed, one could say ...

**i-pia iqgo m-auge (tú)** = Ingo came down the tree

**i-pia iqgo m-auge (gó)** = Ingo went down the tree .... where **m-** means “in” of course.

It was earlier noted that **béu** possesses a syllabic “n”. This creature only appears in conjunction with this suffix we are talking about here. Examples ...

				<i>pronunciation</i>	<i>pronunciation</i>
<b>cum</b>	to eat	<b>cumn</b>	to feed	<b>ʦumɳ</b>	<b>ʦumən</b>
<b>jim</b>	to drink	<b>jimn</b>	to irrigate/water	<b>dʒimɳ</b>	<b>dʒimən</b>
<b>ais</b>	a threat	<b>aisn</b>	to threaten	<b>aizɳ</b>	<b>aizən</b>
<b>lif</b>	a warning	<b>lifn</b>	to warn	<b>livɳ</b>	<b>livən</b>
<b>kig</b>	consideration	<b>kign</b>	to consider	<b>kign</b>	<b>kigen</b>
<b>hói</b>	advice	<b>hóin</b>	to advise		<b>hóin</b>
<b>tanduai</b>	an extention	<b>tanduain</b>	to extend		<b>tanduain</b>
<b>laqli</b>	clear	<b>laqlin</b>	to explain		<b>laɳlin</b>

Sometimes people are not so good at the syllabic “n” and use a normal “n” with a schwa connecting it to the rest of the word.

Note ... of the 8 verbs derived above, 2 are derived from verbs, 5 are derived from nouns and one is derived from an adjective. The **-n** derivation is absolutely everywhere in **béu**.

It is commonly accepted that the **n** affix was at one time a separate word ... namely **nú** “to give”. This belief is confirmed by how these verbs form their imperative. Instead of ... **\*lifni goyo x-uwin yé d-pau** = “warn George about our enemies” .... one says **lifnuk goyo x-uwin yé d-pau**

There are a class of words in **béu** expressing mental (occasionally physical states as well) that are verbs, whereas their equivalents in English are adjectives. These words often take **-n**.

<b>?oime</b>	D	to be happy	<b>?oimen</b>	S	to please
<b>heuqo</b>	S	to be sad	<b>heuqon</b>	S	to make sad
<b>taude</b>	D	to be angry	<b>tauden</b>	D	to annoy
<b>swú</b>	D	to fear	<b>swún</b>	D	to scare
<b>hyenta</b>	D	to be angry	<b>hyentan</b>	D	to really annoy
<b>yode</b>	D	to be horny	<b>yoden</b>	D	to arouse
<b>gwipai</b>	D	to be ashamed	<b>gwipain</b>	D	to shame
<b>doimo</b>	D	to be anxious	<b>doimon</b>	D	to cause anxiety, to be a worry
<b>?undwe</b>	D	to be bewildered	<b>?undwen</b>	D	to astonish

All the left hand side words are one place verbs. If the cause of the emotion must be expressed one can introduce it with **x-**. Some dialects tend to introduce some of these causes by with **s-**. But **x-** is definitely preferred in the standard language.

**taude** means more “to be annoyed” than “to be angry”

**hyenta** means to “to be very angry” ... so angry that you can’t control you body.

**?oimem pa siase ah lup nimas tan mogas** = I am happy because I got ice cream and chocolate.

**?oimen pa tem t-nú no nimas tan mogas**

= I make the girl happy by giving her ice cream and chocolate.

The examples on the LHS often appear with **siase** “because” explaining the reason for the emotional state.

The examples on the RHS often appear with an expression headed by **t-**, explaining the means by which the emotion was engendered.

**oi-gwipain no ?uxya qái t-sau hubog m-balau**

= He used to make his wife feel ashamed by being drunk in public

Two words that at base express (human) physical states have a derived meaning that expresses a mental state. **?im** D meaning “satiated”/“full of food” and **nuai** D meaning “to be tired”. When followed by a noun qualified by **x-**, they both take on the meaning “tired of”/“pissed of with” with the connotation that the distaste built up over quite a long period. Both mean the exactly the same when referring to the mental state. The noteworthy thing is, they are Dynamic verbs for physical state, but Static verbs for mental state.

At the beginning of this chapter I said that three elements can not be connected to a matrix verb without one being introduced by a **glia**. However this rule is broken when it comes to **sau** “to be”.

1) **i-kon pan sau jono wutu** = I told her (that) John is fat

2) **ú-tían pal sau jono wutu** = I’ll show you (that) Johnny’s fat

3) **át háun pa noi sau tekan kai** = I’ve taught them (that) the world is round

On the previous page, **tolai** was not activated, hence it meant “maintenance” instead of “maintain”. In a similar way, in (1) above, **sau jono wutu** is a noun phrase meaning “Johnny being fat”.

One might suspect (1) should be **\*i-kon pan x-sau jono wutu** would be correct. But no ... it is just **i-kon pan sau jono wutu**.

In the last chapter we came across verbs that are used to express states of mind or body. Notice that most of these are dynamic (suggesting that the state described by the verb is prototypically short lasting). However these states can on occasion be long lasting. On these occasions where a steady-ish state needs to be described the prefix **ot-** can be used. For example ...

<b>ot?oim</b>	inclined to be happy
<b>otheuq</b>	melancholic
<b>ottauð</b>	hot headed
<b>otsu</b>	timid
<b>otitsi</b>	excitable
<b>otyode</b>	lecherous
<b>otdomo</b>	nervous by nature
<b>ot?undwa</b>	to have dementia
<b>otmal</b>	invalid
<b>otnuai</b>	invalid

<b>heuqo</b>	S	to be sad
<b>domo</b>	S	to be anxious
<b>?oime</b>	D	to be joyful
<b>itsi</b>	D	to be excited
<b>taude</b>	D	to be angry
<b>hyenta</b>	D	to be very angry
<b>gwipai</b>	D	to be ashamed
<b>swú</b>	D	to fear
<b>?itca</b>	S	to be jealous
<b>?undwa</b>	D	to be bewildered
<b>?ut?at</b>	D	to be frustrated
<b>sana</b>	S	to be healthy
<b>yode</b>	D	to be horny
<b>mala</b>	D	to be ill

In the table above you can see that the top four derived adjectives have also undergone some extra phonological erosion. This only happens with the most common **ot-** derivations.

Note ... derived adjective such as the above are not really necessary. OK an adjective can appear in two places ... in a copula complement and as an attribute in a noun phrase. Let's exemplify these two "appearances" using the adjective **otsu** ...

- 1) **ás bawa otsu** = the men are timid
- 2) **i-go bawa otsu dah** = the timid men go home

**otsu** in (1) can be replaced by the verb in the habitual tense => **bawa o-swú**

**otsu** in (2) can be replaced by the verb in the habitual tense inside a RC : **i-go bawa ?o swú dah**

But even though the word **otsu** is not necessary it does seem to be preferred to the verbal alternatives, particularly in the case where the alternative involves a relative clause (RC).

When we named the **dai** (Chapter 5) we came across the RC's **?-?undwam** : **?-taudem** **?-?ut?atam** : **?-itsim** : **?á heuqo** and **?á domo**. These forms suggest "temporary states". To be too much in these states would be considered "unfortunate". Hence such forms as **ot?undwa** do not occur in the naming of the **dai**. One does not want to jinx an entire 127 year stretch.

The adjectives on the left occur just as often occur as noun phrase heads. So **otnuai** "somebody suffering from chronic disease that makes them feel tired all the time" etc. etc. When they appear as copula complements it is impossible to tell if they should be considered nouns or adjectives.

It is not just verbs of emotional state and body state that take this derivational prefix. For example ... **len** = to play, **otlen** = playful.

Note all tail-shedding verbs lose their final “a” when the **ot-** prefix is applied. The **ot-** form of **sana** and **mala** are **otsan** and **otmal**. These two form were not mentioned in the last page because they are perfectly regular.

There is a another prefix that has a very similar role as **ot-**. Whereas **ot-** means “being inclined to -”, **ki-** means “having the bad habit of always -”. So if you didn’t approve of somebody and didn’t think their playful ways were helping matters you could refer to them as **kilen**. However being inclined to play is usually see in a positive light so you hear many many more **otlen** for every **kilen** you hear. Two common words formed with the **ki-** prefix is **kikiat** “lazy” and **kiniau** “mean”. We have met these two forms before ... in the section where we named all the **dai**.

**yoma** = to read : **otyom** = fond of reading

**ot-** is usually talked about, along with **na-** and **po-**.

**na-** also is a derivational prefix that is added to verb ... **cum** = to eat : **nacum** = delicious

**po-** also is a derivational prefix that is added to verbs ..... **cum** = to eat : **pocum** = edible

<b>gamuh</b>	understand	<b>pogamuh</b>	understandable
<b>xad</b>	move	<b>poxad</b>	movable
<b>yoma</b>	read	<b>poyom</b>	legible
<b>tía</b>	see	<b>potia</b>	visible
<b>xano</b>	feel, have a sense of	<b>poxano</b>	tangible
<b>jub</b>	believe, think	<b>pojub</b>	believable
<b>mu</b>	think	<b>pomu</b>	conceivable
<b>lup</b>	to get, obtain	<b>polup</b>	available
<b>piabe</b>	to happen	<b>popiabe</b>	possible

<b>fú</b>	love	<b>nafu</b>	cute
<b>bu</b>	do	<b>nabu</b>	worth-doing
<b>saube</b>	praise	<b>nasaube</b>	praiseworthy
<b>?undwen</b>	to astonish	<b>na?undwen</b>	amazing
<b>doimo</b>	to be anxious	<b>nadoimo</b>	serious
<b>kwáu</b>	observe, notice	<b>nakwau</b>	remarkable
<b>hwe</b>	visit	<b>nahwe</b>	worth seeing
<b>kig</b>	to consider	<b>nakig</b>	not insignificant

Both these infixes give a collective meaning. The original word is a certain object. The derived word is a plurality of these objects, typically in the same vicinity. The collection (of objects) achieve “thing-hood” when -oq- or -ab- is inserted. Here are some examples ...

<b>hun</b> = a soldier	<b>hoqun</b> = an army
<b>dok</b> = a jetty	<b>doqok</b> = “the docks”, “the commercial part of a port”
<b>dah</b> = a house	<b>doqah</b> = a collection of houses, a small village
<b>oned</b> = a book	<b>oqoned</b> = a book collection
<b>tul</b> = a tool	<b>toqul</b> = a guy’s (usually) private collection of tools
<b>jul</b> = an item of jewelry	<b>joqul</b> = a gal’s (usually) private collection of jewelry
<b>xá</b> = a grain of sand	<b>xoqa</b> = sand

Note ... **onde** is the plural of books. However **oqoned** specifies the books are all together. And the connotation is that “one person appreciates and feels attached to said books”.

<b>gwái</b> = island	<b>gwoqai</b> = archipelago
<b>hwaq</b> = a mountain	<b>hwoqaq</b> = a mountain range

The above two have connotations of “stringlike” (i.e. 1-D). To refer to islands and mountains grouped in other configurations (i.e. bunched) one can use the term **dón d-gwái** and **dón d-hwaq**.

<b>gít</b> = a feature, a characteristic	<b>goqit</b> = type, kind, sort
--	---------------------------------

Note ... **kái** means the same. The two terms can be used interchangeably.

**goqit** is also the source of the word **goqgoq** = “different”.

The general word for group is **toqoi** {the source being **tói** “one”}. **haum** is the word for a group of grazing animals or a schools of fish. **hewok** is the word for a group of predators ... wolves, lions, orcas etc. etc.

The 10 examples listed above is as far as this infix goes. For example “a group of policemen” would be expressed as **toqoi d-polbo** not as **\*poqolbo**. It’s possible to go too far.

Now in the above examples, there is no rhyme or reason. There is “same place” and “plurality” but no rhyme or reason. For our next collective infix, the objects contributing to the new “thing”, must either fit together in a very specific way, and/or the objects must be of specific varieties. For example ...

**pil** = the general word for “rule” => **pabil** = game

**ahi** = a religious injunction or prohibition.

**abahi** = a complete/coherent set of such demands. Such as the “halakhah” (= 603 mitzvot).

**cé** = sound      **cabe** = a word ... And this is an interesting one, we can feed our output into the process again ... and we get **cababe** = sentence

**lwí** = an atom (element)      **lwabi** = a molecule

Also we have **jen** = “gene” and **joqen** = “a chromosome”. It is thought, that we have the form **joqen** rather than **\*jaben**, because of the stringlike connotations given to -oq- by **gwoqai** and **hwoqaq**.

And another one for the linguists ... **cabab** = clause {yeah and **cababe** = sentence}



Here is a reminder of the basic arithmetic building blocks =>

Numbers can be written either vertically or horizontally.

0 1 2 3 4 5

2  
+  
1

<= This numbers is called **náu xéq yatoi** which is is  $(2 \times 6^2) + (4 \times 6^1) + (1 \times 6^0)$  or  $77_{10}$ .

Basic arithmetic operations (that is addition and subtraction) can be written inline with the text ...

Here is a simple sum =>

1  
^  
2  
=  
3

Expressed as **tói tan náu bila sái** ...  $1 + 2 = 3$

3  
v  
4  
=  
v  
2

And another one, let's throw in some minus's =>

**sái tan héu nía bila náu nía** ...  $3 - 5 = -2$

And a big one this time. Expressed as **yanau tan nasai nía bila tói xéq héu**

... which is  $42_6 - 23_6 = 105_6$  or in decimal ...  $26_{10} - 15_{10} = 41_{10}$

There is a tendency ... when the mathematics gets more involved ... to write the equations horizontally. The last equation would be ...

1  
^  
2  
-  
3  
v  
4  
=  
1  
^  
0  
4

All arguments are separated by a dash. The polarity of each argument shown over the argument's most significant digit.

1  
^  
2  
v  
3  
v  
4  
=  
1  
^  
0  
4

Actually one has quite a bit of leeway when it comes to writing out equations. The above could also be written as =>

Notice that the most significant digit of all the terms must line up.

1  
^  
2  
-  
3  
v  
4  
=  
1  
^  
0  
4

The symbol for the decimal point is a broken line.

Both expressions below mean 2.3 ... expressed as **náu kaxai sái**

2  
-  
3  
:  
2  
3

Multiplication is represented by a small loop ==>  
between the arguments to be multiplied

$$z \circ z = 10$$

Or, if you  
prefer  
textwise ==>

$$z \circ z = 10$$

For division you have four choices ...

$$\frac{+}{z} \quad + \backslash z \quad + \circ z \quad \frac{+}{\circ z}$$

Well actually  
six choices  
as the  
numbers in  
the two RHS  
constructions  
can be  
swapped.

$$\frac{\infty}{z} \quad \frac{\infty}{z} \quad \frac{\infty}{+} \quad \frac{\infty}{+}$$

<= And finally we introduce the  
zany sign for the reciprocals

$$\frac{1}{2} \quad \frac{1}{3} \quad \frac{1}{4} \quad \frac{1}{5}$$

Complex numbers can be dealt with quite easily. The equation to the right ==>  
represents the WMT equation below.

There was no need for brackets as it was previously specified that we were  
dealing with complex numbers ... i.e. that there would be a real and imaginary  
component to every value.

$$\begin{aligned} (2+5i)(4-3i) &= 8-6i+20i-15i^2 \\ &= 8+14i-15i^2 \\ &= 8+14i-15(-1) \\ &= 8+14i+15 \\ &= 23+14i \quad \checkmark \end{aligned}$$

$$\text{a) } (2-5i) + (4-3i) = 6-8i$$

$$\text{b) } (2-5i) - (4-3i) = -2-2i$$

Sometimes brackets must be used. **béu** favours square brackets,

$$z < 4 \circ + > z = z 4 < z z$$

$$\begin{aligned} \text{a) } z < 4 \wedge + > z = 10 > 1 z \\ \text{b) } [z < 4] \vee [ + > z ] = \vee z > z \end{aligned}$$

Earlier the 7 oceans were delineated. You might have noticed that they never about the continents. **taski** stop about 100 km from the continents and major islands.

This strip of water is called **moin**. We can translate **moin** as “sea”. These **moin** have a maximum area of about 150,000 km sq. They are frequently named after the biggest port they contain.

To the right here, we have ...

**moin mogadishu**

**moin mombasa**

**moin dar es salaam**

The big inland bodies of water are also termed **moin**. The area of these is not limited to 150,000 km sq.

Also areas of the oceans cut off by island chains are classified as **moin**. For example ...

**moin kalib** : the Caribbean Sea

**moin meh?iko** : Gulf of Mexico

**moin itali** : the Mediterranean

**moin beliq** : the Bering Sea

**moin ohotsek** : Sea of Okhotsk

**moin japan** : the Sea of Japan

**moin paibi** : the body of water delineated by a line going west from Jeju island reaching the Chinese mainland, and a line going north from Jeju island reaching the Korean mainland.

**moin molua** : the black sea

**moin kaspian** : Caspian Sea

**moin baikal** : the Baikal Sea

At 20,679 km sq. **moin baikal** is the smallest body of water to be designated “**moin**”.



Let's fill in more detail about the **taski** here. As I have said before, **taski** never touch the continents or major islands. However smaller islands are embedded in the **taski**. For example Easter Island is touching and wholly surrounded by **hiatasik**.

We have met the word **gwoqai** “archipelago” before. In some cases this means more than “a group of islands”. Often a political entity is defined. For example **gwoqai fiji** “archipelago Fiji” ... as well as designating the group of islands also designates the water surrounding these islands (up to a distance of about 100 km). So **gwoqai fiji** can be considered equivalent to **moin**. Although the term **moin fiji** is never come across.

The term **fiji** by itself is uncommon in **béu**. Usually one only hear **gwoqai fiji**.

Actions have consequences.

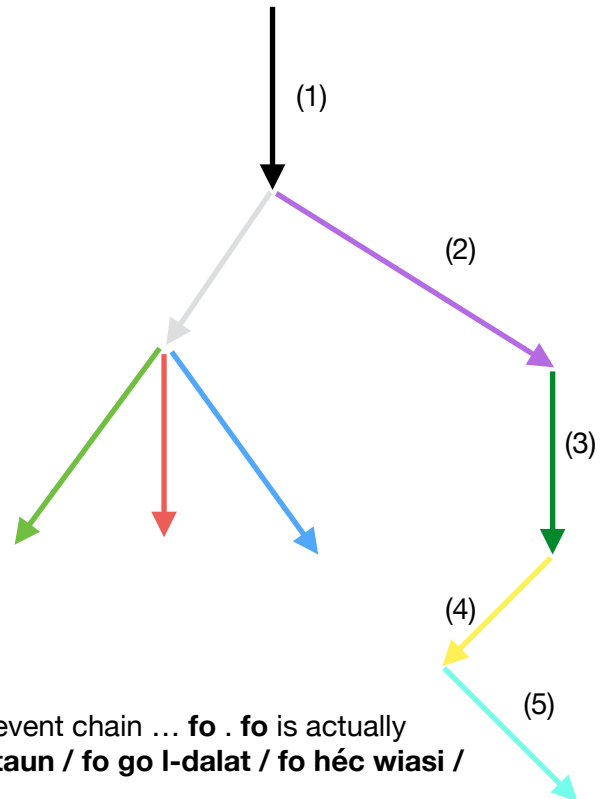
This truism is depicted schematically here =====>

Time is increasing as you go down the page.

Now consequences are sometimes intended, and sometimes they are not intended.

Usually a string of events makes sense ...

- 1) **i-go pai l-taun** = We went to town
- 2) **i-go pai l-dalat** = We went to the market
- 3) **i-héc pai wiasi** = We looked for potatoes
- 4) **i-kulau pai wiasi** = We found the potatoes
- 5) **i-osta pai wiasi** = We bought potatoes



In **béu** we have a special particle to show this sort of event chain ... **fo** . **fo** is actually an activator. We can recast 1 - 5 above as **i-go pai l-taun / fo go l-dalat / fo héc wiasi / fo kulau jo / fo osta jo**.

Notice that **fo** did not start this chain of events. we used “i-” to set the scene. Any of the other energizers could have set the scene ... but in practice, it is usually “i-”. Sometimes “ú-” is used to set the scene ... maybe when some leader is making grandiose plans. However always a danger of stacking too many **fo**’s after an “ú-”. You don’t want to count too many chickens before they hatch.

We have also got “the frustrative particle” **foi** . Say that in the above scheme, they could not find any potatoes at the market. Then we could say ... **i-go pai l-taun / fo go l-dalat / fo héc wiasi / foi kulau jo**.

It is also possible to say **i-go pai l-taun / fo go l-dalat / fo héc wiasi wá wip pai kulau**. Not much difference in meaning between the two methods. The second method is a bit more wordy ... so a little more emphasis on the thwarted part.

It is arguable whether **fo** is a conjunction. It is usually considered an activator. However activators and conjunctions are both particles. And every particle is a rule unto itself. So not to obsess too much about terms such as activator or conjunction etc. etc.

Chapter 45 was about stringing together event chains. The particle **fo** gave the tense of the clause it starts, in terms of the previous clause.

In this chapter we introduce a particle that starts a subordinate clause. This subordinate clause describes the purpose of the main clause. This subordinate clause usually follows the main clause.

Usually in English this construction is given by the little particle “to”. Now this little particle is a bit over-used in English ... it has four uses.

- 1) The original use would have been the directional/dative use. As in “I throw the ball to him” or “I gave my gift to Sheena”.
- 2) Then we have the “infinitive-indicating” construction ... “to walk in the park after dinner on a summer night is very pleasant”.
- 3) The “purposive” use. As in “She lives to eat”. Maybe about every sixth instance of “to” in English is for “indicating the purpose of the present event in terms of achieving a consequent state”. If you come across a “to” in English and can swap it out with “in order to”, then you know your “to” is fulfilling its “purposive” function.
- 4) It is used to indicate an excess of a certain quality. For example “She is too good”. Nowadays spelt with two “o”s. Some might argue that this use doesn’t count because of the spelling difference. However phonetically and historically we are dealing with the same word.

In **béu**, the **glia I-** has functions (1) and (3) ... but NOT (2) or (4). If you see it leaning against a noun, you know it is functioning as (1), if you see it leaning against a verb, you know it is functioning as (3). Here are some examples ...

**i-go pai I-dalat I-heca wiasi** = We went to the market (in order) to get potatoes

**i-osta pai wiasi I-cum** = We bought potatoes (in order) to eat

**i-tu xíau jutu g-ten nía I-sumbuq I-jím** = The biggest elephant came down to the waterhole (in order) to drink.  
... well, we already came across this example ... see chapter 6

There is not much to say about this “purposive construction”. The only potential difficulty (with English speakers) is confusing function (3) with function (2). But every time you can exchange out “to” with “in order to” ... you know you can use **I-** to show purpose.

The purposive construction is quite often appended to orders/suggestions. For example ...

**goki dah I-kulau maten qái** = Go home and see your Mother.

**c-I-go dah I-kulau maten láí** = How about going home to see your mother.  
= Why don’t you go home and see your mother.

### Design Note

In the above we were looking at things naturally ... **cause => effect**  
but we humans are quite tricky, we can look at things logically. When we do that we can imagine **effect <= cause**.

For a time I was thinking about an **s-bu** construction ... sort of an inverse of the **I-bu** construction. For example .... **\*i-kulau pa maten qái s-go dah** = I met my mother as/because I went home.

But on second thoughts ... no. Expressing the world in terms of “**effect <= cause**” is just a bit too rare for the expression to undergo that much phonological and semantic erosion. So ...

**i-kulau pa maten qái siase i-go pa dah** = I met my mother because I went home.

The above is definitely two clauses ... separated by the conjunction **siase** {of moderate phonetic weight}.

In the above discussion, the purpose clause comes after the main verb of the sentence. There is a related construction where **I-** is attached to the main verb ... well there is only one verb in these constructions. I call it “the tentative construction”. Here are some examples ...

**c-I-lét pa sum** = let me go and get water = should I go and get water

**c-I-lét pai sum** = let us go and get water = how about we go and get water

**c-I-lét pau sum** = let's go and get water

**c-I-lét lé sum** = would you go and get water = how about you going and getting water

**c-I-lét léu sum** = would you lot go and get water

**c-I-lét no sum** = how about him fetching some water

**c-I-lét noi sum** = let them go and get water

You can see that English uses a variety of constructions for expressing the “tentative” concept.

Are these expressions questions or not ? Well in **beugan** they are. However cross-linguistically ... (talking here about the semantic equivalent of the tentative construction) ... hard to say, probably on the border line. In English “let's go and get water” is not spelt with a question mark. However it is fishing for a YES/NO response ... the same response due to a YES/NO question. Granted that the incentive for the expression is to “urge” ... not really to solicit information. Well you can say this construction is soliciting information, but the information is to what degree your chat-mate goes along with your proposed course of action.

All the above 7 examples are direct speech acts. When reported at the later time, the verb (to ask) is used you introduce them. For example ...

**i-qen pa c-I-lét pa sum** = I asked if/whether I should go and get water.

## dvandva

It is possible to mix colours.

[the dot is to avoid mispronunciation] =>

**geusnelau** = greenish blue = turquoise

**dunus.hia** = brownish red = oxblood

**dunuski?o** = hazel etc. etc. etc.

Notice that the compound colours seem

to have picked up an **-s-** from somewhere. The following is thought to explain how this happened.

Originally the **plés** “underpants” and **gempau** “a pair of socks” were mashed together to give **plesgem** “clothes” { **plesgem** encompasses all types of clothing, of which **plés** and **gempau** are two examples }

In a similar manner ... **taus** “spoon” joined **kene** “fork” to give **tauskene** “cutlery”.

And also **kesi** “chair” joined **bán** “table” to give **kesban** “furniture”. At this point people started to think that an interword **-s-** was essential for these type of compounds and they made **xlaspua** “weapon” from **xlá** “sword” and **puan** “spear”.

At least one verb was formed in this way ... **nuslup** “to interact” (to give + to receive )

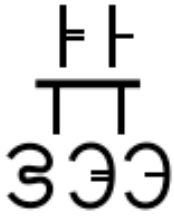
Also they made **ginsalem** “stationary” from **gin** “pencil/pen” and **alem** “paper”. Also the term **kaisom** was coined. However this word is NOT a class of objects exemplified by two central members. It means simply **koi** “sun” and **óm** “moon” ... nothing else. There are a few other similar s-compounds. For example **laqkusnoic** which means 24/7. It is possible to create such compounds on the fly. For example if the friends **talmi** and **ilya** hang about together a lot, one could coin the word **talmisilya**. And of course, it would be appropriate for couples also. For example { **jono** + **mali** => **jonosmali** } ... with the proviso that they spent a lot of time in each others company ... not always the case with couples.

**posme** = parents

**?ubyas?ux** = a couple, a husband and wife (phonological erosion of **\*?ubyas?uxya**) ???

**ab?iauskaupau** = one full complement of arms and legs





**beugan** differs quite a bit from the WMT (Western Mathematic Tradition). First let's get to know **pauten hwoigan** and **saten**. This threesome is shown to the left. **pauten** at the top and **saten** at the bottom.

I have shown two versions of the **pauten** symbol and three versions of the **saten** symbol. guess which version of these you use depends on how much of a hurry you are in. Textbooks inevitably contain the more formal (LHS) version.

The terms **pauten** and **saten** are only used when considering situations with these two variables. If more variables are under consideration, **pauten** and **saten** should be called **pau** and **sa**. Well if you want to be finicky, many forget this injunction.

The expression on the right represents an open-sided workshop. Materials come in from the left and finished products come out the right hand side ... in a way equivalent to  $y=f(x)$ .



**hwoigan** means function.

Here is an example of a function

$$\text{sat} = 3\text{pau} - \text{pau} - \text{pau} \quad y = ax^2 + bx + c$$

Usually used for the 1st spacial dimension (height)

Usually used for the 2nd spacial dimension

Usually used for the 3rd spacial dimension

Usually used for time

Usually used for temperature

Usually used for angles

As well as **pauten** and **saten**, the symbols to the left are also used to represent variables on occasion.

For pure mathematics **pauten** and **saten** are preferred. But for modeling real life problems the six symbols here can be used. They are called **teqau lembau dendau tigau jinjau** and **sudtau** respectively.



The WMT often causes confusion. Take the equation of a pendulum ...

the variables are T and L  
the constants are pie and g  
the dimensions are m (meter) and s (second).

$$T \approx 2\pi \sqrt{\frac{L}{g}}$$

All (except pie) taken from the Latin Alphabets. In **beugan**, the symbols used to represent these three "sets" are usually quite distinct from each other.

Above are the symbols normally used to represent constants in **beugan**. They are consonants from the **béu** script. If a term requires a polarity symbol (i.e. +, -, i, -i) it is placed above the constant.

Invariably these four constants are used first. However if you need more there are 16 more where these came from.

They usually appear in the equation in the order given above.

Vocalized as **nuala**, **hiaci**, **gefeu** and **mapuai**.

All **beumin** have a “proper name”. This proper name is not chosen but is determined by the day one was born. Also dependent on the day of birth of your parents and grandparent.

If you remember from chapter 5 ... “The time of year” section, there is a measure of time called the **muak**. It is 216 days long. There are 216 male names and 216 female names. Which one you get depends on the day you were born.

### Male names

alan	anauf	ilya	iqgo	ilai	polo	pe?o	pombo
talmi	tomo	tebu	tuwon	tonton	tiago	slaudo	kofoi
kwin	boto	bwon	baqkit	jian	jodua	goyo	gil?o
glén	du?ket	xula	hugo	hogamot	helmut	nikolai	molte
nyopua	liam	loftus	walki	wonwo	glaqmo	jono	

### Female names

aqit	ailin	mali	meqwi	mautie	maite	pegwia	pabua
telma	tuwen	tenten	sian	susan	slade	kwifa	kewaqen
bakke	bole	beqji	bete	be?nes	bene	jene	jedia
juloku	gil?e	gilmet	gaqme	fiako	dese	nél	níq
nyepia	lena	lefta	lawix	?uxi	?iadme	qe?es	qu?i

Not all the 432 names have been chosen yet. At the moment, 39 male names and 40 female names have been decided on (so we are just over 18% complete).

By the way ... the yellow-highlighted names above, are the names already used in examples.

Actually a man’s “proper name” consists of his birth name, followed by his father’s birth name, followed by his grandfather’s birth name. For a woman ... the woman’s birth name, followed by her mother’s birth name, followed by her grandmother’s birth name.

So a proper name has three components. So we might have **jodua du?ket tuwon**. On the distaff side ... **bene pabua dese**.

These “proper names” are, of course, used on official documents. However, for day to day use, there is great variation. The default for calling out to a person is to use the first component of their proper name. For example **jodua** or **bene**. However if there were two **jodua** or **bene** in a class room or an office, one or both would be disambiguated by added an element. For example **jodua wú** or **bene hía**.

Besides this, many people have a “side name”. Maybe derived from some distinguishing characteristic ... or even from some noteworthy incident which happened when they were young. Some people are designated one way at home by their sibling, another way in their place of birth, and yet another ... at their place of work.

A great variety in usage. Most people, when entering **beugan**, acquire a “proper name”. However, continue to be designated by the name they had previously, in their mother tongue.

This is a good time to talk about contingency planning ...

Let's make  = **ú-go lé dah tigdi** = You will go home now

Let's make  name) = **ú-cumn beqji lé cumis** = Beqji (female will feed you.

By using the particle **?íl** you can state that the green is dependent on the purple. There are two ways to do this ...

1) **?íl go lé dah tigdi fo cumn beqji lé**

2) **ú-cumn beqji lé ?íl go lé dah tigdi**

The first is the usual order. The second is not so common. It can be used when **?íl go lé dah tigdi** is a sort of after thought. That is ... one had started speaking ( **ú-cumn** ... ) before realizing that a proviso was warranted.

I like to call the purple the “if-clause”, and the green the “then-clause”.

In English “if” is necessary for the “if-clause”, however “then” is not necessary for a “then-clause”. In **béu**, **fo** is necessary for the “then -clause”. Well ... necessary when the “then clause” is a possible consequence of the “if-clause” and potentially will occur at a later time.

Most conditional sentences one comes across fit the above criterion. However sometimes one comes across conditional sentences, which though logical consistent, perform tense gymnastics. Consider ... “If he has a green lawn, **he will have been watering it** during the recent dry spell”.

The above example would not have **fo** introducing the “then-clause”. In fact the “then-clause” would start off **át sumn léj** ...

Now if you have a D verb after **?íl** and no activation particle is evident, an underlying **ú** should be assumed ... in both if-clauses and then-clause. So 1) above can be thought of as **?íl ú-go lé dah tigdi / fo cumn beqji lé**

Something similar happens in English. If you hear “if you go” you deduce the meaning “if you will go”). As the essential function of **?íl** is contingency planning, and contingency planning is, by necessity, future orientated, this dropping of **ú** is entirely reasonable.

Also if you have an S verb after **?íl** and no activation particle is evident, an underlying **á** should be assumed, in both the clauses. For example ...

3) **?íl ko lé boto / fo ko lé hyenta keu náí** = “If you know Robert, you will know his bad temper” can be processed as **?íl á-ko lé boto / fo ko lé hyenta keu náí**. Notice that I never prefixed **the green above** expression with an “\*” to show it was verboten. This is because it is not ... but it will be deemed a bit unusual.

I have given three rules above. I hope they aren't considered too fussy. Actually if you have a **?íl** and an **fo** in your conditional sentence, there is zero chance that you will be misunderstood.

**?íl** and **lau** often co-occur with **tiau** and **ten** .

**tiau ?íl lód lé bye.bye / u-ganya ?upu pwo l-osta dah**

= Only if you work every day, will you earn enough money to buy a house.

**ten ?íl lód lé bye.bye / u w-ganya ?upu pwo l-osta dah**

= Even if you work every day, you won't earn enough money to buy a house.

Actually in **béu**, if you think the action (we can consider, in conditional sentences, the chance of the “if-clause” being realized, and the chance of the “then-clause” being realized, as being exactly equal) unlikely to actually occur you would use **lau** instead of **?íl** .

**lau** can be considered the irrealis (or counterfactual ... exact same thing) counterpart of **?íl** . Certain natural languages possess an irrealis contingency marker as well as a realis contingency marker. I believe Slovenian and some other languages in the Balkan Sprachbund. Also Classic Arabic patterned like this ... ( in fact it’s irrealis contingency marker was “law”).

In **béu**, if it had only one contingency marker, then quite soon after acquiring a speech community, distortions would start to occur. Namely “if” plus a past tensed verb would come to mean irrealis. Even worse ... this meaning of irrealis would take over and the past tense meaning would fade into the background. Then (if possible) a new method to express past tense would be fixed upon.

This (unfortunate) grammaticization process is exemplified below using English ...

- 1) If he goes to Glasgow ...
- 2) If he went to Glasgow ...
- 3) If he had gone to Glasgow ...

In (1) the chance of the event coming to fruition is “open” ... the usual status for future contingency planning. “open” means it is inappropriate to even try and give a percentage to the potential event.

In (2) chance of the event coming to fruition is unlikely ... not 100% unlikely ... but pretty close. Notice that even though we have the past tense form, the clause itself is “future orientated” ... the past tense meaning has been lost.

In (3) the past tense meaning has been restored by using the “perfect” form. So (3) is past irrealis.

However we have nipped this grammaticization process in the bud by having two contingency marker.

Note ... there is a third member of the set (1 - 3) above. Namely ...

- 4) If he has gone to Glasgow

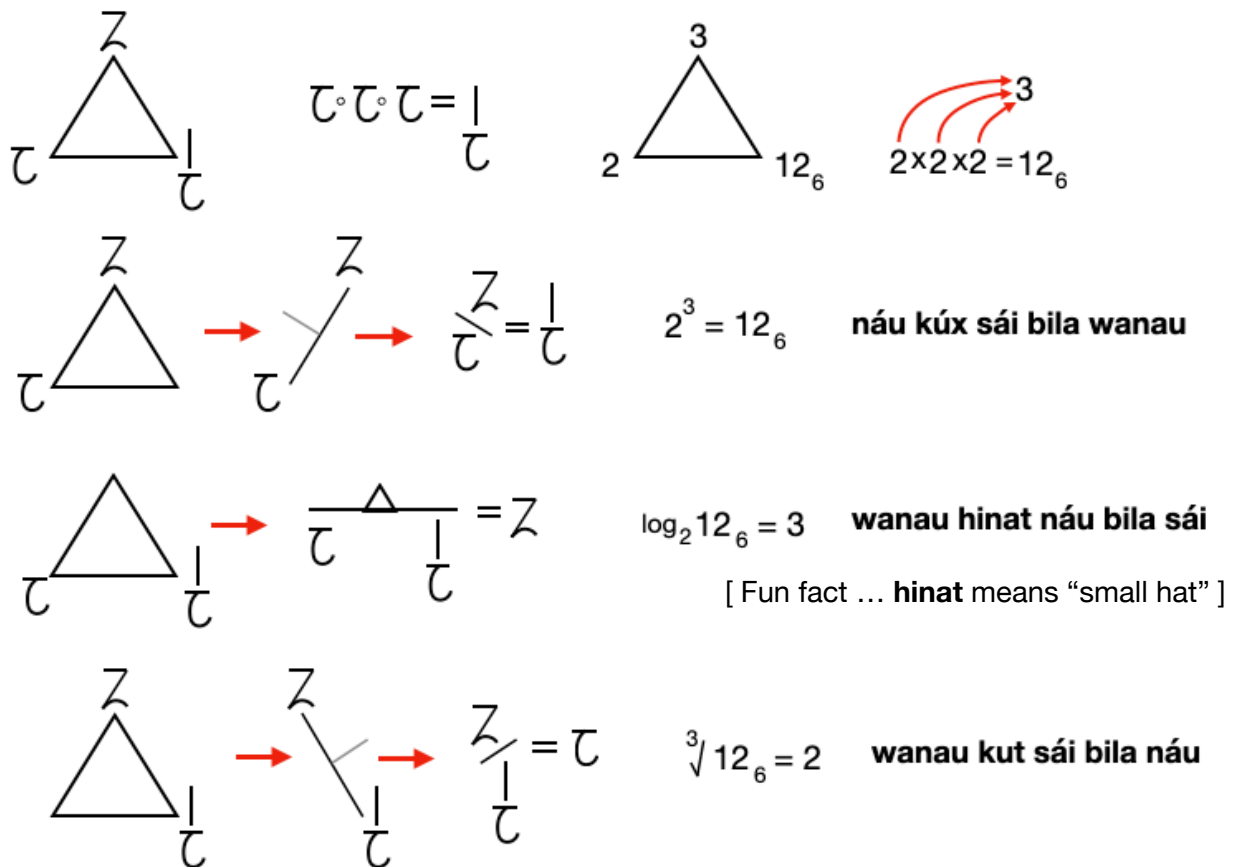
This one only makes sense, when neither the speaker nor the hearer know what has actually happened. The **béu** equivalents to (1 - 4) are ...

- 1] **?íl go no l-glasgow** ...
- 2] **lau go no l-glasgow** ...
- 3] **lau i-go no l-glasgow** ...
- 4] **?íl i-go no l-glasgow** ...

Notice that **béu** doesn’t have to use it’s perfect aspect particle ( **ti** ).

Maybe you have noticed that **lau** the contingency marker is the same as **lau** which means “place”. There is zero chance of confusion because the two **lau**’s appear in totally different positions. Some scholars think that the above is not a co-incidence and that the irrealis contingency marker < “in the totally different place/reality from the one we are presently inhabiting” or “let’s go to this reality/place defined in this first clause”. Something like that. I think the theory has merit. But very hard to say for certain.

The representation of these three operations is based on the power triangle ...

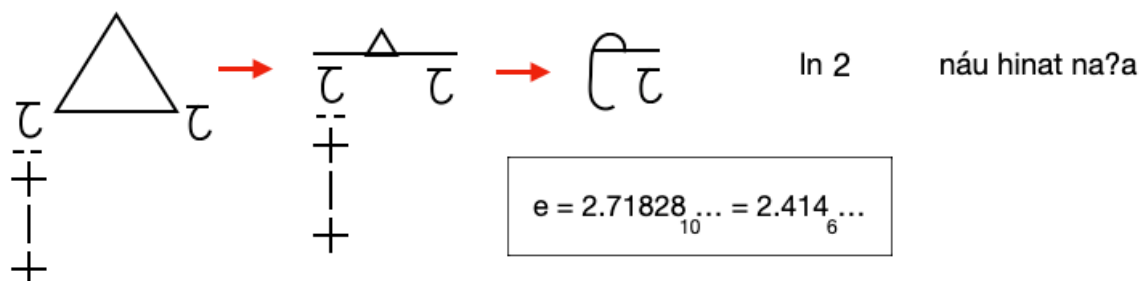


Observe the power triangle. Approaching from the left we first come across “the number” (in this case 2). Continuing to the right we come across “the exponent” (at the top) (in this case 3). Continuing further, we get to “the solution”. It is useful to imagine the power triangle when trying to remember the **beugan** notation for “to the power”, “log base” and “root”

Note ... **kúx** means “back slash” and **kut** means “slash”. Care must be taken to distinguish **kut** from **tig**. **tig** is the **béu** comma and is also used to show division.

**tig** =>

There is a special symbol for natural logs ...



And there is a further simplification/contraction in the way to write squares and square roots ...



This section follows on from chapter 47 (Algebra). Certain verbs that represent processes take the -aup- and -sa- infixes and produce two nouns. The first meaning the output to that process. The second meaning the input of said process.

process	output	input
<b>hig</b> = to build	<b>hisag</b> = a building	<b>haupig</b> = materials for building
<b>hweg</b> = to cut wood	<b>hwesag</b> = lumber	<b>hwaupig</b> = logs
<b>hwoi</b> = to process	<b>hwoisa</b> = output	<b>hwaupoi</b> = input
<b>tumtum</b> = to pound	<b>tasumtum</b> = wrought iron OR bark cloth	
<b>bakai</b> = to cook	<b>basak</b> = a dish (the food <u>not</u> a plate)	<b>baupak</b> = ingredients
<b>hata</b> = to harvest	<b>hasat</b> = a/the harvest	<b>haupat</b> = that which is planted
<b>fiah</b> = to hunt	<b>fiasah</b> = the catch	<b>faupiah</b> = the prey, that which is hunted
<b>boin</b> = to assemble	<b>boisan</b> = a construction, an assembly	<b>baupoin</b> = components
<b>sagol</b> = to mix, blend (cebuano)	<b>sasag</b> = mixture, alloy	<b>saupag</b> = what goes in the mix
<b>nahtu</b> = to mix, amalgamate	<b>nasah</b> = an amalgam, a conglomeration	<b>naupah</b> = ditto
<b>bu</b> = to do	<b>busa</b> = a deed, an action	<b>baupu</b> = “get up and go”
<b>gwéh</b> = to hand down	<b>gwesah</b> = an inherited item	<b>gwaupéh</b> = a bequest, an item in a will
<b>piabe</b> = to happen	<b>piasa</b> = effect , result	<b>paupia</b> = state, initial conditions
<b>pia</b> = to rise : <b>be</b> = to appear	<b>aule-piasa</b> = aftermath, consequences	
<b>feu</b> = to live	<b>feusa</b> = legacy	<b>faupeu</b> = DNA
<b>xila</b> = to fry	<b>xisala</b> = a big English breakfast	
<b>pug</b> = to plough	<b>pusag</b> = a furrow, a groove	
<b>pwat</b> = to draw or paint	<b>pwosat</b> = a drawing or a painting	
<b>kludau</b> = to write	<b>klasud</b> = a hand written note	
<b>la?o</b> = to spread, smear, paint	<b>lasa?</b> = paint (on the wall), paint job	<b>laupa?</b> = paint (in a can)
<b>hí</b> = to burn, fire	<b>hisa</b> = ash	<b>haupi</b> = fuel

**sagol** is used for these processes that output something homogenous.

**nahtu** is used for when the output is not so homogenous.

**mwisi** (thieves) would use the word **fiasah** for “the haul” / “the loot”

**hasat** is also used for profit : **haupat** = “investment” / “seed-money”

**haupata** = an investment : **baupoina** = a constituent

**baupu** also means “moxie”, motivation, initiative, force of character, determination, nerve

fried potatoes (i.e. chips) = **xilya** <= **wiasi xilia**

**pug** is both a noun and a verb. The act of ploughing = **pug?ul**

By the way ... **haupigu** = a builder’s merchant’s outlet

**hwegu** = a sawmill : **johweg** = the cutting machinery found in a **hwegu**

**hwesaga** = a plank : **hwaupega** = a log : **baupoina** = a component



Totality is given by **hal** ... for example **hal d-laban** “all the cars”. Note that the noun remains in its singular form (as it does with all the numbers) ... just a little quirk ...

<b>wau laban</b>	no cars / no car	<b>labna</b>	cars
<b>tói laban</b>	one car	<b>labna iyo</b>	a few cars
<b>náu laban</b>	two cars	<b>labna tundu</b>	many cars
.....	.....		
<b>hal d-laban</b>	all the cars		

Now semantically there are two ways to express plurality. For example ...

1) All our soldiers are heroes

2) Every one of our soldiers is a hero (I am counting “each” and “every” as basically the same)

The first expression ... well I would call it the default expression in English. Let's call it “collective plurality”. The second expression I would deem “individual plurality” ... as it has more phonemes one wouldn't be too wrong to call it the marked expression. I would say that both expressions basically mean the same, however the second one emphasizes the “individuality” of each soldier.

It is very hard to envisage a situation where picking expression 1 instead of 2 (or 2 instead of 1) would cause a misunderstanding.

For example “each of our soldiers has a gun” is (logically) better “all our soldiers have guns”. But there is hardly any room for misunderstanding.

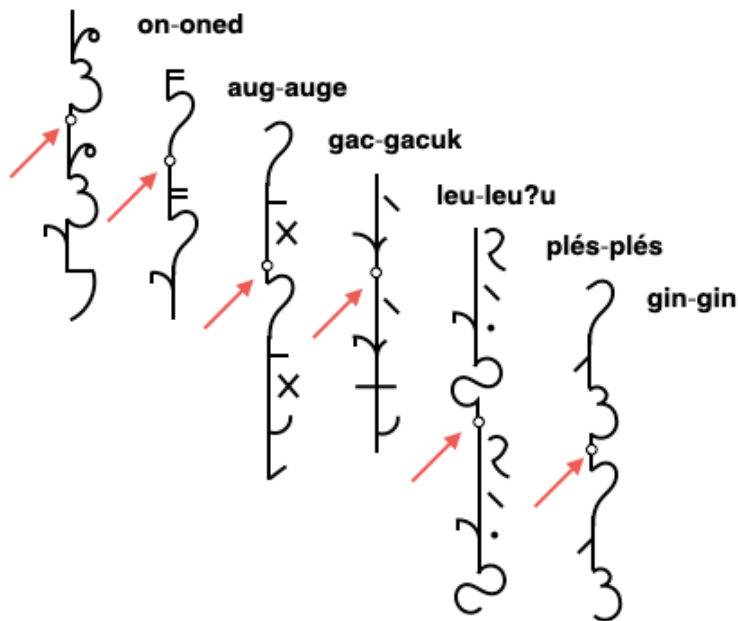
Anyway ... **béu** can express both “collective plurality” and “individual plurality”. It is a richer language because of this. The “collective plurality” is expressed by the word **hal** ... pretty straight forward. However the “individual plurality” is not so easy ...

If the word starts with ...			Duplicate the initial ...		
Vowel + consonant : VC	<b>oned</b>	book	VC	<b>on-oned</b>	every book
V V C	<b>auge</b>	tree	V V C	<b>aug-auge</b>	every tree
C V C	<b>gacuk</b>	door	C V C	<b>gac-gacuk</b>	every door
C V V C	<b>leu?u</b>	sofa	C V V	<b>leu-leu?u</b>	every sofa

The above are the rules for producing individual totality for multi-syllable words. By the way, initial consonant clusters just count as C. For example **klogau** “a pair of shoes” : **klog-klogau** “every pair of shoes”.

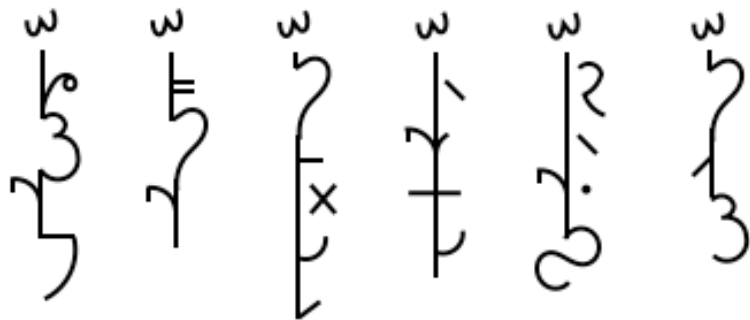
There is divided opinion as to whether the resulting construction is a word or not. On the one hand the three phonological rules mentioned in the first chapter are followed. For example ... **doipe** = “the step” : **doi-doipe** = “every step” pronounced **doiðoipe**, hence it follows the rule that word internally and between vowels, **b**, **d** and **g** turn into the fricatives **v**, **ð** and **ɣ**. This indeed happens so that would point to **doi-doipe** being a single word.

However to produce individual totality for single-syllable words, the single syllable is duplicated in full. For example ... **gin** “pencil” (understood to have low tone as no acute accent over the vowel) : **gin-gin** “every pencil” (actually pronounced as low tone, low tone) : **plés** = underpants : **plés-plés** = “every pair of underpants”. The usual rule is that only single-syllable words have tone. So examples such as **gin-gin** and **plés-plés** would point to them being two-word-constructions. I think the best course is not to worry too much ... **hwoi dau waux** as they say.



No irregularities result from this duplication process. But it should be pointed out that both **tói-tói** and **pum-pume** are used “everyone” / “everybody”. The two forms can be used pretty much interchangeably. Perhaps **tói-tói** is more emphatic.

While the method above is a valid way to write these duplications, the method to the right here, is the most common method. The little “w” hovering around the head of the word, is called **xadda**.



### The least of things

OK ... that was how the most of things was expressed ... either by the particle **hal** or by reduplication. The least of things is expressed by **ín** “any” ...

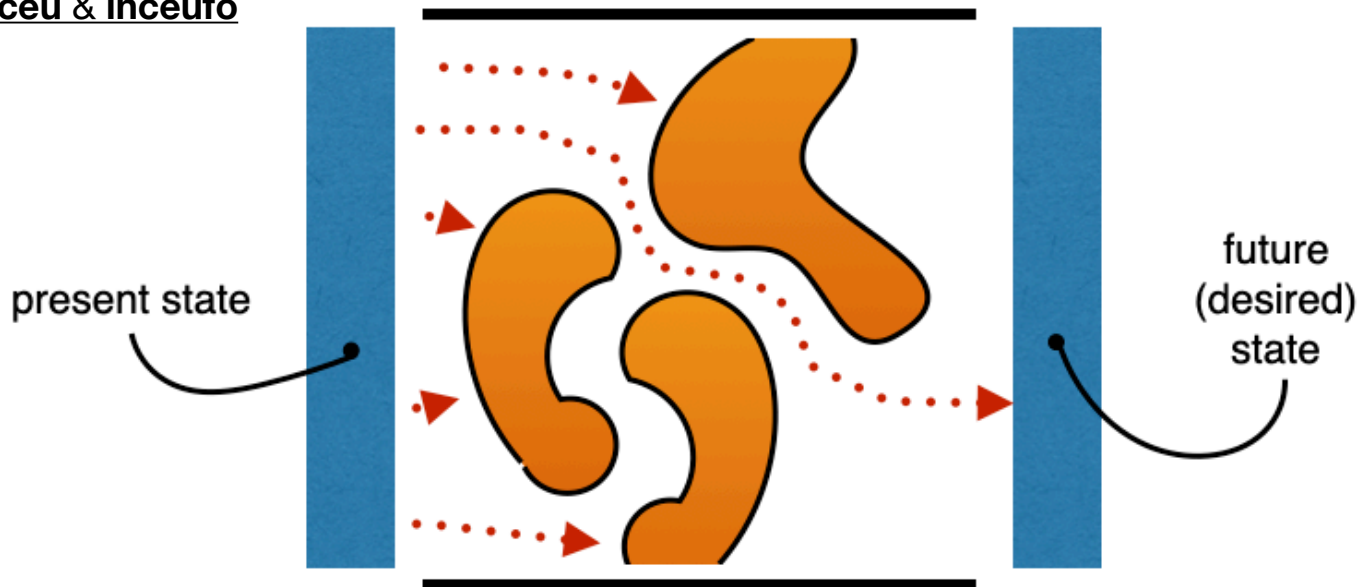
**ín bau** = any man : **ín gla** = any woman : **ín klin** = any child ... etc. etc.

However **ín** by regular adjacency to six elements, has morphed to give us six novel forms ...

<b>inxai</b>	<=	*ín xai	anything
<b>intoi</b>	<=	*ín tói	anyone
<b>ikkyu</b>	<=	*ín kyu	anytime, ever
<b>illau</b>	<=	*ín lau	anywhere
<b>inceu</b>	<=	*ín céu	anyway
<b>iqkai</b>	<=	*ín kái	any type

Notice that **céu** “how” is used instead of **we** “way”. It appears that the QW has become the most “iconic”

## inceu & inceuvo



**inceu** is an interesting particle. It's provenance is shown below ...

**inceu** "anyway" <= **in** + **céu** : **céu** "how" <= **c-wé** : **wé** = "way"/"method"

**inceu** is typically used to wind up a conversation and comes just before the final clause. It means basically that most of the preceding conversation is moot. In the schematic above the orange areas represents the preceding conversation ... all the "if"s and "but"s. The final clause (introduced by **inceu**) is saying "there is a way through". All the preceding "if"s and "but"s are immaterial.

Quoting from my Mac mini dictionary (the "anyway" entry) ...

adverb

**2)** used to end a conversation, to change the subject, or to resume a subject after interruption: *Anyway, Dot, I must go | How she lives with him is beyond me. Anyway, I really like her.*

• used to pass over less significant aspects of an account in order to focus on the most important points: *Poor John always enjoyed a drink. Anyway, he died last year.*

**1)** used to confirm or support a point or idea just mentioned: *I told you, it's all right, and anyway, it was my fault | it's too late now anyway.*

• used in questions to emphasize the speaker's wish to obtain the truth: *What are you doing here, anyway?*

**inceu** covers the same semantic space as the above two entries.

My Mac mini dictionary gives a further definition for "anyway".

**3)** used to indicate that something happened or will happen in spite of something else: *nobody invited Miss Honey to sit down so she sat down anyway.*

This last one does not coincide with **inceu**. Instead the function of (3) would be covered by **wá** "but" or **waye** "however".





When **inceu** introduces a full clause, it usually takes the form **inceuvo** **inceuvo** where **-fo** comes from the **fo** activator (see chapter 45).

The twelve symbols that are used to divide the day into twelve parts also do service to represent **beugan** units.













There is no ambiguity though as when representing a 200 second day segment the symbol is followed by a number.

When representing a unit the symbol proceeds the number.

Below are shown all the twelve day divisions in their roll as units.








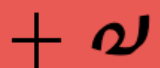


 <b>waulo sasai</b> <div>The 200 seconds up to ten past one in the morning</div>	 <b>sasai sacoi</b> <div>≈ 63 mph</div>
 <b>bwe yaya</b> <div>The 200 seconds after three thirty in the morning</div>	 <b>yaya hwelmoi</b> <div>≈ 16 m/s/s</div>

Notice that some cells are empty ... laziness on my part.

	dimension	unit	value in SI		dimension	unit	value in SI
	speed	<b>sacoi</b>	≈ 1.34 ms <sup>-1</sup>		pressure	<b>cunmoi</b>	
	acceleration	<b>hwelmoi</b>	≈ 0.64 ms <sup>-2</sup>		voltage		
	distance	<b>layoi</b>	≈ 91.2 km		force	<b>dindoi</b>	≈ 0.1 N
	height	<b>goi</b>	≈ 1.96 m		current		
	inductance				resistance		
	capacitance				power	<b>wildoi</b>	≈ 0.73 Watts

The 12 symbols above are not enough for our needs. They are joined by the 9 below. In addition we need symbols for “frequency”, “luminous intensity” and “amount of substance”.

These three emission ... again, laziness on my part.

	volume		energy ≈ 0.67 Joules		weight	≈ 0.16 kg
	area		temperature		length	≈ 5.43 cm
	charge		angle = 2.5°		time	≈ 0.93 s
					one radian	= 57.29 ...°

The first thing you might notice is that there are 3 symbols for length.

Why you might ask. Well **béu** is a rich and fun language. Also the unit used points to the subject under discussion. For example, when one hears **newoi** (5.43 cm) one thinks about furniture and door and windows. Such things as these. When one hears **layoi** one thinks of the distance between cities and large scale geographical features. And when one hears **goi** one's frame of reference shifts to mountain heights, heights of towns/cities above sea-level, building heights ... such things.

**newoi** can be considered the base length. One multiplies by 36 to get **goi**. One multiplies by  $36^4$  to get **layoi**.

The term **newoi** [  $\approx 5.43$  cm ] is derived from **néu** meaning finger. Maybe not the length of a finger ... a bit small for that. However **newoi** can be comfortably demonstrated using one's thumb and index finger. Maybe that is the underlying idea.

The term **layoi** [  $\approx 91.2$  km ] is derived from **layo**, meaning "far"/"distant"  
[ "near"/"close" = **du?ol** : **du?min** = neighbours : distance = **layoq** ]

The term **goi** [  $\approx 1.96$  m ] is a contraction of **tiqqoi** derived from **tiqqi**, meaning "high"/"tall" .  
**tiqqi** has two opposites ... **mubo** meaning "short", and **ubos** meaning "low"/"inferior"/"junior".

Height = **tlqmu** ... a compound of **tiqqi** and **mubo**

Elevation = **tiqub** ... a compound of **tiqqi** and **ubos**

The most fundamental unit of all is **bugoi** [  $\approx 0.16$  kg ]. It is based on the weight of a neutron.  
**newoi** is derived from **bugoi** via the density of water. The term **bugoi** is derived from **bug?at** meaning "heavy" [ "light" = **ga?an** ... "weight" = **bugga?** a compound of **bug?at** and **ga?an** ]

**bugoi** =  $1.675 \times 10^{-27}$  kg  $\times (2 \times 6 \times 36^{16})$

The term **wildoi** [  $\approx 0.73$  Watts ] is derived from **wildo**, meaning "power".

[ By the way ... **wildia** = "powerful" and **wildua** = "powerless"/"feeble"/"week" ... derived in the normal way ]

**kuandoi** = 0.67 Joules [ **kuando** = energy ]

The term **sacoi** [  $\approx 1.34$  ms<sup>-1</sup> ] is derived from **saco** meaning "fast"

[ "slow" = **gade** ] : Speed = **sacoq** ... derived in the normal way.

The term **hwelmoi** [  $\approx 0.64$  ms<sup>-2</sup> ] is derived from **hwelom** meaning "acceleration". By the way ... **hwelmia** = "nippy"/"powerful" and **hwelmua** = "sluggish" ... derived in the normal way.

The unit for time is **tig** [  $\approx 0.93$  s ]. Actually this is also the sign used for a comma. This is appropriate ... comma => pause =>  $\approx 0.93$  s

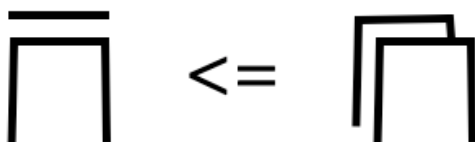
One **tig** = 24 hours divided by  $(12 \times 36 \times 6^3)$ . This symbol is also used for division so maybe there is room for ambiguity. But I guess when it represents division, there will be a number both above and below it (or to the left and to the right of it).

The term **yeloi** [  $\approx 3.84$  m<sup>2</sup> ] is derived from **yel**, meaning "area". **yel** also means "garden".  
**yelli** = "vast"/"spacious" : **yellu** = "small" : **yelya** = "having a garden" : **yelwa** = "garden-less"

The term **woloi** [  $\approx 7.53$  m<sup>3</sup> ] is derived from **wol**, meaning "volume". **wol** also means "room".  
**wolli** = "spacious" : **wollu** = "pokey"

The unit used for engine displacement is ... in all practicalities ... "**wubi woloi**".

My motorbike engine has a displacement of **watoi wubi woloi** [  $\approx 150$  cc ]



The **woloi** has an alternate (slightly simpler) symbol .  
Shown to the left here.

The measurement of temperature is treated quite differently from the other units. For a start we have three symbols. Any temperature below 27.779 °C takes the symbol

Any temperature above 27.779 °C takes the symbol ...

Also the numbers follow these symbols. In a similar way that the time of day is talked about. Actually, any temperature from 27.78 °C to 28.56 °C is called **mái tói** ... first hot (H1)  
 . From 28.56 °C to 29.34 °C is called **mái náun** ... second hot (H2). And so on.

Any temperature from 27.78 °C to 27.00 °C is called **nau tói** ... first cold (C1).  
 From 27.00 °C to 26.21 °C is called **nau náun** ... second cold (C2). And so on.

**mái** literally means “hot”, and **nau** means “cold”. The system is hinged on the two equalities shown here =====>

5  
τ  
0

**mái náun**

The temperature of the human body is exactly at the middle of this range.

W  
0  
0

**nau xéq**

The freezing point of water is exactly at the middle of this range.

That is ... temp. of human body [ 36.777 °C ] is set to H20<sub>6</sub> ...  
 freezing point of water is set to C100<sub>6</sub>.

After we reach C100<sub>6</sub>, the next temperature range is from -0.39 °C to -1.17 °C. This range is called **n-nau tói** ... under cold one (UC1). This goes down to UC 36<sub>10</sub> =====>

The total range of this system is from +55.95 °C down to -28.56 °C ( H100<sub>6</sub> to UC100<sub>6</sub> ). Outside this range a different system is used ... well quite different ... but having some semblance to the +56 °C to -29 °C convention delineated here.

W  
0  
0

**n-nau xéq**

The temp. range from -27.78 °C to -28.56 °C

Note that for H100<sub>6</sub>, C100<sub>6</sub> and UC100<sub>6</sub>, the “one” is usually dropped. That is ... one writes simple ... H00, C00, UC00 .

In the very first chapter it was stated that monosyllabic words, either have a high tone or a low tone. And that multi-syllabic words take the middle tone. There is one exception to this rule, the word for “temperature” ... **mái-nau** .

It is hard to know why this exception came about. Maybe it is a new trend and in the future ... maybe the language will host many words of this type. Or maybe it is the last vestige of a system once widespread. Anyway ... in the here-and-now **mái-nau** is the only word that patterns like this. It seems stable ... here to stay.

The unit of angle is called the **gemat**. It is 2.5 degrees. It has two symbols. Take your pick. One is simple but looks like a “4”. The other is unique but difficult. By the way ... a radian is called **jugemat** .

Ɔ  
7  
3  
E

Usually when deriving a quality noun from an adjective, one appends -q to the positive member of the dipole. For example we have **saco** “fast” : **gade** “slow” ... **sacoq** = speed

However is four cases the quality noun is a compound involving both sides of the dipole ...

1&2) **tiqqi** can either mean “tall” (big distance from top to bottom) or “elevated” (being high up relative to other things). This semantic distinction exists on the negative side of the dipole. **mubo** “short” : **ubos** “low”. **tiqqi** + **mubo** => **tiqmu** = height (distance from head to toe) ... **tiqqi** + **ubos** => **tiqub** = height (elevation)

3) **bug?at** “heavy” + **ga?an** “light” => **bugga?** = weight

4) **mái** “hot” + **nau** “cold” => **mái-nau** “temperature”



<b>soka</b> bark	<b>fos</b> a river	<b>hua</b> a head
<b>sokai</b> rough	<b>fosai</b> moving	<b>huai</b> main, chief
<b>plu</b> stone	<b>hwaq</b> a mountain	<b>fok</b> a post, pillar,
<b>pluai</b> hard	<b>hwaqai</b> stubborn	<b>fokai</b> vertical
<b>pudom</b> bolder	<b>bexak</b> a waterfall	<b>moin</b> a sea
<b>pudmai</b> permanent	<b>bexkai</b> agitated	<b>moinai</b> horizontal
	<b>nag</b> a trunk (elephant)	<b>bau</b> a man
	<b>nagai</b> long	<b>bawa</b> men
	<b>bwo</b> a bull	<b>bawai</b> male, masculine
	<b>bwai</b> brave	<b>gla</b> a woman
	<b>sapu</b> owl	<b>gala</b> women
	<b>sapai</b> wise	<b>galai</b> female, feminine

A number of adjectives are derived from common nouns by the addition of the **-ai** suffix. Some examples of this are shown in the table above.

**-ai** is also commonly used to make adjectives from country names. For example ... **iqgla** = England : **iqglaai** = English { English as in "The English Language" is **lin d-iqgla** ... after the verb **woh**

"speak", **d-iqgla** by itself is enough. For example ... **cáp lé woh d-iqgla** = Do you speak English ? }

Also commonly applied to personal names to make adjectives. For example ... **makse** "Marx as in Karl Marx" : **maksai** = "marxist". All the derived words share a curious property. They are both adjectives AND nouns, but only plural nouns. To make a singular noun, a further **-a** must be suffixed. So ...

"stubborn people" = **pumin hwaqai** ... but easier just to say **hwaqai** ... it means much the same.

"a stubborn person" = **pume hwaqai** but easier just to say **hwaqaia** ... it means much the same.

Note ... in theory the string **aia** could be syllabified, either as **ai-a** or **a-ia** . In practice, it is always the first one. So **hwaqaia** is **hwa-qai-a** rather than **hwa-qa-ia** .

Another peculiarity of these adjectives is they can't take the **-bo -ga -me -min** suffixes. Instead of saying **\*hwaqaibo** you would have to say **hwaqaia bawai** "the male stubborn one" or **bau hwaqai** "the stubborn man".

Note that **bau** man and **gla** woman have irregular plurals. It is these plurals that take the **-ai** suffix.

Noun		Adjective	
<b>aqga</b>	wood	<b>aqqai</b>	wooden
<b>dalma</b>	iron, metal	<b>dalmi</b>	made of iron, metallic
<b>hyolun</b>	gold	<b>hyolnai</b>	golden, made of gold
<b>lohik</b>	silver	<b>lohkai</b>	silver, made of silver

Occasionally **bawaia** and **galaia** are used as terms for gays and lesbians. These are slightly prejudicial terms. Of course no **beume** would use these terms as such. But useful for translating from other cultures/languages into **béu** . **béu** must be rich enough to express every concept thrown at it.

**plu** is a stone that can fit perfectly in the palm of your hand ... perfect for throwing. **pom** is a stone that takes two hands to pick up. By the way "stone" the material is **tax**. **pudom** means bolder and **pinom** means pebble. These word were created (in the past) by the non-productive augmentative infix **-ud-** and diminutive infix **-in-** {see chapter 57}.

**fok** means a post, pillar or column. **so** means a row, a line of stitching, **sosfok** means "table" ... as in the metrication tables you get in science books. {see chapter 46 for an explanation}

**kai** means "round" or "circular". It is thought to be an erosion of **koi.ai** (**koi** = sun). There is an adverb **okai** "around" as in **doikam no okai dah** = He is walking around the house.

**kai** and **kái** “type” are one of the few pairs of common words that differ only by tone. **ye** and **yé** is another such pair. And **goi** and **gói** another. **xa** and **xá**.

Originally **kaia** meant “a circle”. However it also picked up the meaning “a coin”. In fact the latter meaning got so prevalent that people started using **los kai** for “a circle”.  
{**los kai** = shape round} ... nowadays the term **sonxi** is usually used for circle.

Today, I guess, **kai** is a homonym meaning both “round” AND “money”. Also **kaili** means “rich” and **kailu** means “poor”. So **kai** is an important word in **béu**.

Let’s check out the logical consequences of this adjective plus plural noun inhabiting one form.

- 1) **ás no makai** : here **makai** must be an adjective, so it means “he is inclined toward marxism”
- 2) **ás no makaia** : here **makaia** must be a singular noun, so it means “he is a marxist”

Maybe you would say, not much difference. However a little in **béu**. As **makaia** is more “definite” ... a **beume** would assume the **no** in (1) was more hardline, more dedicated to the cause, than the **no** in (2).

3) **ás noi makai** well as **noi** is plural, this is the only choice we have. We have lost our subtle distinction between hardline and not so hardline. We could recast (3) as **ás noi bawa/gala/pumin makai**, this makes the copular complement into a noun, but it doesn’t change the meaning much.

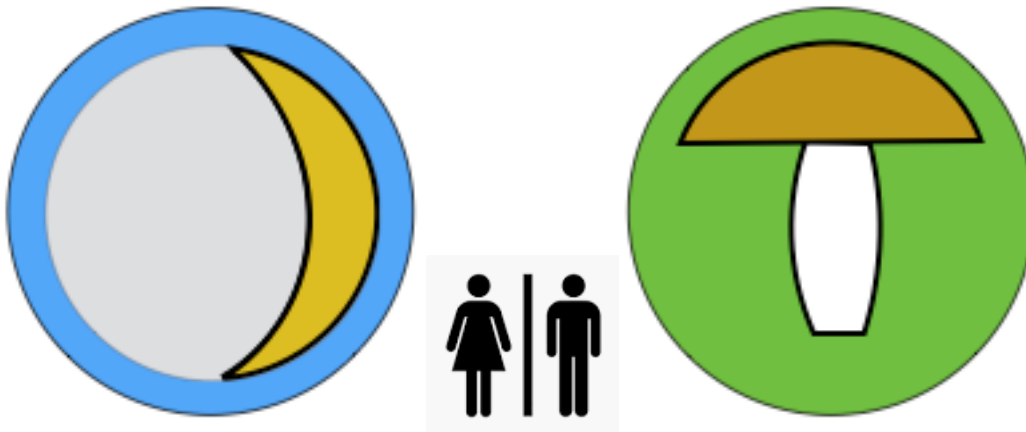
It is believed that the male spirit pervades everything in the Universe.

It is also believed that the female spirit pervades everything in the Universe

In most inanimate things these two spirits are present in equal concentrations.

There are a few exceptions though. The most prominent being the moon. The moon is invested with a lot more female spirit than male.

And {going from the sublime to the ridiculous} for a surfeit of male spirit we have ... toadstools.



We have come across the moon before ... **óm**. A male homosexual is called **omaia**  
Homosexual/gay (adjective) is **omai** and male homosexuality is **omaiq**.

A lesbian is called **hetaia**. Homosexual/gay (adjective) is **hetai** and lesbianism is **hetaiq**  
All the above are just plain technical terms. Totally non-judgmental.

We have already been introduced to the possessive pronouns **wái**, **lái**, **nái** and **qái**.

**dah wái** = my house, **waulo láí** = your dog, **?uxya nái** = his wife

Actually these three words pattern the same way as the other **-ai** adjectives.

**waia jutu** = mine is large {talking about houses}

**ás laia sacco** = yours is fast {talking about dogs}

**naia hau?e** = his is beautiful {talking about wives}

Here is the Periodic Table of the elements according to **beugan** ...

# The Elements

?alenda	oifendi	nehma	Very rare or unobtainable	laigon	pulenda	
qulendus	ofendia	jubama		tuniwa	tulendus	
walenda	aifendi	hau?ma	A liquid at standard temp. and pressure	cunogi	solenda	
yilendus	aufendi	?iamma	A gas at standard temp. and pressure	unjiwa	kolendus	
hwolenda	efendia	be?kama		laitgeb	balenda	
bugma	eufendi	dalma	Precious metal	betawi	jalendus	
qailma	ifendia	kugita	Semi-metal	glowen	gelenda	
yogma	iafendi	kunida		?amben	felendus	
hyolun	lohik	kulsop	Non-metals	Not occurring naturally	dilenda	
iqgil	lilik	tandis	Diatomic when unmixed		xilendus	
etmol	tinik	bontis			hilenda	
kwiden	seqkli	makma	aikma	helum	cilendus	
bisema	kucma	maglum	aiklum	felum	nulenda	
adma	seblum	pwolum	glaitum	kalum	lalendus	
adlum	ilum	hwaulum	lailum	?oiglum	tolum	
hekex	yakex	sakex	nakex	tokex	nalum	
swogon	kelabdi	uafendi	jemma	?oigma	saima	
hwagon	malendus	ufendia	?enma	gefma	yaima	

**kuldis** = brass : **kulkle** = bronze

Four of the above have special forms when used as adjectives

... **dalma** => **dalmal**, **kulsop** => **kulpai**, **lohik** => **lohkai**, **hyolun** => **hyolnai**.

So "a silver spoon" = **taus lohkai**, whereas "a gallium\* spoon" = **kene d-bontis**

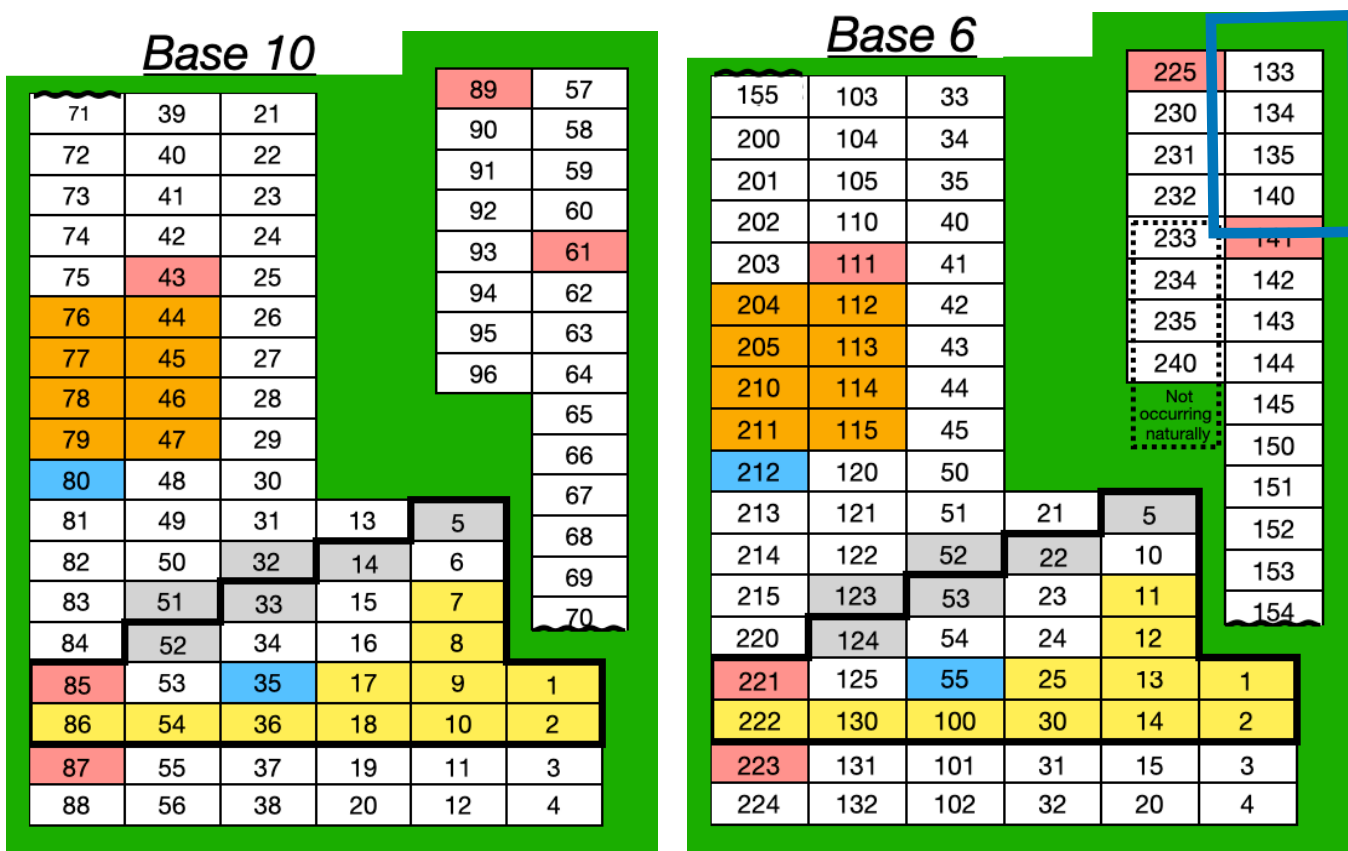
\*Actually gallium spoons are a thing. A fun item as they melt at 29.76 degrees Celsius.

And here is the same table but with the names we are more familiar with ...

## The Elements

The Elements				actinium	lanthanum	
lutetium	yttrium	scandium	Very rare or unobtainable	thorium	cerium	
hafnium	zirconium	titanium	A liquid at standard temp. and pressure	protactinium	praseodym-	
tantallium	niobium	vanadium	A gas at standard temp. and pressure	uranium	neodymium	
tungsten	molybden-	chromium	A gas at standard temp. and pressure	neptunium	promethium	
rhenium	technetium	manganese	Precious metal	plutonium	samarium	
osmium	ruthenium	iron	Semi-metal	americium	europium	
iridium	rhodium	cobalt	Non-metals	curium	gadolinium	
platinum	palladium	nickel	Diatomic when unmixed	Not occurring naturally	terbium	
gold	silver	copper			dysprosium	
mercury	cadmium	zinc	holmium			
thallium	indium	gallium	aluminium		boron	erbium
lead	tin	germanium	silicon		carbon	thulium
bismuth	antimony	arsenic	phosphorous		nitrogen	ytterbium
polonium	tellurium	selenium	sulfur	oxygen		
astatine	iodine	bromine	chlorine	fluorine	hydrogen	
radon	xenon	krypton	argon	neon	helium	
francium	cesium	rubidium	potassium	sodium	lithium	
radium	barium	strontium	calcium	magnesium	beryllium	

Notice that we have only 96 elements listed. **Beume** are a practical lot and don't like useless information clogging up their charts. By useless information, I mean information not needed by an everyday chemist.



The chart above shows the atomic number (the number of protons) of the elements. The chart on the left gives this number in base ten. The one on the right gives this number in base six (the convention used in **béu** world).

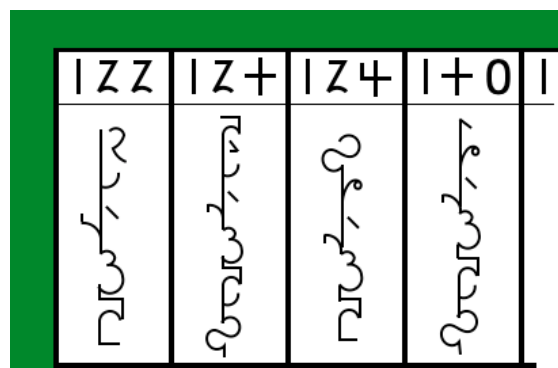
Actually the four charts given so far are not 100% accurate. In **béu** world all the charts are rotated 90 degrees. This is because the **béu** script is orientated vertically. Hence the long dimension of the oblongs must be the up/down direction. A corner of an actual chart (as used in a **béu** chemistry class room) is shown on the right here.

In **béu** world, only atomic number and element name are given. All other information, such as weight, electronegativity, atomic radius etc. etc are given in a 96 page little book which every chemistry student is given. Also the different shapes of orbitals are shown in this book (cf. the end of this chapter).

## Element names

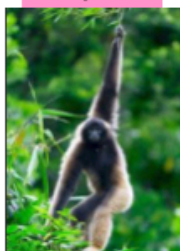
In the Western Chemical Tradition, about 12 elements were known since the olden times and hence have unique names. In recent times, as more elements were discovered, they were all given a unique name also. An alternative system would be to name all the elements systematically ... such as "element one", "element two", etc, etc.

In **béu** world, 56 of the elements have a unique name, and 40 have a systematic name. There are four "systems" used for naming. The first two based on the **béu** alphabet (see next page) ...

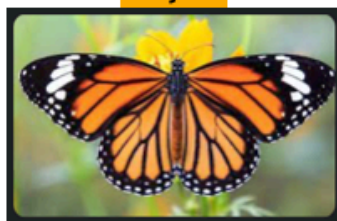




mapuai



bajau



xiau



?aquq



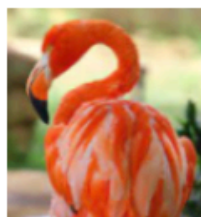
quqwan

puatu



jauge

hiaci



wanyi



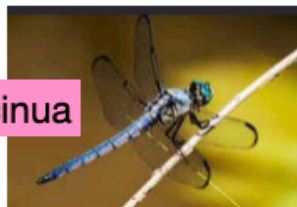
tusoi



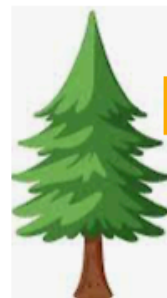
gefeu



cinua



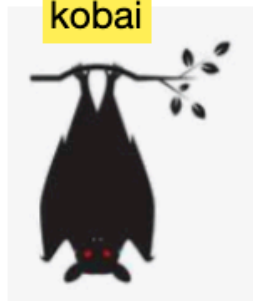
yihwon



soiko



kobai



feudi



dixia

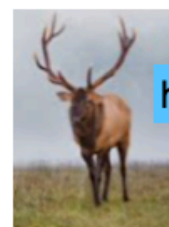
nuala



la?a



hwón



Barium ( $56_{10}$ ) to rhenium ( $75_{10}$ ) are named after the first consonant followed by the first vowels (from the **mapuatu**) followed by **-lendus/lenda** .

Rubidium ( $37_{10}$ ) to palladium ( $46_{10}$ ) are named after the last vowel (from the **mapuatu**) followed by **-fendi/fendia** .

The other two systems are based on the numbers  $1 \Rightarrow 5$ .

The first five elements have names based on the first consonant and first vowel of the numbers  $1 \Rightarrow 5$ , followed by **-lum** or **-ma** . (but actually lithium and beryllium have “**ai**” instead of “**a**” ... maybe something to do with them being metals as opposed to metals).

The noble gases neon, argon, krypton, xenon and radon have names based on the first consonant and first vowel of the numbers  $1 \Rightarrow 5$ , followed by **-kex** .



The chart on the right shows the 40 elements that have been named systematically as pink.

The white and green elements have a unique name. The 20 green elements have provenance. The 36 white elements have none.

**dal** means standard or standard service (also economy, regular, common, ordinary). This adjective is connected to such things as stock voting rights, airline seats, streaming service etc etc.

However, it appears that **dal** is not the origin of **dalma** "iron. Rather **dalma** is the origin of **dal**. -**ma** being a common suffix for metals and **dal** being the common or ubiquitous metal used by **beugan**.

Eleven of the origin words have final letter(s) dropped. One has initial letters dropped, and two have the initial letter of **lum** dropped ... the usual suffix for non-metals.

155	103	33			
200	104	34			
201	105	35			
202	110	40			
203	111	41			
204	112	42			
205	113	43			
210	114	44			
211	115	45			
212	120	50			
213	121	51	21	5	
214	122	52	22	10	
215	123	53	23	11	
220	124	54	24	12	
221	125	55	25	13	1
222	130	100	30	14	2
223	131	101	31	15	3
224	132	102	32	20	4

225	133
230	134
231	135
232	140
233	141
234	142
235	143
240	144
	145
	150
	151
	152
	153
	154

**Base 6**

## Provenance

10 : carbon = **felum** <= ~~feu~~ + **lum** : **feu** = to live

Carbon-based compounds form the basis of all known life on earth.

11 : nitrogen = **kalum** <= ~~noxka~~ + **lum** : **noxka** = air, the atmosphere

Nitrogen make up most of our atmosphere.  
78% by volume.  
75.5% by weight.

12 : oxygen = **hauplum** <= ~~haupi~~ + **lum** : **haupi** = fuel

One could say this element is misnamed (if one was a nitpicker).  
Oxygen is not really the fuel in the combustion process, but the element which "complements" the fuel. But on the other hand ...  
**haupi** is an input to the combustion process ... "**hi**" (see chapter 50).  
It is present in 99.99% instances of combustion (burning).

13 : fluorine = **?oiglum** <= **?oigi-** + **lum** : **?oigi** = fierce, ferocious

**?oigi** because it is the most reactive of all the elements. Blow a stream of fluorine gas at almost anything and it will burst into flame. That includes things not normally thought of as flammable, such as glass and water. Interestingly, the more reactive an element is, the more stable are its compounds.

15 : sodium = **?oigma** <= **?oigi-** + **ma** : **?oigi** = fierce, ferocious

**?oigi** because it is the most explosive of the alkali metals. If you throw it into water, it rapidly generates hydrogen gas, which seconds later ignites with a tremendous bang, throwing burning sodium in all directions.

20 : magnesium = **gefma** <= **gef** + **ma** : **gef** = to leaf  
<= **gefau** + **ma** : **gefau** = frond

Magnesium is the key element in the chlorophyll molecule  $C_{55}H_{70}O_6N_4Mg$ . As the whole point of leaves and fronds is to support chlorophyll molecules ... well you get the idea.

23 : phosphorus = **glaitum** <= **glaitlum** <= **glait** + **lum** : **glait** = to tear

**beugan** has the same incendiary technology as present day WCT. In other words, they have safety matches made from red phosphorus. **glait** originally meant "tear" as in "tear a sheet of paper". However it took on the meaning of "strike" as in "to strike a match". It is thought that a similarity between the sound produced by the two processes occasioned this spread of meaning.

24 : sulfur = **bauhum** <= **bauhlum** <= **bauh** + **lum** : **bauh** = a stink, a smell

Sulfur is smelly stuff. It's smelly as a powder, it's smelly as a solid crystal, and when it's burning you understand why many traditions fill their hell with it. Many sulfur compounds are similarly unpleasant. Chief among them being hydrogen sulfide, the smell of rotten eggs.

31 : potassium = **jemma** <= **jemi** + **ma** : **jemin** = a nerve

Potassium is critical for nerve transmissions; if levels get too low fingers start to freeze in place, and death follows if the deficiency reaches the heart. Potassium is the eighth or ninth most common element by mass (0.2%) in the human body, so that a 60 kg adult contains a total of about 120 g of potassium. The body has about as much potassium as sulfur and chlorine, and only calcium and phosphorus are more abundant.

32 : calcium = **?enma** <= **?en** + **ma** : **?en** = bone

The primary inorganic component of human bone is hydroxyapatite, the dominant bone mineral, having the nominal composition of  $\text{Ca}_{10}(\text{PO}_4)_6(\text{OH})_2$ . But actually calcium has many many functions within the human body.

34 : Titanium = **jubama** <= **juba** + **ma** : **jubau** = strong, sturdy

Titanium and its alloys are often considered among the strongest metals by weight. Titanium has a high strength-to-weight ratio, making it an excellent choice for applications where both strength and low weight are important, such as aerospace engineering, military applications, and sports equipment.

35 : Vanadium = **hau?ma** <= **hau?** + **ma** : **hau?e** = beautiful

The beauty we are talking about here belongs to the colours of various compounds produced from Vanadium. In fact, in WCT, this element was initially called *panchromium* (Greek: πανχρώμιο "all colors").

The name Vanadium was given by Swedish chemist Nils Gabriel Sefström another name for the Norse *Vanir* goddess *Freyja*, whose attributes include beauty and fertility), because of the many beautifully colored **chemical compounds** it produces.

40 : Chromium = **?iamma** <= **?iam** + **ma** : **?iam** = to shine

The shiniest metal is typically considered to be either silver or chromium. Both metals have a high level of reflectivity, which contributes to their shiny appearance. Silver is known for its brilliant luster, while chromium, when polished, can achieve a highly reflective surface.

41 : Manganese = **be?kama** <= **be?ka** + **ma** : **be?ka** = liver

Manganese is an essential human dietary element, important in macronutrient metabolism and bone formation. It is a critical component in dozens of proteins and enzymes. It is found mostly in the bones, but also the liver, kidneys, and brain.

53 : Arsenic = **magma** <= **maga** + **ma** : **maga** = poison

Arsenic is a notoriously toxic metalloid.

At the moment, it is an unsettled question whether arsenic in very low concentrations is an essential nutrient.

54 : Selenium = **pwolum** <= **pwo** + **lum** : **pwo\*** = enough

Selenium is an essential nutrient in small amounts but too much of it is toxic. This is true of quite a few substances, but it's particularly relevant for selenium because people, animals, and plants commonly suffer from both too much of it and from too little, depending on the concentration in the soil where they live.

\* In this case, **pwo** (enough) is actually short for “enough but not too much”.

123 : Antimony = **kucma** <= **kuc** + **ma** : **kuc\*** = one piece of movable type

Adding antimony to lead makes the lead a lot harder. And just the right mixture of lead, tin and antimony has the wonderful property that it expands a little when it solidifies from a molten state. By pouring this alloy into hand-carved master moulds, Johann Gutenberg was able to create crisp, hard, reusable letterforms for printing, a little invention he called movable type.

\*I believe that at one time, this was simply called “a type”. But this usage is extremely rare these days. Usually, the term “movable type” is used, which has a sort of collective meaning. **kuc** = one piece of movable type, **kuac** = many pieces of movable type. There is also a derived verb ... **kuca** = to print or to type

204 : Osmium = **bugma** <= **bug~~at~~** + **ma** : **bug~~at~~** = heavy

The heaviest element, weighing in at 22.59 g/cm<sup>3</sup>.  
For comparison, lead is half this weight at 11.34 g/cm<sup>3</sup>.

The most commonly used metal ( iron ) is 7.87 g/cm<sup>3</sup>.  
The lightest metal ( lithium ) is a mere 0.53 g/cm<sup>3</sup>.

205 : Iridium = **qailma** <= **qail~~os~~** + **ma** : **qailos** = a rainbow

Named after the rainbow because of the striking and diverse colors of its salts. Similar happened in WCT. Smithson Tennant the primary discoverer, named it after the Greek goddess Iris, who personified the rainbow.

215 : Bismuth = **bisema** <= **bise** + **ma** : **bise\*** = stable

This is the very last stable element. From here on up, the elements are touchy to have around and highly regulated, for health and national security reasons.

\* **bise** and the English word “stable” have pretty much the same semantic range.

## Shape of the chart

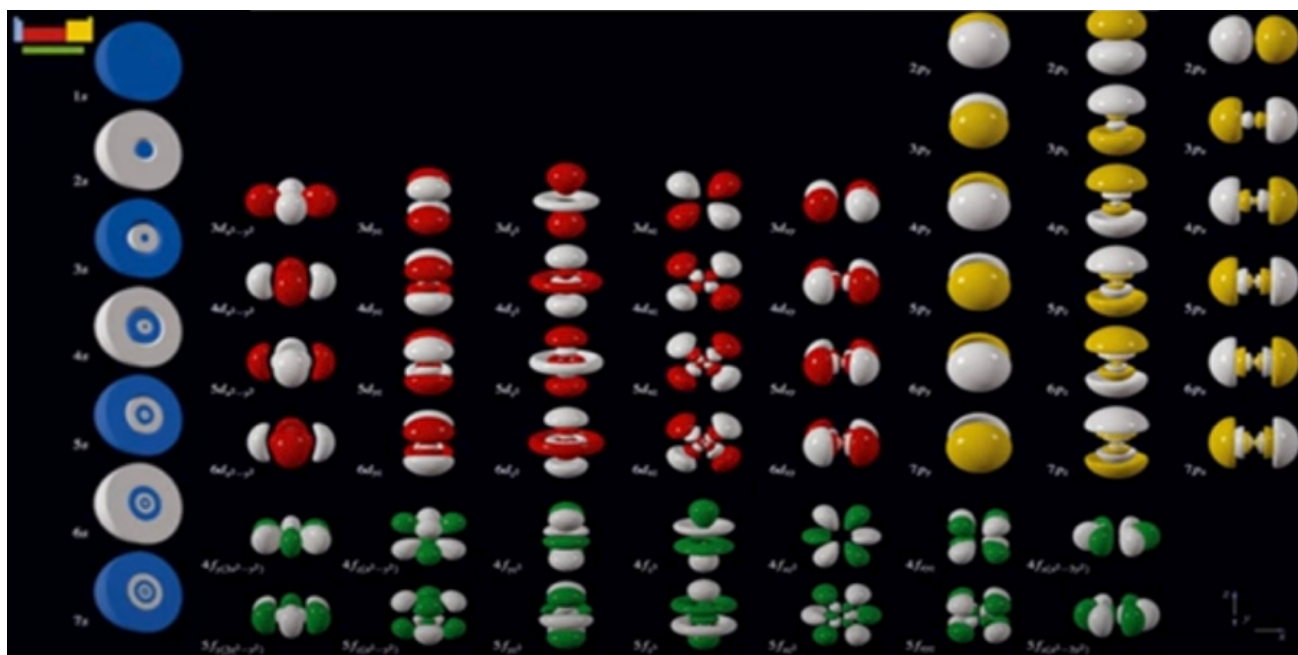
This link gives interesting information about possible Periodic Table forms ...  
<https://www.youtube.com/watch?v=nk--R-IGwvo>.

The **béu** chart is based on the “left step table” ...

It can be seen that there are four blocks. Each block corresponds to an orbital mode/ shape\* of the outermost electron shell. Going from left to right, these are conventionally called the “s” orbital (the 14 element block to the right in the above chart), the “p” orbital (the 36 element block in the above chart), the “d” orbital (the 40 element block in the above chart) and the “f” orbital (the 28 element block in the above chart).

The **béu** chart is a slightly modified left step chart. The “f” block has been detached and floated above. Also H “hydrogen” and He “helium” have been shunted left and down ...

\* Orbital shapes are pretty far out. Check them out below ...



s = blue, p = yellow, d = red, f = green

The basic coordinate system is the same as the WMT (Western Mathematical Tradition) one. However the x-axis (the vertical one) has a special name ... **tiqqan**. And so with the y-axis. The y-axis is called **lebgan**. No need to write these two names down. It is obvious which is which.

<b>tiqqi</b>	high	<b>tiqmu</b>	height
<b>lebau</b>	wide	<b>lebauq</b>	width
<b>dalam</b>	deep	<b>dalmiq</b>	depth

When a third dimension is needed, we can add **dalgan** ... the z-axis. The names of these axes are related to the words in the table above.

Now when we are doing pure mathematics, and the system under investigation has only two variables, inevitably this convention is used => The variable **pauten** ranges over the **lebgan** axis [ in WMT "x" ranges over the x-axis ]  
The variable **saten** ranges over the **tiqqan** axis [ in WMT "y" ranges over the y-axis ]

However, in certain circumstances, other variables can be used. For example, if the situation we are modeling is a stone thrown up into the air, we could use these two variables => Here the variable **teqau** ranges over **tiqqan** and the variable **lembau** ranges over **lebgan** .

**sa** and **pau** are the most commonly used variables. But you would swap them out with **teqau** and **lembau** if you wanted to emphasize that the model you have constructed was representing "distance above the earth" against "distance along the earth". The names of these variables are **teqau** **lembau** and **dendau** ...

<b>teqa</b>	a wing	<b>teqau</b>	a pair of wings
<b>lemba</b>	a horn	<b>lembau</b>	a pair of horns
<b>denda</b>	a fin	<b>dendau</b>	a pair of fins

**dendau** (shown above right) is another variable which can be used when a third special dimension is needed. And here are 3 more variables ...

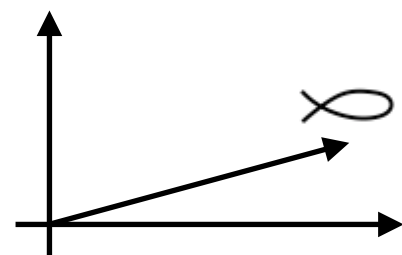
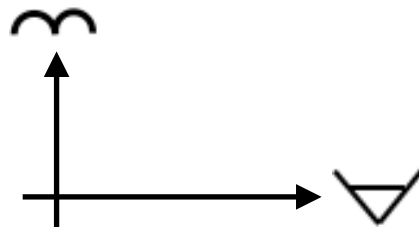
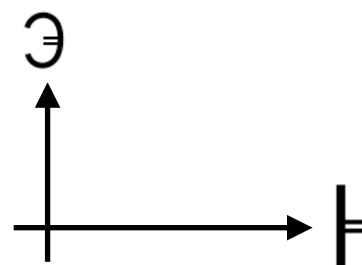
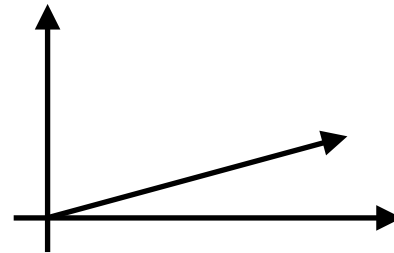
These are usually used if you want to emphasize that you are modeling time, angles and temperature respectively. They are called **tigau** and **gemau** and **jinjau** respectively.

**gemau** <= **gema** "angle"/"corner" ... also **gemat** = 2.5 ° : **tigau** <= **tig**

Sometimes the symbol for a variable is derived from the symbol for the unit. For example



might be used when pressure is a variable. The surrounding circle is iconic ... representing a dial or a knob. Universally used to affect change (or variation if you will).

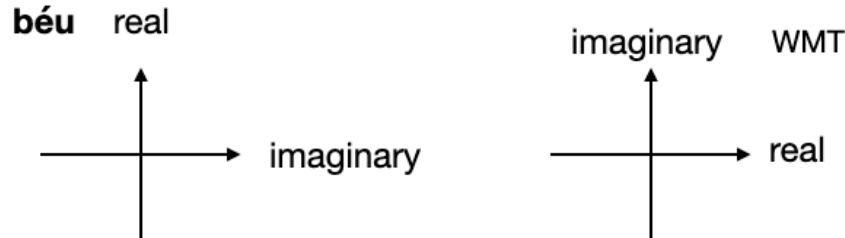




## The Complex Numbers Plane

The complex number plane is just not any old 2-D co-ordinate system. The whole thing is a “field”. Well I am not going to explain what mathematicians mean when they say “field”. But take my word for it ... it is something special.

The **béu** complex number plane is not the same as the WMT (Western Mathematical Tradition) one.



Now some will be asking ... why ? Well ... two reasons ...

a) Firstly ... lets think about basic iconicity.

This is a pile of leaves. As you add to the pile the most noticeable thing that happens is that the pile gets higher.

For this reason we will make our primary axis up and down, with bigger numbers towards the top.

Makes sense ? What say you ?



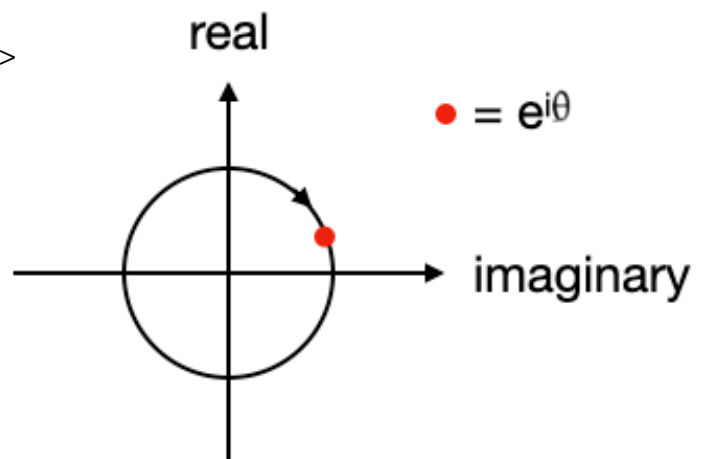
b) Secondly ... consider the arrangement here =>

If you aren't an electrical engineer, it might not mean much to you. If you are an electrical engineer, it means everything to you.

Anyway ... the important thing is that it is going clockwise. In **beugan** (and WMT) the clocks go clockwise. In **beugan** (and the WMT) screws go clockwise when they are digging in (the most salient operation).

Anyway in **beugan** everything whizzes around the same way. I think it would do incalculable damage to the psyche if one lived in a society where things just whizzed around any old way.

In the following pages we will cover trigonometry. Because of precedence set by the complex plane, things will look a little different. But there is no really substantial differences between the trig we will do here and the trig you all know and love.



If you are interested ....

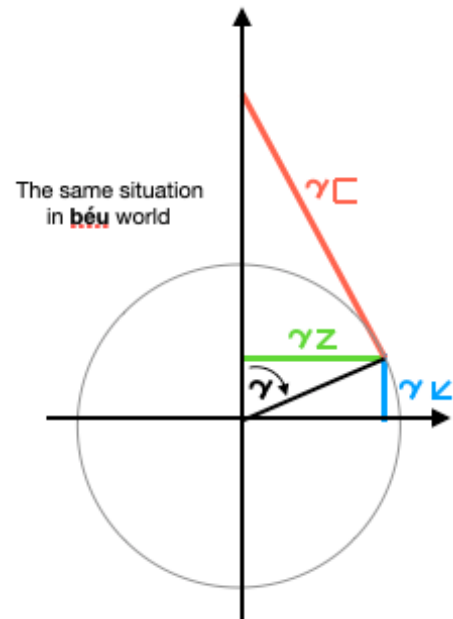
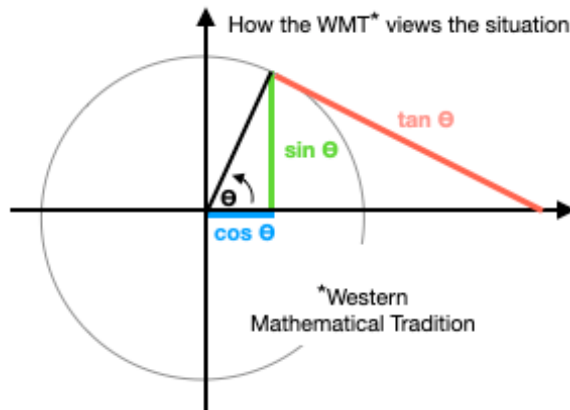
$e$  is just a number ... 2.71828 ...

$i$  is a unit along the imaginary axis  
(imaginary “one” if you will)

theta is just a variable. It usually goes up with time, and as it does you seen the red dot whiz around the unit circle.

## Trig AKA Trigonometry

Here is the basics of trig ... in WMT and in **beugan**.

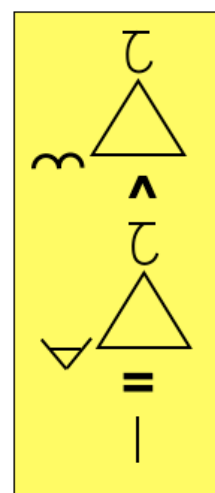
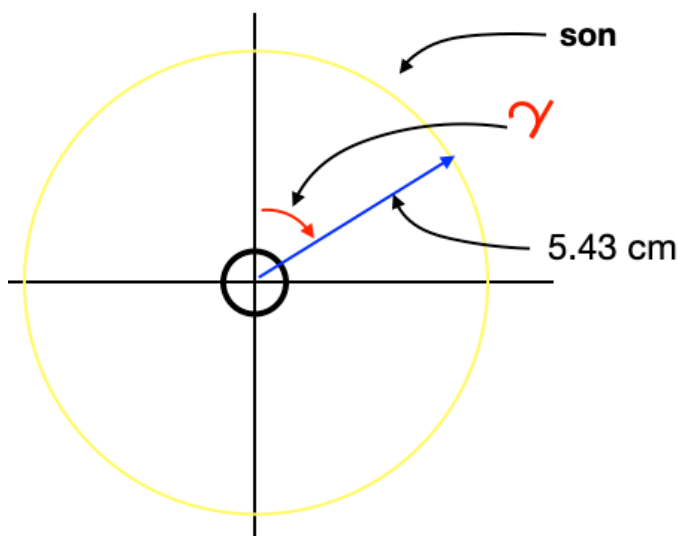


In **beugan** the three primary trig functions have their own cool symbol ...

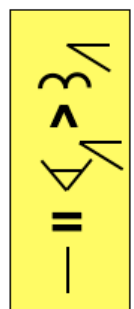
sin					finok
cos					dinos
tan					cukai.a

The hypotenuse is called **gúl**. **gúl** is also the name for the longer hand on the **beugan** clock. [The **beumin** are very fond of their clocks. In fact every **ludau** has a mandatory clock, at the very centre].

Consider the **gúl** in the top right schematic. Only the **gúl** is substantial. If it has substance it has weight. If it has weight it needs support ... hence the **finok** “little pillar” in blue. If it has substance it is opaque. Assuming a the sun (high in the sky ... the midday sun in fact), we get **dinos** “little shadow”. Ostensibly lying along the horizontal axis, but there is nothing to stop us raising it up. Raising it up so it is level with the high end of **gúl**. **cukaia** means something like “the outside one”.

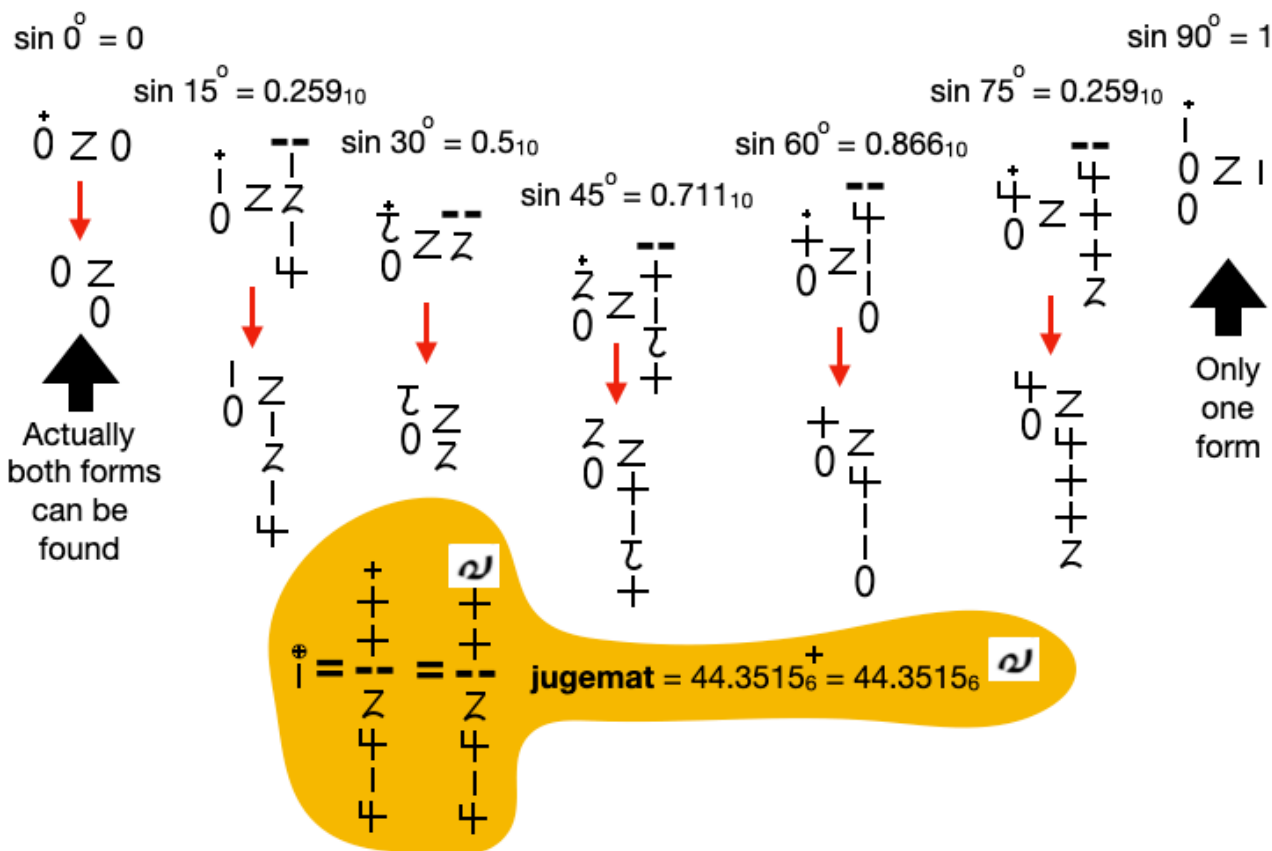


The equation for **son**  
... in 3 different styles  
each  
more  
succinct.



**son** means unit circle ... that is a circle with a radius of 1 **newoi**. **Beumin** look at **son** as “the one true circle”. All other circles are poor knock-offs [ Fun Fact : **sonxi** = circle ].

In **beugan** all trig is done on **son**. Everything trigonometrically valid for **sonxi** is also valid for **son**.



Something that makes the trig functions different from normal functions is that their output, instead of appearing on the RHS of the trig sign, has slid underneath and the decimal point has disappeared. This happened for all sin & cos (except where output = 1) and for tan where output is less than or equal to one.

The above is a sort of sine-table ... but only 7 values. Notice that the little cross denoting degrees can be dropped as only angles appear to the left of the trig signs.

Above, in the orange blob, you can see the sign for radians. It looks like a barred cross. The radian sign can never be dropped.

Below I have written two equations. Both as they appear in WMT and as they appear in **beugan**. Just for a bit of fun ...

$$\sin^2 \alpha + \cos^2 \alpha = 1$$

$$\sin^2 \alpha = 1$$

$$\sin^2 \alpha + \cos^2 \alpha = 1$$

$$\sin(\alpha + \beta) \sin(\alpha - \beta) = \sin^2 \alpha - \sin^2 \beta$$

The suffix **-gan** is interesting. There are two definitions that delineate the use of **-gan** ...

- 1) **x-gan** means every possible instance of X.
- 2) **x-gan** means every possible concept connected to X.

As an example of (1) ... well in the last chapter we were introduced to **tiqqan** “the y-axis”.

And **tiqqan** is every possible instance of **tiqqi**

Notice the phonological erosion ... **tiqqan** <= \***tiqqigan** . Phonological erosion happens in every language, the more frequently a word is used, the more “snappy” its phonological representation should be.

Does **gan** = to care ?

As an example of (2) we have **beugan** . Actually I have been using this term for a while but have never explained its meaning. **beugan** is the entire “culture” associated with the language of **béu**.

**tiqqan lebgan** and **dalgan** represent the three dimensions of space. Derived from **tiqqi** “high”, **lebau** “broad”/“wide” and **dalam** “deep”.

Notice that in **beugan** the concept deep seems to conflate to concepts (in exactly the same way that English and the speakers of English these two concepts). **dalam** when used with rivers, seas and oceans means the it means ... well it means “depth” ... the vertical distance in the down direction.. However it can also mean “horizontal distance in the direction away from the speaker”.

**kyu** means “occasion”. Hence **kyugan** means “time” or “the dimension of time”. Of course, in English, both of these are simply referred to as “time”.

The following three grammatical words are thought to be derived via a **-gan** suffix eroded to **-an**.

**aulan** = since : **kepan** = until : **?ilan** = “as long as” ... it is hypothesized that these are eroded versions of **aule** + **gan** : **kepe** + **gan** : **?íl** + **gan**. With **aule** = “after”, **kepe** = “before” and **?íl** = “if”

**gwehan** = “heritage” is also thought to be derived via a **-gan** suffix eroded to **-an**.  
{**gwéh** = to bequest}

**do** = this side of : **dogan** = surroundings, environment

**jé** = the far side of, beyond : **jegan** = outlandish, “not socially acceptable”

**baina** = between : **baigan** : among

**tau** = number                      **taugan** = mathematics

**peu** = your fellow, your peer, somebody with the same status                      **peugan** = society

While a word in its own right and not a suffix like **-gan**, **peu** appears in some interesting compounds ...

**haumpeu** = classmate : **haum** = a class (as in school), a flock (all grazing animals), a school (all fish that move as a body)                      {by the way **haumu** = classroom}

**hompeu** = a companion : **homa** = bread

**pulpeu** = twins, triplets, etc                      **pulu** = womb

**fapeu** = someone with the same name as you                      **fá** = name of a person (only 432 of these exist)

**muakpeu** = someone born in the same year as you                      **muak** = the 216 day **beugan** year

**liapeu** = a comrade, a fellow traveller : **lia** = goal, objective

**?ospeu** = fellow country man : **?ós** = land, ground, country, soil, terrain, territory

**u-** is a bit like “un-” in English. It can be applied to adjectives, verbs and even nouns, to give the opposite.

**mutu** = important      **umutu** = unimportant

**pojub** = believable      **upojub** = unbelievable

**bé** = to appear, to come into view      **ube** = to disappear

**kunja** = to fold      **ukunja** = to unfold

**laiba** = to cover      **ulaiba** = to uncover

**fuqga** = to fasten, to lock      **ufuqga** = to unfasten, to unlock

**boin** = to assemble, to put together      **uboin** = to take apart, to disassemble

**pauca** = to stop up, to block      **upauca** = to unblock

**sensa** = to weave      **usensa** = to unravel

**fiqka** = to dress      **ufiqka** = to undress

**saba** = The North Pole      **usaba** = The South Pole

**wín** = friend      **uwin** = enemy

There is a form **ulaq** meaning dark, obscure. It is thought to derive from **u** + **laqli** where **laqli** means “bright”. Later the final **-li** was lost.

**je-** is similar to mis- as in mishear, mis-spoke etc.

It could be related to **jebu** “wrong” (the opposite of **toki** “right”/“correct”). It also could be related to the preposition **jé** meaning “the far side of” (the adjective **jegan** means “outlandish”).

**?el** = to hear      **je?el** = to mishear

**woh** = to speak      **jewoh** = to mis-speak

**jub** = to believe, to think      **jejub** = to mistakenly hold a belief

The derived verb retains the dynamic/static status of the original verb. **bu** “do” is the most basic verb. However **jebu** does not mean “to make a mistake”. In fact, it is an adjective meaning “wrong”. The verb meaning to “err”/“to make a mistake” is **jedoi**. Possibly an eroded **jedoik** “mis-walk” or an eroded **jedoipe** “to mis-step”

These two infixes are no longer productive. However you can find evidence of their past productivity all over the place ...

**winau** = puppy : **winau** <= **\*winaulo** : **waulo** = dog

**kinad** = kitten : **kad** = cat

**finan** = foal : **finan** <= **\*finanaf** : **fanaf** = horse

**pume** = a person : **pinume** = a dwarf : **pinumin** = the race of dwarves

**pinom** = a pebble ... a **pinom** is smaller than a **plu**

a **plu** is a stone the perfect size for throwing.

**tinau** = a number (that has a component) smaller than one : **tau** = number

**dóí** = a mountain : **dinoi** = a small mountain, a hill

**tudau** = a number bigger than 35 or 36.

**dudah** = a mansion, a palace : **dah** = house

**pudom** = a bolder (a stone that you wouldn't think to pick up) <= **pom**

**pom** is a stone that you needing two hands to pick up.

**hudun** = officer : **hun** = soldier [Of course, in the bigness isn't literal. It is metaphorical]

**pume** = a person : **pudume** = a giant : **pudumin** = the race of giants

**dóí** = a mountain : **dudoí** = a big mountain

The word for town is **laun**, and the word for small city is **ludau**. It is thought that the former is derived from the latter via the -**ud** infix, although there is no evidence for a form **\*ludaun**.

In English "giant" is used to qualify a species of inordinate size. For example ... "the giant clam". Also "dwarf" is used to qualify a species of inordinate size, but in the down direction. For example ... "dwarf conifer". In **béu** we do not use pudume/pinume to do the equivalent. Instead they use **nagli/winau**. **nagli** is a sort of informal name for an elephant {think "jumbo"} whereas **winau** is "puppy" ... oh, so cute ...

Before the industrial revolution, the biggest animal that the people of Britain had experience of was the big horse breeds {think "clydesdale"}. So horse- was our jumbo-. So that is where "horse radish", "horse chestnut" and "horse fly" come from  
{think jumbo-radish, jumbo-chestnut and jumbo-fly}.

The present day diminutive is **ti-**

**mit** = pig : **timit** = piglet : **timti** = piglets

And the present day augmentative is **ju-**

**dah** = house : **judah** = mansion : **judha** = mansions

The adverbs **juhab** and **tihab** are interesting {introduced in chapter 20}. In our cultural traditions (talking about English speakers here) it is common to think of probability as a percentage. [For some reason, that I find difficult to explain, total probability must be one]. In **béu** the most convenient quantity less than one is **habi** 1/36. So when a clause is prefixed with **juhab** it means "I think there is a big percentage chance that the following will occur". And **tihab** means "I think there is a small percentage chance that the following will occur". By the way, when emphasis is needed, **juhab** is pronounced as **juhabi**. Likewise **tihab** can be pronounced as **tihabi**.

=====

Sometimes one has couplets, the **in/ud** variety having connotations of long-ago/other-worldly.

For example **jubau** is just a big guy, you could meet a **jubau** next time you go to the corner shop. Whereas a **pudume** is the stuff of legends. Similarly for **judah** and **dudah**.



**klian.dah** is a good example of a compound word. Note that the modifier comes before the modified (i.e a **klian.dah** is a type of **dah** ... well sort of). Now why does the word **klian.dah** exist ... surely the phrase **dah d-klian** would serve equally well. Well, concepts that are more “iconic” are more likely to be expressed by one word. Now actually I have trouble explaining what I mean by “iconic” ... obviously frequency has something to do with it. The more often you come across a concept, the more “iconic” it will be. Also ... maybe, something to do with possible likability. The more a concept is likely to appeal to somebody the more iconic it is.

Over and above what I call iconicity, words that fit well phonologically are more likely to be expressed as one word.

Consider what we call “a car seat” [ in German this concept is ein Autositz ]. In **béu** this is **kesi d-laban** (seat of car). Quite a common concept. However, it doesn’t really “enter the heart” . it doesn’t really inspire any emotions. Hence this concept is expressed by a phrase.

Compound words are always written with **tison** between the two components. To the right here ... we have **klian.dah** and **tekan.kogan.deu**. The latter means the World Wide Web (word for word ... world-information-net).

As you see, **tekan.kogan.deu** has two **tison**. First **kogan** modified **deu**, then **tekan** modified **kogan.deu** .

By the way, 99 times out of a hundred, **tekan.kogan.deu** is simply referred to as **kogan.deu** . Only if you wanted to be super disambiguous would you use **tekan.kogan.deu** .

It is not only nouns that can modify. Adjectives can also. For example ... **molya.dah** “The White House” {The American Government}. **molya.dah** is understood to refer to one building in Washington DC. **dah molya** would refer to a building that is specific under particular circumstances **dah molya to** refers to a building that is not specific.

**heq.ban** means “the stock market”. **heq** means “price” and **bán** means “table”.

At one time accurate. At one time **heq.ban** referred to a particular **bán**. Not so, nowadays of course. We also have **ban.heq**. No direct equivalent to this one in English. This refers to the current price of any (liquid) company traded on a stock market.

Many many interesting compound words (quite a number of uninteresting ones as well). No way can they all be listed here.

Maybe we should compare compound words with such words as **xlaspua** that we encountered in chapter 46. **xlaspua** combines two concepts to name a wider concept to which the two components both belong. Both components have equal status. Whereas with **heq.ban** (for example) the initial concept modifies the final concept.

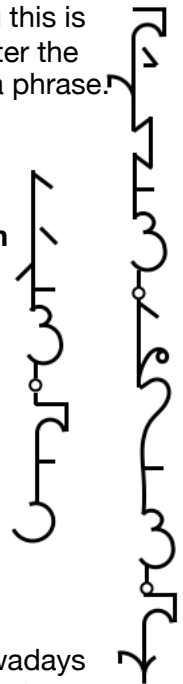
Phonologically (**xlaspua** has an extraneous “s”) and graphically (**heq.ban** is written with an dividing **tison**) **xlaspua** and **heqban** can be seen to be the result of two completely different processes. This is reflected in their names ... **xlaspua** is called a **dwandwa** **heq.ban** is called a **boisancabe** .

In chapter 2 we saw three situations in which the **tison** is used (that little loop). To join the **glia** to a word, to join the suffix “n” to a word and to join the activators **ú á i é o oi** to verb. Then in chapter 24 we saw how **tison** was used to give the aspect particles **mwo mo ke kwe múai he ho twi** an infinitive meaning.

In chapter 51 we saw how **tison** is used in the duplication process.

And finally in this chapter we see how **tison** is used in compound words. So we have covered the six functions of **tison** within the **béu** writing system.

Actually there is one more uses for this little symbol, to show “pregnant pauses”. In this usages **tison** doesn’t join up with any any consonants or vowels but appears in isolation.



In this chapter we are going to take a step back and ponder how many clause types **béu** has. We will try and bring some order to what we have learnt so far.

But first off I should say I don't like the how "clause" is commonly defined. According to wikipedia there are (1) independent clauses and (2) dependent clauses. I really wish the term "clause" had been restricted to (1). Allowing in (2) allows "to go" in the expression "I want to go" to be called a clause. I really think another term would be more appropriate ... perhaps "block" or "construction". Anyway, when I use the term clause I will be talking about an independent clause. Even better ... let's borrow the word from English and redefine it ... **klause** **klauze** .

Let's introduce some more linguistic terms ... **cabe** "word", **cabu** = "verb",  
**cabu hía** "red verb" (corresponding to what RMW Dixon would call a Primary-A verb)  
**cabu nelau** "blue verb" (corresponding to what RMW Dixon would call a Secondary verb) ✕

### Pattern 1

- a) ... **ú-cum** **xíau** **baha** = The elephant ate breakfast
- b) ... **i-tía** **pa** **jono** = I saw John
- c) ... **án** **pa** **laban yeni**

As simple as it gets ... VSO

### Pattern 2

- d) ... **i-cúb** **no** **piga** **mali** = He tried to hit Mary
- e) ... **án** **xíau** **cum** **baha** = The elephant wants to eat breakfast

OK ... a step up in complexity. We have added another concept. Another concept in the form of a main verb (by the way, I give verbs that have other verbs within their scope a different colour).

### Pattern 3

- f) ... **i-cuai** **pa** **jene** **x-tolai** **laban** = I helped Jane fix her car

OK ... maybe as complicated as it gets. Notice the **glia x-**. Maybe not strictly necessary, but why not. It involves hardly any effort. It is like a traffic sign ... both phonological and graphical ... that imposes order. **x-** is always the traffic sign used with **cuai** . **I-** and **s-** are also used for the same function. For example ...

- g) ... **i-ogtai** **pa** **jene** **I-cum** **tapuah** = I caused Jane to eat the apple
- h) ... **i-woisai** **pa** **jene** **s-cum** **tapuah** = I dissuaded Jane from eating the apple

The idea behind the different traffic signals is ... well in (f), maybe Jane could have fixed the car on her own. So maybe the **cuai** isn't pertinent to the **tolai** , hence the **x-**. In (g) the eating would not have happened with out the causing, so the **ogtai** made the **cum** happen, hence the **I-** . In (h) the **woisai** made the **cum** not happen, hence the **s-** .

With some verbs the traffic signal can vary, resulting in a change of meaning. For example ...

- i) ... **i-huse** **pa** **mali** **I-go** **dalat** = I encouraged Mary to go shopping

The above would be taken to mean that Mary actually did go shopping. Whereas if you changed **I-** with **x-** it would imply, either "it is unknown whether Mary went shopping" or "Mary did not go shopping".

✕ Actually it is common to talk about a third type of verb ...

**cabu helau** "purple verb" (corresponding to Primary-B verb)

This type of verb, can, on some occasions be "red" ... and on some occasions "blue".

j) ... **i-kumat pa waulo s-caim kecbo** = I hindered the dog from biting the postman

The above would be taken to mean that the dog did not bite the postman. Whereas if you changed **s-** with **x-** it would imply, either “it is unknown whether the dog bit the postman” or “the dog managed to bite the postman.”

#### Pattern 4]

k) ... **án pa < cum xíau baha >** = I wants the elephant to eat breakfast

As we see **ni** “to want” can partake in 3 different patterns ... [ P1 P2 P4 ]. But this is very unusual.

l) ... **i-tía pa < piga jono mali >** = I saw John hitting Mary OR I saw John hit Mary

Ans we can see **tía** “to see” can partake in 2 different patterns ... [ P1 P4 ].

m) ... **í-lúk jene < go pa dah >** = Jane asked if I could go home

With pattern 4 we can see that a hertogo block is a constituent part.

Looking back at pattern 3 & 2, we can see that a togo block is a constituent part of these.

Now if you remember back to the chapter on blocks, the first three blocks are **klause** in their own right. The last three are not, they are something less. You may ask “what about wheretogo blocks ? where do they all fit in ?” Well I consider the wheretogo block to just be a reduced x-block . In **béu** (and English) I can find no expressions containing a wheretogo block that can’t be very easily upgraded to an x-block. For example ...

n) ... **á-ko pa \* c-lau go \*** = I know where to go

=> **á-ko pa x áx pa go c-lau x** = I know where I should go

o) ... **át xaukat pa \* c-lau go \*** = I have decided where to go

=> **át xaukat pa x c-lau ú-go pa x** = I have decided where I will go

For this reason I don’t find them that interesting. They are not really “basic”.

And actually an x-block is functionally equivalent to any subject, object or oblique argument (except after the verb **qen** ... the x block genesis point). So I don’t them very interesting, when it comes to identifying different **klause** types.

And there is not much difference between a statement block and a question block. They are both **klause** in themselves. They are generally introduced by different **cabu nelau**. With question blocks being a bit rarer than statement blocks. But nothing that interesting. I don’t think considering blocks will help us further in identifying **klause** types.

#### Pattern 5]

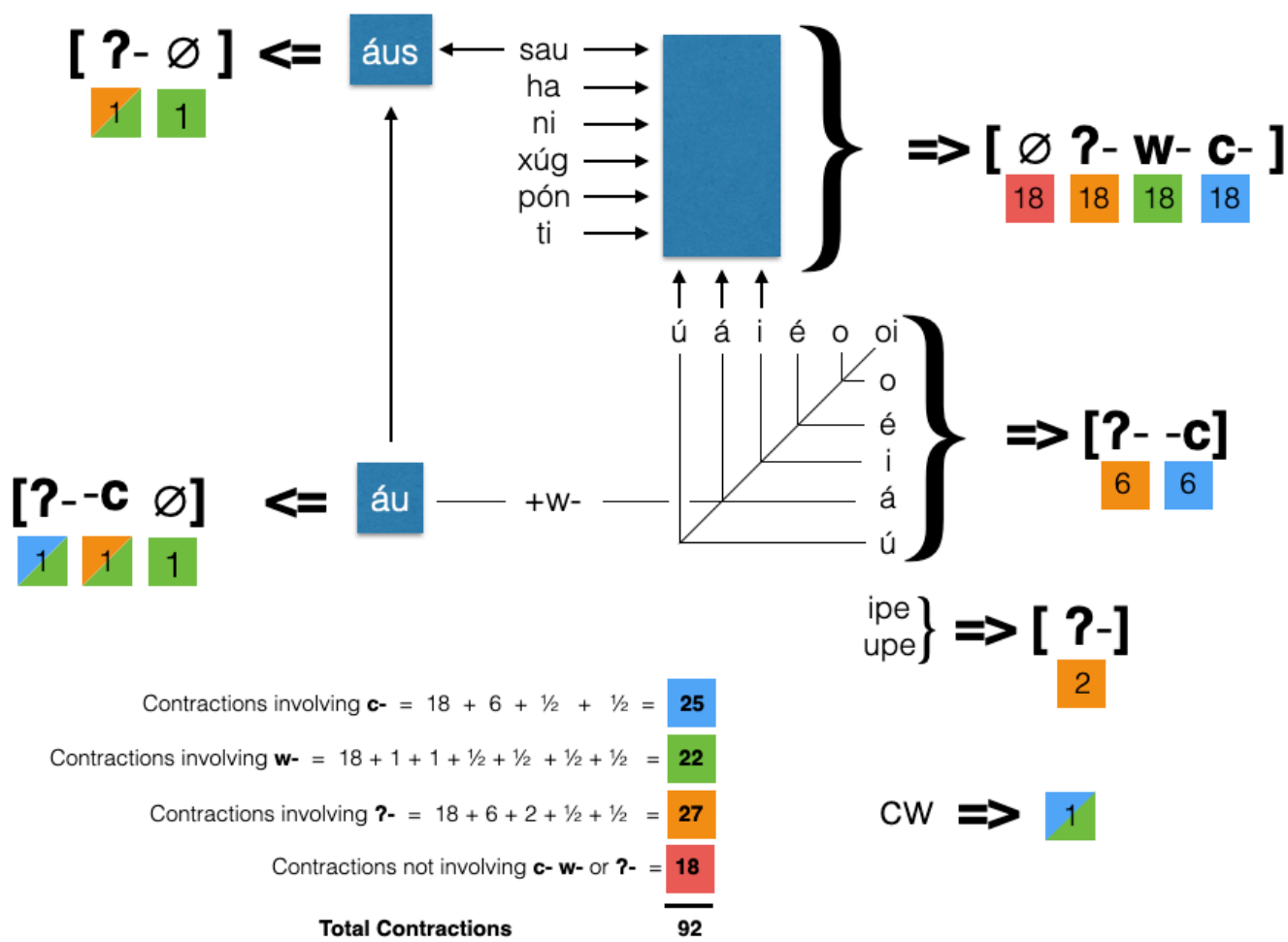
p) ... **ás no hau?e** = She is beautiful

I guess there is one more **klause**, the copula clause. Not only introduced by **sau** “to be” but also **tusau** “to become”, **na?a** “to grow” and one or two other verbs.

So there it is. I am claiming that every **klause** pattern in one of five ways. Perhaps many exceptions ... but I guess the above claim holds. The vast majority of clauses can be identified as belonging to one of the above 5 patterns.

Note on terminology ... Any of these **klause** can be made into an **tandiauklause** (extended clause) easily ... for example (o) can be extended to

**á-ko jene át xaukat pa \* c-lau go \*** = Jane knows (that) I have decided where to go .



The above schematic attempts to explain the 92 non-pronoun contractions.

Most of these contractions involve the B6. For example ... the blue box contains { **ús úh ún úx úp út ás áh án áx áp át is ih in ix ip it** }. And these contractions can be further combined with **?-** to produce { **?ús ?úh ?ún ...** }. And with **w-** to produce { **wús wúh wún ...** }. And with **c-** to produce { **cús cúh cún ...** }.

Note ... terms such as { **cwús cúwh cwún ...** } are not allowed. You have to say { **c-wús c-wúh c-wún ...** }. However the string **cw** is encountered in the negative question of the present tense dynamic verb ... **cw-go lé dah tigdi** = "Are you not going home now ?"

You are not allowed to fuse **c-** to **ipe** and **upe**. For example ... **c-ipe dese** (female name) **go dah** = "Has daisy just gone home ?" Similarly with **w-** ... **upe w-go pa lodau** = "I am not just about to go to work"

With non-B6 verbs **?-** and **-c** fuse with the activators. **?-** to the LHS and **-c** to the RHS.

**dwelga ?i cum nopsi wái** = The old woman who ate my lunch  
**ic góí dwelbo kyes náí** = Did that old man forget his keys ?

But to add negation to the above two examples, no contraction is allowed.

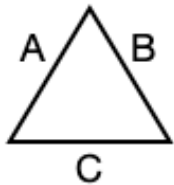
**dwelga ?i w-cum nopsi wái** = The old woman who did not eat my lunch  
**ic w-góí dwelbo kyes náí** = Did that old man not forget his keys ?

**-w** only fuses with the static verb present tense activator **á**, producing the form **áu** {in turn fusing to give the forms **áuc ?áu**}. And **áu-** only fuses to **sau** becoming **áus** {in turn fusing to give the form **?áus**}.

Note ... the present tense negative copula can be represented by either ... **wás** or **áus** . If we wish to make a relative clause, the form **?áus** is preferred [ **?-wás** would sound a bit strange ]. If we wish to make a question, **c-wás** is the term to be used ... **\*cáus** is not allowed.

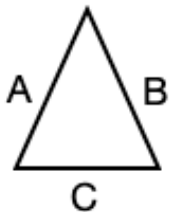
Appendix A	2-D Shapes
Appendix B	yawai
Appendix C	legu
Appendix D	taugan odds and ends
Appendix E	Chemical Compounds
Appendix F	Printing Conventions

## Appendix A : 2-D Shapes



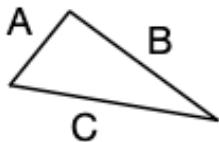
$$A = B = C$$

**saya** *equilateral triangle*



$$A = B \neq C$$

**sayal** *isosceles triangle*



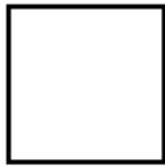
$$A \neq B \neq C$$

**sayaf**

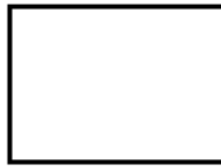


**sayan**

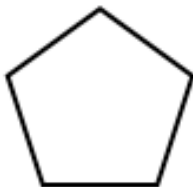
And here we have the main man, the right angle triangle.  
All the triangles above can be deconstructed into two **sayan**.



**hewa**  
*a square*

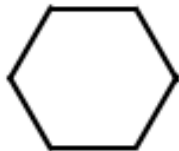


**hewal**  
*a rectangle*



**yawa**  
*a pentagon*

And going up, the **waqwa**  
pattern is followed ...



**waqwa**  
*a hexagon*

**watowa** = regular 7 side  
**wanowa** = regular 8 side  
**wasaiwa** = regular 9 side  
etc.

## Appendix B : yawai

Every **mwaka** “solar year” hosts five festivals (the plural/collective name is **yawai** . A single festival is called **yawaia**. These festivals are ...

1) **teqkli** ... This festival is all about music. People gather at various regional centers to compete and spectate in various music and poetry competitions. “sky lanterns” are usually released on the last day of this festival. If the wind is still. On the first two days of the festival, what is called a “fire walk” is performed.

2) **plaisu** ... This festival is all about outdoor competitions and sporting events. It is a little like a cross between the Olympics games and the highland games. People gather at various regional centers to compete and spectate in various team and individual competitions. However care is taken that no regional centre becomes too popular and people are discouraged from competing at centers other than their local one. On the first two days of the festival a “fire walk” is performed.

3) **a?aul** ... The most anticipated festival of the year. Whereas **febial** is focused on absent friends and **hyo?og** is focused on absent family, this one is centered on the friends and family you live amongst. And even though eating and drinking are involved in many of the five festivals, by far the most effort is put into preparing food for this one.

4) **hyo?og** ... Family that live some distance away are given special consideration. Often journeys are undertaken for family visits and “ashboxes” are visited if convenient. This is the second most important festival of the year. People often take extra time off work to travel, or to entertain guests. Fireworks are let off for a 2 hour period on the last night of the festival. This is one of the few occasions where fireworks are allowed.



5) **febia** ... It is usual to get together with old friends around this time and many parties are held. Friends that live some distance away are given special consideration. Often journeys are undertaken to meet up with old acquaintances. Also there is a big exchange of letters at this time. The most important happenings of the last year are stated in these letters along with hopes and plans for the coming year. On the first two days of the festival a "fire walk" is performed. If the "sky lanterns" were not released on **teqkli**, because of weather ... they are released on the last day of **febia**.

### The timing of the five festivals

Well the **mwaka** always start on the day after the longest. This means that roughly three quarters of **mwaka** have 365 days and one quarter have 366 days.

However since **mwaka** is mainly used in connection with the festivals it is not of vital importance. The authorities issue the calendar for the coming year well in advance and all are happy with that.

The authorities determine when the festivals should be held by following two rules ...

a) The closing day of each festival is 73 days apart. The opening day is not really celebrated.

b) The closing day of **a?aul** and **hyo?og** must be held on the full moon. There must be four full moons between these two closing ceremonies (so about 5 months between the two days).

So the authorities have a bit of leeway as to when these parties are held. Actually the festival calendar is region specific. It is not universal (worldwide). The main consideration is that **plaisu** should not fall on a season that is too cold or too hot.

Actually the festivals share their name with the planets ...

**teqkli** "Venus" : **plaisu** "Mars" : **a?aul** "Saturn" : **hyo?og** "Jupiter" : **febia** "Mercury".

If you wanted to specify that you are talking about planets you could say ...

**ye teqkli** : **ye plaisu** : **ye a?aul** : **ye hyo?og** : **ye febia** ... yes, there is no distinction between "planet" and "star" in **béu**. But the phrase **ye tekanxi** does for "planet".

If you wanted to specify that you are talking about festivals, you could say **yawaia teqkli**, **yawaia plaisu**, **yawaia a?aul** etc. etc. but this is hardly ever heard.

Usually just **teqkli plaisu a?aul hyo?og febia** suffice.

### The Fire Walk

This is to promote social solidarity. Each locality comprising up to 400 people build a fire in some open ground. These people are divided into 2 sections. One section to walk and one section to receive walkers. The walkers are further divided into groups. Each group is assigned another fire to visit and they set off in single file. Each of them carries a torch (a brand) ignited from the home fire. Upon arriving at the fire that they have been assigned (involving a walk of, maybe, 5 or 6 miles) they throw their brand into the fire as their hosts sing the "fire song". After that the visitors are offered much drinks and snacks by their hosts. There is considerable competition between the various localities to be the most generous host. The routes that people must go have been chosen previously by a central committee, but the destination is only revealed to the walkers just before they set out. On the second day the same thing happens but the two sections, the walkers and the receivers of the walkers, swap over rolls.



### Ashboxes

The ashboxes contain the ashes of the dead. These are usually contains in the **yel d-laqit** or the “sky garden”.

### **yawa wú**

Below are examples of **yawa wú**. One of these (a few meters across) is usually tethered near the fires used in the fire walk. They are usually flown about 100 or 150 meters up (weather permitting of course).



## Appendix C : legu

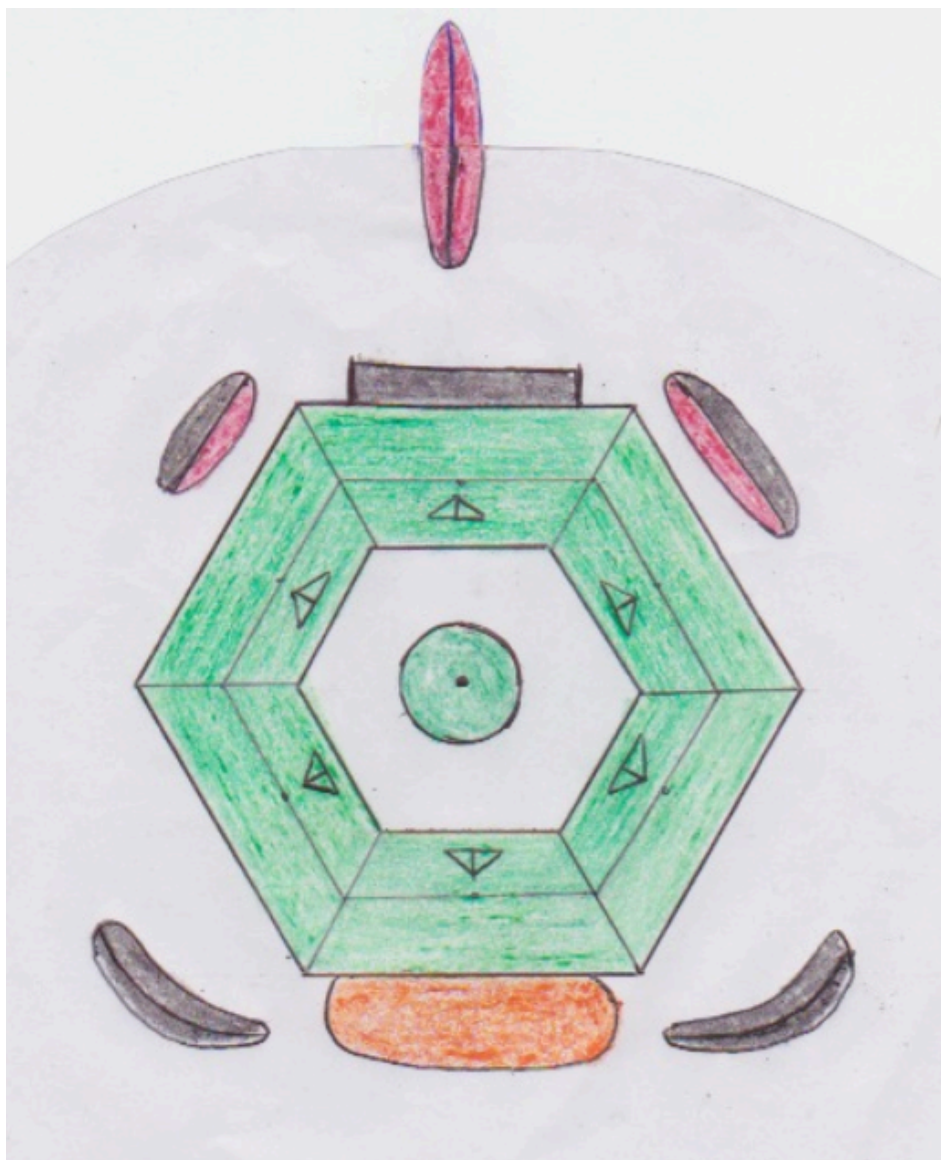
Below is shown the plan of the parish hall. This is the administrative centre of the parish.

The parish hall is called **legu**. The red shape at the top of the plan is the water-fountain. It must have a red tiled roof. It is to provide clean drinking water to passers-by and also a sheltered place to rest. It can take a variety of forms. Some are made very fancy and have a small "hanging garden" along their centre surrounded with pools filled with carp. There must be fresh water flowing, either continuous or on demand.

There is often a tree lined avenue leading up to the front entrance of the **legu**. In hot countries the trees are usually some sort of shade tree. In colder countries, trees with a well defined, uniform shape are favored ... like poplars.

Usually 2 or 3 other types of tree are planted around the **legu** (maybe 5 or 6 trees in all). This makes every **legu** unique.

The black rectangle indicates the main entrance.



The whole complex provides the following services ...

- 1) A clock tower
- 2) Public toilets
- 3) A post office
- 4) Lost and found office
- 5) A library
- 6) Archives for public records
- 7) A place for the parish council to meet
- 8) Offices for the parish council members



You will notice to "huts" with half their roof red and half black. These are the "poster huts". These are sheltered billboards for posting important information. The red side is for official notices (that is for what the parish officers or the central government think should be posted). On the black side the general public can post whatever it wants. New notices are posted on the small "poster hut". After 9 days they are transferred to the larger "poster huts". In **béu** the adjective **hía** "red" can be used to refer to something pertaining to the government, and the adjective **molya** "black" to refer to something non-government.

The orange part of the **legu** is a stage, or actually the roof over the stage. And the area in front of this stage is a fairly large green where people gather to see the various shows that are put on. There are various consorts put on by the parish members at regular times every year. Also occasionally you get wondering groups of "players" who put on a show.



Above is how the **legu** looks from street level (the "hut" to the left is the "water hut"). The entrance has about 1.3 m of steps to climb. There are three arches at every entrance. The central one being slightly higher than the other two. (I have probably drawn the building too high in the street level view).

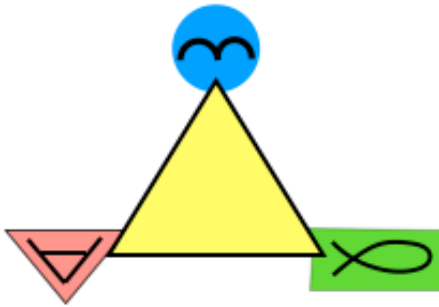
Usually tall stain glass windows on 4 sides of the **legu**. There is always at least 2 stories within the main part of the building, sometimes more. Also usually there is a separate storey in the roof (the triangular shapes seen on the plan view, are actually windows in the roof to provide light to this storey. These windows look onto the central courtyard.)

The centre of the **legu** has a pleasant garden. In the very centre is the base of the "clock tower".

The 2 kidney shaped building are public toilets. The one on the right for the use of men, the one on the left for the use of women.

Tables and chair for setting out for the various concerts are also kept in these buildings. These toilets are kept meticulously clean. In fact every parishioner must do a certain amount of duty at the toilets every year ... keeping them clean. No fit adult is exempt from this duty.

## Appendix D : taugan odds and ends



The symbol on the left is considered a mystic sign ... sacred symbol. It represents eternal truths ... absolute non-disputable eternal truths. The above sign is called **saigan** and brings to mind the beauty contained in these eternal truths. By extension, the **saigan** represents “the scientific method” the way that people have come to agree on the above mentioned eternal truths.

In **beugan** mathematics is taught to everyone up to quite a high level. With a lot of attention given to what is considered beautiful. Certain similarities to the pythagorean brotherhood of Ancient Greece can be observed.

With an injunction to optimize wherever possible, it is no wonder that calculus is highly esteemed. Here are some **béu** calculus notation ...

$$dx/dy \quad \circ \quad \text{saïp tig paupe}$$

The term on top of the **tig**, is not a product. It is a single element meaning the smallest part of “x” imaginable (pronounced **sape**).

$$\int_{\circ}^{\infty} f(x) dx \quad \circ \quad \text{saïp tig paupe}$$

And the term below the **tig**, is a single element meaning the smallest part of “y” imaginable (pronounced **paupe**).

$$\text{or given that } y=f(x) \dots \Rightarrow \int_{\circ}^{\infty} f(x) dx \quad \circ \quad \text{saïp tig paupe}$$

But enough about calculus.

Just one little thing to add here. In the WMT  $f'(x)$  is the inverse of  $f(x)$ . **béu** sort of uses positional notation to express inverse functions.

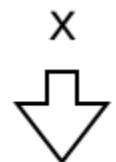
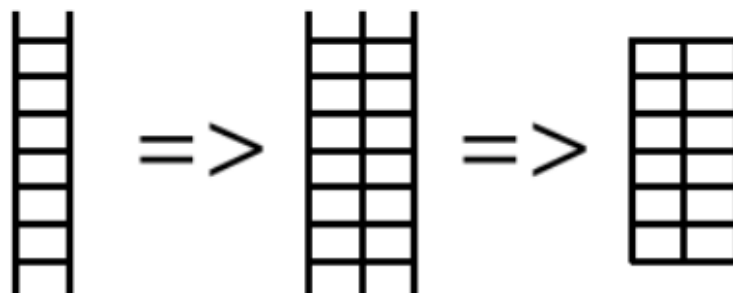
$$f(x) \quad \circ \quad \text{saïp tig paupe} \quad f'(x) \quad \circ \quad \text{saïp tig paupe}$$

A polynomial is a **tau d-jog45**

... a number of **jopiau** . Now **jopiau** is derived from **jopia** “ladder”.

The affix is actually **-au** not **-u** . So a “double ladder” not “a place to go up”.

The meaning of **jopiau** is not something extent in nature as most dual forms are. It is something purely abstract.



3	5
0	4
-2	3
6	2
1	1

**jopiau** can mean “index”, “table of contents”, “look up table” or even “list”.

A polynomial, like  $3x^5 - 2x^3 + 6x^2 + x$  can be thought of as something like  $\Rightarrow$

## Appendix E : Chemical Compounds

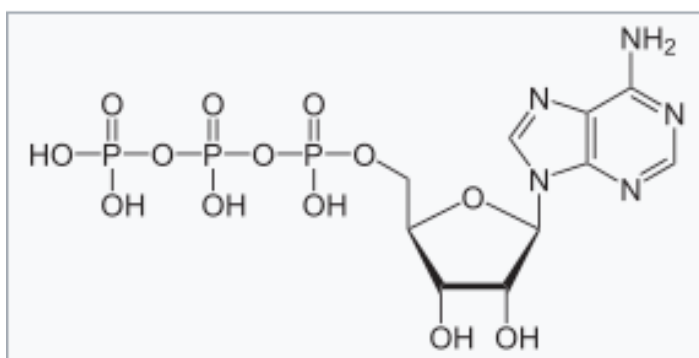
The 13 capitalized segments shown in the table here are what are used to build up names of compounds. I am breaking my habit of never capitalizing any **béu** words. However these are not actual words ... they never appear by themselves.

Of course there is no capitalization in the **béu** script. Just a special usage for this appendix.

The number in the first column is atomic number (in base six).

Let's take a difficult example to get right into the chemical naming system naming system.

Let's consider ATP or Adenosine Triphosphate  
[https://en.wikipedia.org/wiki/Adenosine\\_triphosphate](https://en.wikipedia.org/wiki/Adenosine_triphosphate)



Counting the elements above, we find 10 Carbons, 16 Hydrogens, 5 Nitrogens, 10 Oxygens and 3 Phosphorus. The first thing we do is find out how many hydroxyls (OH) we have.

I count five. So recounting, considering OH as a separate entity, we get the table to the right.

The first rule for giving this compound a name, is ... list the rarest element first (rarest in the molecule, that is).

Doing this we get the table below ...

		Order
Phosphorus	3	1
Nitrogens	5	2
Oxygens	5	2
Hydroxyl	5	2
Carbons	10	5
Hydrogens	11	6

10	carbon	FEL
11	nitrogen	KAL
12	oxygen	HAU
13	fluorine	?OIM
15	sodium	?OIGA
20	magnesium	GEF
23	phosphorus	GLAI
24	sulfur	BAU
25	chlorine	LAI
31	potassium	JEM
32	calcium	?EN
42	iron	DAL
1	hydrogen	TO
	hydroxyl	MEQ

Carbons	10
Hydrogens	11
Nitrogens	5
Oxygens	5
Phosphorus	3
Hydroxyl	5

Now, we can see that the number of Nitrogens, Oxygens and Hydroxyls are all the same ... they all come second.

Here we must apply the second rule ... the heaviest (the one with the biggest atomic number) must come first. Applying this rule ... we get the following ...



Phosphorus	3	1
Oxygens	5	2
Nitrogens	5	3
Hydroxyl	5	3
Carbons	10	5
Hydrogens	11	6

In this table, we see that the Nitrogens are still neck-and-neck with the Hydroxyls.

To break the tie, we must apply a third rule ... Hydroxyls before Nitrogens. So we get ...

Phosphorus	3	1
Oxygens	5	2
Hydroxyl	5	3
Nitrogens	5	4
Carbons	10	5
Hydrogens	11	6

Great, we have finally ordered our elements. Now to make a name.

Referring back to the segments in the first table, we make up the name ...

GLAI.HAU.MEQ.KAL.FEL.TO

Actually, the above name refers to ANY molecule which contains these six elements. To define it exactly we must add some numbers. So ...

**glaihaumeqkalfelto sái héu héu héu waya waheu**

This is quite a long name. Or maybe I should say "long designation". It has 12 syllables, nearly double the syllable count of Adenosine Triphosphate. However a structure as important ATP would definitely have a shorter name. This exercise was just to demonstrate how to manufacture these types of chemical names.

A more typical name encounters would be ... for example **felto náu** meaning carbon dioxide (notice ... not \***felto tói náu**. When the first number is one, it is always dropped. Now **felto náu** is quite efficient. three syllables as opposed to the five of carbon dioxide.

Or **?enfelhau sái** (calcium carbonate). Notice ... not **?enfelhau tói tói sái** or even **?enfelhau tói sái**. When the first two numbers are one, they are always dropped.

<b>felhau náu</b>	carbon dioxide
<b>felhau tói</b>	carbon monoxide

<b>?enmeq náu</b>	calcium hydroxide	slaked lime / hydrated lime
<b>kalto sái</b>	ammonia	
<b>haukal náu</b>	Nitrous oxide	laughing gas
<b>kaltohau sái</b>	Nitric acid	

Nitroglycerine would be ...

**felkaltohau sái sái héu wasai**

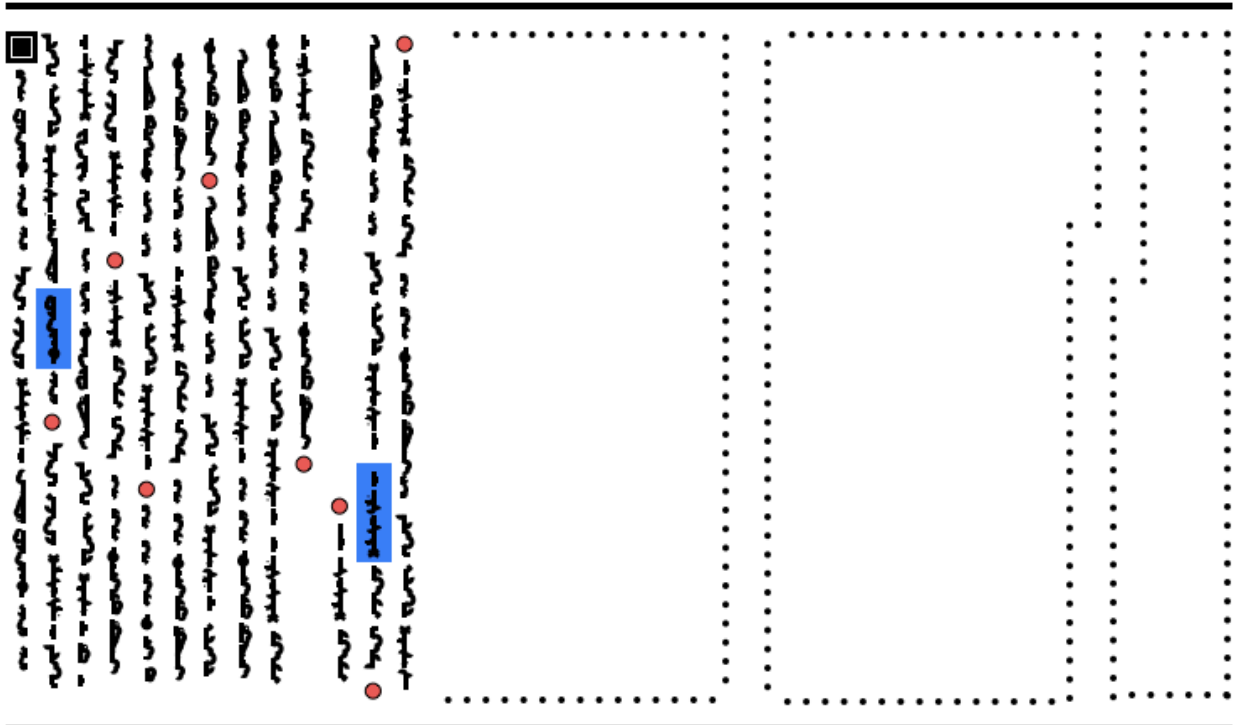
... 9 syllables against 5 for Nitroglycerine

A shorter name needed  
for this iconic  
compound.

**Actually, a lot more work needed to finish this chemical naming ...**

## Appendix F : Printing Conventions

Only two book sizes exist in beugan ... soft-covers measuring 2.5 x 3.5 **newoi**, and hard-covers measuring 3.5 x 5 **newoi**. Below is the first page of a chapter in a soft-cover book.



The red circles are called **koijiq** (sun-symbol). They are placed at the start and end of every sentence. You can see that the text is divided into blocks (text-blocks). We can think of them as paragraphs. However the tradition definition of paragraph in the Western Tradition is that it should have a completely different theme from the previous paragraph and also from the following paragraph.

In **beugan**, similar changes of theme are aimed for. However this is often unrealistic and they are content to have a block of text about one **newoi** wide (plus or minus about 40%). Notice that one word in every paragraph is highlighted. Usually an iconic word is chosen. Within a chapter every paragraph will have a different word highlight and the paragraph itself will be referred to using this word.

Usually the colour scheme above is preferred. However if colour printing is not available the **koijiq** will be black. And the paragraph word will be in a black rectangle instead of being highlighted.

Any particular paragraph (textblock) can be referenced by three parameters ...

- 1) The title of the book
- 2) The number of the chapter (or the name of the chapter)
- 3) The iconic word selected for the textblock.

Notice the very first sentence of the chapter does not have a **koijiq**, instead it has a “tile”. Actually you have two choices in **beugan** ... you can number your chapters. In which case you have the chapter number, then the “tile”, then your textblock starts (the schematic at the top of this page is wrong in that the chapter number is missing).

The second choice to have is to name your chapters. In that case, no “tile” is used, and you start off your initial paragraph with a **koijiq** ... the same as any other paragraph.



As well as the 20 consonant and 13 vowel symbols. We have a number of punctuation marks. These are shown to the right here =>

We have come across some of these before. Starting at the top left we have **koijiq**.

The next symbol is called **bexak** “waterfall”. Very useful for transcribing actual speech. Actual speech is unbelievably broken up. Very hard to describe it if you are confined to comma’s and periods. Sort of treads into the territory governed by colons, semi-colons and ellipsis in English.

And below **bexak** we have “tile” which we have just been talking about.

This one is very interesting. Three **tison** in a row. Quite rare this one. This represents a period of silence, longer than a **tig**. As an example of it’s use ... imaging a narrator was telling a story. And he happens to come to a point where the next word is very rude. All the audience realize an awkward word is coming up ... LLM-style deduction. But instead of giving out this rude word we have an extended pause followed by a euphemism. The longish pause gives the audience time to process the rude word, then they are relieved when a politer alternative is given. The use of this symbol often has a comic effect.

Well when between text this sign means pregnant pause. When followed by empty space, it means “and so on”.

Note ... A single **tison** is always connected between consonants and vowels. However treble **tison** (and double **tison**) always are lying by themselves.

And the bottom mark is **nisjiq** which signifies a high tone. You should already be well acquainted with that one.



At the top of the next column are two **tison** in a row. Same idea as three **tison** in a row but it represents a shorter pause. Very, very rare ... but it is available if needed.

And the next down is **tig** ... “comma”/“pause”/“moment”. By far the most common **béu** punctuation mark. Also used in mathematical notation. Everybody should be well acquainted with this one already.

And the next down is **tison**. Very common and many uses ... see chapter 58.

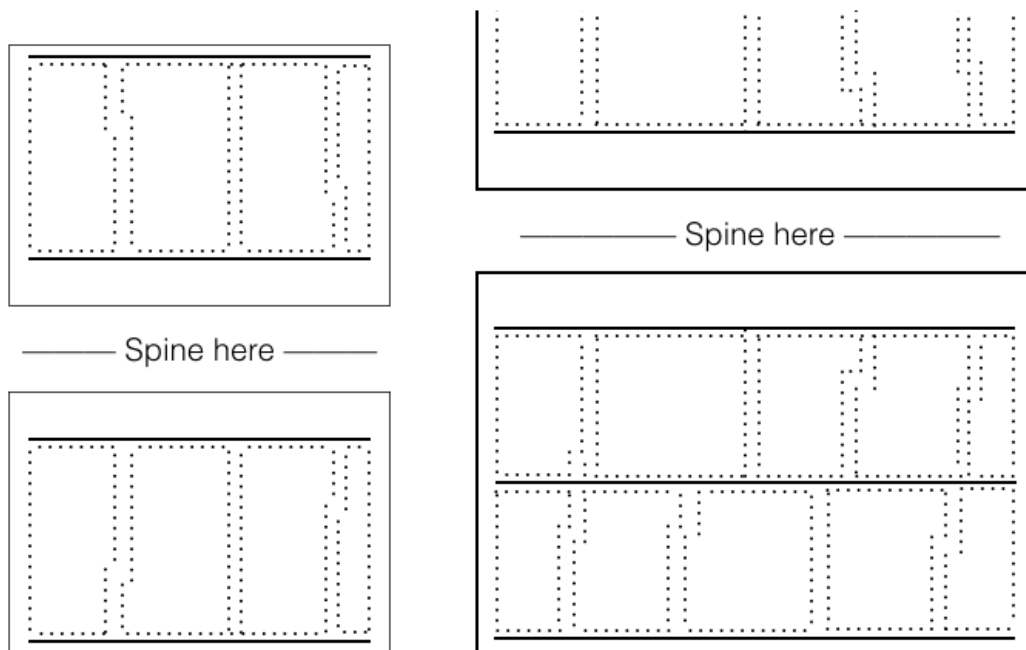
And the next down is **xadda**. Not so common ... see chapter 51.

And below that we have a “tile” turned 45 degrees. This serves as a “bullet point”.

And on the top of the last column we have **hinjiq** ... basically brackets (**hín** = “hinge”)

And below these ... **omjiq**. Only really used in plays and movie scripts. Usually each characters lines are enclosed by these symbols. Usually different characters are given different coloured **omjiq**.

By the way, the **béu** word for symbol is **samjiq**. However in compound words it is always reduced to **-jiq**.



The schematic above shows how the two sizes of book are bound. Unlike books produced in the West, **beugan** books are held with the spine horizontal when being read.

I haven't mentioned "rails" before. They are just bold lines drawn above and below the textblocks. They improve the general appearance of a page. The hardback book has three of these rails instead of two.

# Word List

1	béu	a conlang	2
2	beume	a béu pundit	
3	beugan	the way of béu	the culture of béu
4	bilig	embryo, cataract	Cebuano
5	polok	helmet	
6	?aswo	milk	
7	usaba	north	
8	saba	south	
9	ufon	moss	
10	?uxya	wife	
11	saug D	to suck	
12	saugn D	to suckle	
13	dah	house, home, dwelling	
14	ogtai	to force, to compel	
15	hat	a hat	from English
16	hudat	a top hat	
17	hudta	tophats	
18	dahlu	homeless, a homeless person	
19	dahli	a home owner, owning a house	3
20	mapuai	a gibbon	4
21	puatu	a caterpillar	
22	tusoi	a shark (hammerhead)	
23	soiko	flamboyant	
24	kobai	fruit bat	
25	bajau	butterfly	
26	jauge	palm tree	
27	gefeu	bullfrog	
28	feudi	oryx	
29	dixia	plain, unremarkable	
30	xíau	an elephant	
31	hiaci	a flamingo	
32	cinua	a dragonfly	
33	nuala	a mouse	
34	la?a	a seahorse	
35	?aquq	staid	
36	quqwan	a meerkat	
37	wanyi	a peacock	
38	yihwon	a fir tree	
39	hwón	an elk	
40	noqoh	the ordered list of vowels	
41	puatusoi	the ordered list of consonants	
42	nís	particle	
43	noh	particle	
44	glén	man's name	7
45	pa	l, me	8

46	pai	we,us (but not you)	
47	pau	we, us (including you)	
48	lé	you	
49	léu	you (lot)	
50	no	he/she, him/her	
51	noi	they, them	
52	jo	it	
53	joi	they, them (inanimate)	
54	qá	reflexive particle	
55	piga (píg) D	to hit, to strike	Swahili
56	paq	pa + qá	
57	pal	pa + lé	
58	pan	pa + no	
59	paj	pa + jo	
60	lép	lé + pa	
61	léq	lé + qá	
62	lén	lé + no	
63	léj	lé + jo	
64	nop	no + pa	
65	nol	no + lé	
66	noq	no + qá	
67	noj	no + jo	
68	jop	jo + pa	
69	jol	jo + lé	
70	jon	jo + no	
71	joq	jo + qá	36 pronoun contractiond
72	paiq	pai + qá	
73	pail	pai + lé	
74	pain	pai + no	
75	paij	pai + jo	
76	pauq	pau + qá	
77	paul	pau + lé	
78	paun	pau + no	
79	pauj	pau + jo	
80	léup	léu + pa	
81	léuq	léu + qá	
82	léun	léu + no	
83	léuj	léu + jo	
84	noip	noi + pa	
85	noil	noi + lé	
86	noiq	noi + qá	
87	noij	noi + jo	
88	joip	joi + pa	
89	joil	joi + lé	
90	join	joi + no	
91	joiq	joi + qá	



92	dontwa D	to let down, to disappoint	
93	wái	my	
94	lái	your	
95	nái	his/hers	
96	qái	of ... self	
97	túq	size	<= jutuq
98	ixim	duty	Turkish
99	kasap	butcher	Arabic ?
100	waulo	dog	
101	waloi	dogs	irregular plural
102	cumu	restaurant	
103	cum	to eat	
104	cumxai	food	
105	bán	a table, a board	Mandarin has bán 板
106	kesi	a chair	
107	kesban	furniture	
108	laban	a car, a vehicle	
109	labna	cars	
110	glia	a set of 20 prepositions	
111	dalat	market	Thai has ตลาด
112	duai	too, also	
113	?au D	to take	Thai has เอา
114	tomo	man's name	9
115	dí	this	10
116	yedi	these	
117	de	that	
118	yede	those	
119	dau	that just spoken of	
120	hwái?	that about to be said	
121	día	here	
122	dene	there	
123	xau	affair, event	
124	toki	correct, right	Northern Paiute
125	keu	bad	
126	bói	good	
127	bu D	to do	
128	punya	the past	
129	tulu	the future	
130	byedi	today	
131	mauma (máum)	to sleep	
132	aule	after	
133	kepe	before	
134	kemi	the chemists/ the pharmacist	
135	kecin	the post office	
136	bala D	to open	
137	nobala	an opener	

138	xad D	to move (translation)	
139	duxad S	to mass migrate	
140	yuda	to move (non-translational)	
141	diq	body	
142	diqyud	to exercise (physically)	
143	noxad	an animal	11
144	bwe	cow	12
145	jig	rooster	
146	jiag	roosters	irregular plural
147	kendo	goat	
148	kedoi	goats	irregular plural
149	kad	cat	
150	mit	pig	
151	xobot	rabbit	
152	eski	squirrel	
153	fanaf	horse	
154	lát	bat	
155	láit	bats	irregular plural
156	yemu	frog	
157	kepa	rat	
158	tói	1	
159	náu	2	
160	sái	3	
161	yá	4	
162	héu	5	
163	wáq	6	
164	watoi	7	
165	wanau	8	
166	wasai	9	
167	waya	10	
168	waheu	11	
169	náuq	12	
170	natoi	13	
171	nanau	14	
172	nasai	15	
173	naya	16	
174	naheu	17	
175	sáiq	18	
176	satoi	19	
177	sanau	20	
178	sasai	21	
179	saya	22	
180	saheu	23	
181	yáq	24	
182	yatoi	25	
183	yanau	26	
184	yasai	27	

185	yaya	28	
186	yaheu	29	
187	héuq	30	
188	hetoí	31	
189	henau	32	
190	hesai	33	
191	heya	34	
192	heheu	35	
193	xéq	$36 = 6^2 = 100_6$	
194	gúl	hypotenuse, hour hand	
195	kelná	spoke, radius, minute hand	
196	kelnau	diameter	
197	kulau	to meet (by accident)	
198	dón D	to drop, to lose	
199	twa D	to meet (by arrangement)	
200	muak	a cycle of 216 days	
201	mwaka	a solar year	Swahili
202	dai	a period of $\approx 127.7$ years	Chinese has 代 "dài"
203	bye	a day (24 hours)	
204	telbye	day of birth	
205	menbye	day of death	
206	dulu	featureless, dull, bland	boring, insipid
207	duli	interesting, spicy	delightful
208	du	a point of interest, a feature	
209	keptaun	before history, prehistoric	
210	aultaun	historic	
211	taun	a count, to count	
212	tau	number	Maori has tau
213	cila ? D	a stamp, to stamp	
214	tam	short	
215	nag	an elephants trunk	
216	nagai	long	
217	gamuq ?	a period of $\approx 4,597$ years	
218	dói	a hill	from Northern Thai
219	búk	a thorn	
220	sataghon	staghorn coral	English
221	aicen	a berry	
222	klojib	a barnacle	
223	jem	a gem, a precious stone	English
224	pempon	lichen	
225	qaus	a cloud	
226	dutse	a small mountain	from Hausa
227	het	a mushroom	Thai
228	blo?ma	brain coral	
229	ka?on	a pine cone	
230	alha	a flower	
231	?ubdi	a screw shell	

232	helgia	a starfish	
233	bexak	a waterfall	
234	bexkai	agitated, turbulent	
235	sapot	a sea anemone	
236	hwaq	a mountain	
237	antawe?i	acropora clathrata	... a type of coral
238	nefim	a fern	Okuna has nefi
239	ha?jau	a clam, a bivalve	
240	elemxi	a jellyfish	
241	moin	a sea	from Okuna
242	qailos	a rainbow	
243	hweleq	kelp, seaweed	
244	gafton	a giant water lilly	
245	hwiau	excellent	
246	qaujai	lonely	
247	nafu	cute	
248	otko	inquisitive	
249	?á-domo	worried	actually a relative clause
250	aqqai	wooden	
251	?-itsim	excited	actually a relative clause
252	ganli	careful	
253	nelau	dark blue	
254	celai	pink	
255	helau	purple	
256	kikiat	lazy	
257	otlod	diligent, industrious	
258	bwai	brave	
259	dalmal	made of iron	
260	?-?ut?atam	frustrated	actually a relative clause
261	tiad	nice, neat	
262	laqli	bright, clear	
263	na?awus	dangerous	
264	ot?oim	happy	
265	?á-heuqo	sad	actually a relative clause
266	hyolnai	made of gold	
267	?-taudem	angry	actually a relative clause
268	winai	friendly	
269	molya	white	
270	loso	grey	
271	dalwa	black	
272	kiniau	mean, stingy	
273	otnu	generous	
274	kaidu	cunning, sly, devious	from Classical Arabic
275	lohkai	made of silver	
276	?-?undwam	bewildered	actually a relative clause
277	mupeli	thoughtful	
278	qiap	silent	19 from Thai

279	mutu	important	20
280	mula	great	
281	duntasik	The Indian Ocean	
282	bí	comparative particle	Chinese
283	tái	peak, summit, zenith	
284	g-tái	superlative particle	
285	g-ten	superlative particle	
286	ten	end, extreme end	
287	jutu	large	
288	wú	big	
289	yú	a lot ?, very ?	Thai has เอย
290	sumbuq	waterhole	
291	sum	water	Turkish has su
292	buq	hole	
293	nía	down	
294	nia	to go down	
295	pía	up	
296	pia D	to go up, to ascend	
297	jím D	drink	
298	jimu	a tavern, a bar	
299	mulwa	greater	
300	mulya	greatest	
301	bowo	better	
302	boyo	best	
303	kewe	worse	
304	keye	worst	
305	ke?e	boo	
306	bo?o	hurra	
307	late	late	English
308	latwe	later	
309	lacce	latest	
310	jiage	early	
311	jiagwe	earlier	
312	jiajji	earliest	
313	níq	female name	Cebuano
314	jian	male name	Cebuano
315	tu D	to come	
316	go D	to go	English
317	hiatasik	The South Pascific	
318	dunu	brown	
319	dunute	to become brown	
320	dunuten	to make something brown	
321	tundu	a lot, much	
322	dúq	amount	
323	jaqka	to run	
324	saco	fast	
325	henda?	to intend, to plan	Indonesian

326	henda?ua	unintentionally, accidentally	
327	henda?ia	intentionally, deliberately	
328	ál	male name	
329	xa?it	a street	
330	tengiau	even	
331	giau	position	
332	mateh	a bus	
333	hwaupega	a log	
334	puan	a spear	
335	gin	a pencil/pen	
336	tentiau	a dichotomy	
337	tendiqten	a continuum	21
338	wín	a friend	22
339	wían	friends	irregular plural
340	joc	a chicken	
341	joic	hens	irregular plural
342	to	indefinite singular article	
343	xa	indefinite plural article	
344	yé	definite plural article	
345	xá	a grain of sand	
346	ye	a star	
347	xaito	something	
348	xaixa	somethings	
349	puto	someone/somebody	
350	puxa	some people	
351	lauto	somewhere	
352	lauxa	some places	
353	kyuto	sometime	
354	kyuxa	sometimes	
355	weto	somehow	
356	wexa	somehow	
357	kobo	a pot	Okuna
358	koboi	pots	
359	jwado	(big) bird	a bird down to pigeon size
360	jwadoi	big birds	
361	bu?uq	small bird	a bird below pigeon size
362	ab?i	an arm	
363	ab?iau	a pair of arm	
364	man	a hand	
365	manau	a pair of hands	
366	?eli	an ear	
367	?elau	a pair of ears	
368	?el	to hear	
369	tía D	to see	
370	tí	an eye	
371	táu	a pair of eyes	



372	tisum	a tear	
373	eje	a lung	
374	ejeu	a pair of lungs	
375	dupos	a kidney	
376	dupsau	a pair of kidneys	
377	bomon	a breast	
378	bomnau	a nice pair	
379	bomno	garbage	
380	bolak	a testicle	English
381	bolkau	a pair of testicles	
382	bolka	rubbish	
383	kloga	a shoe	Dutch
384	klogau	a pair of shoes	
385	gempa	a sock	
386	gempau	a pair of socks	
387	naiti	a knitting needle	
388	naitau	a pair of knitting needles	
389	pantau	trousers	
390	jiandau	scissors	Chinese
391	doqah	a village	
392	laun	a small town	
393	ludau	a small city	
394	benaf	a city	23
395	pelga S	to sail	24
396	ko S	to know	
397	kanye S	to know a person, place	
398	ilya	male name	
399	telma	female name	
400	kata (kát) D	to cut	
401	alem	paper	
402	doika (dóik) D	to walk	
403	yoma (yóm) D	to read	Japanese has yomu
404	oned	a book	
405	sana (sán) S	to be healthy	Latin
406	loda (lód) D	to work	
407	poda (pód) D	to check, look over, examine	
408	i	tense particle	
409	ú	tense particle	
410	o	tense particle	
411	oi	tense particle	
412	e	tense particle	
413	á	tense particle	
414	ipe	tense particle	
415	upe	tense particle	26
416	saqha	the priesthood	27
417	saqbo	a monk, priest	

418	saqga	a nun	
419	polis	the police	
420	polbo	a policeman	
421	polga	a police woman	
422	polme	a police officer	
423	polmin	police officers	
424	kecin	the post office (the institution)	
425	kecbo	a postman	
426	kecga	a postman (female)	
427	kecmin	postmen	
428	hemel	refuse collection department	
429	hembo	a bin man	
430	hemmin	bin men	
431	hedum	slavery	
432	hedbo	a male slave	
433	hedga	a female slave	
434	hedme	a slave	
435	hedmin	slaves	
436	puxeq	an adult	
437	puxeqtoi	an adult (20.7 - 41.4)	
438	puxeqnau	an adult (41.4 - 62.1)	
439	puxeqsai	an adult (62.1 - 82.8)	
440	puxeqya	an adult (82.8 - 103.5)	
441	puxeqheu	an adult (103.5 - 127.7)	27
442	háu D	to learn	28
443	kliandah	a kindergarten	
444	klian	children	irregular plural
445	klin	a child	
446	gig S	to study at primary school	
447	gigu	primary school	
448	gog S	to study at secondary school	
449	gogu	secondary school	
450	kalgu	university/college	
451	nogig	a pupil at a primary school	
452	nogog	a pupil at a secondary school	
453	tom	boy	
454	tem	girl	
455	gigom	a boy who attends primary sch	
456	gigem	a girl who attends primary sch	
457	gogom	a boy who attends high school	
458	gogem	a girl who attends high school	
459	goskal	education	
460	kaleg	curriculum	
461	ján	teacher	
462	jían	teachers	irregular plural
463	jono	male name	
464	jene	female name	

465	boto	male name	
466	bete	female name	
467	so	a row, a line of stitching	a seam
468	sope D	a stitch	
469	doipe D	a step, to step	
470	gós	an orange	
471	gospe	a segment of an orange	
472	homa	bread	Okuna
473	hompe	a crumb	
474	nwa	snow	
475	nwape	a snowdrop	
476	lúai	a crystal	
477	nwaluai	a snowflake	
478	sumpe	a drop of water	
479	cep	a chain	Russian has цепь
480	ceppe	a link	
481	cepgan	supply chain	
482	kúap	to move up a bit, to shift, budge	Thai has เขยิบ
483	kuappe	to budge	
484	kuappen	to crack something open	28
485	bagya	family	29
486	maten	mother	
487	maya	mother	
488	poten	father	
489	poya	father	
490	balten	husband	
491	?ubya	husband	
492	dahten	wife	
493	haupten	son	
494	?uxten	daughter	
495	aqya	son or daughter	
496	aqyaq	progeny/descendents	
497	posmaq	ancestry/forefathers	
498	ildo	big brother	
499	ilde	big sister	
500	wó	wee brother	
501	wé	wee sister	
502	mado	one's mother's big brother	
503	made	one's mother's big sister	
504	mabo	one's mother's wee brother	
505	mabe	one's mother's wee sister	
506	podo	one's father's big brother	
507	pode	one's father's big sister	
508	pobo	one's father's wee brother	
509	pobe	one's father's wee sister	
510	popo	one's father's father	
511	poma	one's father's mother	

512	mapo	one's mother's father	
513	mama	one's mother's mother	29
514	onde	books	30
515	ondeu	library	usually refers to a room, not a building
516	xoqa	sand	see (xá)
517	xoqau	a beach	
518	kia D	to take a shit	
519	kiax	shit (noun)	
520	kiape	a turd	
521	kiau	a toilet	
522	oga D	to wash face or body	
523	ogau	bathroom, shower	
524	lauda D	to wash clothes	
525	laudau	a laundry	
526	téu? D	to stand	
527	teu?u	a porch, a lobby	a cloakroom
528	seu D	to sit	
529	seu.u	sitting room, living room	
530	bakai D	to cook, prepare food	
531	bakayu	kitchen	
532	maumu	a bedroom	
533	nia D	to descend, to go down	
534	niau	The West	
535	piau	The East	
536	balau	the open air	
537	m-balau	overt, in public, in the open	
538	ga D	to enter	
539	gau	interior, inside	
540	cukki	to vomit	
541	cukkix	vomit/sick (noun)	
542	cuk D	to exit	
543	cuku	the exterior, outside	
544	láq	light (as with bright)	
545	laqit	sky	cebuano + tagalog "langit"
546	laqlin D	to explain	
547	laqqau	window	
548	koine	window	Temania
549	gacuk	door	
550	gacuku	doorway	
551	yade	a frame	
552	yai.ade	a rectangle	
553	yai.adai	neat, tidy, "shipshape"	orthodox, orthogonal
554	?enyade	a skeleton	
555	?en	bone	Wutung has ?ē
556	leu?u	couch, sofa, settee	
557	leu? D	to lie down	
558	yai.au	a plaza	30

559	tiau	only	31
560	goyo	male name	Yaqui
561	pe?o	male name	
562	pian	to raise, to lift, to elevate	
563	tan	and	
564	káq	flank, side	(of a living thing)
565	kaqkaq	together	
566	gwót	a ball	
567	tibu	male name	Yaqui
568	wá	but	
569	benca	side, party, faction	
570	benta D	to divide, to share	32
571	koin	hammer	33
572	degge	Dengue Fever	
573	boil D	to boil	English
574	doska D	to melt	
575	hias	wax	Okuna
576	wila D	to wake up somebody	
577	blonid	female name	
578	polo	male name	
579	jeuse	a jersey, pullover	English ?
580	jwaig D	to knit	
581	jwaigau	a pair of knitting needles	34
582	boisan	construction	35
583	dwo D	to tie, bind, link	
584	cuba (cúb)	to try	Indonesian has coba
585	cuai D	help (with a specific task)	Thai has ช่วย
586	pune D	to pass	
587	cose	or (a question)	
588	ose	or (not a question)	
589	klisme	a christian	
590	tusau D	to become	
591	dweli	old	Georgian has ძველი .. dzveli
592	cai	what (a question word)	
593	jubau	sturdy, solid, strong	
594	hau?e	beautiful	
595	c-pu	who (a question word)	
596	hubog	drunk	Cebuano
597	yoki	a stream	from Finnish ... joki
598	fos	a river	
599	kogi	a big river	
600	loca	a great river	From Hausa
601	situ	a great lake	Sundanese
602	danau	a big lake	Indonesian
603	linau	a lake	Cebuano
604	telaga	a small lake	38

605	sau S	to be	39
606	ús	will be	
607	ás	is, am, are	
608	is	was	
609	ha S	to have	
610	úh	will have	
611	áh	has, have	
612	ih	had	
613	ni S	to want	
614	ún	will want	
615	án	wants	15 contractions
616	in	wanted	
617	xúg S	should	
618	úx	will have to	
619	áx	have to	
620	ix	had to	
621	pón S	can	
622	úp	will be able to	
623	áp	is able to	
624	ip	was able to	
625	auge	tree	
626	kon	to tell, inform	
627	ko	to know	
628	slihah	a (formal) story, tale, legend	Okuna has sliahte
629	g-halo	inevitably, "must" (adverb)	
630	yiqki	young	
631	yiqkiq	youth	
632	pwo	enough	
633	kyu	time, occasion	44
634	yeni	new	45 Turkish
635	wutu	fat, obese	
636	yeteu	thin	
637	hía	red	
638	geu	green	
639	ki?o	yellow	
640	nela	sky blue	
641	laqlu	dark, murky, obscure	These two are in free variation
642	ulaq	dark, murky, obscure	These two are in free variation
643	suna	orange	
644	helau	purple	
645	dwelbo	an old man	
646	dwelga	an old woman	
647	yiqbo	a young man	
648	yiqga	a young woman	
649	dwelme	an OAP	
650	dwelmin	OAP's	
651	yiqme	a youngster	



652	yiqmin	youngsters	
653	hiaxi	reddish	
654	geuxi	greenish	
655	jutuxi	somewhat big	
656	mutuxi	quite important	
657	celaixi	pinkish	
658	helauxi	sort of purple	
659	yiqkixi	youngish	
660	yenixi	quite new	
661	hodan	well off	Somali
662	hodniq	comfort, ease	
663	?upli	rich, prosperous	
664	?upliq	wealth, prosperity	
665	?upu	money	
666	seqin	wealthy, opulent	Turkish has "zengin"
667	seqniq	wealth, opulence	
668	hamak	humble, petty, pitiable, poor	Togalog
669	hamkiq	deficiency	
670	hanca	well off, prosperous	<= hantia
671	hancaq	comfort, sufficiency	<= hantiaq
672	hanti	property, belongings, wealth	Somali
673	hantua	needy	
674	hantuaq	insufficiency, want, need	
675	sama	bad, unfavourable, adverse	
676	samaq	adversity	
677	dukha	poor, needy, destitute	Togalog
678	dukhaq	destitution	
679	kai	round, a coin, coins	
680	kailu	poor	
681	kailuq	impecuniousness	
682	kabus	bad quality, bad style,	Cebuano
683	kabsiq	shoddiness	
684	ubos	low, inferior	Cebuano
685	laudli	what is washed	
686	laudlu	what must be washed	
687	túa D S ?	to use	
688	tuali	useful	
689	tualu	useless	
690	wildo	power	
691	wildia	powerful, strong	
692	wildua	feeble, weak	
693	wol	volume, room, a room	
694	wolli	spacious, roomy	
695	wollu	small, pokey	
696	yel	garden, area	
697	yelli	vast, spacious	
698	yellu	small	

699	yelya	having a barden	
700	yelwa	lacking a garden	
701	fanfia	cavalry	(a horse = fanaf)
702	hwelom	acceleration	
703	hwelmia	nippy, powerful	
704	hwelmua	sluggish	
705	xlaspua	a weapon	
706	xlaspia	armed	
707	uxlaspia	unarmed	
708	plesgem	clothes, clothing	
709	gemya	clothed	
710	gemwa	naked, unclothed	
711	augya	forested	(auge = a tree)
712	augwa	treeless	
713	dutca	hilly	(dutse = a hill)
714	dutsua	flat (of land)	
715	telgia	having lakes	(telaga = a lake)
716	telgua	lacking lakes	
717	gwaili	having island	(gwái = an island)
718	gwailu	lacking islands	
719	moinlu	landlocked	(moin = a sea)
720	pahun	an infantry man	47
721	bila	to equal (not a verb)	48
722	tóif	a unit	
723	náuf	a half    1/2	
724	sáif	a third    1/3	
725	yáf	a quarter    1/4	
726	héuf	a fifth        1/5	
727	wilaf	reciprocal	
728	tóis	once	
729	náus	twice	
730	sáis	thrice	
731	yás	four times	
732	héus	five times	
733	tuge	more	
734	tugis	again	
735	tundus	many times, a lot	
736	toyo	first	
737	ho?o	last	
738	iyo	a little	
739	iyos	a few times, seldom	
740	ái	same, alike, similar	
741	áis	simultaneous, while, as	
742	waux	nothing	
743	waum	nobody, no one	
744	waus	never	
745	waulau	nowhere	

746	wauwe	noway	
747	wauduq	no amount	
748	waut	none	
749	tufa	grass	Zialo
750	tufau	elephant grass	
751	hafta	a branch	
752	hafti	a small brach	
753	hafteu	a smallish branch	
754	gefa	a leaf	
755	gefau	a frond, a big leaf	50
756	talmi	male name	51
757	mali	female name	
758	sonxi	a circle	
759	son	a circle of radius 5.43 cm	52
760	juhab	probably	53
761	ponja	maybe	
762	tihab	probably not	
763	mudau	"I guess that"	evidential particle
764	?edau	"they say"	evidential particle
765	tidau	"I saw it with my own eyes"	evidential particle
766	maup D	to lock	54
767	maup	a lock	
768	heuqo S	to be sad	
769	tafi D	to leave	
770	kyom S	to regret	
771	hwoi D	to make, arrange	
772	cúaq	bed	Chinese has chúang 床
773	mu D	to think about	
774	muh	brain, mind	from Arabic
775	gamuh S	to understand	< ga "to enter" + muh "mind"
776	xaukat D	to decide	< xau "matter" + kata "cut"
777	tumu	stupid	
778	inceu	anyway, however ??	
779	bugan S	to behave	
780	c-lau	where/which (a question word)	58
781	moltasik	The Antarctic Ocean	59
782	neltasik	The North East Pacific	
783	ki?tasik	The North West Pacific	
784	duntasik	The Indian Ocean	
785	suntasik	The North Atlantic	
786	geutasik	The South Atlantic	
787	tasik	ocean	Proto-Malayo-Polynesian "sea"
788	gwoqai	( linear ) archipelago	60
789	ilai	male name	61
790	tiba D	to arrive	
791	hugo	male name	

792	tume/tumin	a stranger/ strangers	also visitors/ tourists
793	byume/byumin	a local person/people	
794	byu	soil, ground, earth	62
795	ti	perfect aspect particle	63
796	út	<= ú + ti	
797	át	<= á + ti	3 contractions
798	it	<= i + ti	
799	taugan	mathematics	
800	mwo	"no longer" aspect particle	
801	mo	"still" aspect particle	
802	molde D	to continue, to keep on	
803	ke	"already" aspect particle	
804	kende	ready	
805	kwe	"not yet" aspect particle	
806	múai	"in process" aspect particle	
807	he	"start" aspect particle	
808	ho	"stop" aspect particle	
809	twi	"never" aspect particle	
810	nausko	to recognize	(náus + ko)
811	he ko	to realize	
812	menya	dead	
813	nopsi	lunch	
814	baha	breakfast	
815	cumis	dinner	
816	tigdi	now	
817	maq	meat	
818	hig D	to build, to construct	
819	helka D	to break (trans)	
820	kaupa	a leg	Northern Paiute
821	kupe	to kick	
822	kaupau	a pair of legs	66
823	luam S	to forget	67
824	byég	yesterday	
825	byég d-byég	the day before yesterday	68
826	wom	mutually, one to the other	69
827	dugai	for a long time	Cebuano
828	dile	for a short time	
829	dús	often	
830	sialu	inexplicably, "for no reason"	
831	paucli	in vain, to no avail	69
832	cuha D	to wrap	70 Koro has chuha
833	nuxai	a present, a gift	
834	iyo	a little bit	
835	mogaskek	chocolate cake	
836	mogas	chocolate	
837	kek	cake	

838	suka súk	to like	Indonesian
839	byetu d-byetu	the day after tomorrow	
840	byetu	tomorrow	
841	xlá	a sword	
842	kwa	neck, voice	Mambay has kwàá
843	kwa?o	a necklace	
844	kya	DON'T	
845	lú	request particle	
846	lúk	to request	
847	lusi	to ask for	
848	bakke	female name	
849	anauf	male name	
850	kwifa	female name	
851	iqgo	male name	71
852	balu	36 <sup>1</sup>	72
853	gilu	36 <sup>2</sup>	
854	dailu	36 <sup>3</sup>	
855	legau	36 <sup>4</sup>	
856	jogau	36 <sup>5</sup>	
857	saugau	36 <sup>6</sup>	
858	habi	36 <sup>-1</sup>	
859	nibi	36 <sup>-2</sup>	
860	wubi	36 <sup>-3</sup>	
861	tewai	36 <sup>-4</sup>	
862	powai	36 <sup>-5</sup>	
863	kaiwai	36 <sup>-6</sup>	
864	tudau	any number that includes one of saugau jogau legau dailu gilul balu	
865	tinau	any number that includes one of kaiwai powai tewai wubi nibi habi	
866	tudaustinau	the numbering system that includes any of the above	
867	cabe d-túq	any of the twelve numbers mentioned above	
868	kaxai	the sign for decimal point	72
869	nél	female name	73
870	woh D	to talk	73
871	ploni	North America	74
872	caltini	South America	
873	blauni	Europe	
874	jaini	Africa	
875	paibi	Asia	
876	wombani	Australia	
877	piqqoli	Antarctica	
878	kwuhani	Arctic	
879	hindi	India	
880	fiadani	Middle East	
881	sunda	Indonesia et al.	
882	plona	North American Bison	
883	caltin	The Lama	

884	blaun	The Irish Elk	
885	jiau	The Lion	
886	paibian	The Panda	
887	wombana	The Kangaroo	
888	piqgolo	The Penguin	
889	kwuha	The Polar Bear	
890	gwái	an island	
891	fía	middle	
892	dani	region	75
893	tí	q-ti	76
894	mwó	q-mwo	
895	mó	q-mo	
896	jimxai	a drink	
897	ké	q-ke	
898	kwé	q-kwe	
899	twí	q-twi	
900	gó	away	
901	tú	approaching	
902	sé	"saying"	a particle
903	sáu	namely, "that is"	
904	gilmet	female name	77
905	áu	don't, not	78
906	wás	isn't, aren't	
907	wis	wasn't	
908	wús	won't be	
909	wáh	hasn't, haven't	
910	wih	hadn't	
911	wúh	won't have	
912	wán	doesn't want, don't want	
913	win	didn't want	20 contractions
914	wún	won't want	involving the
915	wáx	doesn't have to, don't have to	negation glia w-
916	wix	didn't have to	
917	wúx	won't have to	
918	wáp	can't	
919	wip	couldn't	
920	wúp	will not be able to	
921	áus	isn't, aren't	
922	wát	hasn't, haven't	
923	wit	hadn't	
924	wút	won't have	78
925	gla	woman	79
926	gala	women	irregular plural
927	bau	man	
928	bawa	men	irregular plural
929	?ús	that will be	



930	ʔás	that is	
931	ʔis	that was	
932	ʔúh	that will have	
933	ʔáh	that has	
934	ʔih	that had	
935	ʔún	that will want	
936	ʔán	that wants	
937	ʔin	that wanted	
938	ʔúx	that will have to	
939	ʔáx	that should	
940	ʔix	that had to	28 contractions
941	ʔúp	that will be able to	involving the
942	ʔáp	that can	RC glia ʔ-
943	ʔip	that could	
944	ʔút	that will have	
945	ʔát	that has	
946	ʔit	that had	
947	ʔáus	that isn't	
948	ʔú		
949	ʔá		
950	ʔáu		this one is negated
951	ʔi	Contractions involving the verb	
952	ʔo	activators and the RC <b>glia ʔ-</b> .	
953	ʔé		
954	ʔoi		
955	ʔupe		
956	ʔipe		80
957	dá da	emphatic particle, yes (respectively)	81
958	wau wáu	zero/no, no (respectively)	
959	cw-pigam no	is he not hitting	
960	cús no	will he be	
961	cás no	is he	
962	cis no	was he	
963	cúh no	will he have	
964	cáh no	has he	
965	cih no	had he	
966	cún no	will he want	
967	cán no	does he want	
968	cín no	did he want	26 contractions
969	cúx no	will he have to	involving the
970	cáx no	should he	question glia c-
971	cix no	had he to	
972	cúp no	will he be able to	
973	cáp no	can he	
974	cip no	could he	
975	cút no	will he have	

976	cát no	has he	
977	cit no	had he	
978	úc		
979	ác		
980	aúc	this one negated	
981	ic		
982	oc		
983	éc		
984	oic		
985	?uxi	female name	82
986	c-min	who (plural)	83
987	c-kyu	when	
988	céu	how	
989	c-lia	why	
990	baina	between	
991	c-dúq	how much/how many	
992	c-tói	which one	
993	c-yé	which	
994	c-kái	what type/sort/kind of	
995	cose	or ?	
996	xonaf	afternoon	<u>x</u> obot -> fan <u>a</u> f
997	kenit	morning	<u>k</u> endo -> m <u>i</u> t
998	osta D	to buy	Finnish has ostaa
999	lapa	evening (6 to midnight)	<u>l</u> at -> kep <u>a</u>
1000	waujig	early morning (midnight to 6)	<u>w</u> aulo -> j <u>i</u> g
1001	pyesta	party, fiesta	Togalog
1002	noic	the time that the sun is down	Brazilian Portuguese (to my ear)
1003	laqkusnoic	24 hours a day, round the clock	Same as <b>bye</b> actually
1004	laqku	the time that the sun is up	
1005	pumin	people	
1006	pume	a person, a man	
1007	sikan	a fish	From Hoanya (Taiwan)
1008	sikna	fish (plural)	
1009	owe	away (adverb ?)	
1010	lup D	to get, to obtain	
1011	nú D	to give	
1012	nú owe	to give away	
1013	mé	though	Thai has แม้
1014	meye	although	
1015	waye	however	
1016	pwadu	proud	
1017	pwadudq	pride	
1018	sia	reason, incentive, inducement, cause, motivation, impetus, inspiration	
1019	lia	intention, purpose, aim, reason, target, goal, objective, ambition, aspiration	
1020	siase	because	
1021	liase	in order to	

1022	siau	source, origin	
1023	liau	destination	87
1024	ma?malad	marmalade	88
1025	xwéuk	tasty, delicious	89
1026	á?	per	90
1027	xeqa?	percent, share, portion	90
1028	sai D	to say	91
1029	kofoi	male name	
1030	mái	hot	
1031	saube D	to praise, to speak well of	
1032	huaia	boss	
1033	taube D	to complain, to nag	
1034	kombe D	to criticize	
1035	qen D	to ask, a question ?	Dolakha Newar
1036	klai D	to answer, to reply	
1037	klab D	to return	Thai
1038	tebu	male name	94
1039	nimas	ice cream	95
1040	háun	to teach	
1041	yó	to fly	
1042	yón D	to throw	Thai has โยน (middle tone)
1043	tían D	to show	
1044	tolai D	to fix, to maintain	also "maintenance"
1045	pwasat	a drawing, a sketch	
1046	nian D	to take down	
1047	páum D	to insert, put in	
1048	sale D	to extract, to take out	
1049	men D	to die	
1050	kum D	to kill	Twi
1051	kumat	to hinder, to resist	
1052	cumn D	to feed	
1053	jimn D	to irrigate, to water	
1054	ais	a threat	
1055	lif	a warning	
1056	hói	advice	
1057	kig	consideration	
1058	aisn D	to threaten	
1059	lifn	to warn	
1060	hóin	to advise	
1061	kign	to consider	
1062	?oime	to be happy	
1063	?oimen	to please	
1064	heuqon	to make sad, to let down	
1065	taude	to be angry	
1066	tauden	to annoy	
1067	swú D	to fear	

1068	duswu S	to dread	
1069	swún	to scare	
1070	hyenta	to be angry	
1071	hyentan	to really annoy	
1072	yode	to be horny	
1073	yoden	to make horny	
1074	gwipai	to be ashamed	
1075	gwipain	to shame	
1076	domo	to be anxious	
1077	domon	to be a worry, to cause anxiety	
1078	?undwa	to be bewildered	
1079	?undwan	to astonish	
1080	?im D	to be satiated, to be full up with food	Thai has อิ่ม
1081	nuai D	to be tired	Thai has เหนื่อย
1082	tekan	the earth, this world	97 Hittite has tekan for “earth”
1083	itsi D	to be excited	98
1084	?itca D ?	to be jealous	Thai has อิจฉา
1085	?ut?at D	to be frustrated	
1086	mala (mál) D	to be ill	
1087	otheuq	having a melancholic disposition	<= ot + heuqo
1088	ottaud	hot headed	<= ot + taude
1089	otsu	timid	<= ot + swú
1090	otitsi	excitable	
1091	otyode	lecherous	
1092	otdomo	nervous by nature	
1093	ot?undwa	having dementia	
1094	otmal	an invalid	
1095	otnuai	an invalid (chronically fatigued)	
1096	otsan	consistently of good health	
1097	fú S	to love	
1098	difu D	to have a crush on	
1099	poxad	movable	
1100	poyom	legible	
1101	xano	to feel, have a sense of	
1102	poxano	tangible	
1103	pojub	believable	
1104	pomu	conceivable	
1105	polup	available	
1106	nabu	worth doing	
1107	nasaube	commendable, laudable, admirable, praiseworthy	
1108	na?undwen	amazing, astonishing, stunning	
1109	nadoimo	serious, consequential	
1110	kwáu D	to notice, to observe	
1111	dukwau S	to monitor, to keep an eye on	
1112	nakwau	remarkable	
1113	hwe D	to visit	

1114	du <u>h</u> we S	to be on holiday	
1115	na <u>h</u> we	worth visiting	
1116	na <u>h</u> weu	a tourist stop	
1117	nakig	not insignificant, sizable	
1118	potia	visible	99
1119	hun	a soldier	100
1120	hoqun	an army	
1121	dok	a jetty	English has "dock"
1122	doqok	the docks	the commercial part of a port
1123	oqoned	a book collection	
1124	tul	a tool	English has "tool"
1125	toqul	a collection of tools	
1126	jul	an item of jewelry	English has "jewel"
1127	joqul	a jewelry collection	
1128	gwoqai	archipelago	
1129	hwoqaq	a mountain range	
1130	gít	a feature, a characteristic	
1131	goqit	type, kind, sort	these two mean exactly the same
1132	kái	type, kind, sort	these two mean exactly the same
1133	goqgoq	different	
1134	toqoi	group	
1135	haum	a group of grazing animals	
1136	hewok	a group of predators	wolves, lions, orcas etc. etc.
1137	pil	a rule	
1138	pabil	a game	
1139	ahi	a religious injunction or prohibition	
1140	abahi	a complete/coherent set of such	like the halakhah
1141	cé	a sound	
1142	cabe	a word	
1143	cababe	clause, sentence, utterance ?	
1144	lwí	an atom (element)	
1145	lwabi	a molecule	
1146	jen	a gene	
1147	joqen	a chromosome	100
1148	fo	"follow" tense particle	104
1149	heca D	to look for	
1150	duheca S	to search for	
1151	wiasi	a potato, potatoes	Swahili
1152	pwauxe	a strawberry, strawberries	
1153	fwasi	a peach, peaches	
1154	malfuk	a cabbage, cabbages	104 Arabic
1155	leta, lét	to fetch, go and bring	105
1156	geusnela	turquoise	
1157	dunus.hia	oxblood (colour)	
1158	dunuski?o	hazel (colour)	
1159	plés	underpants	

1160	taus	spoon	Okuna
1161	kene	fork	
1162	tauskene	cutlery	
1163	xlá	a sword	
1164	gian	pens	
1165	ginsalem	stationary	
1166	koi	the sun	
1167	óm	the moon	
1168	koisom	sun and moon	106
1169	hwoigan	function (maths)	107
1170	teqau	variable name	
1171	lembau	variable name	
1172	jinjau	name of variable for temperature	
1173	sudtau	variable name	
1174	saten	variable name	
1175	pauten	variable name	107
1176	pombo	male name	108
1177	talmi	male name	
1178	tuwon	male name	
1179	tonton	male name	
1180	tiago	male name	
1181	slaudo	male name	
1182	kwin	male name	
1183	bwon	male name	
1184	baqkit	male name	
1185	jodua	male name	
1186	gil?o	male name	
1187	du?ket	male name	
1188	xula	male name	
1189	hogamot	male name	
1190	helmut	male name	
1191	nikolai	male name	
1192	nohte	male name	
1193	nyopua	male name	
1194	liam	male name	
1195	loftus	male name	
1196	walki	male name	
1197	wonwo	male name	
1198	glaqmo	male name	
1199	aqit	female name	
1200	ailin	female name	
1201	mali	female name	
1202	meqwi	female name	
1203	mautie	female name	
1204	maite	female name	
1205	pegwia	female name	
1206	pabua	female name	

1207	tuwen	female name	
1208	tenten	female name	
1209	susan	female name	
1210	slade	female name	
1211	kewaqen	female name	
1212	bole	female name	
1213	be?nes	female name	
1214	bene	female name	
1215	jedia	female name	
1216	juloku	female name	
1217	gil?e	female name	
1218	gaqme	female name	
1219	fiako	female name	
1220	dese	female name	
1221	nyepia	female name	
1222	lena	female name	
1223	lefta	female name	
1224	lawix	female name	
1225	?iadme	female name	
1226	qe?es	female name	
1227	qu?i	female name	108
1228	?il	if	109
1229	ten ?il	even if	
1230	ten lau	even if	
1231	biqji	female name	
1232	ganya	to earn	from Portuguese
1233	lau	if (irrealis)	110
1234	kúx	mathematical operation (to the power)	111
1235	hinat	mathematical operation (logarithm)	
1236	kut	mathematical operation (root)	111
1237	hisag	building	112
1238	haupig	materials for building	
1239	hweg	to hew, to cut wood	
1240	hwesag	lumber	
1241	hwaupeg	logs	
1242	hwoisa	output	
1243	hwaupoi	input	
1244	tumtum	to pound	
1245	tasumtum	wrought iron OR bark cloth	
1246	basak	a dish (not a plate)	
1247	baupak	ingredients (for cooking)	
1248	hata S	to harvest	
1249	dihata	to pick, gather foodstuff	
1250	hasat	a/the harvest	Turkish
1251	haupat	that which is planted	
1252	fiah	to hunt	Irish has "fiach"



1253	fiasah	the catch (of a hunt)	
1254	faupiah	the quarry, the prey	
1255	boin D	to assemble, to put together	
1256	baupoin	components	
1257	baupoina	a component	
1258	sagol D	to mix, blend	Cebuano
1259	sasag	mixture, alloy	
1260	saupag	what goes in the mix	
1261	nahtu D	to mix, amalgamate	
1262	nasah	an amalgam, conglomerate	
1263	naupah	what goes in the mix	
1264	busa	a deed, an action	
1265	baupa	"get up and go"	
1266	gwéh	to hand down (upon death)	
1267	gwesah	an inherited item	a family heirloom
1268	gwe-gwesah	an individual's total inheritance	( possibly from multiple sources )
1269	gwaupéh	a bequest, an item in a will	
1270	gwau-gwaupéh	total estate (to be divided up)	also "last will and testament"
1271	gwehan	heritage	
1272	popiabe	possible	
1273	piabe D	to happen	<= <b>pia</b> "to rise" + <b>be</b> "to appear"
1274	piasa	effect, result	
1275	paupia	state, initial condition	
1276	bé	to appear	
1277	ube D	to disappear	
1278	aule-piasa	aftermath, consequences	
1279	feu S	to live	
1280	feusa	legasy	
1281	faupeu	DNA	
1282	xila D	to fry	
1283	xisala	Big English Breakfast	
1284	pug	to plough (plow)	
1285	pusag	a furrow, groove	
1286	pwat	to draw, to paint	
1287	kludau	to write	
1288	klasud	a handwritten note	
1289	la?o	to spread, smear, paint	
1290	lasa?	a paint job	
1291	laupa?	paint (in a can)	
1292	hí	to burn, a fire	
1293	hisa	ash	
1294	haupi	fuel	
1295	haupigu	a builder's merchant outlet	
1296	hwegu	a sawmill	
1297	johweg	the machine at the sawmill	
1298	hwesaga	a plank	
1299	xilya	chips (french fries)	112

1300	hal	all, totality	113
1301	xadda	the "w" symbol for "every"	From Classical Arabic
1302	tison	the little loop in béu script	
1303	ín	any	
1304	inxai	anything	
1305	intoi	anyone	
1306	ikkyu	anytime, ever	
1307	illau	anywhere	
1308	iqkai	any type of	
1309	we	way, method	115 English has "way"
1310	layoi	beugan unit of distance	116
1311	cunmoi	beugan unit of pressure	
1312	dindoi	beugan unit of force	
1313	newoi	5.43 cm	
1314	néu	finger	Thai has นิ้ว
1315	layo	far, distant	Cebuano
1316	layoq	distance	
1317	du?ol	near, close	Cebuano has "duol"
1318	du?min	neighbours	
1319	goi	beugan unit of height	<= tiqgoi
1320	tiqgi	high, tall	Indonesian
1321	mubo	short	Cebuano
1322	tiqmu	height	
1323	tiqub	elevation	
1324	bugoi	≈ 0.16 kg	the beugan unit of weight
1325	bug?at	heavy	Cebuano
1326	ga?an	light (ie not heavy)	Cebuano has "gaan" <= /ga?an/
1327	wildoi	beugan unit of power	
1328	kuandoi	≈ 0.67 Joules	the beugan unit of energy
1329	kuando	energy	
1330	sacoi	beugan unit of speed	
1331	gade	slow	
1332	sacoq	speed	
1333	hwelmoi	≈ 0.64 ms <sup>-2</sup>	the beugan unit of acceleration
1334	tig	≈ 0.93 s, a pause, a comma	the beugan unit of time
1335	yeloi	≈3.84 m	the beugan unit of area
1336	woloi	≈7.53 m <sup>3</sup>	the beugan unit of volume
1337	nau	cold	Thai has ทหนาว
1338	gemat	2.5 degrees	the beugan unit of angle
1339	jugemat	one radian	
1340	bugga?	weight	
1341	mái-nau	temperature	118
1342	soka	bark	119
1343	sokai	rough	
1344	fosai	in motion, moving	
1345	hua	a head	Thai has หัว

1346	huai	main, chief, head	
1347	plu	a stone	
1348	pluai	hard	
1349	hwaqai	stubborn	
1350	fok	a post, a pillar	
1351	fokai	vertical	
1352	pudom	a boulder	
1353	pudmai	permanent	
1354	moinai	horizontal	
1355	nagai	long	
1356	bawai	male, masculine	
1357	bwo	a bull	
1358	sapu	an owl	
1359	sapai	wise	
1360	galai	female, feminine	
1361	iqglan	England	
1362	iqglanai	English	
1363	lin	tongue, language	
1364	maksai	Marxist	
1365	galaia	a gay (rude, down putting)	
1366	bawaia	a lesbian (rude, down putting)	
1367	pinom	a pebble	
1368	sosfok	a metrication table	
1369	okai	around (adverb)	
1370	omaia	a male homosexual (polite)	
1371	hetaia	a female homosexual (polite)	
1372	hetai	homosexual (adjective)	
1373	hetaiq	lesbianism	
1374	omaiq	male homosexuality	120
1375	tolum	hydrogen	121
1376	nalum	helium	
1377	saima	lithium	
1378	yaima	beryllium	
1379	helum	boron	
1380	felum	carbon	
1381	kalum	nitrogen	
1382	hauplum	oxygen	
1383	?oiglum	fluorine	
1384	tokex	neon	
1385	?oigma	sodium	
1386	gefma	magnesium	
1387	aikma	aluminium	
1388	aiklum	silicon	
1389	gaitum	phosphoros	
1390	bauhum	sulfur	
1391	lailum	chlorine	
1392	nakex	argon	

1393	jemma	potassium	
1394	?enma	calcium	
1395	nehma	scandium	
1396	jubama	titanium	
1397	hau?ma	vanadium	
1398	?iamma	chromium	
1399	be?kama	manganese	
1400	dalma	iron	
1401	kugita	cobalt	
1402	kunida	nickel	
1403	kulsop	copper	
1404	tandis	zinc	
1405	bontis	gallium	
1406	makma	germanium	
1407	maglum	arsenic	
1408	pwolum	selenium	
1409	hwaulum	bromine	
1410	sakex	krypton	
1411	uafendi	rubidium	
1412	ufendia	strontium	
1413	oifendi	yttrium	
1414	ofendia	zirconium	
1415	aifendi	niobium	
1416	aufendi	molybdenum	
1417	efendia	technetium	
1418	eufendi	ruthenium	
1419	ifendia	rhodium	
1420	iafendi	palladium	
1421	lohik	silver	
1422	lilik	cadmium	
1423	tinik	indium	
1424	seqkli	tin	
1425	kucma	antimony	
1426	seblum	tellurium	
1427	ilum	iodine	
1428	yakex	xenon	
1429	kelabdi	cesium	
1430	malendus	barium	
1431	pulenda	lanthanum	
1432	tulendus	cerium	
1433	solenda	praseodymium	
1434	kolendus	neodymium	
1435	balenda	promethium	
1436	jalendus	samarium	
1437	gelenda	europium	
1438	felendus	gadolinium	
1439	dilenda	terbium	

1440	xilendus	dysprosium	
1441	hilenda	holmium	
1442	cilendus	erbium	
1443	nulenda	thulium	
1444	lalendus	ytterbium	
1445	?alenda	lutetium	
1446	qulendus	hafnium	
1447	walenda	tantallium	
1448	yilendus	tungsten	
1449	hwolenda	rhenium	
1450	bugma	osmium	
1451	qailma	iridium	
1452	yogma	platinum	
1453	hyolun	gold	
1454	iqgil	mercury	
1455	etmol	thallium	
1456	kwiden	lead	
1457	bisema	bismuth	
1458	adma	polonium	
1459	adlum	astatine	
1460	hekex	radon	
1461	swogon	francium	
1462	hwagon	radium	
1463	laigon	actinium	
1464	tuniwa	thorium	
1465	cunogi	protactinium	
1466	unjiwa	uranium	
1467	laitgeb	neptunium	
1468	betawi	plutonium	
1469	glowen	americium	
1470	?amben	curium	
1471	kulpai	made of copper	
1472	noxka	air, the atmosphere	
1473	?oigi	fierce, ferocious	
1474	glait	to tear (paper), to strike (a match)	
1475	bauh	a stink, a smell	
1476	jemin	a nerve	
1477	jemni	nerves	
1478	?iam	to shine	
1479	be?ka	liver	
1480	maga	poison	
1481	kuc	a type, a letterform, a block of type	Also a verb meaning to type or print
1482	kuac	letterforms, blocks of type	
1483	bise	stable	129 Also "a light wind", a breeze ... a rare case of homonym
1484	lebau	wide	130
1485	lebauq	width	
1486	dalam	deep	Indonesian

1487	dalmiq	depth	
1488	teqa	a wing	
1489	teqau	a pair of wings	y-axis symbol
1490	lemba	a horn	
1491	lembau	a pair of horns	mentioned already : x-axis symbol
1492	denda	a fin	
1493	dendau	a pair of fins	z-axis symbol, variable symbol
1494	gemau	name of variable for angle	
1495	tigau	name of variable for time	
1496	finok	sine	
1497	dinos	cosine	
1498	cukaia	tangent (trig. function)	133
1499	tiqgan	the first dimension	134
1500	lebgan	the second dimension	
1501	dalgan	the third dimension	
1502	kyugan	the dimension of time	
1503	aulan	since	
1504	kepan	until	
1505	?ilan	as long as	
1506	jé	the far side of	
1507	jegan	outlandish	
1508	do	this side of	
1509	dogan	surroundings, environment	not socially acceptable
1510	baigan	among	<= baina "between" + gan
1511	peu	your fellow, your peer	somebody with the same status
1512	peugan	society	
1513	haumpeu	a classmate	
1514	hompeu	a companion	<= homa "bread" + peu
1515	pulu	womb	
1516	pulpeu	a twin, twins, triplets	
1517	fá	(personal) name	
1518	fapeu	people with the same name	
1519	muakpeu	people born in same muak	
1520	liapeu	comrades	
1521	?ospeu	fellow country man	
1522	?os	country, political entity	134
1523	kunja	to fold	135
1524	ukunja	to unfold	
1525	umutu	unimportant	
1526	laiba	to cover	
1527	ulaiba	to uncover	
1528	fuqga	to fasten, to lock	
1529	ufunqga	to unfasten, to unlock	
1530	uboin	to take apart, to disassemble	
1531	pauca	to stop up, to block	
1532	upauca	to clear, to unblock	
1533	sensa	to weave	

1534	usensa	to unravel	
1535	fiqka	to dress, put on clothes	
1536	ufiqka	to undress	
1537	uwin	an enemy	
1538	je?el	to mishear	
1539	jedoi	to make a mistake, a mistake	
1540	jewoh	to mis-speak	
1541	jejub S	to mistakenly believe	
1542	jub S	to believe, to think	
1543	dijub D	to be under the impression	135
1544	winau	a puppy	136
1545	kinad	a kitten	
1546	finan	a foal	<= finanaf
1547	pinume	a dwarf	
1548	pinumin	the dwarves	
1549	dinoi	a small hill	
1550	dudah	a mansion, a palace (old style)	
1551	hudun	an officer	
1552	pudume	a giant	
1553	pudumin	the giants	
1554	dudoi	a big hill	
1555	judah	a mansion, a palace (new style)	136
1556	tekankogandeu	The World Wide Web	137
1557	kogandeu	The World Wide Web	
1558	deu	a net, typically a fishing net	
1559	molyadah	The White House, The US Government	
1560	heqban	the stock market	
1561	banheq	a stock price	137
1562	klause	a clause	138
1563	cabu	a verb	<= cabe "word" + bu "to do"
1564	tapuah	an apple	Israeli
1565	woisai	to dissuade	
1566	huse	to encourage	
1567	caim	to bite	
1568	na?a	to grow	139 Northern Paiute
1569	kyes	a key or keys	140 <b>kyes</b> is anagram of "keys"
	The above, lists the <b>béu</b> words in the order they were introduced in the main document.		
	The words below are valid, however do not occur in the main document.		
1569	?ame	to hum	Tepa
1570	yihwoniau	the taiga	
1571	yeqa	ceremony	Dolakha Newar
1572	ilhwi	tribe, clan	Maori
1573	sugoi	fantastic	Japanese
1574	b-kyu	on time	
1575	xugu	responsibility, duty	



1576	pondi	talent, ability, power	
1577	higad D	to ride a horse, motorbike	
1578	butwa	a battle	Ukrainian has битва
1579	waso	war	
1580	ceno	famine	
1581	asiq	pestilence	
1582	bwale	to involuntarily cry out	Yaqui has bwana
1583	dami	clay	Mambay has dàrmí[?]
1584	damna	thatch	dàmná[?] in Mambay
1585	?edano	planet (the earth = tekan)	
1586	?elon	Jupiter	Mellissa Green
1587	fudu	banana	Tolay has vudu
1588	dutai	deck, porch, platform	
1589	gaqga	mule	Zay (Semetic)
1590	gelna	Saturn	Mellissa Green
1591	jebu	wrong	
1592	kabai	a snake	latmul has kabai
1593	waudo	a wolf	
1594	wadoi	wolves	
1595	woqaud	a wolf pack	
1596	pek ?	a patch	Okuna
1597	piat ?	a dart, an arrow	Okuna
1598	nek ?	scale of a fish	Okuna
1599	pahai	beyond	Okuna
1600	hoiko	trout	Okuna
1601	pehi	somewhat	Okuna
1602	ianta	jump	Okuna
1603	hemip	pheasant	Okuna has hempi
1604	hani	fox	Okuna
1605	pinai	chilli pepper	Okuna
1606	laife	Venus	Mellissa Green's Yardish world
1607	manda	to tell (to do), to command	
1608	moide	eyebrow	Arbore(Cushitic) has moydé
1609	naima	Mars	Mellissa Green's Yardish world
1610	pembe	horn	Swahili
1611	pyò	flee (the bug)	Pilagá
1612	sandoi	a grave	Arbore(Cushitic) has sañdóy
1613	sandoyu	a graveyard	
1614	segasu	eyeglasses	Zialo has seǵ' ààzù
1615	taqqeli	Mercury	A Mellissa Green conlang
1616	wesu	bald	Wutung has wésú
1617	ye?e	to dance	Yaqui
1618	?imo	blanket, sheet	
1619	omoge	forest, wood	
1620	licin	slippy	Indonesian
1621	lusin	imperial	
1622	lusinda	an empire	

1623	lusinbo	the emperor	
1624	lusinga	the empress	
1625	jú	dew	
1626	juli	humid	
1627	julyu	a jungle	
1628	cusu	to sweat	cuk + sum
1629	cusum	sweat (noun)	
1630	?úx	to sweep, to brush	
1631	jo?ux	a broom	
1632	ti?ux	a hand brush	
1633	dahten	wife	?uxya = dahten wái
1634	?uxi	a female name	
1635	balten	husband	?ubya = balten wái
1636	demo	floor	
1637	jifa	sleeve	Guarani has jyfa
1638	awata	to wander	
1639	gutu?a	doll	
1640	waqqan	system, network	
1641	susik	a patch of snow	
1642	suski	snow region	
1643	paqqil	to call	Indonesian
1644	pujuq	parasol, awning	
1645	payuq	umbrella	Indonesian
1646	paiqu	umbrellas	
1647	nawoq	a face	Cebuano
1648	nauqo	faces	
1649	gual	to trade, barter	
1650	jual	to sell	Indonesian
1651	osta	to buy	Finnish has "ostaa"
1652	gason	to tear	Lezgian has gazon
1653	alu?	to fall	Lezgian
1654	bwa?et	to steal	Yaqui has etbwa
1655	woka	chariot	Mycenean Greek
1656	fiah	to hunt	Irish has fiach
1657	?imeu	to hate	
1658	dixi	a shovel, a spade	
1659	xía	a shelf	
1660	xoqia	a cabinet, a cupboard	
1661	yihwiau	the taiga	
1662	xíaq	shape, form	Chinese has xiàng 象
1663	coq	to impede, to resist	
1664	nohis	a vowel	
1665	coqcel	a consonant	
1666	bliqka	to blink	English
1667	liau	goal, aim, objective	see lia
1668	siau	source, origin, root	see sia
1669	yujin	clever	

1670	pok	stupid	
1671	iqma	ambitious	
1672	gustaf	an entrepreneur	
1673	hwó	a guess	
1674	hwói	guests	
1675	banhwo	a dinner guest	
1676	cuaqhwo	a guest that sleeps over	
1677	pitsiq	silly	
1678	gem	cruel	
1679	fakis	an expert	
1680	kumat	to hinder	see coq, kum
1681	safau	a building	
1682	paufau	building material	
1683	tam	low, short	
1684	sana	healthy, sound, whole	Latin has sanus
1685	sanaq	health	
1686	sale	to take out, extract	
1687	páum	to put in, insert	
1688	monoq	a nose	
1689	sekik	a coin	
1690	paus	soup	
1691	honu	a turtle	
1692	lwa	galaxy, whirlpool, vortex	
1693	ewo	away	
1694	ewoi	to disperse	
1695	awus	look out	
1696	hida	sweet	
1697	helak	a hooker	
1698	yus	oil	
1699	gelat	a seed	
1700	hyas	to push aside	
1701	hyas-hyas-ga	to dig in	
1702	de?os	god	
1703	dusudeg	mistletoe	
1704	kilat	lightning	Cebuano
1705	domon	thunder	
1706	kaiga	to crack, a crack	
1707	goma	to quarrel	
1708	gomel	to nag	
1709	naim	ice	
1710	yamal	camel	
1711	bus	surface	
1712	sumbago	a flood	
1713	lembago	a surfeit of things	
1714	lem	a gadget, tool, knickknack	
1715	sabutai	a general	
1716	hondu	dune	Koyra Chiini, (Songhay Mali)

1717	fai	to grow	Koyra Chiini, (Songhay Mali)
1718	cika cík	to chat	Cebuano
1719	mwisi	thief	Swahili
1720	nuslup	to interact	give and receive
1721	bugan	behave ?	
1722	leta lét	to bring, to go and bring	Swahili
1723	edeg	a record, a personal file	
1724	ansa	to start	kuanza from Swahili
1725	anna	to continue, to keep on	
1726	tigil	take a break, stop over	from Tagalog
1727	wadai	to stop	"wuday" from Dyirbal
1728	gajil	to pretend	"gajilmbariy" from Dyirbal
1729	cuba	to try, to attempt	Malay
1730	faulu	to succeed	Swahili
1731	tigilu	a stop in a journey	see "tigil"
1732	keja	egg	Dolakha Newar has khēja
1733	tumpak	spot on	Tagalog
1734	komxu	neighbour	Turkish has komšu
1735	suluk	ocean current	from Tausug
1736	teluk	bay	from Indonesian
1737	meat	maq	
1738	pili	to choose, to pick	Cebuano
1739	pili	to vote, a vote	
1740	fwot	to shoot an arrow, to fire a gun	Also to take a photograph ... <b>fwoti</b> would be the command to get your troops
1741	puji	a usurper	... to fling their javelins together.
1742	bupuji	to usurp	
1743	pucuk	a bud, a shoot, a tip	Indonesian
1744	jamuq	jam	
1745	jamuqki	marmalade	originally "yellow jam"
1746	hitam	a nightmare	
1747	kih	a system	also means "knife" ... a rare case of homonym
1748	leqkap	complete	Indonesian
1749	ta?il	pull	Indonesian has "tarik"
1750	ta?il	electronegativity	
1751	doloq	push	Indonesian
1752	duwuq	complex, complicated	
1753	salif	simple, easy	
1754	tumpak	to crash	Indonesian
1755	kitsen	to fuck	
1756	dafta	a list	also "to sign up", "to register", "to book" ... Malay has daftar
1757	pajak	tax	Malay
1758	gawa	inner	
1759	gayu	innermost	
1760	cukwu	outer	
1761	cukyu	outermost	
1762	toqe	to smell	
1763	cuma	to taste	cf. cuba = to try

1764	cumastoqe	to experience	
1765	bucuma	the act of tasting	
1766	butoqe	the act of smelling	
1767	cih	a case ... same semantic space as English	
1768	ciah	cases	harmonizes with <b>kih</b> "system"
1769	cihten	a litigant	
1770	mohon	a vulcano	
1771	ganlu	careless	
1772	moiqen	diamond	
1773	makan	graphite/pencil	
1774	seluaq	hose	Indonesian
1775	qwe	well ... in a good way	
1776	oitu	hello	perhaps derived from "boi twa"
1777	fales	goodbye/peace	
1778	jwé	a spice	
1779	iqklia	perfume	
1780	kunyt	tumeric	Indonesian
1781	pex	to rub, to scrub	Hittite
1782	habba	a problem	
1783	habab	trouble	
1784	kanak	a cloth	Tocharian B
1785	kekal	a church or a synagogue	plural is <b>kekla</b>
1786	senim	a shrine	plural is <b>senmi</b>
1787	jenid	a temple	plural is <b>jendi</b>
1788	giat	to win	
1789	bud	to lose	
1790	giabu	a match (competition between two parties)	