

Supplementary Information
Chapter 36 Basic vocabulary
Martine Robbeets

SI 1 Reconstruction of the basic phoneme inventory
of the individual proto-languages

Table SI 1.1 Reconstruction of the basic consonant inventory of Proto-Japonic

pJ	OJ	J	Amami	Okinawa	Miyako	Yaeyama	Yonaguni
*p	p	h- -w- -ø-	ϕ- h- ç- -ø-	p- ϕ- -ø-	p- f- -ø-	p- -ø-	ϕ- h- tɛʔ- ç- -ø-
*np	ⁿ b	b	b	b	b	b	b
*t	t	t	t	t	t	t	t
*nt	ⁿ d	d	d	d	d	d	d
*k	k	k	k- k ^h - -k- -k ^h -	k- -k-	k- f- -k- -f-	k- ϕ- f- h- -k-	k- k ^h - ø- -g-
*nk	ⁿ g	g	g	g	g	g ŋ ø	ŋ
*s	s	s	s	s	s	s	s c
*ns	ⁿ z	z	^d z	z	z	z	d
*m	m	m	m	m	m	m	m
*n	n	n	n	n	n	n	n
*r	r	r	r	r	r	r	r
*w	w	w	w- b- y- g- ϕ- -ø-	w- b- g- ʔ- -ø-	b- -ø-	b- -ø-	b- -ø-
*y	y	y	y	y	y	y	d- -y-

Table SI 1.2 Reconstruction of the basic vowel inventory of Proto-Japonic

pJ	OJ	J	Amami	Okinawa	Miyako	Yaeyama	Yonaguni
*a	a	a	a	a	a	a	a
*ə	o(2)	o	u	u	u	u	u
*o	o(1)	o	u	u	u	u	u
*o	u	u	^h u	u	u	u	u
*u	u	u	^ʔ u, N	u, N	u, N, ø	u, N, ø	u, N, ø
*i	o(2)	o	u	u	u	u	u
*i	i(1)	i	^ʔ i, N	^ʔ i, ^y i, N	ɿ, u, s, N, ø	N, ø	i, N, ø
*e	i(1)	i	^h i, i	^h i, i	i	i	i
*e	e(1)	e	yu	yu	yu	yu	du

Table SI 1.3 Reconstruction of the basic consonant inventory of Proto-Koreanic

pK	MK
*p	p, W /β/ > w (lenition)
*t	t, l /r/ (lenition)
*c	c
*k	k, G /ɣ/ > ø (lenition)
*h	h

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*s	s, ž (lenition)
*m	m
*n	n
*r	l

Table SI 1.4 Reconstruction of the basic vowel inventory of Proto-Koreanic

pK	MK
*a	a
*Λ	o /Λ/
*i	u /i/
*e	e
*o	wo /o/
*u	wu /u/
*i	*i
*ia	*ye

Table SI 1.5 Reconstruction of the basic consonant inventory of Proto-Tungusic

pTg	Jur.	Ma.	Sibe	Oroch	Ud.	Na.	Na. Bikin	Orok	Olcha	Eve n	Sol.	Evk.	Neg.
*p-	f-	f-	f-	x-	x-	p-	f-x-	p-	p-	h-	ø-	h-	x-
*-p-	f	f b ø	v ø	p w ø	p f w	p	f	p	p	b w ø	p w g ø	p b w ø	p w
*b-	b-	b-	b-	b-	b-	b-	b-	b-	b-	b-	b-	b-	b-
*-b-	b w ø	b f w ø	v ø	b w ø	b w ø	b w ø	w ø	b w ø	b w ø	b w ø	b p w ø	w ø	w ø
*t-	t-	t-	t-	t-	t-	t-	t-	t-	t-	t-	t-	t-	t-
*-t-	t	t	t s	t	t	t	t	t	t	t	t	t	t
*d-	d-	d-	d-	d-	d-	d-	d-	d-	d-	d-	d-	d-	d-
*-ji-	dʒi-	dʒi-	dʒi-			dʒi-	dʒi-	dʒi-					
*-d-	d	d	d	d	d	d	d	d	d	d	d	d	d
*-j-	dʒi	dʒi	dʒi			dʒi	dʒi	dʒi					
*k-	x-	x-	x-	k-ø-	k-ø-	k-ø-	k-ø-	k-ø-	k-ø-	k-ø-	x-ø-	k-ø-	k-ø-
*-k-	k x ø	k x	k γ	k ø	k x γ ø	k γ ø	k γ ø	k ø	k γ ø	k	k x	k x	k x
*g-	g-	g-	g-	g-ŋ-	g-ŋ-	g-ø-	g-ø-	g-ŋ-	g-ŋ-	g-ŋ-	g-n-	g-ŋ-	g-ŋ-
*-g-	γ w ø	γ w y ø	ø	γ w y ø	γ w y ø	γ w y ø	y ø	γ w y ø	γ w y ø	γ y	γ ø	γ	γ y w
*č-	č-	č-	č-	č-	č-	č-	č-	č->t-	č->t-	č-	s-	č-	č-
*-č-	č	č	č	č	s	č	č s	č > t	č	č	š	č	č
*x-	w-ø-	w-ø-	v-ø-	x-ø-	w-ø-	x-s-	x-s-	x-s-	x-s-	ø-	ø-	ø-	ø-
*-x-	x	x	x k γ	k	ø	x ø	x k	x ø	x ø	k	x	k	k x

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										-ŋ	
*-r-	-r-	-r-	-r-	-r-	-r-	-r-	-r-	-r-	-r-	-r-	-r-
	-r	-r	-r	-r	-r	-r	-r	-r	-r	-ø	-r
*-l-	-l-	-l-	-l-	-l-	-l-	-l-	-l-	-l-	-l-	-l-	-l-
	-l	-l	-l	-l	-l	-l	-l	-l	-l	-n	-r

Table SI 1.8 Reconstruction of the basic vowel inventory of Proto-Mongolic

PMo	MMo	WMo	Khal.	Bur.	Kalm.	Dag.	EYü	Mgr.	Dgx.	Bao.	Mog.
*a	a	a	a	a	a ä	a	a	a ä i ø-	a ə	a e i	a o ö
*e	e	e	e i ö	e ü	e i ö	e ü	e i- o- ø-	e ə a i u ø-	e ie ü ye-	e -iN -aN	e ü
*o	o	o	o	o	o ö	o -(u)a- wa-	o ö	o u ö u- ø-	o u -uaN	o u o-	o u
*ö	o u	ö	ö	ü	ö	ü	ö o:	u o o: o- ø-	o u -uaN	o u o-	ö ü
*ü	u	ü	ü	ü	ü	ü	u ə ø- u-	u ə i ø- u-	u	u e u- -oŋ	ü
*u	u	u	u	u	u ü	u o -(u)a- wa-	u ə ø-	u o ə ø-	u	u e a o	u
*i	i	i	i	i e	i	i	i	i	i ə	i	i

Table SI 1.9 Reconstruction of the basic consonant inventory of Proto-Turkic

	OT	Chu.	Kh.	CTat	Kum.	KBal.	Krm.	Tat.	Bas h.	Kaz.	Kirg.	Kpak	Nog.
*-p-	p	b	b	b p	b	b	b	b p	b	b	b p	b p	b
*-p	-p	-p	-p	-p	-p	-p	-p	-p	-p	-p	-p	-p	-p
*b-	b-	p-	b-	b-	b-	b-	b-	b-	b-	b-	b-	b-	b-
*-b-	b	v ø	v ø	v	w y ø	w y ø	w y	w y	w y	b w y ø	b y	b w y ø	b w y
*-b							ø	ø	ø		-ø		ø
*-t-	t-	t- č-	t-	t-	t-	t-	t-	t-	t-	t-	t-	t-	t-
*-t-	t	-d-	t	-d-	t	t	t	t	t	t	t	t	t
*-t		-t		-t									
*-y-	d-	y-	d-	y-	y-	y-	y-	y-	y-	y-	y-	y-	y-
*-d-	d	y r	d	y	y	y	y	y	y	y	y	y	y
*-d		-ø											
*k(A)-	q-	x-	q-	q-	q-	q-	q-	q-	q-	q-	k-	q-	k-
*k(E)	k-	k-	k-	k-	k- g-	k-	k-	k-	k-	k-	k-	k-	k-
*-k(A)-	q	-g-	q	-Y-	-Y-	-Y-	-Y-	-Y-	-Y-	-Y-	-Y-	-Y-	-Y-
*-k		-k-ø		-q	-q	-q	-q	-q	-q	-q	-q	-q	-q
*-k(E)-	k	-g-	k	-g-	-g-	-g-	-g-	-g-	-g-	-g-	-g-	-g-	-g-
*-k(E)		-k-ø		-k	-k	-k	-k	-k	-k	-k	-k	-k	-k
*-g(A)-	ɣ	ø	ø	w y	w y	w y	g w	w y	w y	w y	w y	w y	w y
*-g(A)				-ø -	-ø -w	-ø -w	y ø	-ø -	-ø -	-ø -	-ø -w -	-ø -w	-ø -w -
*-g				w -y	-y	-y		w -y	w -y	w -y	y	-y	y
*-g(E)-	g	v y	ɣ w	w y	w y	w y	g w	w y	w y	w y	w y	w y	w y

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*-g(E) *-g			y	-ø - w -y	-ø -w -y	-ø -w -y	y ø	-ø - w -y	-ø - w -y	-ø - w -y	-ø -w - y	-ø -w -y	-ø -w - y
*-č- *-č	č	-ž- -š	č	j č -č	č	č	j -č	č	s	š	č	š	š
*-lč	-š	-š	-š	-š	-š	-š	-š	-š	-š	-s	-š	-s	-s
*-s- *-s- *-s	s- s	s- š- z ž -s -š	s- s	s- s	s- s	s- s	s- s	s- s	h- θ	s- s	s- s	s- s	s- s
*-m- *-m-	m -n -m	m -n -m	m -n -m	m -n -m	m -n -m	m -n -m	m -n -m	m -n -m	m -n -m	m -n -m	m -n -m	m -n -m	m -n -m
*-n- *-n	n	n m	n	n	n	n	n	n	n	n	n	n	n
*-r- *-r2- *-l-	r z l	r r	r z	r z	r z	r z	r z	r z	r δ	r z	r z	r z	r z

PTk	Tk.	Az.	Gag.	Tkm.	Uz.	Uigh.	Tuv.	Tofa	Shor	Khak.	Yak.	Dolg.
*-p- *-p	b p -p	b p -p	b p -p	b p -p	v p b -v -p -b	p -p	-v- -p	b p -p	b -p	b -p	b -p	b -p
*b-	b-	b-	b-	b-	b-	b-	b-	b-	p-	p-	b-	b-
*-b- *-b	v y ø	v y ø	v ø	w y ø	v g y ø	b v g y ø	v ø -g	b ø -g	b ø -g	b ø -g	b ø -g	b ø -g
*t- *-t- *-t	t- d- t d	t- d- t d	t- d- t d	t- d- -t -d- -t	t t	t t	t- d- -d- -t	t- d- -d- -t	t- -d- -t	t- -d- -t	t- -d- -t	t t
*y- *-d- *-d	y- y y	y- y y	y- y y	y- y y	y- y y	y- y y	d- t- -d- -t	d- d -t	z- z -z- -s	z- z -z- -s	t- t -x	t- t -k
*k(A)- *k(E)- *-k(A)- *-k(A) *-k(E)- *-k(E)	k- g- -y- -q -g- -k	k- g- g- -y- -q -g- -k	k- g- g- -k- -q -g- -k	k- g- g- -k- -q -g- -k	q- k q k k k	q- k q k k k	q- x- k -g- -q -g- -k	q- k -g- -q -h- -k	q- k -g- -q -k -k	x- k -y- -q -g- -k	q- x- k -y- -x -g- -k	k- k -g- -k -g- -k
*-g(A)- *-g *-g(E)- *-g	ɣ w y ø y ø	ɣ w y ø y ø	ɣ w y ø y ø	ɣ w y ø y ø	-ɣ- -q -g- -k	-ɣ- -q -g- -k	ɣ ø g ø g ø	ɣ ø g ø g ø	ɣ ø g ø g ø	ɣ ø g ø g ø	ø ø ø	ø ø ø
*-č- *-č *-lč *-s- *-s- *-s *-m- *-m	č j -č -š s- s s m -n	č j -č -š s s s m -n	č j -č -š s s s m -n	č j -č -š s s s m -n	č -č -š s s s m -n	č -č -š s s s m -n	-ž- -š -š -z- -s -s m -n	-j- -š -š s -z- -s -s m -n	č -š -š -z- -s -s m -n	č -s -s -z- -s -s m -n	-h- -s -s t t m -n	č -s -s t t m -n

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	-m	-m	-m	-m	-m	-m	-m	-m	-m	-m	-m	-m
*-n-	n	n	n	n	n	n	n	n	n	n	n	n
*-r-	r	r	r	r	r	r	r	r	r	r	r	r
*-r ₂ -	z	z	z	z	z	z	s	s	s	s	s	s
*-l-	l	l	l	l	l	l	l	l	l	l	l	l

Table SI 1.10 Reconstruction of the basic vowel inventory of Proto-Turkic

PTk	OT	Chu.	Kh.	CTat	Kum.	KBal.	Krm.	Tat.	Bash.	Kaz.	Kirg.	Kpak	Nog.
*a	a	u	a	a	a	a	a	a	a	a	a	a	a
*e	e	i	ä e	e	e	e	e	i	i	e	e	e	e
*o	o	u	o	o	o	o	o	u	o	o	o	o	o
*ö	ö	ü ä	e ö	ö o	ö	ö	ö	ü	ü	ö	ö	ö	ö
*u	u	vä- -ä-	u	u	u	u	u	o	o	ü	u	u	u
*ü	ü	ä	ü i	ü u	ü	ü	ü	ö	ö	ü	ü	ü	ü
*i	i	ä ě	i	i i	i	i	i	i	i	i	i	i	i
*ı	i	ä ě	i	i	i	i	i	e	e	i	i	i	i
*ia	a	yu	a	a	a	a	a	a	a	a	a	a	a

PTk	Tk.	Az.	Gag.	Tkm.	Uz.	Uigh.	Tuv.	Tofa	Shor	Khak.	Yak.	Dolg.
*a	a	a	a	a	a e	ɔ a ä	a	a	a	a	a	a
*e	e	ä e	e	e	e	ä e	e	e	e	i	i	i
*o	o	u	o	o	ɔ	o	o	o	o	o	o	o
*ö	ö	ö	ö	ö	ɔ	ö	ö	ö	ö	ö	ö	ö
*u	u	u	u	u	u	u	u	u	u	u	u	u
*ü	ü	ü	ü	ü	u	ü	ü	ü	ü	ü	ü	ü
*i	i	i i	i	i	i	i	i	i	i	i	i	i
*ı	i	i	i	i	i	i	i	i	i	ə	i	i
*ia	a	a	a	a	a e	ɔ	a	a	a	a	a	a

Supplementary Table SI 1.11 Consonant correspondences between the Transeurasian languages

	pJ	pK	pTg	pMo	pTk	pTEA
1.	*p-	*p-	*p-	*p-	*b-/ *p-	*p-
2.	*-p-	*-p-	*-p-	*-ɣ-	*-p-	*-p-
3.	*p- / *w-	*p-	*b-	*b-	*b-	*b-
4.	*-p-/*-w-	*-p-	*-b-	*-b- / -ɣ-	*-b-	*-b-
5.	*-np-	*-pC-	*-PC-	*-PC-	*-P(C)-	*-m ^(P) T-
6.	*-np-	*-Rp-	-RP-	*-RP-	*-RP-	*-Rp-

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7.	*t-	*t-	*t-	*t-	*t-	*t-
8.	*-t-	*-t-	*-t-	*-t-	*-t-	*-t-
9.	*t-/*y-	*t- (ci-)	*d- (ji-)	*d- (ji-)	*y-	*d-
10.	*-t-/ *-y-	*-l-	*-d- (-ji-)	*-d- (-ji-)	*-d-	*-d-
11.	*-nt-	*-c-	*-TC-	*-TC-	*-TC-	*-n ^(T) K-
12.	*-nt-	*-Rc-	*-RT-	*-RT-	*-RT-	*-Rt-
13.	*k-	*k-	*k-	*k-	*k-	*k-
14.	*-k-	*-k- (-h-)	*-k-	*-k-	*-k-	*-k-
15.	*k-	*k-	*g-	*g-	*k-	*g-
16.	*-k-	*-k- (-h-)	*-g-	*-g-	*-g-	*-g-
17.	*-nk-	*-kC-	*-KC-	*-KC-	*-KC-	*-ŋ ^(K) T-
18.	*-nk-	*-Rk-	*-RK-	*-RK-	*-RK-	*-Rk-
19.	*t-	*c-	*č-	*č-	*č-	*č-
20.	*-t-	*-c-	*-č-	*-č-	*-č-	*-č-
20b.	*-si	*-l(i)	*-l(č)	*-l(č)	*-l(č)~ -š	*-lč
21.	*k-	*k-, h-	*x-	*k-	*k-	*x-
22.	*-k-	*-k-	*-x-	*-g~k-	*-g~k-	*-x-
23.	*s-	*s-	*s-	*s-	*s-	*s-
24.	*-s-	*-s-	*-s-	*-s-	*-s-	*-s-
25.	*m-	*m-	*m-	*m-	*b-	*m-
26.	*-m-	*-m-	*-m-	*-m-	*-m-	*-m-
27.	*n-	*n-	*n-	*n-	*y-	*n-
28.	*-n-	*-n-	*-n-	*-n-	*-n-	*-n-
29.	*-r-	*-l-	*-r-	*-r-	*-r-	*-r-
30.	*-r-	*-l-	*-r-	*-r-	*-r ₂ -	*-r-
31.	*-r-	*-l-	*-l-	*-l-	*-l-	*-l-

Supplementary Table SI 1.12. Vowel correspondences between the Transeurasian languages

	OJ < pJ	MK < pK	pTg	pMo	pTk	pTEA
32.	-a- < *-a-	-a- < *-a-	*-a-	*-a-	*-a-	*-a-
32b.	*CaCa	*CΛCΛ	*CaCa	*CaCa	*CaC	*CaCa
33.	-a- < *-a-	-e- < *-e-	*-e-	*-e-	*-e-	*-ə-
34.	-o- < *-ə-	-e- < *-e-	*-e-	*-e-	*-e-	*-ə-
35.	-o- < ? *-o-	-wo- < *-o-	*-o-	*-o-	*-o-	*-ɔ-
36.	-u- < *-o-	-wo- < *-o-	*-o-	*-o-	*-o-	*-ɔ-
37.	-o- < *-i-	-u- < *-i-	*-ö-	*-ö-	*-ö-	*-o-
38.	-u- < *-u-	-wu- < *-u-	*-u- (gü)	*-ü-	*-ü-	*-u-
39.	-u- < *-u-	-o- < *-Λ-	*-u-	*-u-	*-u- /-i-	*-o-
39b.	PaRu- < *PauRu-	*PΛRΛ- ~ *PiRi-	*PuRu-	*PuRu-	*PuR-	*PοRο-
40.	-i- < *-i-	-i- < *-i-	*-i-	*-i-	*-i-/-i-	*-i-

40b	-i- < *-e-	-ye- < *-ia-	*-ia-	*-ia-	*-ia-	*-ia-
40c	-e(1) - < *-e-	-ye- < *-ia-	*-ia-	*-ia-	*-ia-	*-ia-
40 d	-o- < *-ə-	-e- < *-ə-	*-ü-	*-ö-	*-ö-	*-iu-
41.	a- < *-a-	a- < *-a-	*a-	*a-	*a-	*a-
41b.	a- < *-a-	e- < *-e-	*e-	*e-	*e-	*ə-
42.	o- < *-ə-	e- < *-e-	*e-	*e-	*e-	*ə-
43.	o- <? *o-	wo- < *o-	*o-	*o-	*o-	*ə-
44.	o- < *i-	ø <? *i-	*ö-	*ö-	*ö-	*o-
45.	u- < *u-	wu- < *u-	*u-	*u-	*u-	*u-
46.	i- < *i-	i- < *i-	*i-	*i-	*i-	*i-
46b	i- < *e-	ye- < *ia-	*ia-	*ya-	*ya-	*ia-
46c	ya- < *ia-	ye- < *ia-	*ia-	*ya-	*ya-	*ia-
46d	o- < *-ə-	ye- < *iə	*ü-	*ö-	*ö-	*iu-

SI 2 Detailed documentation of the Leipzig-Jakarta basic vocabulary comparative sets in support of Transeurasian affinity¹

1. FIRE

pJ **pi(r)i* ‘fire’: J *hi* (1.3b), OJ *pi*₂ ‘fire’, OJ *po-* ‘fire’ in OJ *potaru* ‘firefly’, OJ *pokusi* ‘bonfire’, OJ *pokuso* ‘tinder’, OJ *potopor-* ‘get heated’, OJ *poter-* ‘flush, be all aglow’ etc.; Yonamine (Okinawa) *πii*, Shuri (Okinawa) *fii* [hwii], Ishigaki (Yaeyama)

¹ Note that Old Japanese distinguished between two values for later *e*, *i*, *o* in certain syllables, which are indexed with subscripts *i*₁ versus *i*₂, *e*₁ versus *e*₂ and *o*₁ versus *o*₂. Japanese verbs and verbal adjectives can be distinguished according to two prosodic classes, called A and B, corresponding to a high and low initial tone, respectively. Prosodic classes for nouns are more complex and marked with a number notation. Adequate information about these prosodic patterns is only available from the Middle Japanese stage onwards.

For Middle Korean the Yale romanization is modified to allow for the representation of unrounded vowels [ʌ] and [i] by *o* and *u*. In proto-Korean these vowels are reconstructed as **ʌ* and **i*. The dots in the Middle Korean words represent the distinctive pitch of the following syllable: one dot for high, two dots for rising, and unmarked syllables are treated as low.

p̄ii (B), Hatoma (Yaeyama) *p̄ii*, Yonaguni *cii* (B) ‘fire’
pK **pil* ‘fire’: K *pul*, MK *·pul* ‘fire’

Frellesvig and Whitman (2008) have proposed to add two mid vowels (**e*, **o*) and a high central vowel (**i*) to the four vowels (**i*, **a*, **u*, **ə*), traditionally reconstructed for proto-Japonic. According to their analysis, apophony of OJ *o* and *i*₂ reflects a contraction whereby **ii* > OJ *i*₂. The alternation between OJ *po-* and OJ *pi*₂ ‘fire’ thus reflects pJ **p̄ii* ‘fire’. Comparison with the final liquid in MK *·pul* ‘fire’ indicates that the proto-Japonic diphthong is the result of liquid loss in an earlier pJ **pi(r)i* ‘fire’. The *(r)* is bracketed in the reconstruction because it is based on comparison with the proto-Korean form. The word for ‘fire’ is also reflected in Ryukyuan languages.

Vovin (2009: 117) and Georg (2007: 274) justly criticized the Tungusic part of the etymology proposed in Robbeets (2005: 404), but Vovin admits that “the Koreo-Japonic comparison can be tentatively accepted.” Therefore, the etymology was restricted to the Japonic and Koreanic members.

3. TO GO

pJ **na-* ‘to go out, become’: OJ *in-* ‘to go away, leave, depart’ A, OJ *-in-* perfective auxiliary, J *nar-* B, OJ *nar-* ‘to become, come into being’, J *nas-* B, OJ *nas-* ‘to make, do, give birth to’

pK **na-* ‘to go out’: K *na-*, MK *·na-* ‘to go out, emerge, leave, become, come into being, come out’, MK *ˀnay-* ‘to take out, produce’ (**-i-* causative), MK *nat-* ‘to appear’ (**-t(i)-* passive), MK *-na-* resultative

pTg **na-*: Evk., Even. *-na-*, Sol. *-na-*, Neg. *-na-*, Na. *-nda-*, Olch. *-nda-*, Oroch, Orok, Ud. *-na-*, Sibe *-na-*, Ma. *-na-* ~ *-ne-* ~ *-no-* ‘to go out (to verb)’

OJ *in-* ‘to go, leave, depart’ belongs to the n-irregular verb paradigm (*na-hen*) along with only two other verbs: OJ *sin-* ‘to die’ and the perfect auxiliary OJ *-in-*, which are probably reflexes of the same etymon (Robbeets 2005: 123, 162.) The n-irregular verb paradigm is an exception to the athematic paradigm (*yodan*) because it has ‘long’ adnominals (*rentaikēi*) *-uru* and subjunctives (*meireikēi*) *-ure* in contrast to the ‘short’ adnominals *-u* and subjunctives *-e* of the athematic paradigm.

Whitman (1985) has argued that at some proto-Japanese stage **-r-* was deleted after short vowels but retained after long vowels. The loss of the intervocalic *-r-* in the adnominals and subjunctives of the athematic paradigm is commonly attributed to this rule, so in the case of the n-irregular verb paradigm a preceding long original vowel must have blocked the application of the rule. Since the root vowel in monosyllabic morphemes was automatically long at the proto-Japanese stage, it is inviting to reconstruct monosyllabic pJ **na-* ‘to go’.

The prefix in OJ *in-* ‘to go, leave, depart’ is a lexicalized instance of the Old Japanese verb prefix *i-*. Various semantic and syntactic analyses of this prefix circulate in the literature², but, arguing that Old Japanese has active allignment in nominalized clauses, Yanagida and Whitman (2009: 117-119) demonstrate that the *i-*

² Martin 1987: 94, 668: independent adverb; Hino 1997: 2-5: agentive marker; Unger 2000: 676: reanalysis of a preceding *-i* converb, Russell 2006: 141-142: goal focus marker; Vovin 2009: 561: directive-locative focus marker.

prefix is exclusively attached to active verbs, i.e. to transitive verbs and to intransitive verbs with an agentive subject. The separate accentuation of *i-* is high atonic 1.1. (Martin 1987: 668), which explains the B register in a number of lexicalisations such as J *imasu* B ‘deign to be/stay/go/come’ (< OJ *mas-* A ‘to deign to be/stay/go/come’), OJ *ino₂r-* B ‘to pray’ (< OJ *no₂r-* A ‘to declare’) and OJ *ituk-* B ‘to purify’ (< OJ *tuk-* B ‘to soak’). Lexicalized stems showing a reduced form of *i-* such as OJ *ik-* / *yuk-* ‘to go’, OJ *yokos-* ‘to send here’ and OJ *yusug-* ‘to wash out, rinse’ have A register. OJ *in-* ‘to go, leave, depart’ and OJ *sin-* ‘to die’ have A register. However, in reference to Kindaichi, Martin (1987: 201) points out that the original accent type may be B because “these verbs originally had a fall (instead of just low) on the ending of the predicative [...] and that of the infinitive [...] like verbs of Type B.” From this perspective, pJ **na-* ‘to go’ may underlie derivations such as OJ *nar-* ‘to become, come into being’ and OJ *nas-* ‘to make, do, give birth to’ which have B register. The grammaticalization of ‘to go’ into a change-of-state verb is cross-linguistically well attested (Heine and Kuteva 2002: 156-157.)

A similar pathway of grammaticalization probably underlies in MK *·na-* ‘to go out, emerge, leave, become, come into being, come out’. In addition to the most common meaning ‘to become’, the Korean verb is used in the sense of K *na-ka-* ‘to go out, leave’, e.g. in *nwun-ey nata* ‘go out of a person’s favor’. Rhee (1996: 215-216) shows that the basic denotation of MK *·na-* was the motion of getting out of a bounded space. Derivations such as MK *·nay-* ‘to take out, produce’ with the causative suffix **-i-* and MK *nat-* ‘to appear’ with the passive **-t(i)-* support this semantic analysis. Martin (1992: 263, 702, 933) further considers the so-called “effective suffix” MK *·na-*, that can only apply to the verb MK *·wo-* ‘to come’ yielding MK *·wo-na-* ‘to end up by coming, ultimately come’, to be a grammaticalization from the auxiliary MK *·na-* ‘to go out, emerge’.

The Tungusic languages share a suffix that denotes departure from a place to other places or towards the object of an action (Benzing 1955a: 1068, Gorelova 2002: 239-240), such as Ma. *feku-* ‘to jump’ → *fekune-* ‘to jump away from the speaker, to jump to the other side’, *guri-* ‘to move’ → *gurine-* ‘to move to another place’ and Ma. *omi-* ‘to drink’ → *omina-* ‘to go to drink’. In Manchu, this construction can be replaced by a periphrastic converb construction with the verb *gene-* ‘to go’. From the viewpoint of cyclic grammaticalization, the synthetic construction may also go back to an original verb pTg **na-* ‘to go out’. Its origin as an independent verb is further supported by the observation that there is no development of vowel harmony for the suffix, except in Manchu.

4 WATER

pK **mil* ‘water’: K *mul*, MK *·mul* ‘water’

pTg **mu:* ~ *mō:* ‘water’: Evk *mu:* ‘water’, Even *mo* ‘water’, *mo:w-* ‘to dilute with water’, *mo:de-* ‘grow, swell (of water in a river)’, *mo:de* ‘flood’, *mo:lken* ‘wattery’, Neg *mu:* ‘water’, *mu:-li:-* ‘to carry water’, Solon *mu* ‘water; river; well’, Oroch *mu:* ‘water; liquid’, Ud. *mudə* ‘inundation, flood’, *muktu-* ‘to become wet’, *muhi-* ‘to leak (about boat, vessels)’, *muə-* ‘to scoop, to pull water out of a boat’ (Samargi dialect), Olcha *mu:* ‘water’, Orok *mu:* ‘water; tears’, Na. *muə* ~ *mukə*, *moko* ‘water’, Sibe *muku:*

‘water’, Ma. *muke* ‘water; river, stream’, *muke-le-* ‘to water, to irrigate’, *muke-ne-* ‘to turn to water, to melt’, *mukeri* ‘watery, weak (of tea)’, Jur. *mukə, mo* ‘water’
 pMo **mören* ‘river’: MMo. *muren* (SH), *müren* (HY), *mören* (Muq) ‘river’, WMo. *mören* ‘large river, lake’, Khal. *mörön*, Ordos *mörön*, Bur. *müre(n)*, Kalm *mörn*, Dag. *mur(e)*, Dong. *moren, moran, moron*, Bao. *moron*, Eastern Yugur *mereen*, Mgr. *muro:n*

The common reconstruction of the proto-Tungusic form is **mu:* ‘water’. However, Even, Nanai and Jurchen preserve alternant forms such as Even *mo:* ‘water’, Na. *moko* ‘water’ and Jur. *mo* that reflect pTg **mö:* ‘water’ according to Benzing’s sound correspondences.³ Similar to the etymologies under 53 ‘to give’, 79 ‘to blow’ and 80 ‘wood’, an open monosyllabic form with length in Tungusic corresponds to a disyllabic form with a liquid onset in the second syllable in the other Transeurasian languages. This is indicative of liquid loss in Tungusic.

As far as Mongolic is concerned, some modern forms suggest **müren*, leaving uncertainty about the original first vowel, but the older varieties as well as the external comparisons support the reconstruction of **mören*.

5 MOUTH

pJ **kuti-i* ‘mouth, hole, opening’: J *kuti* (2.1), OJ *kuti* ‘mouth, aperture, opening’, J *kutu-* ‘mouth, opening’ in J *kutuwa* ‘mouth-piece, bit’, J *kutugaeru* ‘be overturned, capsized’, etc.; Yamatohama (Amami) *kuci*, Asama (Amami) *kucii*, Yoron (Amami) *kuci*, Shodon (Amami) *k’uci*, Yonamine (Okinawa) *kucii*, Shuri (Okinawa) *kuci*, Irabu (Miyako) *futsi*, Hirara (Miyako) *futsi* (A), Ishigaki *φuci* (Yaeyama), Ikegami (Yaeyama) *futsi* (A), Hatoma (Yaeyama) *huci*, Yonaguni *tii* (A), pR **kuti* ‘mouth’;

OKog 古次 **kotsi* ‘mouth’ (Beckwith 2007: 112, 115, 129), **koči* ‘mouth’ (Miyake pc)

pK **kwut* ‘cavity, hole’: K *kwut, kwutengi*, MK *kwut* ‘hollow, pit, cave’

The distinction between $i_1 < *i$ and $i_2 < *ii$ is not preserved following dental stops in Old Japanese, but it is possible to reconstruct an earlier **ii* on the basis of the apophonic pair *kutu-* ~ *kuti* ‘mouth’. The word for ‘mouth’ is reflected in Ryukyuan languages and a possible cognate has been reconstructed in Old Koguryo, which makes reconstruction at the proto-Japono-Koguryoic level inviting. The suffix pJ **-i* is a substantivizer following nouns (e.g. OJ *aka* ‘red’ → *ake₂* ‘red object, red cloth’),

³ According to the correspondences in Benzing 1955a:

pTg	Ma.	Jur	Evk	Even	Sol	Neg	Oroch	Ud.	Olch.	Orok	Na
*ö	u		u	o	u	u	o/u	o	o/u	o/u	u
*u	u		u / -ö-	u / -ö-	u / -ö-	u / -ö-	u	u	u	u	u

cognate with the bound noun OJ *i* 'fact (that); that (which)' (Robbeets 2015: 341).

Georg (2007: 271) justly criticized the proposal in Robbeets (2005: 402) to include pTg **gude* 'hole, opening' because the noun is likely to be derived from the verb **gude-* 'to break, tear apart'. Therefore, I have left the Tungusic member out here.

pTg **amga* < ? **ama-g* 'mouth, opening': Evk. *amŋa*, 'mouth; hole; stove's hole; river's mouth', Even *amŋe* 'mouth', Neg. *amŋa* 'mouth; opening (of a bag etc.); lake mouth', Solon *amma* 'mouth; speech', Olcha *aŋma* 'mouth; river mouth; bottleneck', Orok *amŋa* ~ *aŋma* 'mouth; opening; barrel of a gun', Na. *aŋma* 'mouth; opening; bottleneck', Oroch *amma* 'mouth', Ud. *aŋma* 'mouth', Sibe *aŋ* 'mouth', Ma. *aŋga* 'mouth; opening, hole; pass, gate', Jur. *aŋga* 'mouth'

pMo **ama-n* 'mouth, opening': MMo. *ama(n)*, WMo. *ama(n)*, Khal. *am(an)*, Bur. *ama(n)*, Kalm. *amn*, Dag. *am*, *ama*, Eastern Yugur *aman*, Mgr. *ama*, Bao. *amaŋ*, *aman*, *amɔŋ*, Dong. *amaŋ*, *aman*, Mogh. *aman*, *amun*

The Tungusic reconstruction **amga* 'mouth, opening' may ultimately derive from **ama-g*, through the addition of a collective suffix pTg **-g* (Benzing 1955a: 1016). This suffix is also present in pTg **de:re-g* 'face' reflected in Ma. *dere*, Nanai *dereg* and Olcha *dere* ~ *dereg* 'face'. The Tungusic words for 'hole', i.e. Evk. *aŋa*, Neg. *aŋa* and Olcha *aŋgala* are probably connected to this etymon.

In the Mongolic languages we find an unstable stem-final nasal element, morphophonologically alternating with zero, that expresses singularity in contrast with plural forms on *-d*. This stem-final *-n* was added to the simple stem, yielding pMo **ama-n*. The Mongolic languages, e.g. MMo. *amasar*, WMo. *amasar*, Khal. *amsar*, Bur. *amhar*, Kalm. *amsr*, Dag. *amsər* etc., reflect a derived form pMo **amasar* 'opening, cavity, hole'.

pJ **ipa-* 'to tell': J *iw-* (A), OJ *ip-* 'say, tell, talk, speak', J *iwaw-*, OJ *ipap-* (B) 'congratulate'; Yamato-hama (Amami) *ŋyūuri*, Asama (Amami) *ŋyūn*, Yoron (Amami) *ŋjun*, Naze (Amami) *ŋyun*, Yonamine (Okinawa) *ŋyūn*, Shuri *ŋyūn*, Irabu (Miyako) *nzi*, Hirara (Miyako) *aʔi*, Ishigaki (Yaeyama) *izūŋ*, Hatoma (Yaeyama) *azūn*, Yonaguni *Nduŋ* 'say'

pK **ip* 'mouth; speech (act)': K *ip*, MK *·ip* 'mouth; speech, speech act'

The *-z-* in the Yaeyama and Miyako forms is due to the development of proto-Ryukyuan **-y-* to *-z-* in these languages, but not in Yonaguni. A similar development is seen in pR **iyu* 'fish' under 40. FISH. The *a-* in Hirara *aʔi* and Hatoma *azūn*, is probably epenthetic (cf. Miyako *asi* 'do').

The semantic association between 'mouth' and 'speech, speech act' in Korean is clear from numerous expressions, such as *ip-ul mak-* (mouth-ACC stop) 'stop (sb) to talk', *ip-ul yel-* (mouth-ACC open) 'begin to talk', *ip-i pparu-* (mouth-NOM be.quick) 'to talk too much', etc. Such polysemies between 'mouth' and verbs of speech are found across the languages of the world; see Nan 2016 for the cases in English, Chinese and Korean.

pJ *(y)iwə 'fish': J *uo* (2.1), OJ *iwō* 'fish', Yamatohama (Amami) *ʔjuu*, Asama (Amami) *ʔyuu*, Yoron (Amami) *ʔyuu*, Shodon (Amami) *ʔyuu*, Yonamine (Okinawa) *ʔyuu*, Shuri (Okinawa) *ʔiyu* (A), Irabu (Miyako) *izu*, Hirara (Miyako) *ʔizu*, Ishigaki (Yaeyama) *idzu* [*izu*] (A), Yonaguni *iyu*, pR **iyu* 'fish'

7. BLOOD

pJ **ti* 'blood; spirit, force': J *tī* (1.1), OJ *tī* 'blood', OJ *tī* 'spirit, force'; Yamatohama (Amami) *ci(t)*, Asama (Amami) *Cii*, Yoron (Amami) *cii*, Shodon (Amami) *cii*, Yonamine (Okinawa) *cii*, Shuri (Okinawa) *cii*, Irabu (Miyako) *ahaci(t)*, Hirara (Miyako) *tsiisi*, Ishigaki (Yaeyama) *tsii* [*cii*] (A), Hatoma (Yaeyama) *sii*, Yonaguni *ccii* 'blood' (A), pR **ti* 'blood'

pMo **či* < **ti* 'blood': MMo. *čisu(n)*, WMo. *čisu(n)*, Dag. *čos*, Khal. *cus(an)*, Ordos *jusu*, Bur. *šuha(n)*, Kalm. *cusn*, Eastern Yugur *čüsən*, *čusun*, Mgr. *čisə*, *cəʒə*, Bao. *čisuŋ*, *čisəŋ*, Dong. *čusun*, Mogh. *čusun*, *čisu*

pTk **ti:n* 'spirit, breath': OT *tīn* '1 spirit, breath', Tk. *tin* '1', Tat. *tīn* '1', Uz. *tin* '1', Uigh. *tin* '1', Kirg. *tīn* '1', Kaz. *tīnis* '1', Nog. *tīnis* '1', Bash. *tīn* '1', Balk. *tīn* '1', Kpak *tīn* '1', Kum. *tīniš* '1', Khak. *tīn* '1', Shor *tīn* '1', Tuva *tīn* '1', Tofa. *tīn* '1', Yak. *tī:n* '1', Dol. *tī:n* '1', Chu. *čēm* '1'; Tkm. *dī:nč* '2 rest', Az. *dīnč* '2', Karaim *tīnc* '2', Gag. *dinnen-* 'to rest'

Reflexes of pJ **ti* 'blood; spirit, force' are found in Mainland Japanese as well as in the Ryukyuan languages. The metaphorical extension of the meaning 'blood' to 'spirit, force' in Old Japanese supports the comparison with pTk **ti:n* 'spirit, breath'. The Mongolic forms reflect a petrified suffix *-sun* that occurs in numerous body part terms, e.g. WMo. *gede-sūn* 'bowel' and *suda-sun* 'arteria' (Poppe 1973: 238-240).

8. BONE

pJ **pəne* 'bone': J *hone* (2.3), OJ *pone* 'bone, skeleton, rib', Yamatohama (Amami) *huni*, Asama (Amami) *huuni*, Yoron (Amami) *puni*, Shodon (Amami) *huni*, Yonamine (Okinawa) *puni*, Shuri (Okinawa) *huni*, Irabu (Miyako) *puni*, Hirara (Miyako) *puni*, Ishigaki (Yaeyama) *puni*, Igarashi (Yaeyama) *puni*, Yonaguni *huni*, pR **pone* 'bone'

pK **peCi* 'bone': K *ppyē*, MK *·spyē* ~ *spey* ~ *pspey* 'bone'

pTg **peni-ken* 'knee': Evk. *henjen*, Even *henjen*, Solon *eŋē*, Neg. *heñjen*, Olcha *peñe(n)*, Orok *pene*, *peñe(n)*, Na. *peiñē*, Oroch *heñje*, *hejen*, Ud. *heje*

Within Frellesvig and Whitman's (2008) seven vowel hypothesis, many instances of OJ *e(ɨ)* in word-final position cannot be etymologized as contractions, but they result from an original pJ **e*. Indeed, the Ryukyuan forms support the reconstruction of pJ **pəne* 'bone' with a final mid-vowel, which raised only in the Ryukyuan languages.

The Middle Korean forms *·spyē* ~ *spey* ~ *pspey* 'bone' have complex initials, which are all secondarily generated through phonological or morphological developments in Korean. If the initial *s-* in *·spyē* ~ *spey* can be separated as a relic of a genitive *s* in compound structures, reinterpreted as the initial of the second noun (**pye* ~ **pey*) with '-bone', then we can reconstruct pK **piCe* or **peCi* which contracted to the tonic open monosyllable in Middle Korean.

The Tungusic languages share a suffix that denotes departure from a place to other places or towards the object of an action (Benzing 1955a: 1068, Gorelova 2002: 239-240), such as Ma. *feku-* 'to jump' → *fekune-* 'to jump away from the speaker, to jump to the other side', *guri-* 'to move' → *gurine-* 'to move to another place' and Ma. *omi-* 'to drink' → *omina-* 'to go to drink'. In Manchu, this construction can be replaced by a periphrastic converb construction with the verb *gene-* 'to go'. Therefore, I assume that the Tungusic verb *gene-* 'to go' has replaced an older verb **na:-* 'to go (out)', which has only been preserved in morphology. Hence, I do not take into account Kara's (2007: 96) alternative hypothesis that the suffix **-na-* is a phonological reduction of the verb *gene*. If this were the case, we would expect the shape **-ne-* rather than **-na-*, because there is no development of vowel harmony for the suffix, except in Manchu. The lack of vowel harmony further supports the origin of pTg **na-* 'to go out' as an independent verb.

9. 2 SG pronoun

pJ **na* '2 SG pronoun': OJ *na*, *nare* '2 SG pronoun'; Koniya (Amami) *nam*, Shuri (Okinawa) *naa*, Namizato (Okinawa) *naa*, Sesoko (Okinawa) *naa*, *naN*, Taketomi (Yaeyama) *naara* 'you, self', pR **naa* '2 SG honorific pronoun'
pK **ne* '2 SG pronoun': MK *ne* '2 SG pronoun'

In Old Japanese *na* is used along with *nare* as the main neutral pronoun to express the second person singular 'you'. Only *nare* is used to express the second person plural. However, since OJ *na* is petrified in some expressions in reference to a first person singular (e.g. OJ *na se* 'my older brother / fellow'), it is possible that it has grammaticalized from an original **na* 'person', reflected in among others OJ *womi₁na* 'woman' and OJ *oki₁na* 'old man' (Robbeets 2005: 241). Therefore, I do not exclude that the correspondence with the Korean form may be coincidental. The Ryukyuan pronouns have honorific uses in most languages given above. Contrary to Vovin's (2008: 65) claim "The distribution in the Ryukyus (no attestations in Sakishima) and its mild honorific nature suggest that Ryukyuan *naa* is a loan from Japanese," there is an attestation of this form in the Sakishima languages, notably Taketomi (Yaeyama) *naara* 'you, self'. Hence, Vovin's deduction that the Old Japanese pronoun *na* must be a loan from Korean *ne*, at a time the Ryukyuan languages had already separated, (Vovin 2008: 65, 2013: 254-255) becomes less convincing.

pTg **si* '2 SG pronoun': Evk. *si*, Even *hi:*, Neg. *si:*, Solon *śi*, Olcha *si*, Na. *śi*, Oroch *si*, Ud. *si*, Sibe *ši:*, Ma. *si*, Ma. *si-ni* '2 SG-genitive', *sim-be* '2SG-accusative', *sin-de* '2 SG-dative', *sin-ci* '2 SG-ablative'

pTk **si* '2 SG pronoun': OT *si-ni* '2 SG-accusative', *sin-tä*, *sin-dä*, *sin-idä* '2 SG-locative', *sin-idin* '2 SG-ablative', *siz* '2 PL pronoun'; Tk. *sen* '2 SG pronoun', *siz* '2 PL pronoun'; Tkm. *sen* '2 SG', *sið* '2 PL'; Gag. *sen/sän* '2 SG', *siz* '2 PL'; Az. *sän* '2 SG', *siz* '2 PL'; KKalp. *sen* '2 SG', *siz* '2 PL'; Kirg. *sen* '2 SG', *siz(der)/siler* '2 PL'; Bash. *hin* '2 SG', *heð* '2 PL'; Tat. *sin* '2 SG', *sez* '2 PL'; Karaim *sen* '2 SG', *siz* '2 PL'; KBalk. *sen* '2 SG', *siz* '2 PL'; Kum. *sen* '2 SG', *siz* '2 PL'; Nog. *sän* '2 SG pronoun', *siz* '2 PL pronoun'; Khak. *sin* '2 SG pronoun', *sirär* '2 PL pronoun'; Uig. *sän* '2 SG', *silä* '2 PL'; Uz. *sen* '2 SG', *siz* '2 PL'; Shor. *sen* '2 SG', *siler/sler* '2 PL', Tuva *sen* '2 SG', *siler* '2 PL', Tofa. *sän* '2 SG pronoun', *silär* '2 PL pronoun'; Yak. *än* '2 SG pronoun', *ähigi* '2

PL pronoun'; Dolg. *än* '2 SG', *ähigi* '2 PL'; Khalaj *sän* '2 SG pronoun', *siz* '2 PL pronoun'; Chu. *e-sě* '2 SG pronoun', *e-sir* '2 PL pronoun'

The Turkic second person plural pronoun can be analyzed as a plural in **-z* from an original singular stem **si*. The plural *-z* was no longer productive in Old Turkic, but it is attested in a number of petrified forms including paired body parts such as OT *kö-z* 'eyes', *ti-z* 'knees', *agi-z* 'lips' and *kökü-z* 'breasts' and ethnonyms such as OT *ogu-z* and *kirgi-z*. Similar to the Tungusic paradigm, the Turkic paradigm is marked by the insertion of an oblique suffix *-n-* in some oblique cases. The elision of initial **s-* in Yakut is a regular development, while Yak. *-higi* is a plural suffix.

11. TO COME

pJ **kə-* 'to come': J *ko-*, OJ *ko₂-* 'to come' (OJ *ko₂nu* 'not come'; *ko₂ba* 'if come'; *ko₂si* 'came' etc.); Yamatohama (Amami) *ki(i)*, Asama (Amami) *kjun*, Yoron (Amami) *kjun*, Yonamine (Okinawa) *sun*, Shuri (Okinawa) *cuun*, Irabu (Miyako) *fui*, Ikema (Miyako) *fu:*, Ishigaki (Yaeyama) *kī(:)η* [*kī(i)N*], Yonaguni *kun*, pR **ko-*
pTk **kel-* 'to come': OT *kel-*, Tk. *gel-*, Az. *gäl-*, Tkm. *gel-*, Gag. *gel-*, Uig. *käl-* ~ *kil*, Uz. *kel-*, S.-Yugh. *kel-*, Karaim *kel-*, Kpak *kel-*, Tat. *kil-*, Kirg. *kel-*, Kaz. *kel-*, Bash. *kil*, Nog. *kel-*, Balkar *kel-*, Kumyk *gel-*, Sal. *gel-*, *gej-*, Khak. *kil-*, Shor *kel-*, Tuva *kel-*, Tofa *kel-*, Yak. *kel-*, Dol. *kel-*, Khalaj *käl-*, Chu. *kil-*

12. BREAST

pJ **kiki-rə* 'heart': J *kokoro* (3.5b), OJ *ko₂ko₂ro₂* 'heart', MJ *kokoti* 'heart, feelings, mood'; Yamatohama (Asami) *xohoro*, Asama (Asami) *kukuuru*, Yoron (Amami) *kuuru*, Shodon (Asami) *k'ohoro*, Shuri (Okinawa) *kukuru*, Hirara (Miyako) *kukuru*, Irabu (Miyako) *kukuru*, Ishigaki (Yaeyama) *kukuru* (B), Hatoma (Yaeyama) *kukuru* Yonaguni *kukuru* (B), pR **kokoro* 'heart'; OKog **kir* ~ **kür* 'heart' (Beckwith 2007: 80, 115)

pTg **xökö-n* 'breast': Evk. *uku-* 'to suck', *ukun* ~ *xukun* ~ *xukur* ~ *xukuxu* 'breast, udder, milk', Even *ok-* 'to suck', *oken* 'breast; nipple', *okeñ* 'milk', Solon *əhun* 'breast; milk', Neg. *oxo-* ~ *oko-* ~ *uku-* 'to suck', *oxon* ~ *okon* 'breast', *oxoño* ~ *okoño* 'milk', Oroch *owoci-* ~ *o:ci-* ~ *ueci-* 'to suckle', *oko(n)* 'breast, nipple, milk', Ud. *kos'o-* 'to suck', *kos'o* ~ *oko* 'breast; nipples, udder; milk', Olcha *ku:či-* 'to suck', *kuə(n)* 'breast, milk', Orok *ku:tci-* ~ *ku:tcu-* 'to suck', *qu:(n)* ~ *qo:(n)* 'breast; nipple; milk', Na. *ku:či-* 'to suck milk, to suck smth. (e.g. finger)', *kū:* 'breast; milk', Sibe *xuxun* 'breast', Ma. *xuxun* 'breast; milk', *xuxuri* 'unweaned; sucking', Jur. *gugu* 'breast'

pMo **kökö-n* 'breast': MMo. *koko-* (SH) '1 to suck the breast', *kokan* '2 breast', pl. *kokot*, MMo. *köke-* (Muq) '1', *köken* '2', WMo. *kökö-* '1', *kökö(n)* ~ *köke(n)* '2', Khal. *xöxö-* '1', *xöx* '2', Ordos *gökö-* '1', *gökö* '2', Bur. *xüxe-* '1', *xüxe(n)* '2', Kalm. *kök-* '1', *kökn* '2', Dag. *mək-* '1', *mək* '2', Eastern Yugur *hkö-* ~ *hgö-* '1', *hkön* ~ *hgön* '2', Mgr. *kugo-* '1', *kugo* '2', Bao. *kugo-yo-* (-yo- causative) '1', *kugo* '2', Dong. *gogo-* '1', *gogo* '2', Mog. *kökä-* '1', *kökä* 'nipple'

pTk **kökü-r₂* 'breast': OT *kögüz* '1 breast, 2 reason, sense, emotion', Tk. *göyüs* ~

kökrək (dial.) '1', Tat. *kögüs* (dial.) ~ *kükrək* '1', Uz. *küks* '1, 2', *kəkrək* '1', Uigh. *köküs* ~ *kökrək* '1', S-Yug. *köküs* ~ *gös* '1', Az. *köks* ~ *köküs* '1', Tkm. *gövüs* ~ *kükrək* '1', Kirg. *kökürök* '1', Kaz. *kökirek* '1', Nog. *kökirek* '1', Bash. *kükrək* '1', Balkar *kökürek* '1', Gag. *güs* '1', Karaim *kökis* ~ *kökrək* '1', Kpak. *kökirek* '1', Salar *göfrix* '1', Kum. *kökürek* '1', Khak. *kögis* '1', Shor *kögüs* '1', Yak. *köyüs* 'middle of the back', Dolg. *köksü* 'back', Chu. *kägär* '1'

If the Japanese form for 'heart' indeed incorporates a petrified plurality marker pJ *-rə of the type found in among others OJ *ko₁-ra* 'children', *woto₂me₁-ra* 'young girls', *ye-ra* 'branches', *kinu-wata-ra* 'silk clothes' (Antonov 2007: 195, 197), then the plurality can be taken as indicative of a pre-Japanic semantic shift from 'breasts' to 'heart'. Some of the Ryukyuan forms such as Yoron (Amami) *kuuru* are rather rare. These forms are used in expressions like 'good-hearted' or 'bad-hearted', while the Chinese anatomical borrowing *sinzou* 'heart' is used for the organ, e.g., Yamatohama (Asami) *sindo*, Hatoma (Yaeyama) *sinzoo*, etc. The Ryukyuan attestations and the tentative Old Koguryo reconstruction suggest that the reconstruction goes back to the proto-Japanic level.⁴

With exception of the Manchu and Nanai words, which may be borrowings from Mongolic, all Tungusic forms support the reconstruction of an initial *x- in proto-Tungusic.⁵ Given the reflexes with alternating *o/u* in Oroch and Orok, Udehe *o* in *oko* 'milk' and Even *o* in *ok-* 'to suck' and *oken* 'breast; nipple', the vowel should be reconstructed as *ö in line with the correspondence in footnote 3. The word for 'milk' clearly is a derivation from the verb 'to suck' with the nominalizer pTg *-n (Robbeets 2015: 385-391), but as the derivation is shared between most Tungusic languages, it probably had already taken place at the proto-Tungusic or pre-Tungusic level.

Georg (2007: 272) objected that the Tungusic and Mongolic etyma are internally derived from the verb 'to suck' and can therefore not be considered in this etymology. Given the parallel derivation of 'milk' from 'to suck' in Mongolic with a cognate nominalizer pMo *-n (Robbeets 2015: 391-393), I agree with this analysis. However, as there is evidence that the Japonic and Turkic words are equally derived, it is likely that the derivation can be traced back to the proto-Transeurasian level. From this perspective, Japonic and Turkic have probably preserved a formation with the common plural suffix pTEA *-rA, while Tungusic and Mongolic have preserved the formation with the common deverbal nominalizer and singular pTEA *-n. The plural -z < pTk *-r₂ has been mentioned under item 9. 2 SG pronoun.

14. 1 SG pronoun

⁴ I use the term "Japanic" in reference to a genealogical unity that comprises the historical continental varieties of the Japanese language as well as the varieties spoken on the Japanese Islands, including the Ryukyu Islands. The label "Japonic" is usually restricted to a branch of Japanic, namely the language family composed of Mainland Japanese and the Ryukyuan languages.

⁵ Benzing (1955a: 976, 989) lists the following correspondences.

pTg	Ma.	Na.	Olch.	Orok	Oroch.	Ud.	Sol.	Neg.	Ev.	Lam.
*x-	Ø	x-	x-	x-	Ø	Ø	Ø	Ø	Ø	Ø
*k-	k~x	Ø	Ø	Ø	k~x	x~g	x-	x-	k-	k-

pJ **wa* ~ **wa-n-* '1 SG/PL pronoun': OJ *wa* (1.3 a) ~ *ware* '1 SG pronoun', OJ *ware* '1 PL pronoun'; Yamatohama (Amami) *wan*, Asama (Amami) *wan*, Yoron (Amami) *waa*, Shodon (Amami) *waa*, Yonamine (Okinawa) *wanuu*, Shuri (Okinawa) *waa* (nominative / genitive) ~ *wan* (oblique) (B), Irabu (Miyako) *a-*, Hirara (Miyako) *baŋ*, Ishgaki (Yaeyama) *banu* (A), Hatoma (Yaeyama) *baa*, Yonaguni *banu* (A), pR **wa-nu* '1 SG pronoun'

pMo **ba* ~ **ba-n-* '1 PL excl. pronoun': MMo. *ba* (nominative/ genitive) ~ *ma-n-* (dative/ locative), WMo. *ba* ~ *man-*, Dag. *ba:* ~ *ma:n-* Khal. *ba* ~ *man-*, Bur. *man-*, Kalm. *man-*, Ordos *man-*, Dong. *mani* / *mayi* (genitive/accusative), *mai* 'our (postnominal possessive)', Bao. *man-*, Eastern Yug. *bə*, *manə* 'our (postnominal possessive)', Mog. *mo:n-*

Both OJ *wa* and *ware* are used for the first person singular in Old Japanese, but only *ware* is used for the plural. In contrast to modern Japanese (e.g. *watakusi* 'I' ~ *watakusi-tati* 'we') none of these pronouns can be followed by productive plural markers. This observation suggests that the suffix *-re* (*< *-ra-(C)i*) goes back to the plural suffix OJ *-ra*, mentioned under 12. BREAST. When the suffix *-re* lexicalized in a way that it was no longer identified with the plural, the petrified plural *ware* probably spread by analogy to the singular. The final nasal in the Ryukyuan forms is probably a reflex of an original oblique case suffix pJ **-n(u)-*, which is also reflected in the East Old Japanese dative case *wa-nu-ni*.

The Mongolic languages display a similar alternation between pMo **ba* and **ma-n-* the nominative/genitive and oblique case forms of the first person plural exclusive pronoun. The initial **b* assimilated to the nasal oblique suffix. Some oblique forms survived in languages that lost **ba* itself.

pTg **bi* '1 SG pronoun': Evk. *bi*, Even *bi*, Neg. *bi*, Solon *bi*, Oroch *bi*, Ud. *bi*, Na. *mi*, *bi* (dial.), Orok *bi*, Olcha *bi*, Sibe *bi:*, Ma. *bi*, Jur. *mi-n*

pMo **bi* '1 SG pronoun': MMo. *bi*, WMo. *bi*, Dag. *bi:*, Khal. *bi*, Bur. *bi*, Kalm. *bi*, Ordos *bi*, Dong. *bi*, Bao. *bi*, *bu*, *bə*, Eastern Yugur *bu*, *bə*, Mgr. *bi*, *bu*, Mog. *bi*

pTk **bi* '1 SG pronoun': OT *min* '1 1 SG pronoun', OT *biz* '2 1 PL pronoun'; Tk. *ben* '1', Tk. *biz* '2'; Az. *män* '1', *biz* '2'; Tkm. *men* '1', *bi:z* '2'; Gag. *ben* '1', *bis* '2'; Uz. *men* '1', *biz* '2'; Uig. *män* '1' ~ *biz* '2', Kirg. *men* '1', *miz* '2'; Karaim *men* '1', *biz* '2', Kaz. *min* '1', *biz* '2'; Nog. *män* '1', *biz* '2', Balkar *men* '1', *miz* '2'; Kpak *men* '1', *biz* '2'; Salar *me:(n)* '1', *pise(r)* '2'; Kum. *men* '1', *biz* '2', Tat. *min* '1', *bez* '2'; Bash. *min* '1', *beđ* '2'; S-Yug. *piz* '2', Khak. *min* '1', *pis* '2', Shor *men* '1', *pis* '2', Tuva *men* '1', *bis* '2', Tofa. *män* '1', *bi's* '2'; Yak. *min* '1', *bihigi* '2', Dolg. *min* '1', *bihigi* '2'; Khalaj *män* '1', *biz* '2', Chu. *e-pě* ~ *e-bě* '1', *e-pir* ~ *e-běr* '2'

Parallel to the Turkic second person plural pronoun discussed under 9. 2 SG pronoun, the first person plural pronoun can be analyzed as a plural in *-z from an original singular stem **bi* or **bä*. Only the Turkic forms with a high front vowel as well as Chu. *e-pě* reflect the original first singular pronoun **bi*.

16. LOUSE

pMo **sirke* 'louse': MMo. *sərke* 'nit', WMo. *sirke* 'a kind of flea', Khal. *širx* '1 cattle louse', Bur. *šerxe* '1', Kalm. *širkə* '1', Ordos *širxe* '1'

pTk **sirke* '1 nit': OT (Karakh.) *sirke* '1', Tk. *sirke* '1', Az. *sirkä* '1', Tkm. *sirke* '1', Gag. *sirkä* '1', Tat. *sırke* '1', Kirg. *sirke*, Kaz. *sırke*, Nog. *sirke* '1', Bash. *hırkä* '1', Balk. *sirke* '1', Karaim *sirke* '1', Kpak. *sirke* '1', Kum. *sirke* '1', Uz. *sırke* '1', Uig. *sı(r)kä* '1', Khak. *sırge* '1', Tuva *sirge* '1', Tofa. *si'rxē* '1', Khalaj *sirkä* '1', Chu. *šärga* '1'

19. ARM/HAND

pJ **ta(r)i* 'upper limb, arm, hand': J *te* (1.3a), OJ *te*, OJ *ta-* in e.g. OJ *tanapidi* 'elbow' (<*ta-* 'arm' + *na* genitive + *pidi* 'joint') and OJ *tomo* 'archer's arm protector' (< *ta-* 'arm' + *omo* 'surface'); Yamatohama (Amami) *θi(i)*, Asama (Amami) *tii*, Yoron (Amami) *tii*, Shodon (Amami) *t'II*, Yonamine (Okinawa) *tii*, Shuri (Okinawa) *tii*, Irabu (Miyako) *tii*, Hirara (Miyako) *tii*, Ishigaki (Yaeyama) *tii* (B), Hatoma (Yaeyama) *tii*, Yonaguni *tii* (B), pR **te* 'arm, hand'
pK **tali* 'lower limb, leg': K *tali*, MK *·tali* 'leg, limb'

The Transeurasian languages display a tendency to use a single term for both the limb and its extremity. When new words for 'arm, hand' or 'leg, foot' come in, they are likely to push the meanings of previous forms into designating a specific subpart of the limb. This development is expected to cause overlapping meanings such as between Mk *·pal* 'foot, leg, paw' and MK *·tali* 'leg, limb'. The crossing-over of the semantic correspondence between upper limb and lower limb in both etymologies may be explained in the context of naming animal limbs. Wilkins (1996: 273-274) finds that it is a natural tendency for terms referring to parts of the upper body to shift to refer to parts of the lower body and vice versa, e.g. the semantic association between 'elbow' and 'knee'. The semantic shift between the terms for 'arm' and 'leg' can be seen as a result of the same tendency.

pJ **sune* 'lower limb, leg': J *sune* (2.3), OJ *sune* 'leg, shin, shank'; Asama (Amami) *sini*, Naze (Amami) *sini*, Shuri (Okinawa) *şini*, Hirara (Miyako) *karasini*, Ishigaki (Yaeyama) *sini* (B), Yonaguni *ccini* (B), pR **sune* 'leg, shin, shank'
pK **son* 'upper limb, arm, hand': K *son*, MK *·swon* 'hand'

Since the quality of the mid vowel is not distinguished after *n* in Old Japanese, we could be dealing with either *e*₁ (<**i(C)a*, **i(C)ə*, **i(C)i*, **e*) or *e*₂ (<**a(C)i* /**ə(C)i*). However, as there are no apophonic alternations attested for this root and since nominal roots rarely consist of more than two syllables, preference is given to the reconstruction of pJ **sune*. The Ryukyuan forms support this reconstruction.

pMo **gar* 'hand, arm': MMo. *qar*, *qa:r*, *yar* 'hand, wing (of an army)', WMo. *yar* 'hand, arm, flank, wing', Khal. *gar* 'hand, arm, wing (of an army)', Bur. *gar*, Kalm. *yar*, Ordos *Gar*, Dong. *qa*, Bao. *xar*, Dag. *gari*, *gar'*, Eastern Yugur *gar*, Mgr. *gar*, Mog. *yar*

pTk **kar-i* 'arm' (pTk **-i* 3SG possessive) : OT *kar* '1 arm', *kari* (OUig.) '2 forearm, cubit (measure of length based on the length of the forearm from the elbow to the tip of the middle finger, ca. 46 centimeters)', Karakh. *kari* '1', Tk. *karaža* 'upper arm, biceps and triceps muscle', Tkm. *gari* '3 shin-bone of animal', 4 measure of length', Az. *gari* (dial.) '3', Tat. *qari* '1', *qara* (dial.) '4', Kirg. *qar* '1', *qari* '1', Kaz. *qar* '2', *qari* '2, 3', Nog. *qari* '4', Bash. *qar* '3', Balk. *qari* '4', Kpak *qar* '2', *qari* '2, 4',

Uz. *qari* '1, measure of length, ca. 140–145 centimeters', *qara* (dial.) '3', Uig. *qeri* '4', *qaya* (dial.) '3', S-Yug. *qar* '2', Shor *qari* '1', Oyrat *qari* '1', Yak. *xari*, *xari*., *xara* '2, 3', Tuva *qiri* '2', Tofa. *qiri* '2', Dlg. *kari* 'radius (bone on the forearm)', Khalaj *qari* '4', Chu. *xor*, *xur* '2, 4', *xurǎ* 'measure of length, ca. 2 meters'.

In Turkic, we can reconstruct pTk **kar* 'arm' followed by a lexicalised possessive suffix **-i*. This possessive suffix frequently occurs with words for primary parts of the body (Róna-Tas & Berta 2011: 492-494). The common denominator 'arm' is reflected in a variety of meanings denoting different parts of the arm in addition to the meanings relating to measures of length, ranging between the length of only the forearm to that of one or two arms. The attestation of Hungarian *kar* 'arm' supports the reconstruction of West Old Turkic **kar* 'arm'. Since the Chuvash word lacks a final vowel, it is likely that it was also lacking in West Old Turkic. Cross-linguistically the borrowing from the word for 'arm' has been observed in a trade context, involving the meaning 'measure of length' or in a martial context, involving the meaning 'part of an army'. Interestingly, the Turkic and Mongolic forms share the primary meaning 'arm', but they have each developed a distinct secondary meaning, respectively in a trade and military context. This observation argues against a borrowing scenario.

22. EAR

pMo **kul* 'ear': WMo. *qulki*, *qulaquu* '1 earwax, middle ear', *qulmayi*- 'to have the ears laid back, to be crop-eared (intr.)', Dag. *xolgi*, Khal. *xulxi* '1', *xulga* '1', Bur. *xulxa* '1', *xolxi* '1', Kalm. *xulxə* '1', *xulxə* '1', Ordos *xuluGu(n)* '1', Mgr. *xoŋGo*.

pTk **kul-kak* 'ear': OT *kulxak* ~ *kulkak* ~ *kulgak*, Tk. *kulak*, Az. *GulaG*, Tkm. *Gulaq*, Gag. *qulaq*, Uz. *quləq*, Uig. *qulaq*, Tat. *qolaq*, Kirg. *qulaq*, Kaz. *qulaq*, Nog. *qulaq*, Bash. *qolaq*, Balkar *qulaq*, Karaim *qulax*, Kpak *qulaq*, Salar *Gulaχ*, Kum. *qulaq*, S-Yug. *qulaq*, Khak. *xulax*, Shor *qulaq*, Tuva *qulaq*, Tofa. *qulaq*, Yak. *kulga:k*, Dolg. *kulga:k*, Khalaj *qulaq*, Chu. *xǎlyə*.

The Mongolic languages reflect a root pMo **kul* 'ear', derived with different suffixes **-ki*, **-ku* and **-mayi-*. The suffix **-ki* can be identified as a locational suffix, indicating 'that which is located in/on/at', e.g. *degere* 'top, on top of, above' → *degereki* 'being above or on top, upper', *emüne* 'south, southern, front' → *emüneki* 'being in front or ahead of (with gen.), southern, preceding' and *qoyitu* 'back, rear, behind, north' → *qoyituki* 'that which is behind or will follow, northern, back, rear, placenta'. Hence, pMo **kul-ki* 'earwax, middle ear' can be analysed as 'that which is located in the ear'.

The Turkic languages reflect a common suffix pTk **-xak* used in body part terms, such as *tiz* 'knee' → *tirsgäk* 'elbow', *müñüz* 'horn' → *müñüzgäk* 'hard skin on the hand, which results from manual labour', *yan* 'side' → *yanjak* 'cheek-bone' (Erdal 1991:74-76). The alternation of OT *-gAk* with *-kAk* following *l*, *n* and *r* can be explained by reconstructing pTk **-xak*, which is still present in the attestation of OT *kulxak*. The voiceless fricative was voiced to *-γAk* and merged with *-gAk* in vocalic environments, but underwent defricativization to *-kAk* in certain continuant environments (Robbeets 2015: 411-416). Therefore, we can reconstruct pTk **kul* as the root for 'ear'.

24. FAR

pJ **mara* 'rare, from afar': J *mare* (2.1), OJ *mare* 'rare, unusual' ~ OJ *marā-* 'from a distance' in e.g. *marapito* 'a person who came to visit from another place, guest' (< *marā* 'from a distance' + *pito* 'person')

pK **meli-* 'be far': K *mel-*, MK *mel-/* *me(l)-* 'be far, distant'

25. TO DO/MAKE

pJ **-ka-* 'to produce a sound or a sensation like the base onomatopoea': J, OJ *-k-*, pR **-k-*, e.g. in pJ **na* 'crying sound' in OJ *ne* (1.1) 'sound, crying, weeping' → OJ *nak-* A 'to cry'; Yamatohama (Amami) *naxjuri*, Asama (Amami) *nakyun*, Yoron (Amami) *nakyun*, Shodon (Amami) *nak'yum*, Yonamine (Okinawa) *nacun*, Shuri (Okinawa) *nacyun* [*nacun*], Irabu (Miyako) *nafu*, Ishigaki (Yaeyama) *na(?)kun* [*nakun*], Hatoma (Yaeyama) *nakun*, Hateruma (Yaeyama) *nagun*, Yonaguni *nagun*, pR **naki* 'to cry'

pK **-ki-* 'to produce a sound or a sensation like the base onomatopoea': K, MK *-i-*, e.g. in K *kutek* 'nodding' → K *kuteki*, MK *kuteki-* 'to nod (one's head)'

pTg **-ki:-* ~ *-gi:-* 'to produce a sound or a sensation like the base onomatopoea': Ma./Sibe *-ki-* ~ *-gi-*, Evk. *-ki:-* ~ *-gi:-*, Neg./Solon *-ki-* ~ *-gi-*, Even *-k-* ~ *-g-*, *-kA-* ~ *-gA-*, Orok/Oлча/Oroch /Ud./Na. *-ki-* ~ *-gi-*. e.g. in pTg **sim-ki* 'to cough' in Even *hi:mke-*, Evk. *simki-*, Neg. *simki-*, Olcha *siŋbi-*, Orok *sipki-*, Na. *siŋbi-*, *simki-*, Oroch *simpi-*, Ud. *simpi-* and Solon *simki-*.

pMo **ki-* 'to do, make; produce a sound or a sensation like the base onomatopoea': MMo. *ki-*, WMo. *ki-*, Khal. *xij-*, Bur. *xe-*, Kalm. *ke-*, Ordos *ki:-*, Dong. *kie-*, Bao. *ke-*, *giə-*, Dag. *ki:-*, *xi:-*, *ši:-*, Mgr. *gi-*, *gə-*, Mogh. *ki-*, Eastern Yugur *gə*; iconic in e.g. **čis* (mimetic for *chirping*) → WMo. *čiski-* 'to chirrup, chirp, twitter, tweet'

pTk **kī(-)l-* 'to do, make, produce a sound or a sensation like the base onomatopoea': OT *kil-*, Tk. *kil-*, Tat. *qil-*, Uzb. *qil-*, Uigh. *qil-*, Az. *gīl-*, Tkm. *qil-*, Khak. *xil-*, Balkar *qil-*, Shor *qil-*, Tuva *qil-*, Yak. *kīn-*, Dolg. *gīn-* Kirg. *qil-*, Kaz. *qil-*, Nog. *qil-*, Bash. *qil-*, Karaim *qil-*, Kpak *qil-*, Kum. *qil-*, Chu. *ěś-xěl* 'deed'; iconic in e.g. **su* (mimetic for snapping) → OTk. *sukī-* 'snap (one's fingers)'

The aberrant vowel in Japonic can be explained by resonance with the wide-spread *a*-vocalism of suffixes in the Japanese verbal paradigm.

In Turkic and Mongolic, the verb 'to do, make' seems to be the source of grammaticalization for the iconic suffix. In Turkic, Yakut and Dolgan have a different root-final consonant, which could suggest that the original root is **kī-* and that *-l-* and *-n-* are petrified suffixes. The problem with this explanation, however, is that the suffix *-(X)l-* derives passives and that *-(X)n-* derives medial verbs in Turkic. The verb *kil-*, however, is typically causative. For a detailed explanation of this etymology, see Robbeets (2015: 239-245).

26. HOUSE

pJ **(y)ipi* 'house, hut': J *ie* (2.3), WOJ *ipe₁*, EOJ *ipi₁*, *ipa* 'house'

pK **cip* < ? **cipi* 'house': K *cip*, MK *cip* 'house'

pTg **ji:b* 'house' in **ji:b-na-* 'go visiting': Oroch *ji:ma-*, Olcha *ji:ma*, Ud. *jima-*, Orok *je:ma-*, Na. *ji:ma-* 'go visiting', Evk. *jilikin* 'neighbour'

Although Old Japanese distinguishes between *a* and *ya*, *o_(1/2)* and *yo_(1/2)*, *u* and *yu* and *e_(1/2)* and *ye*, **yi* and *i* have completely neutralized as OJ *i*. It is thus not self-evident to

derive all instances of OJ *i* from pJ **i*. As the choice between pJ **i* and pJ **yi* is always dependent on the external cognates, I insert (*y*) between brackets in the reconstruction of pJ **(y)ipi* 'house, hut'. The vowel alternation between WOJ *ipe₁* and EOJ *ipa* 'house' suggest the reconstruction of pJ **(y)ipi-(C)a*, see for instance the alternation between the progressive adnominal form WOJ *ipe₁ru* 'say' and EOJ *ipar-* 'say', which derives from **ip-i ar-u* (say-CONV exist-ADN). Therefore a complex origin as **ipi-ya* with OJ/pJ **ya* 'house' cannot be excluded.

The low pitch of the Middle Korean form points to a disyllabic low-high origin, in which the second vowel may be a reduced vowel or the neutral vowel **i*.

The Tungusic reconstruction **ji:b* 'house' with a high front vowel is only maintained in the derivation with pTg **-na:-* 'to go out'; see 3. TO GO. The assimilation to **-ma-* leaves a trace of the original final **b* in the word. Even if the nature of the suffix remains unclear, Evk. *jilikin* 'neighbour' may be related. The free words for 'house' have shifted their vowels backwards in Evk. *ju:w-ča:-* 'to do housework', Evk. *ju:* 'house'; Even *ju:*, Neg. *jo:*, Olcha *ju:(y)*, Orok *du:-qu*, Na. *jo:*, Oroch *ju(g)*, Ud. *jugdi*, Solon *ju:y* and Ma. *jeofi* 'round hovel thatched with straw or birch bark'. The vowel quality may be influenced through contact with Mongolic forms such as WMo. *juuqa*, Khal. *ju:x*, Bur. *zu:xa*, Kalm. *zu:xə*, Ordos *ju:xa*, and Dong. *jowo* for 'stove, hearth'.

Note that in my view, the initial correspondence reflects an original voiced dental stop pTEA **d*, rather than a voiced fricative **j* as suggested by Whitman's (1985) Japonic-Koreanic reconstructions. Parallel to the voiceless velar fricative correspondence 21 for pTEA **x*, there is no evidence for a voiced palatal fricative series in Transeurasian. The fact that the correspondence between OJ *y*, MK *c* and Tg *j* and Mo *j* is only found preceding *i* or *y* supports this reconstruction.

27. STONE/ ROCK

pTg **kada:* 'rock, cliff' (pTg **-r* plural suffix, e.g. Evk./ Even *oron* 'tame reindeer' → *oror* 'tame reindeers', Even *buyu:n* 'wild reindeer' → *buyu:r* 'wild reindeers'; Benzing 1955: 1025-1026): Evk. *kadar*, *kadaya* 'stony placer; cliff; mountain', *xada* 'mountain', *kadar* (sg) ~ *kada-sal* (pl) 'cliff; mountain ridge; huge rock', *kada-ma* 'steep (about a mountain)', Even *qadar* 'high and steep rock, cliff', *qadaqun* 'cliff', Solon *xada:r* 'peak, rock peak; stone, rock', Neg. *kada:* ~ *kadaya* 'rock; cliff', Olcha *qadal(i)* 'rock, cliff', Orok *qada* 'cliff; a rocky coast', Na. *qadar* 'granite, marble', Oroch *kada:* 'cliff, rock', Ud. *kada* 'rock, cliff', Sibe *hadə* 'mountain peak', Ma. *xada* 'crag, small cliff', Jur. (*ali*) *hada* 'cliff'
pMo **kada* 'rock, cliff': WMo. *qada(n)* '1 rock, cliff, crag, ravine', MMo. *qada* (SH) '1', Khal. *xad(an)* '1', Bur. *xada* 'mountain', Kalm. *xadə* 'rock, mountain', Ordos *xada(n)* '1', Dag. *xada*, *xad*, *hade* '1', Dong. *gada* '1', Mgr. *gādā* '1', Eastern Yugur *gada* '1'

The initial weakening in the Shirongolic Mongolic languages and in Eastern Yugur is due to the following *-d-* (Nugteren 2007: 398).

30. TOOTH

pJ **pa* 'tooth': J *ha*, OJ *pa* 'tooth'; Yamatohama (Amami) *hwa*, Asama (Amami) *haa*,

Yoron (Amami) *paa*, Naze (Amami) *ha*, Yonamine (Okinawa) *paa*, Shuri (Okinawa) *ha* 'tooth, blade', Hirara (Miyako) *paa*, Irabu (Miyako) *paa*, Ishigaki (Yaeyama) *paa* (B), Hatoma (Yaeyama) *paa*, Yonaguni *ha*: (B), pR **pa* 'tooth'
pK **pal* 'tooth': K *ispal*, MK *nispal* 'tooth' < **ni* '(specific) tooth' + *s* genitive + *pal* 'tooth', K *i*, MK *·ni* 'tooth'

Although Robbeets (2005: 400) included the Tungusic forms Olcha *pali* and Nanai *paloa* in this etymology, I have left them out here because of the poor distribution of the Tungusic form and the problematic reconstruction of the final vowel in pTg **palV* 'molar'. Besides, Georg's (2007: 272) criticism is legitimate: the Nanai form is homophonous to the Tungusic word for 'hammer', which is borrowed from Mongolic, and may thus be a semantic extension.

pMo **ari-ga* 'molar, canine, fang' (pMo *-*GA* body part suffix, e.g. pMo **kil-ga* 'coarse hair'; see 31. HAIR): WMo. *araya* ~ *ariya* 'molar, tooth of a cogwheel', *aru araya* 'wisdom tooth', MMo. *ara'a* ~ *aral* 'fang', *aratai* 'river deer, predator', *ari'a sidün* 'molar; canine; fang, tusk' (MMo. *sidün* 'tooth'), Khal. *araa(n)* 'molar, tooth of a chisel', Bur. *ara:(n)* 'molar, fang, tooth of a chisel', Ordos *ara*: '1 molar, fang', *araŋga* 'an extra tooth', Kalm. *aran* '1', Dag. *ara: (šid)* 'molar, fang, tooth of a chisel', Baoan *arə*, *ariya* '1', Mgr. *ara*: '1', Eastern Yugur *ara*: '1'
pTk **ar₂(-i)g* 'molar, fang': OT *aziγ* (OUig.) 'canine tooth of animals, tusk, fang', Karakh. *aziγ*, Tk. *azi* 'molar tooth, tusk (of a boar)', Az. *azi*, Tkm. *azi*, Tat. *azaw*, Kirg. *azu:*, Kaz. *azuw*, Bash. *aḍaw*, Balk. *azaw*, Kpak *azuw*, Kum. *azuw*, Uz. *ziziq*, S-Yug. *aziγ*, Khak. *aziγ*, Shor *aziγ*, Oyrat *azu*, *azu:*, Tuva *aziγ*, Tofa. *aziγ*, Yak. *ahī:*, dial. *ihī:*

The segmentation of the Mongolic form is supported by the Manchu loanword *arsun* 'shoot, bud, fang', which is probably borrowed from pMo **ar-sun*, a derivation of this root for 'fang' with the Mongolic collective and body part suffix *-*sUn*; see 7. BLOOD. The Mongolic word **ariga* 'molar, canine, fang' is often combined with the root **sidün* 'tooth'. This root may derive from pMo **sil* 'tooth' followed by the same body part suffix. It is appealing to compare pMo **sil* 'tooth' with pTk **sil₂* 'tooth' underlying in Chuvash *šāl* 'tooth', but as this form seems to be the result of the palatalization of pTk **til₂* > **sil₂* 'tooth' reflected in OT *tiš* 'tooth', it is more parsimonious to explain the Mongolic form as a loan from Turkic.

Doerfer (1965: 55-56) proposed to derive OT *aziγ* 'canine tooth of animals, tusk, fang' from the verb *az-* 'go astray'. This analysis should be rejected because from the attestation of Tkm. *azi* 'molar tooth' with a short vowel and Tkm *a:z-* 'go astray' with a long one, we know that proto-Turkic had two distinct roots with a difference in vowel length (Tekin 1986: 144-146). Contrary to his previous idea, Doerfer (1984: 37-38) derived OT *aziγ* in the same way as Turkish *el* 'hand' can be derived from OT *elig* 'hand', suggesting a body part suffix *-*ig* ~ *-*iγ*. If Doerfer's analysis is correct, the original Turkic form should be pTk **ar₂(i)* 'fang', an exact match with the Mongolic root.

31. HAIR

pJ **kama* ~ *kami* 'hair on the head': J *kami* 'hair', OJ *kami*₁ 'top hair'; Yamatohama (Amami) *xamaci* 'hair, head', Ishigaki (Yaeyama) *akamazi* ~ *ganži*, Hatoma (Yaeyama) *gamazi*, pR **kamadi* 'hair of the head'
pK **kama* 'hair on the head': K *kama*, MK *ka-ma* 'the whirl of hair on the crown of one's the head'

pJ **kara* ~ *ka(r)i* 'hair': J *ke* (1.1), OJ *ke*₂ 'hair' ~ *ka* 'hair' in OJ *siraka* 'white hair'; Asama (Amami) *karaazi* *nkii*, Yoron (Amami) *hurazi*, Yonamine (Okinawa) *haraazi*, Shuri (Okinawa) *karazi* (B), Irabu (Miyako) *karazi*, Hirara (Miyako) *kara*^d*zi*, Yonaguni *karaN* ~ *kanaN* (A), *karaNgi* 'mane', pR **karadi* 'hair of the head'
pK **kal* 'hair on the head' (pK **(a/e)k* diminutive in body parts, e.g. *muluph* 'knee' → *muluphak* 'knee', *thel* 'hair' → *thelek* 'hair'): K *khal* 'hair on the head' (< pK **kal-ak*) MK *kalki* 'mane' (< MK *kalk-i* with *-i* diminutive in e.g. *i* 'spotted dog', *ka:yttong-i* 'little dog dropping (said affectionately to babies)' < pK **kal-ak-i*)

The two etymologies above indicate an alternation between pJ **kama* ~ *kami* 'hair on the head' and **kara* ~ *kari* 'hair on the head' which can be traced back to the Japano-Koreanic level because we can reconstruct both pK **kama* 'hair on the head' and **kal(a)* 'hair on the head' in proto-Koreanic.

pMo **kilga-sun* 'coarse hair': MMo. *kilqasun* (SH) '(horse's) tail hair', *qilyasun* (Muq.) 'horse hair', Dag. *kilga:s* 'horse's tail hair', Khal. *ǰalgas(an)* 'hair of the mane and tail', Ordos *kilgasu(n)*, Bur. *xilga:ha(n)* 'horse hair', Brg *šalgov*: 'coarse hair', Kalm. *kilyasn* ~ *kilysn*, Eastern Yug. *ǰalǰasən* 'pubic hair', Dong. *imaŋ qaǰasun* 'goat's hair', Mog. *qilyasun* 'thick hair', Mgr. *ćirGāzə* 'coarse hair'
pTk **kil(-ik)* 'hair': OT *kil*, Tk. *kil*, Az. *Gil*, Tkm. *Gil*, Uz. *qil*, Gag. *qil*, Uig. *qil*, S-Yug. *qil*, Khak. *xil*, Shor *qil*, Tuva *xil*, Tofa. *xil*, Yak. *kil*, Dolg. *kil* 'sealine', Tat. *qil*, Kirg. *qil*, Kaz. *qil*, Nog. *qil*, Bash. *qil*, Balkar *qil*, Karaim *qil*, Kpak *qil*, Kum. *qil*, Khalaj *qil*, Chu. *xǎlǎx*

The Mongolic languages reflect the collective and body part suffix **-sUn*, which is also identified under 7. BLOOD. Since stem-final *n* drops before this suffix, I do not exclude that pMo **kilga* ultimately goes back to **kil-ka:n*, a diminutive derivation common in body part terms, e.g. MMo. *alaqa:n*, WMo. *alagan* 'palm of the hand', MMo. *elike:n*, WMo. *eligen* 'liver', WMo. *böldegen* 'testicles', etc. (Pope 1973: 225-226).

Although most Turkic languages reflect pTk **kil*, Chuvash *xǎlǎx* indicates a final velar stop in Turkic. This explains the bracketed *(-ik)* in pTk **kil(-ik)* 'hair'. It may well be a trace of an ancient body part suffix pTk **-ik* ~ *-ik*, which is also reflected in pTk **ka:p-ik* 'bark, shell' and *top-ik* 'ankle bone, wrist bone, knee cap'; see 68. SKIN.

32. BIG

pJ **kiki-* 'to be many': OJ *kokoda* 'very much, plenty', *-da* collective in OJ *e*₁ ~ *e*₁*da* 'branch', OJ *iku* - 'how much' in some compounds ~ OJ *ikuda* 'how much, some amount', OJ *sapada* 'much, a lot', etc.

pK **hiki-* 'to be big': K *khu-*, MK *·khu-* 'to be big', EMK 黑根 **hiki-n* 'big'

pTk **kök* 'big, healthy, thick': Tk. (dial.) *kök*, Az. *kök*, Khalaj *kök*

In line with Ramsey (1993: 438; 1997), verb stems with complex initials that are tonic and monosyllabic and have minimal vowels (MK *o*, *u*, *i*) are thought to be created through the loss of a first-syllable vowel. Taking into account velar lenition (cf. 55 BURN; 36. HIT/BEAT), this internal analysis justifies the development of PK **kiki-* > **hiki-* 'to be big' > *khi-* 'to be big'. Miyake (this volume: Chapter 1) reconstructs the Early Middle Korean form **hiki-n* transcribed in Kyerim yusa as 黑根. This Chinese transcription supports the reconstruction pK **hiki-* 'to be big'.

The word is sparsely distributed in Turkic, but appears to have been borrowed as Khalkha *xöx* 'massive (of muscles, flesh etc.)'.

pJ **mana-* 'to be many, big', **manki-* 'to be big': J *amaneku* 'plenty', OJ *mane-* ~ *amane-* ~ *samane-* (B) 'to be many', *amane-* (B) 'to be extensive', Yonamine (Okinawa) *magisen* ~ *uaagisen*, Shuri (Okinawa) *mandoon* 'to be/have much' ~ *magisan* (A) 'to be big', Ishigaki (Yaeyama) *maisjaan*, Hatoma (Yaeyama) *maijan*, Yonaguni *mai-* (A) 'to be big'

pTg **man* 'crowd, many': Evk. *man* 'a flock of birds; a crowd (Sakhalin dialect)', Neg. *man* 'a flock of birds', Oroch *mañi(n)* 'a flock of birds; a school of fish', Ud. *mani* 'a flock of birds'; pTg **man-di* 'crowdy': Evk. *mandi:* ~ *manni:* 'hard, firm; strong' Olcha *ma:ndu* 'a flock of birds', Orok *mandj* 'a flock of birds', Na. *ma:ndo* 'a flock of birds', Solon *mandi* 'very, heavily'

pMo **man* 'big, high' in pMo **man(-)da-* ~ *mandu-* 'to become big, high': MMo. *mandu-* 'to increase, develop', WMo. *mandu-* ~ *mantu-* ~ *manda-* 'to rise (sun, moon, flame), become higher, tower, spread, develop (intr.)', *manduyur* 'big, fat', Khal. *mandgar*, *mantaj* 'big, fat', Bur. *mandagar*, *mantan*, *mantagar* 'big, fat'

pTk **bani* 'big, large': Chu. *mǎnǎ*

The Old Japanese verb *samane-* 'be many' probably contains the prefix *sa-*, which Yanagida and Whitman (2009) describe as a suffix marking inactive intransitive verbs, taking non-agentive and mostly non-human subjects. The simplex verb OJ *mane-* has B register, which is incongruent with the register of the Ryukyuan verbs. However, the assignment of a verb or adjective stem to type A or B is not always straightforward (see Robbeets 2015: 132). If this is the case here, the Ryukyuan forms reflecting **manki-* 'to be big' may be a contraction of the adjective root **mana-* 'to be many, big' and the de-adjectival adnominal ending *-*ki*, giving rise to the voiced velar stop.

The Korean form MK **man-ho-* 'be many' and the derived adverb K *ma:nhi*, MK **man-h-i* 'many' are not considered here because **man* goes back to a Sino-Korean adjectival noun **MAN* 'myriad'.

The reconstruction pTg **mandi* 'crowdy' can be derived from pTg **man* 'crowd' and the suffix pTg *-*di* common in the derivation of denominal property nouns such as pTg *xug-di* 'wide' (Olcha *xugdi*, Orok *xugji*, Na. *xugji*), pTg **bug-di* 'variegated' (Evk. *bugdi*, Even *bu:di*, Orok *bugji*), pTg **peg-di* 'big' (Evk. *hegdi*), pTg **pa:* 'part' → *pa:-di* 'separately' (Evk. *ha:di* 'some part of', Even *ha:di(n)* 'some, other', Olcha *pa:ji*, Na. *pa:ji*, Orok *padi* 'separately', Solon *adĩ* 'some'), pTg **loko* 'thick' (Evk. *luku*,

Even *no:y*, Neg. *loxo*) → *lo:g-di* 'thick' (Evk. *lo:gdi*, Even *nuqti*, Neg. *logdi*).

The Mongolic forms may include the fientive suffix pMo *-*dA*- which derives verbs with the meaning 'to become like the base' from property nouns, e.g. WMo. *idermeg* 'chip' → *idermegde-* 'to become chipped' (Robbeets 2015: 305). This leads to the reconstruction of pMo **man* 'big, high'.

The Turkic cognate is limited to Chuvash, the only surviving language of the Western Turkic branch. If this poor distribution indicates borrowing, the word should be borrowed at a prehistorical stage, when the proto-Mongolic property noun was still in use. Other instances in which Chuvash initial *m-* derives from pTk **b-* when followed by a nasal are among others Chuv. *miŋ*, Tat. *biŋ* 'mole on the face' (< pTk **beŋ*), Chuv. *măy*, OT *boyin* 'neck' (< pTk **bo:ñin*), Chu. *măyăx*, OT (Karakhanide) *bïyik* 'moustache' (< pTk **biñik*).

pTg **amba-n* 'big; big individual: Solon *amba* 'big', *amban* 'minister, a high official', Neg. *amban* 'devil', Olcha *amba(n)* 'quite, enough; tiger; devil', Orok *amba* ~ *ambaramži* 'very, strongly', *amba:* 'enough', *amba(n)* 'devil', Oroch *amba:* 'not much; quite, enough', *amba(n)* 'tiger; devil', Na. *amba:n* 'quite, very (adv.); devil, tiger', Ud. *amba* 'devil', Sibe *am* ~ *ambu* 'big', *amba(n)* 'amban (Manchu official)', Ma. *amba* ~ *amban* 'big, great, vast, important; high official, dignitary', Jur. *amba* 'big; important (of person)', *amba-la* 'many'

pMo **amba-n* 'big; big individual: WMo. *amban* '1 big, large; 2 minister, governor, dignitary', Khal. *amban* '1, 2', Bur. *amba* '1, 2', Kalm. *ambn* '1, 2', Mgr. *amba* '2'

Kara (2007: 97) justly criticized the semantic distance between 'big' and the Japanese cognate *omoi* 'heavy' proposed in Robbeets (2005: 398). Therefore, the Japanese etymon is left out here.

Tungusic and Mongolic seem to share the metaphorical extension from 'big' to 'big or mighty individual' such as in the words for 'devil', 'tiger' and 'official'. The Tungusic words meaning 'official, dignitary' may be borrowed from Mongolic.

33. ONE

pK **pili-* ~ **pilA-* 'to begin': K *piloso* 'for the first time (adv.)', K *pilos hata* 'to start, begin', *piluc-* 'to start having labor pains', MK *pi:lus* ~ *pi:los* 'from the beginning, beginning (adv./ adj. n.)'; K *-(u)s* < pK **-s* deverbial suffix deriving nominal adjectives and adverbs, e.g. K *cilki-* 'to be tough' → *cilkis* 'firm' (Robbeets 2015: 422-423)

pTk **bi(:)r* 'one': OT *bir*, Tk. *bir*, Tat. *ber*, Az. *bir*, Tkm. *bir*, Gag. *bir'*, Uz. *bir*, Uig. *bir*, S-Yug. *bir*, Khak. *pər*, Shor *pir*, Tuva *bir*, Tofa. *bir*, Yak. *bi:r*, Dolg. *bi:r*, *bir*, Karaim *bir* ~ *bir*, Kirg. *bir*, Kaz. *bir*, Nog. *bir*, Bash. *ber*, Balk. *bir*, Kpak *bir*, Salar *pyr*, *pir*, *pur*, Kum. *bir*, Khalaj *bi*, Chu. *pěr*

36. HIT/BEAT

pJ **tuk-* 'hit with force, beat': J *tuku* B, OJ *tuk-* 'to pound, husk, beat, hit with force'; Shuri (Okinawa) *cicun*

pK **t(Λ)hi-* < **t(Λ)ki-* 'to hit, beat': MK *·thi-* 'to hit, strike',

pTg **dug-* ‘to hit with force, beat’: Evk. *dug-* ~ *duk-* ‘to peck ice; to chop wood; to beat’; *dugingki* ‘ice pick’; *duktə-* ‘to grind; beat’, Even *duy-* ~ *duw-* ‘to beat’, *duwū-* ~ *du-* ‘to peck ice’, Solon *duttə-* ‘to hit, to beat’, Neg. *duw-* ~ *duy-* ‘to peck ice’, *duktə-* ‘to beat, hit, knock; to clap one’s hands; to rattle, to clatter’, Olcha. *du:či-* ‘to peck ice’, *duqtə-* ‘to knock’, Oroch *du-* ‘to beat, to knock’, *du:či-* ~ *žū:či-* ‘to peck ice’, Na. *duktə-* ‘to beat, hit, knock’, *du:mə:či-* ‘to fight with sticks’ (-*mə:či* reciprocal suffix), *dupsin-* ‘to beat with a stick’ (-*psin* inchoative marker), *do:či-* ‘to peck ice’, Oroch *du-* ‘to peck ice; to beat’, Ud. *du-* ‘to peck ice’, *duktə-* ‘to hit; to dust out’, Ma. *du-* ~ *tu-* ‘to hit, to strike, to pound’, Jur. *du-* ‘to strike (a bell), to beat (a drum); to hit’

According to Ramsey’s law (cf. 32. BIG) the reconstruction of a minimal vowel in pK **tʰi-* is legitimate. . The correspondence between Chinese donorwords and Korean loanwords (e.g. Ch. *cak* ‘foot (measure)’ is borrowed as MK ·*cah*), phonogram readings in the Kyelim Yusa (e.g. **hwalq-huy* for MK *holk* ‘earth’), elements in Paekche placenames (e.g. *tin-qak* for MK **twolh* ‘stone’), dialectal forms (e.g. dial. *tolk* for MK **twolh* ‘stone’), and internal doublets (e.g. MK *siphu-* versus MK *sikpu-* ‘want’) all suggest that velar lenition (**k* > **h*) took place at an early stage in Korean (Martin 1996: 36-37). This observation supports the reconstruction of pK **tʰi-*. Although the semantic and formal correspondences among the Japanese, Korean and Tungusic participants are very close, we cannot exclude the possibility that we are ultimately dealing with a sound symbolic formation.

37. LEG/FOOT

pJ **panki* ‘foot, (lower) leg’: J *hagi* (?2.3), OJ *pagi* ‘shin, shank’, Yamatohama (Amami) *hagi*, Yoron (Amami) *pagi*, Shodon (Amami) *hagi* ‘foot’, Hirara (Miyako) *pag^zi* ‘leg’, Ishigaki (Yaeyama) *paŋ* [pan] ‘leg, foot’ (B), Hateruma (Yaeyama) *paŋ* ‘leg, foot’, Hatoma (Yaeyama) *panpisa*, Yonaguni *haŋ* ‘leg’, pR **pagi* ‘foot, leg’; OKog **hā* ‘foot’ (Beckwith 2007: 111).

pK **pal* ‘foot, leg’ ~ **pʌlk* ‘arm’: K *pal*, MK ·*pal* ‘foot, leg, paw, extremity’, K *phal*, MK *polh* ‘arm’

pTg **palgan* ‘foot, leg; hand’: Evk. *halgan* ~ *algan* ‘leg, foot; hoof’, Even *halgen* ‘foot; sole’, *halgenda-* ‘to walk (on foot)’, *halgeŋ* ‘on foot’, Solon *algā* ‘palm (of hand); foot; bottom, base’, Neg. *xalgan* ‘foot’, Olcha *palža(n)* ‘foot, sole’, Na. *palgā* ‘sole (of shoe); foot’, Oroch *xagga(n)* ‘foot, sole; insole (in a ski mount, made of birch bark)’, *xagdi* ‘paw; foot’, Ud. *xaga* ‘paw; bear’s trace; insole (in a ski mount, made of birch bark)’, Jur. *falanga* ‘palm (of a hand)’

I do not exclude that the original root was pK **pʌl* ‘limb, leg, foot’ and that **pʌl-k* ‘arm’ is a diminutive derivation in the sense of ‘small limb’. The pK diminutive suffix *-(*a/e*)*k* occurs frequently in body parts, e.g. *muluph* ‘knee’ → *muluphak* ‘knee’, *thel* ‘hair’ *thelek* ‘hair’. The reduced vowel in pK **pʌl* ‘limb, leg, foot’ may also be reflected in MK **polW-* ‘to tread’ (**polp-* / *pol* ·*W*[*o*]- < pK **pʌ·lʌ·pʌ-* ‘tread’) but this derivation is problematic because of the accentual discrepancy. However, given the cluster correspondences in Japanese and Tungusic and the polysemy between ‘foot’ and ‘hand palm’ in Tungusic, I do not exclude that the original Korean form was

pK **palk* 'leg, arm, limb'. The semantic association between 'leg, foot' and 'arm, hand' can be seen within the context of 'animal limb, paw, hoof'.

39. THIS

pJ **i* 'you' (derogatory second person pronoun) < ? **i* 'this' (demonstrative pronoun of the proximal plan): OJ *i* 'you' (derogatory second person pronoun)

pK **i* 'this' (demonstrative pronoun of the proximal plan): K *i*, MK *i* 'this' (demonstrative pronoun of the proximal plan)

pTg **i* 'he, she' (3 SG pronoun): Ma. *i* 'he, she' ~ *i-n-* 'he, she (oblique)', *ineku* 'same, this (day, month, year); likewise, in the same way', Sibe *i*: 'he, she', Jur. *in* 'he, she', Solon *ini* 'his, her'

pMo **i* 'he, she, it' (3 SG pronoun) in **i-nu-* (3 SG-genitive) and **i-ma-* (3 SG-oblique): MMo. *ino* (SH) ~ *inu* (HY, Muq) '1 his, her, its' (3 SG possessive pronoun), MMo. *ima-* '2 he, she, it' (3 SG pronoun in oblique cases) 'WMo. *inu* '1', Dag *i(:)n* '1', yam '2', Khal. *ń* '1', Bur. *ń* '1', Kalm. *ń* '1', Mog. *ini* ~ *ni* ~ *ne* ~ *i* '1'

pTk **i(-)n-* 'that' (demonstrative pronoun of the distal plan): OT *inča* 'the following, in the following way' (vs. *anča* 'the previous, in the previous way'), OT *intin* 'the one on the other side' (vs. *muntin* 'the one on this side'), OT *inaru* 'forward; from ... on' (vs. *kerü* 'backward', OT *ina* demonstrative interjection (vs. *muna*), OT *inčip* ~ *inčip* 'that having happened' (Erdal 2004: 206-207); Tkm. *inaru* '1 forward, onward', Tuva *inda* 'there', *indiy* 'such', Tofa. *inda* 'there', Khalaj *ina* 'that'

Georg (2007: 270) and Kara (2007: 95) rejected the Japanese member in this etymology because they found the comparison between a derogatory second person pronoun and a demonstrative pronoun semantically unacceptable. Nevertheless, grammaticalizations between demonstratives and third person pronouns are cross-linguistically common and there are instances in which demonstratives are used in a derogatory reference to the second person, e.g. Latin *iste* 'that (derogatory thing) of yours' (Wheelock 1960). Moreover, in addition to its use in reference to a derogatory second person pronoun, there is some faint internal evidence for the reconstruction of pJ **i-* as a lexicalized demonstrative pronoun of the proximal plan (Whitman 1985: 217, 246, Starostin et al. 2003: 577, Francis-Ratte 2016: 73-74). Admittedly, the evidence is rather poor as it solely relies on the derivation of *ima* 'now' from the demonstrative **i-* followed by *ma* 'room, space'. The comparison with Ryukyuan *nama* 'now', however, suggests that *ma* 'room, space' is indeed the second member of the compound and Ryukyuan *koma* 'here' and *kama* 'there' further suggest that the first member is a demonstrative, but unfortunately there are no other lexicalizations in which OJ *i-* and Ryukyuan *na-* occur as petrified proximal demonstratives.

The Mongolic pronouns *inu* 'his/her/its' and *anu* 'their' are the genitive forms of the ancestral pronouns **i* 'he, she, it' and **a* 'they'. The same vocalic opposition between singular and plural pronouns is found between **bi* 'I' vs. **ba* 'we' and **ci* 'you (SG)' vs. **ta* 'you (PL)'.
In sum, the Japonic, Koreanic and Turkic languages bear traces of a petrified demonstrative use of this pronoun. Since the development from a demonstrative into a personal pronoun is well attested (e.g. French personal pronoun *il* 'he' is derived from the Latin demonstrative *ille* 'that'), but the change in the other direction is not (Heine

& Kuteva 2002: 112-113), it is inviting to reconstruct a proximal demonstrative 'this' in the ancestral language.

pJ **ki-* 'this' (demonstrative pronoun of the proximal plan): J *ko-* (1.1), OJ *ko₂₋* 'this'; Yuwan (Amami) *ku-ri* 'this', *ku-ma* 'here', Shodon (Amami) *k'u-r*, Shuri (Okinawa) *ku-ri* 'this person, thing', *ku-ttaa* 'these people', *ku-ma* 'here', *ku-nu* 'this', Hirara (Miyako) *ku-i* 'this', Ishigaki (Yaeyama) *ku-ri* (A) 'this', Hateruma (Yaeyama) *ku-ri* 'this', Dunan (Yonaguni) *khú* 'this', *khú-ma* 'here', pR **ko-* 'this' (proximal demonstrative)
pK **ki-* 'that' (demonstrative pronoun of the mesial plan): K *ku-*, MK *ku-* 'that'
pTk **kō* 'this' (demonstrative pronoun of the proximal plan): Chu. *ku* 'this', S-Yug. *gu*, *go*, Salar *ku*

pJ **ə-* 'that' (demonstrative pronoun of the mesial plan): J *ore* 'I (first person pronoun), OJ *ore* 'self; you derogatory 2sg', OJ *ono₂* 'self'; Shuri (Okinawa) *ʔu-ri* 'that person, thing', *ʔu-ttaa* 'they', *ʔu-ma* 'there', *ʔu-nu* 'that' (mesial demonstratives), Amami *u-ri* 'that', *u-ma* 'there' (mesial demonstratives), Hateruma (Yaeyama) *u-ri* (distal demonstrative), Yonaguni *ú* 'that', *ú-ma* 'there' (mesial demonstrative)
pMo **e-* 'this' (demonstrative pronoun of the proximal plan) in pMo **e-ne* (this-SG) 'this': MMo. *ene* (SH/HY/Muq), WMo. *ene*, Khal. *ene*, Bur. *ene*, Ordos *ene*, Kalm. *en*, Dag. *ənə*, Eastern Yugur. *ene*, Mgr. *ne*, *ni*, Bao. *enə*, *nə*, Dong. *ənə*, Mog. *enā*; in pMo **e-de* (this-PL) 'these': MMo. *ede* (SH/HY), WMo. *ede(n)*, Khal. *ed(en)*, Bur. *ede*, Kalm. *edn*, Dag. *əd(ən)*; in pMo **e-n-de* (this-SG-LOC) 'here': MMo. *ende* (SH/HY/Muq), WMo. *ende*, Khal. *end*, Bur. *ende*, Kalm. *end*, Dag. *ənd*, Eastern Yugur. *ende*, Mgr. *nde*, Bao. *endə*, Dong. *əndə*, Mog. *endā*
pTg **e-* 'this' (demonstrative pronoun of the proximal plan): Even *ere* 'this, here', *ecin* 'in this way, indeed', *eduk* 'since this time, from here', *ele*: 'here', *eweski*: 'in this direction', *ewgi:le*: 'here', *ewgi:n* 'here', Evk. *er*, *eri* 'this', *ewgi*: 'in this direction', *ele*: 'here', *eduk* 'since this time, from here', Solon *eye*: ~ *er* ~ *eri* 'this', *elur* 'these', Neg. *ele*: ~ *eli*: 'in this direction, here', *ewuli*: ~ *ewule*: 'here', *ewgi:le*: ~ *ewgi:li*: 'in this direction', *edu*: 'here, at this time', *eye* 'this', Ud. *ebede* 'like this', *eyi* 'this', Olcha *yedu* 'here', *yeji* 'with this', *yeki* 'here', *yele* 'from here', *ei* 'this', *e:wu* 'this', Na. *eyebe* ~ *yebe* 'here', *ei* 'this', Orok *edu* ~ *eyedu* 'here', *ewwe*, *eye*, *er*, *eri* 'this', *emete(n)* 'such, like this', Ma. *ere* 'this', *embici* 'or' (-*bi-ci* be-COND.CONV), *eici* 'or', Sibe *erə* 'this', Jur. *e(r)se* 'this'

40. FISH

pJ *(y)*iwə* 'fish': J *uo* (2.1), OJ *iwo* 'fish', Yamatohama (Amami) *ʔjuu*, Asama (Amami) *ʔyuu*, Yoron (Amami) *ʔyuu*, Shodon (Amami) *ʔyuu*, Yonamine (Okinawa) *ʔyuu*, Shuri (Okinawa) *ʔiyu* (A), Irabu (Miyako) *izu*, Hirara (Miyako) *ʔizu*, Ishigaki (Yaeyama) *idzu* [*izu*] (A), Yonaguni *iyu*, pR **iyu* 'fish'
pMo **diya-* 'fish': MMo. *jiqasun* (SH/HY) ~ *jiyasun* (Muq) '1 fish', *jixuči* 'fisher', WMo. *jiyasu(n)* '1', Khal. *zagas(an)*, Bur. *zagaha(n)*, Ordos *jayasu*, Kalm. *zaysn*, Dag. *jagas*, *jaus*, Eastern Yugur *jayasən* ~ *jəyasən*, Mgr. *žagəsə* ~ *žigəsə* ~ *jagarsī*, Bao. *zilyasun*, Dong. *žagəsun*

For the neutralization of pJ **yi* and *i* as OJ *i*, see 26 house.

The Mongolic deep velar consonant with velar origin WMo. $y < *g$ only occurs in stems with back vowels. In intervocalic position, it converged with the deep-velar consonant with bilabial origin WMo. $y < *β < *p/*b$ (Poppe 1955: 98). In cases like this, where y occurs in stems with back vowels, the origin of the consonant can be either velar or labial.

43. BLACK

pMo **kara* 'black': MMo. *qara* (SH/HY/Muq), WMo. *qara* 'black, dark, obscure', Dag. *xar*, Khal. *xar*, Bur. *xara*, Ordos *xara*, Kalm. *xar*, Eastern Yugur *xara*, Mgr. *xara* ~ *qara*, Bao. *χara*, *χara*, Dong. *qara* 'black, dark', Mog. *qara*: ~ *qaro*: ~ *qarɔ*
pTk **kara* 'black': OT *qara*, Tk. *kara*, Tat. *qara*, Az. *yara*, Tkm. *yara*, Gag. *qara*, Uz. *qərə*, Uig. *qara*, dial. *qare*, Khak. *xara*, Shor *qara*, Tuva *qara*, Tofa. *qara*, Yak. *xara*, Dolg. *kara*, Kirg. *qara*, Kaz. *qara*, Nog. *qara*, Bash. *qara*, Balk. *qara*, Karaim *qara*, Kpak. *qara*, Salar *yara*, Kum. *qara*, Khalaj *qara*, Chu. *xora*

In addition to the neutral color term *xar* 'black', Dagur also has *kara* 'black (horse colour)', which is a borrowing from Tungusic (Nugteren 2007: 404). The Tungusic terms Evk. *kara*: and Ma. *qara* are specialized to denote the horse colour and so is MK *kala* (*mol*) 'black horse'. This observation suggests that the Tungusic and Korean terms were borrowed in the context of the spread horse-ridden pastoralism, while the Turkic and Mongolic neutral color terms are cognates.

45. STAND

pJ **tata-* 'to stand': J *tat-* (B) 'to stand, rise, run high (intr.)', OJ *tat-* 'stand, be built; leave; (time) pass, elapse', J *tate-* (B), OJ *tate-* 'to stand, erect (tr.)'; Yamatohama (Amami) *θaθuri*, Asama (Amami) *tacjun*, Yoron (Amami) *tacjun*, Shodon (Amami) *that-* 'to stand (intr.)', Yonamine (Okinawa) *tacun*, Shuri (Okinawa) *tat-* [*tacun*] (B), Irabu (Miyako) *taci* ~ *tafu*, Hirara (Miyako) *tatsi*, Ishigaki *tasuŋ* [*tacun*], Yonaguni *tatuŋ*, pR **tat-* 'to stand (intr.)'

pK **tata-* 'to run': K *tataT-*, MK *tatoT-* 'reach, attain, get to' (< *ta(h)-* 'reach' + *toT-* 'run'), K *taT-*, MK *toT-* 'to run, rush'

pK **ila-* ~ *ili-* 'to stand up, rise': K *i:l-* 'to come up, spring up, rise, happen (intr.)', MK *il-/i(l)-* 'to become, come up'

pTg **ili-* 'to stand up, rise': Evk. *il-* 'to stand up; stop; get to one's feet', Even *il-* 'to stand up; to stop', Neg. *il-* ~ *el-* 'to stand up; to stop', Solon *ila-* 'to stand; to stand up; to fly up; to rise', Oroch *ili-* 'to stand up; to stop', Ud. *ili-* 'to stand up', *ili-hi-* 'to stand', Olcha *ilu-* 'to stand up; to stop; to go for hunting', *ilsu-* 'to stand', Na. *ili-* 'to stand up; to stop; to survive', Ma. *ili-* 'to stand; to stop', Sibe *jila-* 'to stand', *ji-* ~ *je-* 'to stand up, to get up', Jur. *ili-* 'to rise'

46. BITE

pJ **kam-* 'to bite, chew': J *kamu* (B), OJ *kam-* 'to bite, gnaw, chew, masticate, eat'; Yamatohama (Amami) *xamuri* 'to eat', Asama (Amami) *kamyun* 'to eat', Shuri (Okinawa) *kamun* 'to eat', Hirara *kam* 'to bite', Ishigaki *kamuŋ* 'to bite', Yonaguni *kamuŋ* 'to bite', pR **kamu-* 'to bite, eat'

pMo **keme-* ‘to bite’ (+**-la-*/**-li-* intensive-iterative suffix): MMo. (Muq) *kemile-* ‘to gnaw’, WMo. *kemeli-*, *kemele-* ‘1 to gnaw, nibble, crack with one’s teeth (tr.)’, *kemki-* ‘2 to bite, snap with the teeth (tr.)’, Khal. *ximle-*, *xemle-* ‘1’, Bur. *ximel-* ‘1’, Bur. (Bargu dial) *ximil-*, Kalm. *keml-* ‘1’, Ordos *kemele-* ‘1’, *kemxel-* ‘2’, Bao. *kamel*, Bao. (Dahejia dial.) *kaməl-* ‘to bite’, Dag. *keme-* ‘1’, Eastern Yugur *kemle-*, *kelme-* ‘1’ pTk **kem-* ‘to bite, chew (intr.)’ (+ **-(U)r* causative): OT (Karakh.) *kemür-* ‘1 to gnaw, chew (tr.)’, Tk. *gemir-*, *kemir-* ‘1’, Az. *gämür-* ‘1’, Tkm. *gemir-* ‘1’, Gag. *kemir-* ‘1’, Uz. *kemir-* ‘1’, Uig. *kemi(r)-* ‘1’, Tat. *kimer-* ‘1’, Khak. *kimər-* ‘1’, Karaim *kemir-* ‘1’, Kirg. *kemir-* ‘1’, Kazakh *kemir-* ‘1’, Nog. *kemir-* ‘1’, Bash. *kimer-* ‘1’ Balk. *kemir-*, Kpak *kemir-*, Kum. *gemir-*, Tuva *xemir-* ‘1’, Tof. *xemir-* ‘1’

In his review of Robbeets (2005), Georg (2007: 273) objects: “Had they used more scientifically oriented sources [...] or any Mongolistic expertise for a change, they would have found the *meaning* of this verb to be ‘to crack open a bone with one’s teeth and to suck the marrow’, which makes clear that it is derived from *kemi* ‘marrow of bones’ and has to be eliminated from this “etymology”.” However, these Mongolic forms can be analysed in two different ways: whereas Georg derives them from pMo **kemi(n)* ‘marrow of the bones’, I derive them from pMo **keme-* ‘to bite’. Thus, I take the general meaning ‘to bite’ as the primary one and assume that the peripheral attestation of MMo. *kemi-le-* is a case of metathesis. Both *-la-* and *-li-* are attested as deverbal iterative-intensive suffixes in Mongolic. The intensive-iterative pMo **-la-* is frequently lexicalized in verb pairs such as WMo. *alqu-* ‘to step, walk (intr.)’ *alqula-* ‘to march, walk with quick steps (intr.)’, WMo. *seji-* ‘to butt with the horns’ → *sejile-* ‘to butt repeatedly with the horns’, WMo. *ili-* ‘to caress, stroke’ → *ilile-* ‘to touch or stroke repeatedly’. However, the suffix **-la-* in Georg’s analysis may also be the denominal verb suffix, e.g. WMo. *šibayun* ‘bird’ → *šibayu-la-* ‘hunt birds’. The suffix **-ki* in WMo. *kemki-* ‘to bite, snap with the teeth (tr.)’ can be explained either as a deverbal transitivizer or as a denominal verb formant; the second explanation based on Georg’s analysis, is more problematic, however, since **-ki-* is a grammaticalized form of MMo. *ki-* ‘to make’ with the meaning ‘to make the verb base’, e.g. WMo. *sayad* ‘hindrance’ → *sayadki-* ‘to hinder’. The expected meaning of the derived verb would thus be ‘to make marrow’ rather than ‘to bite’. In the present analysis, WMo. *kemki-* ‘to bite, snap with the teeth (tr.)’ reflects a deverbal transitivizer pMo **-ki*, lexicalized in verb pairs such as WMo. *kel-* ‘to be strung (as pearls) (intr.)’ → *kelki-* ‘to string pearls (tr.)’. Furthermore, the final vowel in all contemporary attestations reflects *-e-* rather than *-i-*, which suggests that **keme-* is the primary form.⁶

According to Clauson (1972: 723), the Turkic transitive verbs meaning ‘to gnaw, chew’ can be derived as a causative of pTk **kem-*. The causative suffix **-(U)r* is lexicalized in Turkic verb pairs such as OTk. *ač-* ‘to be hungry’ → *ačur-* ‘to starve (tr.)’, OTk. *keč-* ‘to be late (intr.)’ → *kečür-* ‘to delay (tr.)’ (Erdal 1991: 710-726).

pK **mili-* ‘to bite (tr.)’: K *mul-*, MK (̣) *mu(l)-/ mu-lu-* ‘to bite (tr.)’

⁶ Dagur has a verb *kəmy-* ‘to ruminate, chew the cud’, which reflects a final high front vowel. However, in view of the meaning of this form, it is probably a reflex of pMo. **kebi-* ‘to chew, to ruminate’ (Nugteren 2011: 407.)

pTg **mödö*- 'to gnaw, nibble, bite': Evk. *mudu*- ~ *modo*- 'to gnaw, nibble, bite; to tear with the teeth (about animals)', Even *mud*- 'to gnaw; to bite; to tear with the teeth', Solon *mudu*- 'to gnaw; to scratch', Orok *muddi*- 'to gnaw', Ud. (Samargi dialect) *modokti* 'maxilla; wooden hoop (in the upper part of a bucket)'

The reconstruction of the vowel pTg **ö* in Tungusic is based on the *u~o* alternation in Evenki and the *o* in Udehe *modokti* 'maxilla', even if the vowel *u* in Even and Orok suggests the reconstruction of pTg **u* in this from; see footnote 3.

50. WHAT?

pJ **ka* (wh-interrogative particle): J *ka* interrogative particle in yes/no and wh-questions, OJ *ka* interrogative particle used in wh-questions; Shuri (Okinawa) *ga* wh-interrogative particle, Tarama (Miyako) *ga* wh-interrogative particle, Yonaguni *nga* wh-interrogative particle, pR **ga* wh-interrogative particle

pK **ka* (interrogative particle): K *ka* interrogative particle in yes/no and wh-questions, MK *·ka* interrogative particle mainly used in yes/no questions

pTg **xa* (wh-interrogative pronoun) in pTg **xa-i* 'who, which one': Evk. *i*·, Even *i*·, Solon *i*·, Ud. *i*·, Olcha *xay*, Na. *xay*, Ma. *ay*, Sibe *ai*; in pTg **xa-ba-siki*: 'where to': Evk. *awaski*·, Even *awaski*· ~ *awuski*·, Neg. *awaski*, Oroch *awasi*, Olcha *xawasi*, Na. *xaosi*, Ma. *absi*; in pTg **xa-li*: 'when': Na. *xali*, Ud. *ali*, Neg. *ali*, Evk. *ali*·; in pTg **xa-du*: 'how much': Evk. *adi*·, Even. *adi*· Na. *xadu*, Olcha *xadu*, Ud. *adi*, Neg. *adi*; pTg **xa-son* 'how big, how many': Evk. *asun*, Even *asun*, Neg *asun*, Na. *xasun*, Olcha *xasun* and in pTg **xa-oni* 'how': Evk. *o:n*, Even *o:n* Na. *honi*, Olcha *xon*, Ud. *ono* (Benzing 1955a: 114)

pTk **ka* (wh-interrogative pronoun) in OT *kani* 'where?' (< **ka*-ACC), *kaja* 'to which place' (< **ka*-oblique-DAT), *kanta* 'where' (< **ka*-oblique-LOC), *kantan* 'from where' (< **ka*-oblique-ABL), *kanča* 'how much, how far, by which way' (< **ka*-oblique-equative), *kač* 'how much', *kañu* / *kayu* '1 which', Tkm. *qay* '1', Uz. *qay* '1', Uig. *qay* '1', Tat. *qay* '1', Kirg. *qay* '1', Bash. (dial.) *qay* '1', Tuva *qayi* '1', Tofa. *qai* '1', Kaz. *qay* '1', Yak. *xaya* '1', Dolg. *kaya* '1', Khalaj *qa:yan* 'whereto' (< **ka*-DAT + *yan* 'side')

Vovin (2008: 128-129) rejects the comparison of the interrogative markers MK *·ka* and OJ *ka*, noting the fact that MK *·ka* marked yes/no questions, whereas the Old Japanese *ka* usually marked wh-questions. It can be objected, however, that there are instances in which MK *·ka* does marked wh-questions, e.g. MK *ñwu·-lul ka·colpi-lq·ka* [who-ACC compare-ADN INT] 'Whom would one compare [with him]?' (Martin 1992: 863) as well as instances in which OJ *ka* marked yes/no questions, e.g. OJ *tano₁si-ku mo₂ ar-u ka* [delightful-INF PT exist-ADN INT] 'Isn't it delightful?' (KK 54; Vovin 2009: 1224). In both Old Japanese and Middle Korean the interrogative *ka* was preceded by a noun or adnominal form of the verb and the Korean form does not display vowel harmony. Therefore, the Japanese and Korean particle seems to go back to an original independent interrogative pronoun. The pronominal origin of the interrogative marker is further supported by the observation that the Old Japanese interrogative is not restricted to sentence-final position, e.g. OJ *iku yo₁ ka ne-t-uru* [how.many night INT sleep-PERF-PCP] 'How many nights have we slept?' (KK 25;

Vovin 2009a: 1220). In sum, the seemingly contrastive situation in Old Japanese and Middle Korean may well be the result of a historical change and does not stand in the way of tracing the origin of the interrogative markers back to an original interrogative pronoun in the ancestral language. This observation makes the comparison with the Altaic interrogative pronoun even more plausible.

It can be noted that the Mongolic languages share an interrogative root pMo **ka* 'where?': MMo. *qa'a* ~ *qa:na* 'where?', WMo. *qa* ~ *qana* ~ *qamiya* ~ *qaya* 'where' (WMo. *-GA* derives local and temporal adverbs; *-A* dative-locative), Khal *xaa*, Bur. *xaa*, *xaana*, Kalm. *xa* ~ *xama* (*-ma* indefinite in **yama* 'something', *kemüge* 'something'), Dag *xa:nə*, Eastern Yugur *xana*, Bao *xalə* ~ *xali* ~ *hala*, Dong *qala*, Mog. *qana*. However, as the semantics remain restricted to the local interrogative, I suspect that the forms may represent early borrowings from Turkic. From the functional viewpoint, the general interrogative pronoun pMo **ke* is a much more plausible cognate, but here the vowel does not fit. The interrogative is reflected as pMo **ke* 'what' in MMo. *ja'u ke* 'whatsoever'; pMo **ke-n* 'who (SG)', **ke-d* 'who (PL)' in MMo. *ken* (ket PL), WMo *ken* (ked PL), Dag *keŋ*, Mgr. *kän*, Mog. *ken*, Urd. *ken*, Kalm. *ken*, Khal, Bur. *χeŋ*; pMo **ke-r* 'how'; pMo. **ke-li*: 'when?' and pMo. **ke-gün* 'something' in Kalm. *kü:n*, Urd *küm*.

51. CHILD

pJ **wara-pa* 'child': J *warawa* (3.5b), OJ *warapa* 'child'; Yamatohama (Amami) *warabi*, Asama (Amami) *warëë*, Yoron (Amami) *warabi*, Shodon *warabi*, Shuri *warabi*, Nakijin (Okinawa) *warabii*, Irabu (Miyako) *yarabi*, Ishigaki *yarabi* ~ *meerabi*, Hatoma (Yaeyama) *yarabi*, Yonaguni *myaarabi*, pR **wara-be* 'children' ~ *me-wara-be* 'girl-child'

pTk **ba:la* ~ *ba:la-pan* 'young animal, child': OT (Karakh.) *bala* '1 young animal, nestling, 2 child', Tk. *bala* '1, 2', Az. *bala*, *balay* '1, 2', Tkm. *ba:la* '1, 2', Uz. *bəla* '1, 2', *palapan* (dial.) '1', Uig. *bala* '1, 2', Tat. *bala* '1, 2', Karaim *bala* '2', Nog. *bala* '2', Bash. *bala* '2', *belekej* 'small', Balk. *bala* '2', Kpak *bala* '2', Salar *bala* '1, 2', Kum. *bala* '1, 2', Kirg. *bala* '2', Kaz. *bala* '2', *balapan* '1', S-Yug. *mila*, *mle* '2', Khak. *pala* '2', Shor *pala* '2', Khalaj *bala* '2'

All terms for 'child' participating in this etymology are not kinship terms but refer to a certain age-group. In the Ryukyuan languages, *-bi* < *pR **-be* is a collective suffix for persons, e.g. Chabana (Yoron) *wuhii-bi* 'brother' (Thorpe 1983: 269).

pTg **puri* 'child, offspring': Even *hurken* 'adolescent; young (person); single (person)', *hurke* 'pregnant (of animals)', *hurel* ~ *urul* ~ *urel* 'child, infant; grandchild; younger brother or sister', Evk. *huri-l* 'children', *huru*: 'family; mother of many children', *hurkə:n* ~ *urkə:n* ~ *hurkə:kə:n* ~ *urkə:kə:n* 'boy', Solon *ukkəxən* ~ *urkəxən* 'son, boy', *uril* 'children; offspring', Neg. *xujil* (plural of *xutə*) 'child (son, daughter); baby of an animal', Olcha *purul(i)* 'children (plural)', *puri-* 'to give birth', Orok *puril* 'children (plural)', *puriyə* ~ *pure:* ~ *purid* ~ *purə* ~ *purəyə* 'young', Na. *puril* 'children (plural)', *puri-* 'to give birth (of animals)', Oroch *xi:(g)* ~ *xiji(g)* 'children (plural)', Ma. *fursun* 'shoots, sprouts (especially of a grain); sawdust'

pMo **püre* 'child, offspring, seed, fruit': MMo. *xüre* (HY), *hüren* (Muq) '1 offspring, descendant, seed, fruit, result', WMo. *üre* '1', Dag. *xur*, *hure* '1', Khal. *ür* '1', Bur. *üre*

'1', Ordos *ür, üre* '1', Kalm. *ürn* 'child, offspring, seed, fruit, result', Eastern Yugur *hure* '1', Mgr. *fure:, fure, furie:, xuru, xure:, xurie*, Bao. *fure, fəre*, Dong. *fure*

The final liquid in the Tungusic forms is a petrified plural suffix pTg *-l, e.g., Evk. *ŋa:le* 'hand' → *ŋa:le-l* 'hands', Neg. *oyo* 'reindeer' → *oyo-l* 'reindeers', Even *adal* 'net' → *adal-al* 'nets' (Benzing 1955a: 1023-1026). The Tungusic forms in *-kan reflect a lexicalized diminutive suffix pTg *-kA:n, e.g. Even *ŋa:l-ka:n* 'small hand', Orok *ke:či-ke* 'puppy', Na. *toke-kan* 'small sleigh', etc. The Manchu form *fursun* 'shoots, sprouts' is probably a borrowing from Mongolic because the agricultural meaning is not attested elsewhere in Tungusic and because *-sUn is a collective and body part suffix in Mongolic (see 7. BLOOD) but not in Manchu (Rozycki 1994: 83).

53. GIVE

pJ **tama-* 'to give': J *tamaw-* (B), OJ *tamap-* 'to give, bestow on', J *tamawar-* (B) 'to be given', J *tabe-* (B) 'to eat', OJ *tab-* 'to deign to give', OJ *tabar-* 'to humbly receive, give (to me)'; Yamatohama (Amami) *thaboruri* 'be given from above (only used as an auxiliary)', Asama (Amami) *tabooju* 'be given from above', Yoron (Amami) *tabeN, tabaw-* 'be given from above', Nakijin (Okinawa) *taboori* 'please (give me) (imperative only)', Shuri (Okinawa) *tabir-* 'give', Irabu (Miyako) *tabori* 'please (give me) (imperative only)', Ishigaki (Yaeyama) *tabooruN* 'be given from above', Hatoma (Yaeyama) *tabooruN* 'be given from above'.

pTg *tama-* 'to pay': Evk. *tama-* ~ *tam-* 'to pay', *tama-n* 'price; payment', Even *tam-* 'to pay', *tamen* 'payment', Neg. *tama-* 'to pay; evaluate', *taman* 'price; payment', *tamat-* ~ *tamač-* 'to pay', *tamalka:n* 'valuable, expensive', Solon *tama* 'payment', Olcha *tama(n)* 'price; payment', *tama-* 'to give price, to estimate', Orok *tama-* 'to pay', *tama(n)* 'price, payment', Oroch *tama-* 'to pay', *tama(n)* 'price, payment', Ud. *tama-* 'to pay', *tama* 'price', Na. *tamã* 'price'

pJ **(w)ura-* 'to sell': J *ur-* (A), OJ *ur-* 'to sell', Naze (Amami) *uryuŋ* 'to sell', Shuri (Okinawa) *uyuŋ*, Nakasuji (Miyako) *ʔvi(i)*, Yonaguni *uruŋ*, pR **uri-* 'to sell'

pK **pala-ka-* 'to sell': K *phal-*, MK *pho(l)- /-pho-l(o)-* 'to sell'

pTg **bu:-* 'to give': Evk. *bu:-* ~ *bu-* 'to give; to sell', Even *bo:-* 'to give', Neg. *bu:-* 'to give', Solon *bu:-* 'to give', Olcha *bu:-* 'to give', Orok *bu:-* 'to give; to give away', Na. *bu:-* 'to give', Oroch *bu:-* 'to give', Ud. *bu:-* 'to give', Sibe *bu-* 'to give', Ma. *bu-* 'to give', Jur. *bu-* 'to give'

The early drop of the initial labial glide before the rounded u in Japonic may have blocked conditioning factor 39b, which would be expected to yield Japonic ***wauru-* > ***waru-*. Note however, that Martin (1996: 76) suggests that pJ **wara-* 'to split, break' is related to pJ **(w)ura-* 'to sell', which would be in line with 39b.

The Koreanic form involves a deverbal inchoative suffix pK **-ki-* ~ *ka* (Robbeets 2015: 256-258). The suffix derives verb pairs such as pK **uli-* 'to cry' in MK *wul-* 'to cry (intr.)' → MK *wulG-* 'to howl, roar, shout loudly (intr.)' (< pK *uli-yi-* < **uli-ki-*) and MK *nul-* 'to increase, be(come) longer, be better' → MK *nulK-* 'to be old, grow old (intr.)' (< pK **nil-ki-*).

Similar to the etymologies under 4 WATER, 79 BLOW and 80 WOOD an open monosyllabic form with length in Tungusic corresponds to a disyllabic form with a

liquid onset in the second syllable in the other Transeurasian languages. This is indicative of liquid loss in Tungusic. The secondary meaning 'to sell' in Evenki *bu:-* ~ *bu-* 'to give; to sell' reflects the same semantic development as the one that is assumed to have taken place earlier in Japanese-Koreanic.

54. NEW

pJ **ara-* 'to be new, pure': J *arai* (A) 'to be rough, natural, crude', OJ *ara-* 'to be rough, fresh, new', J *ara* 'new, fresh', J *arau* (A), OJ *arap-* 'to wash', Yamato-hama (Amami) *ʔarauri* 'to wash', Asama (Amami) *ʔaroyun* 'to wash', Yoron (Amami) *aren* 'to wash', Yonamine (Okinawa) *ʔaren* 'to wash', Shuri (Okinawa) *ʔarayun* 'to wash', Irabu (Miyako) *aroo* 'to wash', Hirara (Miyako) *aroo* 'to wash', Ishigaki (Yaeyama) *a:ro:ŋ* [*aaroon*] 'to wash', Hatoma (Yaeyama) *araun* 'to wash', Yonaguni *ara-* 'to be new', *aruŋ* 'to wash', pR **ara-* 'to be new', **ara-wu-* 'to wash'

pMo **ari-* 'to be pure: WMo. *ariy* 'pure, clear', *ariyun* '1 clean, pure, clear; purity' (WMo *-yun / -gün* deverbal noun deriving quality words (Poppe 1954: 46)), *arči-* '2 to wipe, clean, erase', MMo. *ariun* '1', *arči-* '2', *aril-* '3 to be(come) clear, clear up', *arilqa-* '2', Khal. *ariun* '1', *arči-* '2', *aril-* '3', Bur. *arün* '1', *arša-* '2', Kalm. *ärü:n* '1', *arč-* '2', Ordos *aru:n* '1', *arci-* '2', Dong. *arun* '1', *ači-* '2', Bao. *aruŋ* '1', Dag. *aru:n* '1', *arči-* '2', Mgr. *arin* '1', Mgr. *arili-* '3', Mgr. *aringe* 'cleanly', *arire-* 'to become pure', Mogol *oru:n* '1', Eastern Yugur *aru:n* '1'

pTk **ari-* 'to be(come) pure: OTk. *ari-* '1 to be(come) clean, pure', Az. (dial.) *ari* '2', *arit-* '3', Tkm. *arig* '2', *art-* '3', Tk. *ari* '2 clean, pure', *art-* '3 to clean, purify', Osm. *arit-* 'to wipe', Uz. (dial.) *ari-* '1', Uig. *eriq* '2', Tat. *aru* '2', Kirg. *aru* '2', Kaz. *aru* '2', Bash. *ariw* '2', Balk. *ariw* '2', Kpak. *aruw* '2', S-Yug *ariy* '2', Tuva *ariy* '2', *arit-* '3', Khak. *ariy* '2', Yakut: *ira:s* '2', *irit-* 'sort out small fruit', Dolg. *iras* '2', Khalaj *ariy* '2', *arut-* '3', Chu. *irā* 'good', *irt-* 'sort out small fruit, take away the inner part of a tree'

The intensive-iterative suffix pJ **-pa-* (Robbeets 2015: 294) is assumed to derive the verb *arau* A 'to wash' from a verbal adjective with the meaning 'to be clean'.

In his review of Robbeets 2005, Kara (2007: 96) suggests that the Mongolic forms in this etymology should be treated as early copies from Turkic. He does not provide a motivation for this copying scenario, but Marcel Erdal and Hans Nugteren (pc.) argue that the suffix *-l-* reconstructed in *aril-* is foreign to Mongolic since the commonly attested suffix WMo. *-l-* derives transitive verbs rather than intransitives as in this case. However, Poppe (1954: 61, 66 vs. 64) distinguishes two different homophonous suffixes WMo. *-l-*: one is a causative or transitive suffix (e.g. WMo. *uyu-* 'drink' → *uyul-* 'to give to drink'), while the other is an intensive-iterative suffix (e.g. WMo. *dusu-* 'fall (of drops)' → *dusul-* 'to drip') that can derive transitive as well as intransitive verbs. The latter suffix also lexicalized in a number of verb pairs granting an inchoative meaning to natural processes, e.g. WMo. *yasi-yun* 'bitter' → *yasal-* 'to lament, mourn', *öte-gü* 'grey' → *ötel-* 'to become old' (Ramstedt 1912: 7-8). It is interesting to observe that, although the transitive suffix practically disappeared in Monguor (De Smedt & Mostaert 1964: 93-94 note), the intensive suffix still surfaces as Mgr. *-li-* (De Smedt & Mostaert 1964: 148) in e.g. Mgr. *yasen* 'bitter' → *yaseli-* 'to become bitter', *sači-* 'to sow' → *sačili-* 'to scatter, disperse' and *arin* 'clear, pure' → *arili-* 'to clear up (intr.)'. The Monguor forms Mgr. *aringe* 'cleanly' and *arire-* 'become pure' are relevant because they can be segmented in a

root **ari-* ‘to be clean’ and native suffixes. The form Mgr. *arire-* ‘become pure’ represents the equipollent anticausative counterpart of the causative *arči-* ‘wipe, clean,’ which is well represented elsewhere in Mongolic (Robbeets 2015: 288). Given the presence of the Japanese cognate and the native origin of the suffix *-l-* in MMo. *aril-*, these forms are more likely to have derived from inheritance than from code-copying.

55. BURN

pJ **tak-* ‘to burn, boil (tr.)’: J *taku* (A), OJ *tak-* ‘to burn, boil, cook (tr.)’, Yoron (Amami) *takjuN* ‘boil (rice/food), make (alcohol/salt)’, *yakjuN* ‘burn, roast’, Shuri (Okinawa) *tak-* ‘to burn’, Hirara (Miyako) *yak^si*, Ishigaki (Yaeyama) *yakuŋ*, Hatoma (Yaeyama) *takuN* ‘boil (gruel/glue)’, *yakuN* ‘fry (including deepfry)’, Yonaguni *daguŋ*, pR **tak-* ‘to burn, boil’

pK **tʰʌʌ-* < pK **takʌ-* ‘to burn (intr.)’: MK *·tho-* ‘to burn, be on fire (intr.)’, MK *ta·hi-*, K *ttay-* ‘to make (fire), heat (with fire) (tr.)’ (MK *-i* causative-passive), pTk **ya-k-* ‘to ignite, burn (tr.)’: OT (Karakh.) *yak-* ‘1 to ignite, burn (tr.)’, Tk. *yaq-* ‘1’, Tkm. *yaq-* ‘1’, Gag. *yaq-* ‘1’, Az. *yax-* ‘1’, Uz. *yoq-* ‘1’, Uig. *yaq-* ‘1’, Kirg. *žaq-* ‘1’, Kaz. *žaq-* ‘1’, Bash. *yaq-* ‘1’, Nog. *yaq-* ‘1’, Tat. *yaŋ-* ‘1’, Karaim *yaq-* ‘1’, Kum. *yaq-* ‘1’, Kpak *žaq-* ‘1’, Yak. *saq-*, Tofa. *ča’q-* ‘to produce fire’, Khalaj *ya:q-* ‘1’, Chu. *šot-* ‘1’

According to Ramsey’s law (cf. 32. BIG, 36. HIT/BEAT), the original root underlying MK *·tho-* ‘to burn, be on fire (intr.)’ can be reconstructed as pK **tʰʌʌ-* ‘to burn’. In line with conditioning factor 32b, pK **tʰʌʌ-* ‘to burn’ can be assumed to be an assimilation to the second syllable vowel from pK **tahʌ-*. The transitive verb MK *ta·hi-* ‘make (fire)’ can be derived from this root by adding a causative-passive suffix *-i-*. As expected, the addition of a final suffix *-i-* blocks the weakening process of the vowels. Velar lenition supports the reconstruction of pK **takʌ-* ‘to burn’. The correspondence between Chinese donorwords and Korean loanwords (e.g. Ch. *cak* ‘foot (measure)’ is borrowed as MK *·cah*), phonogram readings in the Kyelim Yusa (e.g. *ˀhwalq-huy* for MK *holk* ‘earth’), elements in Paekche placenames (e.g. *tin-qak* for MK *ˀtwolh* ‘stone’), dialectal forms (e.g. dial. *tolk* for MK *ˀtwolh* ‘stone’), and internal doublets (e.g. MK *siphu-* versus MK *sikpu-* ‘want’) all suggest that velar lenition (**k > *h*) took place at an early stage in Korean (Martin 1996: 36-37).

The correspondence with the Turkic verbs may of course be coincidental. Indeed, the proto-Turkic verb **yak-* ‘to ignite (tr.)’ may represent a complex form, while the inclusion of the Turkic form would lead us to expect register B rather than A in Japanese. The attestation of OTk *yal-* ‘to blaze, burn, shine (intr.)’ and OTk *yan-* ‘to burn, blaze up (intr.)’ suggests that these verbs are morphologically complex. The underlying verb being pTk **ya-* ‘to burn (tr.)’, OTk *yal-* ‘to blaze, burn, shine (intr.)’ would represent a derivation with a passive suffix pTk **(X)l-* (Erdal 1991: 651-693), OTk *yan-* ‘to burn, blaze up (intr.)’ a derivation with an anticausative suffix pTk **(X)n-* (Erdal 1991: 584-638) and, Karakh. *yak-* ‘to ignite, burn (tr.)’ with an inchoative suffix pTk **(X)k-* (Erdal 1991: 645-650). This inchoative suffix can be traced back to proto-Transeurasian (Robbeets 2015: 255-266). Georg (2007: 274) objected that “the Turkic evidence points to a root **ja-*, without any final consonant” but admitted that this is “not an argument which necessarily renders this comparison

impossible." Indeed, ultimately, Japanese and Korean may only have inherited the Transeurasian complex inchoative form.

56. NOT

pJ **ana-* negative verb: J *na-*, OJ *na-* 'not to exist', OJ *-an-* negative suffix; Hirara *na:ŋ*, Ishigaku *ne:nu*, Yonaguni *minuŋ*, pR **n(i)ano* 'not to exist', Yuwan (Amami) -*aN*, Yonamine (Okinawa) *-an*, Shuri (Okinawa) *-an*, Irabu (Miyako) *-(a)n-*, Tarama (Miyako) *-n*, Hateruma (Yaeyama) *-an-*, Ishigaki (Yaeyama) *-anu-*, Hatoma (Yaeyama) *-anu-*, Yonaguni *-anu-*, pR **-an(u)-* negative suffix

pK **an-* negative verb: MK *a-ni* verbal negator (< pK **an-* negative verb + pK **-i* deverbializer), K *anh-*, MK *anh-* 'not to be/ do' (< *ani* + MK *ho-*, K *ha-* 'to do, be')

pTg **a:na-* negative auxiliary: Even *a:n ~ a:ŋ* (< pTg **a:na-* + **-xA* resultative nominalizer), *ac* (< pTg **a:na-* + **-c* perfective nominalizer), *acca* (< pTg **a:na-* + **-ca* resultative nominalizer) negative noun, Evk. *a:cin*, Neg *a:cin* (< pTg **a:na-* + **-cin* resultative nominalizer) negative noun, Solon *aš̄* negative noun Ud. *anci* (< pTg **a:na-* + **-cin* resultative nominalizer) negative noun, *ata-* (< pTg **a:na-* + **-ta-* subjunctive) subjunctive negative verb, Na. *ana ~ ana:* (< pTg **a:na-* + **-xA* resultative nominalizer) negative noun, Oroch *ana*, Olcha *ana*, Orok *ana ~ anaya* negative noun, Ma. *aku:*, Sibe *aku* negative noun (< pTg **a:na-* + **-xU* resultative nominalizer), Jur. *a-čwi*, *o-ha* < **oka* 'no, not'

pTk **an-* 'not to be(come), be unbecoming': OTk. *anig ~ anig ~ ayig* 'evil, sin, bad; badly, extremely' (OTk. *-(X)g* deverbial noun suffix), Yak. *aŋi*, Dolg. *anī*

pTg **e-* negative verb: Evk. *e-* independent negative verb and auxiliary, Even *e-*, Neg. *e-*, Sol. *e-*, Na. *e-*, Olcha *e-*, Orok *e-*, Ud. *e-*, Oroch *e-* negative auxiliary, Jur. *ei-xe*, *esi(n)* negative noun

pMo **e-* negative verb in **e-se* (pMo **-sA* resultative nominalizer): MMo *ese*, WMo *ese ~ ise* preposed negative adverb, Khal. *es*, Bur. *ehe*, Kalm. *es*, Ordos *ese*, Dong. *ese*, Bao. *ese*, Dag. *es*, Mgr. *sə, si:*, Mog. *sa, se, sō*

pTk **e-* negative verb in pTk **e-ŋ* negative-imperative: OT (Kharakh.) *eŋ* 'no, not', Chu. *an* prohibitive

See Robbeets (2015: 174-205) for an extensive description of the diachrony of negation across the Transeurasian languages. The negative particles Mgr *bi:* (**bu*/**bü*) 'don't', *li:* 'not' (**ülü*), *si:* 'not' (**ese*) all replaced their original vowels by an irregular *i:*, probably due to group analogy.

58. KNOW

pK **ala-* 'to know': K *a:l-*, MK *al-/~a(l)-* 'to know'

pTg **ala-* 'to make known, know': Evk. *alawu:- ~ alagu:-* 'to teach, explain' (Evk. *-w-* causative), Neg. *alač̄i-* 'to offer as sacrifice' (Neg. *-č̄i-* < pTg **-ti-* causative), Olcha *alau-* 'to be responsible', Na. *alo:s̄i-* 'to teach, to explain, to recommend', *aldu* 'news, gossip', *alduma-* 'to learn news; to ask for news', *alduri-* 'to report news; to prevent', Oroch *alu-* 'to tell', *alaw-* 'to teach, explain', Orok *alau-* 'to teach, explain', Ud. *alasi-* 'to teach' (Ud. *-u-* causative, *-si-* iterative), Ma. *ala-* 'to tell, report', Sibe *al(ə)-* 'to tell,

inform', Jur. *alawa-gi* 'royal decree', *arwa* 'imperial decree'

62. HEAR

pJ **uka-* 'to receive, perceive, hear': J *uke-* (B), OJ *uke₂₋* 'receive', J *uketamawar-* (B), OJ *uke₂tamapar-* 'to humbly listen, hear, receive' (OJ *tamapar-* 'humbly receive, be given'); Shodon *uk'iiyum*, Shuri *ukiyun*, Yonaha (Miyako) *ukii*, Ishigaki (Yaeyama) *uki(ru)η* 'to receive'

pMo **uka-* 'to understand, think': MMo. *uqa-* (HY, SH) '1 to understand, think', *uqa* (SH) ~ *uxa'an* (HY) '2 mind', WMo. *uqa-* '1', *uqaya(n)* '2', Dag. *ogo, owo* 'brain', *uka:* ~ *uha:n* '2', Khal. *uxa-* '1'; *uxa:* '2', Bur. *uxa-* '1', *uxā(n)* '2', Kalm. *uxə-* '1', *uxa:n* '2', Ordos *uxa:* ~ *uxa:n* '2', Eastern Yugur *χGua-tu* '2'

pTk **uk-* 'to hear, understand': OT *uq-* '1 understand', Az. (dial.) *uyuz* 'knowing much', Uz. *uq-* '1', Uig. *uq-* '1', Tat. (dial.) *ux-* '2 hear', Kirg. *uq-* '2', Kaz. *uyin-* '1', Kpak. *uq-* '1', Khak. *ux-* '1, 2', Shor *uq-* '1', Tuva *uy-* '1'

In spite of the incongruent register, the verb *ukagaw-* (A) 'peep through, spy, watch, infer, visit, inquire, hear' is probably a complex verb derived from pJ **uka-* 'receive, hear, listen' and pJ **kapa-* 'cross, exchange, mutually do'. These roots are reflected in J *uke-* (B) 'receive' and *kaw-* 'buy, cross, exchange, mutually do'. In addition to the compound *uketamawaru* 'humbly receive, listen, hear', this verb witnesses to the original semantic component 'hear'.

The lexicon of the Transeurasian languages tends to be verb-based: nouns tend to be derived from verbs, rather than the other way around, e.g., pMo **uka-* 'to understand, think' -> *uka-gan* 'mind' or pTg **xökō-* 'to suck' -> **xökō-n* 'breast'. When a deverbal noun is shared but the underlying verb is not, borrowing is the most parsimonious explanation. This is the case for Tungusic forms for 'mind' such as Evk. *uka:n*, that cannot be derived from a Tungusic verb 'to understand'.

63. SOIL

pJ **tuti* < **tutu-i* 'soil, ground': J *tuti* (2.3), OJ *tuti* 'earth, soil'; Kin (Okinawa) *sicii* (B), Hirara (Miyako) *^dzī:* 'ground', *dzī:* (B), Hatoma (Yaeyama) *sici* (B), Ishigaki (Yaeyama) *cīcī* (B), Yonaguni *di:* (B), pR **zi* 'ground'

pK **tuti* 'bank, ridge, ground': K *tutek* ~ *tuteng* ~ *tuleng* (-*enh* 'dike) 'embankment, levee, bank around a field', Mod. K *twutul* 'bank, levee', MK *twu-ten*, *twu-tulk* 'bank, ridge, levee, mound, low hill'

Vovin (2008: 124, 2009: 135-136) objected that the Japanese form is a loanword from Korean because "there is only one isolated attestation in Ryukyuan: Ishigaki *tsi_{tsi}* 'earth'". However, the forms for 'ground, earth' are well distributed across the Ryukyuan languages and they all have accentuations, which are consistent with the Mainland Japanese accentuation, so we can presume they are not borrowings from the Mainland. Therefore, Vovin's argumentation can be dismissed.

According to Frellesvig and Whitman (2008: 16), the Old Japanese vowel *i₂* can derive from a contraction of pJ **ii* or pJ **ui*. If Martin is right that *tuti* 'earth, soil, ground' is the first element in *tuti-hanmyoo* 'Cantharis', while the synonym *niwa-tut/zu* 'Cantharis' indicates *tutu* 'ground', the root may be **tutu* 'ground', probably substantivized by way of pJ **-i*. Additional support may come from the verb J *tutum-*

(B) 'to pile up dirt, pack up, cover with, enshroud in' if it is derived with a denominal verbalizer pJ *-*ma*- 'to reach a spatial or temporal concept', e.g., OJ *apiida* 'interval' → OJ *apida*- 'to take a break, rest', OJ *kiipa* 'limit, brink' → OJ *kipam*- 'to reach the limit, reach an extreme' (Robbeets 2015: 246-250).

pK **twu-ti* seems to be a legitimate reconstruction on the basis of MK *twu-ten* 'bank, ridge, levee, mound, low hill', MK *twu-tulk* 'id' and Mod. K *twutul* 'bank, levee'.

65. RED

pK **pil-ki*- 'to be red' (pK *-*ki*- ~ -*ka*- inchoative, e.g. MK *nul*- 'to increase, be(come) longer, be better' → MK *nulk*- 'to be old, grow old (intr.)' < pK **nil-ki*- (Robbeets 2015: 257-258): K *pwulk*-, MK *pulk*- 'to be red, be crimson (intr.)'

pTg **pula*- 'to be red': Evk. *xularin* ~ *o:larin* ~ *ularin* ~ *xolarin* (Evk. -*rin* colour suffix), *xulama* ~ *ulama* ~ *xolama* 'red' (Evk. -*ma* ~ -*me* ~ -*mo*- deverbial noun suffix), *xularga*- 'to redden, turn red' (Evk. -*rgA*- deverbial intransitive inchoative suffix), Even *xulal*- 'to become red', *xulaña*: 'red' (Even -*ña*: ~ -*ne*: deverbial colour suffix), *xulati* 'red', Neg. *xolayin* 'red', *xola-xola* 'very red (ideophone)', *xolala* 'reddish', Solon *ularin* 'red', *ulã* 'red', Na. (Kur-Urmi) *folgã(n)* 'red', Ud. (Samargi dialect) *xulala* 'of rusty colour', Ud. *xulaligi* 'red', Ma. *fulara*- 'to be red, to blush', *fulgan* 'red', Ma. *fulahu:n* 'pink, reddish; naked, bare', *fulahu:ri* 'deep red, fire red', *fulargan* 'a rust-colored swallow', *fulari* 'of a red shade', *fulata* 'red-eyed, having red circles about the eyes', *fulgiyan* 'red, purple', Sibe *fulayu(n)* 'reddish', *fãlgie(n)* 'red', Jur. *ful(g)ian* 'red'

pMo **pula-yan* 'red' (-*GAn* resultative deverbial noun suffix, e.g. *uda*- 'to tarry' → *udayan* 'slow'): MMo. *xula'an* (HY, SH) ~ *hola:m* ~ *hula'an* ~ *hula:n* (Muq), *hulan* 'red', WMo. *ulayan*, Dag. *xula:n* ~ *hula:n*, Khal. *ula:n*, Bur. *ula:n*, Kalm. *ula:n*, Ordos *ula:n*, Dong. *xulan*, *xulañ*, *fulañ*, Bao. *felañ*, *fulañ*, Eastern Yugur *ta:n*, Mgr. *fula:n*, Mog. *ulo:n*

67. HIDE

pK **swum*- 'to hide (intr.)': K *swu:m*-, MK *swum*- 'hide (oneself), conceal oneself, take cover, lurk in (intr.)'

pTg **sume*- 'to hide (intr.)': Evk. *sumet*- 'to hide, conceal; support somebody; make a plot against somebody; whisper (tr.)' (Evk. -*t*- ~ -*ci*- causative/ distributive/ intensive/ progressive), *sumeči:w*- 'to doubt, to suspect', Even *hum*- 'to hide (intr.), to disappear', *humec*- 'to act in secrecy' (Even -*c*-/ -*t*- ~ -*ci*- causative/ distributive/ intensive/ progressive), *humke:c*- ~ *humke:n*- 'to whisper' (Even -*ka:c*- ~ -*ke:c*- intensive), Neg. *sumə:t*- ~ *sumə:c*- 'to hide, to conceal' (Neg. -*c*-/ -*t*- ~ -*ci*- distributive/ intensive/ progressive), Olcha *sumeci*-, *suməču*- 'to hide; to conceal', Na. *suməci*- 'to conceal' (Na. -*ci*- ~ -*si*- distributive/ intensive/ progressive), Oroch *sumeci*- 'to whisper', Ud. *sumemesi*- ~ *sumumesi*- 'to whisper'

The causative suffix pTg *-*t*- ~ -*ti*- is reflected in the Tungusic languages as Ma. -*tA*- ~ -*cA*-, Evk. -*t*- ~ -*ci*-, Even -*c*-/ -*t*- ~ -*ci*-, Neg. -*c*-/ -*t*- ~ -*ci*-, Ud. -*si*- and Na. -*ci*- ~ -*si* (Robbeets 2015: 281-287). However, only Even, Evenki and Manchu preserve the valence-increasing function of the causative proper next to secondary non-valence

changing uses; the other Tungusic languages have all lost the primary causative function but maintained non-valence changing meanings relating to the object such as distributive and complete affectedness of the object, or, to the action such as intensive, iterative and progressive. All languages further preserve resultative function and Even displays valence-decreasing function, namely passive.

68. SKIN

pJ **kapa* 'skin, bark, shell': J *kawa* (2.3), OJ *kapa* 'skin, leather, fur, pelt, bark, shell'; Yamatohama (Amami) *xo(o)*, Asama (Amami) *koo*, Yoron (Amami) *hoo*, Shodon (Amami) *k'oo* 'skin, bark', Yonamine (Okinawa) *haa*, Shuri (Okinawa) *kaa*, Irabu (Miyako) *kaa*, Oura (Miyako) *kaa*, Ishigaki (Yaeyama) *kaa*, Hatoma (Yaeyama) *kaa*, Yonaguni *kaa*, pR **kawa* 'skin, bark'

pK **kap(a)-k* 'skin, bark, shell, outer layer' (pK *-(a/e)k diminutive suffix frequent in body parts, e.g. *muluph* 'knee' > *muluphak* 'knee', *thel* 'hair' > *thelek* 'hair'): K *kkaphwul* 'skin, outer layer, film', MK *ka:phol* 'sheath, scabberd, protective case for a sword' (MK -(u/o)l diminutive), K *kkaptayki* ~ *kkepteyki* 'skin, shell' (-*tayki* ~ *teyki* diminutive 'thingy'), K *kkepcil*, MK *kepcil* 'skin, bark, husk'

pTk **ka:p* ~ **ka:b* 'skin': Karakhanid *kap* 'a container made of skin used for fluids, wine skin, water skin, leather bag, sack', MTk *qap* '1 sack', *qaba-* 'to besiege', Tk. *kap* ~ *kab* 'vessel, pot; receptacle, cover, envelope', *kapa-* 'to shut, close (eyes, book); to cover up (face); to confine, imprison; to obstruct', Az. *gab* '1', Tkm. *gāp* '1', *gāba-* 'to surround', Gag. *qap* '1', Tat. *qap* '1', Sary-Yughur *qap* '1', Khak. *xap* '1', Kirg. *qap* '1', Kaz. *qap* '1', Nog. *qap* '1', Bash. *qap* '1', Balk. *qap* '1', Karaim *qap* '1', Kkpak. *qap* '1', Kumuck *qap* '1', Uz. *qop* '1', Uig. *qap* '1', dial. *qaba-* 'to surround', Shor *qap* '1', Yak. *xappar* '1', Tuva *xap* '1', Tofa. *qap* ~ *qab* '1'

pTk *ka:p-ik* ~ *ka:b-ik* 'bark, shell' (pTk *-ik~ -ik metaphoric suffix deriving remainder parts of plants or animals; Erdal 1991: 43): OT (Karakh.) *kabik* '1 bark, 2 shell', Tk. *kabuk* '1, 2', Az. *yabiy* '1, 2', Tkm. *ya:biy* '1, 2', Gag. *qap*, *qabi* '1, 2, external cover, covering', Uz. *qobiq* '1, 2', Uig. *qobuq* '1, 2', Tat. *qabiq* '1, 2', Kirg. *qabiq* '1, 2', Kaz. *qabiq* '1, 2', Nog. *qabiq* '1, 2', Bash. *qabiq* '1, 2', Balk. *qabuq* '1, 2', Karaim *qabux* '1, 2', Kpak. *qabiq* '1, 2', Kum. *qabuq* '1, 2', Khak. *xabix* '1, 2', Shor *qabiq* '2', Tuva *xaviq* '2', Chu. *xobā* '1, 2'

pTk **ka:p-ak* ~ **ka:b-ak* 'bottle gourd; container' (pTk *-ak ~ -äk metaphoric suffix to transfer words from the human domain to terms for fauna and flora or objects; Erdal 1991: 40-44): OT *qabaq* '1 gourd; 2 pumpkin', MTk *qabaq* 'squash', Chu. *xupax*, *xupankā* 'skropula (napr. orehov), šeluha, oboločka (zerna), granka (orehov)', Chu. *kavān*, *kapak* 'gourd', Tkm. *ga:baq* ~ *ka:bak* '1', Tk. *kabak* 'pumpkin (Cucurbita pepo), gourd', Az. *gabağ* 'perednjaja čast', ran'se, 1', Gag. *kabak* '1, (peren.) pustaja golova', Tat. *kabak* '1', Bash. *qabaq* '1', Kirg. *kabak* 'gourd, tykvjanka, gorljanka', Kaz. *asqabaq* 'pumpkin, squash, gourd (Cucurbita)', Kkpak. *qabaq* 'tykva, gorljanka', Nog. *kabak* '1', Kum. *qabaq* '1', Uig. *qapaq* '1'

In Korean we find various derivations of a root **kap* or **kaph* 'skin, bark', mainly with diminutive suffixes. The aspiration in the root **kaph* is reminiscent of K *to:l* ~ dial. *tolk*, MK **twolh* 'stone' in which the final -h is considered to be a diminutive suffix which lenited from the diminutive suffix pK *-(a/e)k (Martin 1996: 36, 90).

There is a vowel harmonic alternation between **kep* and **kap*, but the external evidence indicates that the alternant with the retracted vowel is the original root.

The Turkic languages leave ambiguity as to whether pTk **ka:b* or **ka:p* should be reconstructed for 'skin'. The proto-Turkic meaning 'skin' is preserved in the Old Turkic Karakhanid word designating 'a container made of skin used for fluids' such as a wine skin or a water skin. This word was originally derived with two denominal metaphoric suffixes, notably pTk **-ik~ -ik* and pTk **-ak ~ -äk* (Erdal 1991: 40-44). The metaphoric suffix pTk **-ik~ -ik* is used to derive left-over parts of animals or plants, e.g., OT *top* 'round thing' → *topik* 'ankle bone, wrist bone, knee cap', *kasik* 'bark, peel, snake-skin', OT *čop* 'dregs' → *čopik* 'remainder of fruit discarded after eating', while pTk **-ak ~ -äk* is used to transfer items known from the natural world to names of objects, e.g. OT *baš* 'head' → *bašak* 'iron head of an arrow of lance' or to transfer words from the human domain to terms for fauna and flora, e.g. OT *ogul* 'child, son' → *oglak* 'kid, young goat'. Interestingly, both suffixes are applied to pTk **ka:p* 'skin' yielding a rest part of animals and plants in pTk *ka:p-ik* 'bark, shell' and transferring the human skin to a plant used for its skin in pTk *ka:p-ak* 'bottle gourd; vessel'. For the connection between the Turkic etyma for 'bark', 'skin container' and 'bottle gourd'; see Doerfer (1963–1975/3: 414), Erdal (1991: 40) and Rona-Taš 2011: 550-551). Georg (2007: 271) objected that the Turkic word for 'bark, skin' is "an internal derivation from a verb **kap-* 'to cover' and therefore not usable for underpinning a "Proto-Altaic" body part term." He does not provide any references for his reconstruction, but I suspect that the verb he has in mind, in reality is the proto-Turkic verb **kapa-* 'to surround, to enclose, to cover' reflected in Tk. *kapa-* 'to shut, close (eyes, book); to cover up (face); to confine, imprison; to obstruct', MTK *qaba-* 'to besiege', Uigh *qaba-* 'to surround', etc. This verb may be a denominal verb derivation with the suffix pTk *-a- ~ -ä-* (Erdal 1991: 418-428) from pTk **ka:p* 'skin' in the sense of 'to wrap a skin around, to envelop, to enclose'. Therefore, I think that Georg's (2007: 271) accusation that "[Robbeets and others] pick the "meaning" which suits their purposes at the moment, ignoring the real history of the words at hand" is ungrounded.

69. SUCK

pTg **xökö-* 'to suck': Evk. *uku-* '1 to suck', Even *ök- ~ uk-* '1', Neg. *öxö- ~ uku-* '1, breast-feed', Oroch *owoci- ~ o:ci- ~ ueci-* '1', Ud. *kos'o-* '1', Olcha *kueci- ~ ko:ci-* '1', Orok *ku:ci-* '1', Na. *ku:ci- ~ uku-* '1'

pMo **kökö-* 'to suck': MMo. *koko-* (SH) '1 to suck the breast', MMo. *köke-* (Muq) '1', WMo. *kökö-* '1', Khal. *xöxö-* '1', Ordos *gökö-* '1', Bur. *xüxe-* '1', Kalm. *kök-* '1', Dag. *mək-* '1', Eastern Yugur *hkö- ~ hgö-* '1', Mgr. *kugo-* '1', Bao. *kugo-γo-* (-γo- causative) '1', Dong. *gogo-* '1', Mog. *kökä-* '1'

See 12. BREAST

70. CARRY

pJ **əpə- ~ ənpə-* 'to carry on the back (tr.): J *ow-* (B), OJ *op-* 'to bear, carry on the back', EOJ *opuse-*, OJ *opose-*, J *oose-* (B) 'to charge with', J *obuw-* (B), OJ *obup-* 'to carry on the back'; Yoron (Amami) *uujuN* 'return a favour', Yamatohama (Amami) *ɔuri* '(cattle/horse) carries on back', Nakijin (Okinawa) *ɔuuruN* 'carry on back', Shuri

(Okinawa) *ʔuuɣuN* 'to carry a load, carry a responsibility or sin', Hatoma (Yaeyama) *uuN* 'carry on back'

pK **ep-* 'to carry on the back': K *ep-*, MK *ep-* 'to carry on the back (tr.)'

pTg **ebe-* 'to carry': Evk. *ewe-* ~ *ege-* 'to carry on oneself; to transfer on oneself', Oroč. *ewu-gi-* 'to bring (back)', *iwa-dala-* 'to put a person on one's shoulder', Neg. *ey-* ~ *iy-* 'to drag, to pull a sledge on a strap', Na. *iwari-* 'to unload'

The Yaeyama form *offasiN* 'to carry' is considered to be a loan from mainland Japanese because in case of cognacy initial *u-* would be expected. (Vovin 2008: 235).

Starostin et al. (2003) include Even *i:w-* 'to bring in, to carry inside, to import' as a cognate of pTg **ebe-* 'to carry', but the Even verb is a causative derivation of a different root, pTg **i:-* 'to enter'. Given the velar *-g-* in the Evenki alternant *ege-* 'to carry on oneself' and the glide *-y-* in the Negidal reflexes *ey-* ~ *iy-* 'to drag', we cannot exclude that the Tungusic reconstruction should be pTg **ege-* 'to carry' instead.

Although Written Mongolian has a verb WMo. *eyüre-*, *eyür-* 'to carry or load on one's back; to bear; to take a burden upon oneself (tr.)' that seems to correspond in form and function, it is not considered here. In view of the poor distribution of this verb in other Mongolic languages, where we find verbs of the shape pMo **ergü-* 'to lift, raise, carry' and pMo **üyür-* 'to carry on the back' instead, I follow Poppe's (1955: 48) and Nugteren's (2011: 332) explanation of WMo. *eyüre-* as a contamination of these verbs.

73. TAKE

pJ **tira-* 'to take, pick up': J *tor-* 'to take, get' (B), OJ *to₂r-* 'to take, pick up, capture', J *toras-* 'to let one have, give', OJ *to₂ras-* 'to deign to take', J *tora-* (B'), OJ *to₂rape₂-* 'to capture'; Yamatohama (Amami) *θururi*, Asama (Amami) *tuyun*, Yoron (Amami) *tuyun*, Yonamine *tun*, Shuri (Amami) *tuyun* 'to take', *tur-* (B) 'to take', *turas-* (B) 'to let one have, give', Irabu (Miyako) *tui*, Hirara (Miyako) *tul* 'to get', Ishigaki (Miyako) *turun* [turun] 'to take, get', Hatoma (Miyako) *turun* 'to take, get', Yonaguni *turun* 'to get', *turan* (B) 'to let one have, give' pR **tor-* 'to take, get'
pK **tili-* 'to hold, lift up': K *tul-*, MK *tul-* 'to hold, carry, raise, lift up'

Bentley (1999) distinguished two Old Japanese verbs, notably OJ *to₁r-* 'to hold, support' and OJ *to₂r-* 'to take, pick up, capture'. The latter verb is the closest semantic fit to the basic vocabulary item and regularly corresponds to the Korean form.

pTg **al-* 'to take, receive': Even *al-* 'to give a hand; to cover oneself with hands', *alim-* 'to take, to receive; to take advice; to host', Evk. *al-* 'to receive, to take away', Neg. *al-* 'to give a hand', Solon *ali-* 'to accept; to receive', Orok *ali-* 'to hold up; to cover', *allu-* 'to give', Na. *ali-* 'to endure; to give a hand', Olcha *alu-* 'to give, hand over; to hold up', Oroch *alu:-* 'to give in the hands', Ud. *ali-* 'to give a hand', *alu-* ~ *alusi-* 'to give', Ma. *ali-* 'to receive, to accept; to undertake; to endure; to support, to hold up, to stop up (a leak); to take a falcon on the hand', Jur. *ali-* 'to receive'

pTk **al-* 'to take': OT *al-* 'to take', Tk. *al-*, Tkm. *al-*, Az. *al-*, Gag. *al-*, Uz. *al-*, Uig. *al-*, Tat. *al-*, S-Yug. *al-*, Kirg. *al-*, Kaz. *al-*, Nog. *al-*, Bash. *al-*, Balk. *al-*, Karaim *al-*, Kpak. *al-*, Salar *al-*, Kum. *al-*, Khak. *al-*, Shor *al-*, Tuva *al-*, Tofa. *al-*, Yak. *il-*, Dolg. *il-*, Khalaj *al-*, Chu. *il-*

The Tungusic verbs of the shape *alu-* with the meaning 'to give' contain a causative marker *-wu-*, deriving the meaning 'to give' as 'to make receive'.

The Mongolic languages reflect an imperative form 'give!': WMo *ali*, Khal. *ál*, *aliv*, Bur. *ále:*, Kalm. *ál*, *alá*, Ordos *ali*, Dong. *ali*, Bao. *an*, Mgr. *ali*. This situation represents a typical case of borrowing, whereby a verb form is only borrowed in its imperative form, but does not reflect a complete verbal paradigm (e.g., *allez* 'let's go, come on!' in Flemish from French). Dagur is the only language reflecting a complete verbal paradigm of the verb *ali-* 'to take, receive', but given the extensive contact situation with Tungusic languages, this may be seen as a loanverb.

74. OLD

pJ **muka-* 'to be long ago, ancient' (pJ **-si* adverbializer for verbal adjectives, e.g. OJ *suko₁si* 'a little'): J *mukasi* (?3.1.a), OJ *mukasi* 'long ago, old times'; Yoron (Amami) *mukasi*, Asama (Amami) *muka:si*, Hirara (Miyako) *mkyɑ:η*, Ishigaki (Yaeyama) *mukašī*, Hatoma (Yaeyama) *mukasi*, Yonaguni *Nkaci* (A), pR **muka-si* 'long ago, ancient times'

pK **muk-* 'be(come) old': K *mwuk-*, MK *mwuk-* 'to become old, outdated'

pMo **kari-* 'to weaken': WMo. *qari-* '1 to weaken, to grow less intense', Khal. *xari-* '1', *xarši-* '2 to become exhausted, become emaciated, weaken from lack of food or water', Bur. *xaraši-* '2', Kalm. *xār-* '1'

pTk **kari-* 'to be(come) old': OT *kari-* '1 to become old', *karī* 'old', Tk. *kari*, *kart* '2', Az. *Gari*, *Gart* '2', Tkm. *Garra-* '1', *Garri* '2', Gag. *qari* '2, 3 old woman or man, woman', Tat. *qari*, *qart* '2', Kirg. *qari-* '1', *qari*, *qart* '2', Nog. *qart* '2', Bash. *qari*, *qart* '2', Kpak. *qari*, *yarri* '2', Kum. *qart* '2' Uz. *qari-* '1', *qari* '2', Uig. *qeri-* '1' *qeri* '2, 3', Kaz. *qari* ~ *qeri*, *qart* '2', Khak. *kirə-* '1', *kirə* '2', Shor *qari-* '1' *qari* '2', Tuva *qiri-* '1', Tofa. *qiri-* '1', Yak. *kirij-* '1', Dolg. *kirij-* '1'

77. THICK

pJ **puta-* 'to be thick': J *hutoi* (B) 'to be thick, burly, fat', OJ *puto₁-* 'to be thick, fat' (< **puta-wo-ra* (thick-COP-ADN); see Robbeets 2015: 339-340); Shuri (Okinawa) *butasaN*, Yamatohama (Amami) *hwīssa* 'big', Ikema (Miyako) *udakai*, Irabu (Miyako) *vdaham* 'fat, thick', Hatoma (Yaeyama) *buttaaN* 'fat', pR **buta-* 'stout, thick'

pK **pwuti-* 'to become thick': K *pu:s-* 'to swell (intr.)', MK *pwuT-* 'to swell, increase'

pMo **büdü-* 'to be large': WMo. *büdügün*, *bidügün* 'large, huge, big' (WMo *-yun / -gün* deverbal noun deriving quality words (Poppe 1954: 46)), MMo. *bidun*, Dag. *budun*, *budu:n*, Khal. *büdü:n*, Bur. *büdü:n*, Kalm. *büdü:n*, *bödü:n*, Ordos *büdü:n*, *bidü:n*, Dong. *biedun*, Bao. *beidoŋ*, Eastern Yugur *büdü:n*, Mgr. *budin*, *bidun*, Mog. *beidü:n*, *beidun*

The Old Japanese initial *p-* may require special notice because it has been suggested that its articulatory definition had already become a bilabial fricative *F* by the time of Old Japanese. Miyake (1999: 396-400) has argued against the spirantization of OJ *p*,

demonstrating that *p* remained unchanged until Middle Japanese when it became a fricative *f*.

In Mongolic, two verbally encoded adjective stems alternate: pMo **büdü-* 'to be large' and pMo **bedü-* 'to be large'. The latter form may have arisen through convergence with a form ancestral to OTk. *bädü-* 'to be(come) big, great' (Doerfer 1963: 235; 1975: 275.)

78. LONG

pJ **nanka-* 'to be long': J *naga-* (B), OJ *naga-* 'to be long'; Yamatohama (Amami) *nagasari*, Asama (Amami) *nagaahan*, Yoron (Amami) *nagasan*, Shodon (Amami) *nagasam*, Yonamine (Okinawa) *nagaasen*, Shuri (Okinawa) *nagasan*, Irabu (Miyako) *na'aham*, Hirara (Miyako) *nagaka'i*, Ishigaki (Yaeyama) *na:sa:ŋ* [*naasaan*], Hatoma (Miyako) *naan* ~ *nagaan*, Yonaguni *na:ŋ*, pR **naga-* 'to be long', OKog **na(-)mey* 'long (water)'

pK **nalka-* ~ **nilki-* 'to be(come) old, long (in time) : K *nalk-*, MK *nolk-* 'to be(come) old, be outdated (of objects)', K *nulk-*, MK *nulk-* 'to become old, age (of people)', K *nul*, MK *nul-* 'to increase, be(come) longer, be better'

If the Korean form is indeed morphologically complex (pK **ki-* ~ *ka* deverbal inchoative in MK *nul-* 'to increase, be(come) longer, be better' → MK *nulk-* 'to be old, grow old (intr.)' < pK **nil-ki-*; see Robbeets 2015: 256-258), the Japanese form can only be explained as a borrowing.

pMo **uri* 'long past, former' in **uri-da* 'before' (**-da* ~ *-de* local and temporal adverb, e.g. WMo. *nasun* 'lifetime' → *nasuda* 'always'; Poppe 1954: 57): MMo. *urida* (SH, HY, Muq), WMo. *urida*, Dag. *ward*, Khal. *urd*, Bur. *urda*, Kalm. *urd*, Eastern Yugur *urda*, Mog. *urdo* 'vicinity, near' and in **uri-ji* 'before last': MMo. *uriju ödür* ~ *urji ödür* 'day before yesterday', Kal. *urdjar*, Ordos *urjidur*, Bur. *uržader*, Kalm. *urj ödr*, Eastern Yugur *urjüdur*, Mgr. *uzüdur*, Bao. *nziudər*, Dong. *uruzu du*, Mog. *ujadur*
pTk **ur₂a-* 'to be(come) long (in time/ space)' (pTk **-(X)n* deverbal noun/adjective suffix, e.g. OTk. *yak-* 'to be near, approach' → *yakiñ* 'near'; pTk **-(O)k* deverbal noun/adjective suffix, e.g. OT *yagu-* 'to come near' → *yaguk* 'near'): OT *uza-* 'be(come) long and drawn out', *uzun* '1 long', *uzak* '2 long-lasting', Tk. *uzun* '1', *uzak* '3 far', Az. *uzun* '1', *uzay* '3', *uzan-* 'to grow', Tkm. *uzi:n* '1', *uzaq* '3', Gag. *uzun* '1', Uz. *uzun* '1', *uzoq* '3', Uig. *uzun* '1', *uzaq* '3', Khak. *uzun* '1', Shor *uzun* '1', *uzaq* '2', Tuva *uzun* '1', *uzaq* '3', Tofa. *uzun* '1', *uza-* 'to lengthen, elongate (intr.)', Yak. *uhun* '1', Dolg. *uhun* '1', Tat. *ozin* '1', *ozaq* '3', S-Yug. *uzun* '1', *ozaq* '3', Kirg. *uzun* '1', *uzaq* '2,3', Kaz. *uzun* '1', Nog. *uzin* '1', Bash. *odon* '1', Balk. *uzun* '1', *uzaq* '3', Karaim *uzun* '1', Kpak. *uzin* '1', *uzaq* '3', Salar *uzin* '1', *uziχ* '3', Khalaj *uza:n-* 'to grow', *uza:q* '3', *uzu:n* '1', Chu. *vărăm* '1', *vărăx* '3'

pK **ola-* 'to last long': K *olay-*, MK *wo-la-* 'to be long(lasting), be a long time since'
pMo **ora-* 'to be late' in **orai* 'late' (pMo **-i* adverbializer, e.g. WMo *daru-* 'to follow' → *darui* 'thereafter'; Robbeets 2015: 463): MMo. *orai* (SH) '1 late, in the evening, at night', WMo. *oroi*, *orai*, *orui* '1', Dag. *ore:* '1', Khal. *oroy* '1', Bur. *oroy* '1', Kalm. *ora:* '1', Ordos *orö:* '1', Eastern Yugur *öröi* '1', Mgr. *urui* '1', *ure:* '1', *uri:* '1'

I do not exclude that the above two etymologies ultimately go back to a single root with different vocalization.

79. BLOW

pK **puli-* 'to blow': K *pu:l-*, MK *pwul-* ~ *pwu(l)-* 'to blow (an instrument/ of wind) (tr. / intr.)'

pTg **pu:-* 'to blow': Evk. *huw-* ~ *hub-* ~ *hup-* 'to blow (about wind); to blow (the fire); to put out the fire', Even *hu:-* 'to blow; to blow (the fire)', Neg. *xu:w-* 'to blow with mouth; to blow fire; to inflate something', Solon *u:yu-* 'to blow', Olcha *pu:-* 'to blow', Orok *pu:-* 'to blow; to blow fire', Na. *pu:-* 'to blow', Oroch *xu:-* 'to blow', Ud. (Samargi dialect) *pu:-* 'to blow; to light a torch'

The expected lenition of pTg **p-* to Udehe *h-* is missing in Ud. *pu:-* 'to blow; to light a torch', but the original **p-* may be maintained here for sound-symbolic reasons. Similar to the etymologies under 4 WATER, 53 GIVE and 80 WOOD an open monosyllabic form with length in Tungusic corresponds to a disyllabic form with a liquid onset in the second syllable in the other Transeurasian languages. This is indicative of liquid loss in Tungusic.

If the alternant with velar fricative initial in Middle Turkic *ür-* ~ *hür-* 'to blow' indicates an original labial stop initial in pTk *(*p*)*ür-* 'to blow', the following Turkic verbs belong here as well: OT *ür-*, Turkish *ür-* (dial.), Tatar *ör-*, Khakassian *ür-*, Chuvash *vër-*, Yakut *ür-*, Dolgan *ür-*, Tuva *ür-*, Kazakh *ür-*, Noghai *ür-*, Bashkir *ör-*, Karaim *ür-*, Karakalpak *ür-*

80. WOOD

pJ **kī(r)i* 'tree, wood': J *ki* (1.3a) 'tree, wood', OJ *ki₂* ~ OJ *ko₂*- 'tree, wood, low woody plant, plant' in OJ *ko₂dati* 'grove, stand of trees', *kopada* 'tree bark', *ko no pa* 'leaves', etc.; Yamatohama (Amami) *xī(i)*, Asama (Amami) *kii*, Yoron (Amami) *sii*, Shodon (Amami) *kīi*, Yonamine (Okinawa) *kii*, Shuri (Okinawa) *kii*, Irabu (Miyako) *kii*, Hirara *kii*, Ishigaki (Yaeyama) *kii* (B), Hatoma (Yaeyama) *kii*, Yonaguni *kii* (B), pR **ke*

pK **kīli-k* > **kīlih* 'tree, wood' (pK *-(*a/e*)*k* diminutive suffix, also in *namu* ~ *namk* 'tree'): K *kulwu*, MK *kuluh* 'a stump (e.g. of a tree), stubble, part of a tree or crop left in the ground after the it has been cut down; counter for trees; crop, sowing'; K *twung-kwuli* 'stripped log, lumber', Kyengpwuk dial *twung-kwul* 'tree stump, cut wood'

Vovin (2009: 124-125) criticized the reconstruction of OKog **kir* 'tree, wood' by Beckwith (2007: 111, 115). In order to avoid the controversy about the legitimacy of reconstructing Koguryo forms on the basis of ancient place names, this form is not considered here. Vovin further objected that he failed to find textual evidence in Middle Korean in which MK *kuluh* is used as a counter for trees, but the contemporary cognate K *kulwu* is used in this sense (Martin et al. 1967). Moreover, Francis-Ratte (2016: 432) suggested additional evidence that the proto-Korean form more broadly meant 'wood' by referring to the meaning preserved in K *twung-kwuli* 'stripped log, lumber' and Kyengpwuk dial *twung-kwul* 'tree stump, cut wood'.

Moreover, these forms support a morpheme boundary in pK **kili-k*. The final suffix is not an "unaccounted segment" as objected by Vovin, but could be the diminutive suffix pK **(a/e)k*, which is also found in *namu ~ namk* 'tree' (Martin 1992: 416). The suffix pK **-i* is found in denominal nouns, meaning 'one, creature' and commonly used to derive names of animals or plants (Martin 1992: 554).

The Tungusic languages share a suffix denoting trees and bushes, suggesting an original shape **-kire:* in addition to **-kurA:* (Benzing 1955a: 1015). Reflexes of **-kire* appear in Evk. *seŋkire:*, Even *heŋkeye*, Neg. *seŋkiye:*, Ma. *seŋkiri*, Oroch *seŋki*, Ud. *seŋkie* 'wild rosemary' and Oroch *oloŋki*: 'oak'. However, given the *u* reflex in Evenki and a trace of *o~u* alternation in the Southern Tungusic languages, it remains unclear whether we should reconstruct **-kurA:* or **-kōrA:* on the basis of Evk. *dikte-mkure* 'blueberry bush', Olcha *seŋkure*, Orok *sekkure*, Na. *se:ŋkure* 'wild rosemary', Olcha *xaŋgaqura*, Na. *xaŋga:ŋkora* 'elder', Orok *xaŋgattura mo:ŋi* 'willow', Na. *xoroŋkola*, Ud. *oloŋkō* 'oak', Na. *siəŋkurə*, Orok *siŋətturə* 'bird-cherry tree', Na. *səksə:ŋkurə*, Olcha *sə:gžəŋkurə* 'lilac', Na. *uŋu:ŋkurə* 'wild apple-tree', *ačjaŋkora* 'hazel', *wagliəŋkora* 'old rotting willow', *wačjaŋkora* 'a kind of small shrub', *opo:ŋkora* 'hawthorn', Ma. *fulku:ran mo:* 'a type of hawthorn', *caku:ran* 'sandalwood (Santalum album)', Sibe *čaŋqur* 'shaman ladder, black birch', Olcha *waqtankora ~ waqtančura* 'dwarf birch'. Although pTg **-kōrA* 'tree, bush' would make a good phonological match to the Japonic and Koreanic forms, I have not included it in the etymology because the reconstruction of the vowel remains uncertain.

pJ **mori-(C)i* 'woods, wooded hill': J *mori* (2.1) 'woods', OJ *mi-moro* 'place/grove where a god descends'; Yoron (Amami) *mui* 'hill', Asama (Amami) *mui* 'hill', Shuri (Okinawa) *mui* '(wooded) hill', Hirara (Miyako) *mui* 'woods, forest', Irabu (Miyako) *mui* 'forest, mountain', Ishigaki (Yaeyama) *-muri* 'hill' (bound form found only in place names), *yamamurasi* 'grove', Hatoma (Yaeyama) *muru* 'hill', pR **mori* 'woods, wooded hill'

pK **molo* 'hill, mountain': K *mey*, MK *mwoyh ~ mwoy* 'hill, mountain' (< **mwolih* < ? **mwolwo-hi*), *phi mwo-lwo* (1445 Yong 4, 21b) 'Torreya-nut Mountain (placename)'

pTg **mo:* 'tree, wood': Evk. *mo:* 'tree; stick, log, timber; forest, wood', Even *mo:* 'tree; wooden', Solon *mo* 'tree; stick', Neg. *mo:* 'tree; stick, pole; log, firewood; shaft; stem; forest', Olcha *mo:* 'tree; firewood; stick', Orok *mo:* 'tree; stick; log, firewood; stem of a tree', Na. *mo:* 'tree; firewood; stick; shaft', Oroch *mo:* 'tree; stem; stick; forest; firewood', Ud. *mo:* 'tree; stick; bush; log, firewood', Ma. *mo:* 'tree; wood; stick, pole; a bamboo stick used for beating', Sibe *mo:* 'wood', Jur. *mo* 'tree'

pMo **mo* 'wood, tree' in pMo **mo-dun* 'wood, tree' (**-dun ~ -dün* collective suffix, e.g. in WMo. *sodun* 'pinion feathers of a bird', *sidün* 'tooth', etc.; Poppe 1973: 233): MMo. *modun ~ mudun* (SH, HY, Muq) '1 wood, tree', WMo. *modu(n)* '1', Dag. *mo:d* '1', Khal. *mod(on)* '1', Bur. *modo(n)* '1', Kalm. *modn* '1', Ordos *mudu(n)* '1', Eastern Yugur *mu:dən* '1', Dong. *mutun ~ mutun* '1', Mgr. *mo:du* '1', Bao. *muton, morton, modoŋ*, Mog. *modun* 'wood', *mudun* 'wooden stick' and in pMo **mo-ci* (**-ci* agentive suffix, e.g. in WMo. *mal* 'cattle' → *malci* 'herdsman'; Poppe 1954: 41): MMo *moci* (SH) 'carpenter', Mgr. *moči* 'carpenter'

81. RUN

pJ **pasa-* 'to run': J *hase-* (?B), OJ *pase-* 'to run, gallop', J *hasir-* (B), OJ *pasir-* 'run'; Yamatohama (Amami) *hasiruri*, Asama (Amami) *hasiyun*, Nishikomi (Amami) *haryur* 'to run, flow', Yonamine (Okinawa) *pan*, Shuri (Okinawa) *hayun* 'to run', Shuri *har-* (B) 'to run, flow', Irabu (Miyako) *pii*, Hatoma (Yaeyama) *paccaasun*, *pariparun*, pR **pa(si)r-* 'to run'.

pK **pas-* 'to hurry': MK *pach-* 'to rush (intr.)' (< **pas-ka-* with pK **-ki-* ~ *ka* deverbial inchoative; Robbeets 2015: 256-258), K *pappu-*, MK *pachpo-* ~ *paspo-* 'to be busy' (< **pas-ka-* - with pK **-pi-* ~ *pa* resultative deverbial adjective suffix, e.g. MK *sulh-* 'to grieve (intr.)' → *sulphu-* 'to be sad'; Robbeets 2015: 296).

The Amami examples reflect pR **pasir-*, while the others all point to pR **par-*. However, these forms are probably related over the loss of *-s- before a high front vowel. In Ryukyuan, pJ **pasira* 'pillar' becomes *paya* or *paiya*. Similarly, the Ryukyuan counter for animals is *-kara*, thought to be from pJ **kasira* 'head'. We would then not expect the -s- in the Yamatohama and Asama dialects, but it is quite possible that these forms reflect influence from Kagoshima dialect.

The Nishikomi dialect of Amami Oshima has *haryur* 'run, flow', without the -s-.

The semantic association between 'to run' and 'to hurry' is found in other languages across the world, for instance in Chinese *pǎn* 'to run about, to run away, to flee, to hurry'.

82. FALL

pJ **tira-* 'fall, scatter': J *tir-* (A), OJ *tir-* 'fall, scatter (intr.)', OJ *tiras-* (A) 'scatter, strew (tr.)'; Shuri *cirir-* (A) 'scatter (intr.)', *ciras-* (A) 'dry up a bowl (< disperse the liquid)'

pK **ti-* 'fall, scatter': K *ci-* 'fall, scatter (of flowers/leaves), go down (of sun/moon), die, die out (of fire), fade away', MK *ti-* 'fall, go down, turn upside down, lose, die'

84. ASH

pJ **papV* 'ash': J *hai* (2.1), OJ *papi* 'ash'; Yamatohama (Amami) *hwe*, Yoron (Amami) *pai*, Shodon (Amami) *fə*, Yonamine (Okinawa) *pee*, Shuri (Okinawa) *fee* [hwee], Irabu (Miyako) (*kara*)*pai*, Hirara (Miyako) *pa'i*, Ishigaki (Yaeyama) *pai* (A), Hatoma (Yaeyama) *pai*, Yonaguni *higun* (B) (<? **pi-nkomi* 'fire trash'), pR **paWe* 'ash' pK **pap* 'dust, waste in a production process': K *pap* 'waste material generated in a production process (e.g. sawdust, scraps of cloth/paper left after cutting, earth turned over by a plow, bits of thread)'

The final vowel in proto-Japonic cannot be reconstructed with confidence because OJ *papi* 'ash' is not attested in phonetic writing. In addition, the Ryukyu evidence remains undecided as some forms suggest pR **pape* (< pJ **papuy* ~ **papiy* ~ **pape*), while others suggest pR **papi* (< pJ **papi*). As the Korean form is restricted to only 3 phonemes, the exact nature of the final vowel in Japonic is not crucial to the comparison.

Vovin (2009: 115-116) justly objects to the Mongolic part of this etymology proposed in Robbeets (2005: 404), but he admits that "this etymology can not be completely destroyed". Therefore, this etymology is restricted to the comparison between the Japonic and Korean members.

86. DOG

pJ **inu* 'dog': J *inu* (2.3), OJ *inu* 'dog'; Yamatohama (Amami) *ʔin*, Asama (Amami) *ʔin*, Yoron (Amami) *inu*, Shodon (Amami) *in*, Yonamine (Okinawa) *ʔinnukwaa*, Shuri (Okinawa) *ʔin*, Irabu (Miyako) *in*, Hirara (Miyako) *ij*, Ishigaki (Yaeyama) *ij* [*in*] (B), Hatoma (Yaeyama) *in*, Yonaguni *inu* (loan?), pR **inu* 'dog'
pTg **ina-kun* ~ **ina-ki*: 'dog', **in(a)-da* '(going) with a dog' (pTg **-kun* suffix common in animal names, e.g. pTg **ju-kun* 'otter', pTg **gia:-kun* 'sparrow hawk'; Benzing 1955: 1015; pTg **-ki*: animal suffix, e.g. pTg *sula-ki*: 'fox', **xölü-ki*: 'squirrel', etc., pTg **-na:-* (~ *-da:-* after *n*) see 3. GO OUT): Even. *ina* ~ *nina* ~ *ɲina*, *inakin* ~ *ɲinakin* ~ *ɲin* 'dog; an animal of a canid family', Evk. *ɲina* 'dog' (*ɲinal* PL), *ɲinakin* ~ *ginakin* ~ *ina* ~ *inakin* ~ *nenakin* ~ *nina* ~ *ninakin* 'dog', *ɲina-ksa* 'dog skin', *ɲina-kča:n* 'a little dog', *ɲinda-* 'to go out with the dogs, hunt with the help of dogs', Solon *inaxĩ* ~ *ninaxĩ* ~ *ninakin* ~ *ninixin* 'dog', Neg. *ina* ~ *nina* ~ *enakin* ~ *enaxĩ*, *nenaxin* ~ *ninaxin* ~ *ɲinaxin* ~ *nenakin* ~ *ninakin* 'dog', Oroch *inaki(n)* 'dog', Ud. *in'ai* 'dog', Orok *nina* ~ *ɲina* ~ *ninda* ~ *ɲinda* 'dog', Olcha *inda* 'dog', Na. *inda*, *inaki* 'dog', Ma. *indaxu:n* 'dog', Sibe *yindayu(n)* 'dog', Jur. *indahu* 'dog'

The phonological development assumed to have given rise to the numerous alternants in Tungusic is **ina-kun* ~ **ina-ki*: (contamination) > **ina-kin* > **ginakin* (assimilation) > **ɲinakin* > **ninakin*. I derive the Evenki denominal verb *ɲinda-* 'to go out with the dogs, hunt with the help of dogs' as a dissimilated form of the suffix pTg **-na:-* 'to go out (with)'. Since this suffix is also reflected in the collective suffix pTg **-nan* 'together with' (Benzing 1955: 1021, e.g. *aki:-nan* 'together with the older brother'), I assume that the southern Tungusic forms *inda* reflect such a collective derivation. Note also that the root pTg **inu:-ke* 'canine animal' (e.g. Evk. *ńėkė* 'sable', Even *ɲōke* 'male (of dog, wolf, fox)', Sibe *juxə* 'wolf', Ma. *ńoxe* 'wolf', *nuxere* 'puppy', Oroch *ńōksjō* 'wolf' (Cincius 1975: 587, 651, 665, 606) may be related.

87. CRY / WEEP

pK **uli-* 'to cry, howl': K *wu:l-* 'to cry, weep, shed tears (of humans); howl, sing (of animals); sound, ring (of things) (intr.)', MK *wul-* ~ *wu(l)-* 'to cry, howl, sound (intr.)'

pMo **uli* 'to howl': MMo. *uli-* '1 to howl (of dogs, wolves, etc.)', WMo. *uli-* '1', Khal. *uli-* '1', Bur. *uli-* '1', Kalm. *ul̄-*, *ulə-* '1', Ordos *uli-* '1', Eastern Yugur. *olo-* '1'

pTk **u:li-* 'to cry, howl': OT *uli-* 'to cry (of humans), to howl (of wolves and other animals)', Tk. *ulu-*, Gag. *ulu-*, Az. *ula-*, Tkm. *u:li-*, Uig. *ulu-*, Kaz. *ũli-*, Nog. *uli-*, Bash. *ũlũ-*, Kpak. *ul̄i-*, Karaim *ulu-*, Tat. *ula-*, Kirg. *ulu-*, KBalk. *ulu-*, Kum. *ulu-*, Khak. *ulu-*, Tuva *ulu-*, Yak. *uluy-*, Dolg. *uluy-*, Chu. *ǎlax-* 'to neigh'

This etymology was eliminated from the core evidence advanced in Robbeets (2005) because it may be a sound symbolic formation.

88. TIE

pJ **kuku-* 'to tie, wrap': J *kukur-* (A), OJ *kukur-* 'to tie up, bundle, fasten', OJ *kukum-* (B) 'to tie up, wrap up', J *hagukumu* (A), OJ *pagukumu* 'brood over, foster' (< **pa* 'feather' + **-n-* + **kuku-ma-* 'wrap'), Shuri (Okinawa) *kukur-* (A) 'to tie up, blindstitch'
pTg **xuku-* 'to wrap': Evk. *ukuli-* ~ *xukuli-* 'to wind round', *ukul-či-* ~ *xuku-sin-* ~ *aku-sin-* 'to turn over; to change', Even *uk-* ~ *kuk-* 'to roll up, put a strap together; tear off the bark', Solon *uxuli-* 'to pack, fold up', Neg. *uxi:l-* ~ *uki:l-* 'to wrap up' (-*l-* inchoative marker), Olcha *xuku-* 'to wind round, entrap', *xukulu-* 'to wind round', Orok *xuktulitči-* 'to wind round, to wrap up; to tangle (threads etc.)', Na. *xuku-* 'to wrap up; to wind round', *xukunə* 'a bundle', *xukučə* 'wrapper, cover', Ma. *uxu-* 'to wrap, to roll, to roll up'

In spite of the incongruent register in Japanese, it seems that J *kukur-* (A) 'to tie up, bundle, fasten' and J *kukum-* (B) 'to tie up, wrap up' can be derived from the same root pJ **kuku-* 'to tie, wrap'. See 32. BIG for the observation that the assignment of a verb register not always straightforward. The confusion may have arisen through contamination with J *kukum-* (B) 'to hold in the mouth'.

pMo **boyo-* ~ *boya-* 'to tie up, wrap': MMo. *bo'o-* (SH) 'to block, obstruct', *bo:-* ~ *bo'o-* (Muq) '1 to tie up, bundle, wrap', *bo'am* (HY) 'dam, barrage', WMo. *boyu-* '1', *boyuca* 'bundle, string for tying a bag', Khal. *bo:-*, Bur. *bo:-*, Kalm. *bo:-*, Ordos *bo:-*, Eastern Yugur *pu:-*, Mgr. *bo:-*, Bao. *boyəldə-*

pTk **bog-* 'to tie up': OT *boγ-* '2 strangle, choke', *boy* 'bundle', Tk. *boy-* '1 to tie up, constrict by binding', *bo:-* '2', *boy* 'bundle', Az. *boy-* '1, 2', Tkm. *boy-* '1, 2', Gag. *bu:-* '2', Uz. *boγ-* '1, 2', Uig. *boy-* '2', Tuva *boy-* '1, 2', Yak. *buoy-* 'to hinder', Dolg. *buoj-* 'to hinder; to pacify, appease', Tat. *bu-* '2', Khak. *poy-* '1, 2', Kirg. *bu:-* '1, 2', Kaz. *bu-* '2', Nog. *buw-* '2', Bash. *biw-* '2', Balk. *buw-* '1, 2', Karaim *boγ-* '2', Kpak. *buw-* '1, 2', Kum. *buw-* '2', Chu. *pāv-* '2'

90. SWEET

pJ **ma-* 'to be sweet, tasty': J *ama-* (A), OJ *ama-* 'to be sweet', J *uma-* (B), MJ *muma-*, OJ *uma-* 'to be delicious, appetizing, sweet'; Yamatohama (Amami) *ʔamasari*, Yoron (Amami) *amasan* 'to be sweet', Shodon (Amami) *maa-* 'to be tasty', Yonamine (Okinawa) *ʔamaasen* 'to be sweet', Shuri *maa-san* 'to be tasty', *ʔamasan* 'to be sweet', Irabu (Miyako) *adzimaxam* 'to be sweet', Ishigaki (Yaeyama) *azimasaan* 'to be sweet', Hatoma (Yaeyama) *azimaan* 'to be sweet' (< pR **adi-maa-* [taste-be.sweet/tasty] 'be sweet'), Yonaguni *maan*, pR **ma:-* 'to be tasty, sweet'

pK **ma-* 'to be tasty' in **mas* 'flavor' (pK *-s deverbil suffix deriving nominal adjectives and adverbs, e.g. K *cilki-* 'to be tough' → *cilkis* 'firm'; Robbeets 2015: 422-423): K *mas*, MK *·mas* 'flavor, taste'

The initial (*m*)*u-* may have been protetic in Japanese. The Middle Japanese variant *muma-* 'to be delicious, appetizing, sweet' as well as the Ryukyuan cognates support this idea. A parallel development has probably taken place in the word for 'horse', which is reflected in J *uma* and MJ (*m*)*uma* 'horse'. The Ryukyuan cognates of this

word, e.g. Miyako *nuuma*, Yaeyama *nnma*, Hateruma *qman/nman* 'horse' lack an initial vowel and this is also true for its probable Old Chinese model 馬 *m^hra? 'horse' (Robbeets 2017).

pK *tʌʌ- 'to be sweet': K *tal-* 'to be sweet, tasty, pleasant', MK *tol-* 'to be sweet'
pTg *da:l- 'to be sweet': Even *da:l-* 'to be sweet, pleasant; to lick off', *dalra* 'tasty, sweet' (Even *-ra ~ -re* deverbial adjectival noun suffix, Robbeets 2015: 351), *dalsi:* 'tasty, sweet' (Even *-si:* deverbial adjectival noun suffix, Robbeets 2015: 351), Evk. *dalli(n)*, *daldi* 'tasty, sweet' (Evk. *-li, -di* deadjectival adverbializer; Nedjalkov 1997: 306-307), Neg. *dale ~ dali*, *daligdi* 'tasty, sweet', Jur. *danču* 'sweet'

Note that J *tara* (2.5), *tara-no-ki* 'Japanese angelica tree, fatsia, *Aralia elata*' (Shuri *taarasi* B 'Magnolia obovata' = J *hoonoki* in which *hoo* may derive from big-leafed) is a plant with candied stems which can be used in making cakes or sweets. If not related with the Korean word for 'rush, reed' and with the Tungusic words for 'quitch; reed, cane' (Robbeets 2005), the word may be a compound preserving **tara* 'sweet, sweetness'. The semantic association between 'to be sweet' and 'to be tasty' is also found beyond the Transeurasian languages, for instance in Tibeto-Burman Jingpho *dùì* and Bodo *dəy* 'sweet, tasty' (Matisoff 2003)

91. ROPE

pJ **turu* 'string, line': J *tura* (2.2.a), OJ *tura* 'row, line', J *turu* (2.2.a) 'string, bowstring, chord', OJ *turu* 'bowstring, string of a musical instrument', EOJ *tura* 'bowstring'; Asama (Amami) *ciruu*, Yoron (Amami) *ciru*, Nakijin (Okinawa) *ciruu*, Shuri *çiru*, Hatoma (Yaeyama) *siru*, Ishigaki (Yaeyama) *curu*, Irabu (Miyako) *ciru*, pR **turu* 'string of a musical instrument, bowstring'.

pK **cul* 'rope, string, line': K *cwul*, MK *·cwul* 'rope, cord, string, line'

Since OJ *tura* 'row, line' and OJ *tuna* 'rope, cord, string, line' overlap in form and meaning, they could be regarded as a case of *-r-~n-* assimilation. However, the accentuation of the forms is different: J *tura* (2.2.a) has the corresponding accent class A in Ryukyuan, while J *tuna* (2.3) has class B in Ryukyuan. The latter form is reflected in the Ryukyuan words for 'rope', notably Yamatohama (Amami) *cina*, Asama (Amami) *Cinaa*, Yoron (Amami) *cina*, Yonamine (Okinawa) *cinaa*, Shuri (Okinawa) *cina*, Irabu (Miyako) *cina*, Hirara (Miyako) *tsina* 'rope', Hatoma (Yaeyama) *sina* 'rope' and Yonaguni *nna* 'rope'.

92. SHADE

pJ **kan(a)-ka* 'shade, reflection': J *kage* (2.5) 'shadow', OJ *kage₂* 'shadow, reflection, radiance, light' ~ OJ *kaga-*, e.g. in J *kagami*, OJ *kagami₁* 'mirror' (< 'reflection' + 'look'); Yamatohama (Amami) *xage*, Asama (Amami) *kaagi*, Yoron (Amami) *hagi*, Yonamine (Okinawa) *hagi* 'shade', Shuri (Okinawa) *kaagaa* 'shade, reflection', Irabu (Miyako) *kaagi*, Hirara (Miyako) *kagi*, Ishigaki (Yaeyama) *kai* (B) ~ *kaagi*, Hatoma (Yaeyama) *kagi*, Yonaguni *kanji*, pR **kage ~ kaga-* 'shade, reflection'

pK **kanʌʌ-k* 'shade, shadow': K *kunul*, MK *·ko-nolh ~ ·ku-nulh* 'shade, shadow', Ceycwu *kunul* 'shadow'

Vovin (2009: 120-121) justly criticized the inclusion of high-registered forms such as *kagayak*- 'shine, reflect, sparkle' and *kagari* 'bonfire' in this etymology (Robbeets 2005: 404) because J *kage* (2.5) 'shadow' is low-registered. Therefore, these forms are not considered here.

Robbeets proposed to reconstruct pK **kanhəl* in this etymology, but Vovin correctly pointed out that Korean lacks additional examples of cases in which medial *-h-* would be carried over to the end of the word. Alternatively, the final *-h* in the Middle Korean word could be a reflex of the place suffix **(i/ʌ)k*, e.g. in MK *pask* 'outside' (< **pasʌ-k*), *math* 'yard' (< **mata-k*), *alph* 'front' (< **alpʌ-k*), MK *path* '(dry) field' (< **pata-k*), MK *muth* 'dry land' (< **mutʌ-k* 'dry land'), etc. If this is the case, Vovin's (1993: 257) suggestion to analyze pJ **kanka*- 'shade' as pJ **kanV-ka*, a derivation with the place suffix pJ **-ka*, which occurs also in *oka* 'hill', *arika* 'whereabouts', *sumika* 'residence', J *hatake* 'field' should be reconsidered. If the proto-Japonic vowel was *-a-*, then the sound correspondence 32b between pJ **CaCa* and pK **CaCa* (see SI 1) would be fulfilled. Ultimately both the Japonic and Koreanic form may go back to a denominal form of a verb 'to reflect'.

Francis-Ratte (2016: 376) analyzed the Korean form as a derivation with the place suffix, but nevertheless reconstructed a velar cluster in the underlying proto-Koreo-Japonic form **kanxər*.

94. SALT

pJ **tura*- 'unbearable, bitter': J *tura*- (B), OJ *tura*- 'unbearable, bitter, hard'
pTk **tu:r₂* '1 salt': OT *tuz* '1', Tk *tuz* '1', Az. *duz* '1', Tkm. *du:z* '1', Gag. *tuz* '1', Kirg. *tuz* '1', Kaz. *tuz* '1', Nog. *tuz* '1', Bash. *toδ* '1', Balk. *toδ* '1', Tat. *toz* '1', Karaim *tuz* '1', Kpak *duz* '1', Sal. *duz*, *düz*, *tuz* '1', Kum. *duz* '1', Uz. *tuz* '1', Uig. *tuz* '1', SYug. *duz* '1', Khak. *tus* '1', Shor *tus* '1', Tuva *dus*, Tofa. *tus*, Yak. *tu:s*, Dolg. *tu:s*, Khalaj *tu:z* '1', Chu. *tāvar* '1'

Kara (2007: 97) found that the comparison of 'bitter' and 'hard' is semantically too distant, but colexifications of both meanings are frequently found across the world's languages; List (et al. 2014: 60/6) lists 8 languages belonging to various language families in which the meanings 'bitter' and 'salt' are expressed by a single lexeme.

95. SMALL

pJ **tipi*- 'to be small' (pJ **-sa* deverbal noun/adjective suffix): J *tiisa*- (B), OJ *tipiᵛsa*- 'small, little'
pTg **čipi*- 'to be small, narrow' ~ pTg **čip-ti*- 'to make small, narrow' (pTg **-t- ~ -ti-* causative suffix; see 67. TO HIDE): Evk. (Urmi, Sakhalin dialects) *čipikte* 'narrow-eyed' (Evk. *-kta ~ -kte* deverbal resultative noun suffix; Nedjalkov 1997: 299), *čipi-leme* 'narrow-eyed; a narrow bottleneck, a narrow hole' (*-lama ~ -leme ~ -lomo* deverbal property), Evk. (Barguzin dialect) *čipka*- 'to squeeze, press, wring out', Evk. (most dialects) *či:pči*- 'to fill tight, stuff, push in' (Evk. *-t- ~ -či-* causative), Evk. (Urmi dialect) *čipi-ro*- 'to squint' (*-ra: ~ -rə: ~ -ro:* deverbal verbalizer), Evk. (Podkam.-Tunguska) *čipča*- 'to hide, to conceal', Even *čiputj* 'narrow', *čipan* 'a pointed tip of a stick used for riding a dog sledding', Neg. *čipixət*- 'to mash with fingers', *čip-čip* 'sharp, pointed (about a stick, a pencil)', Na. *čip* 'tightly', *čipi* ~

čipjaq ‘crushing, mashing (adv.)’, *čipi-li-* ‘to crush, to mash’, Oroch *čipči-* ‘to separate; to fence off’, *čikka-* ‘to mash, to crush with fingers’, Olcha *čipoču-* ‘to pick up with the fingers (of food remnants)’, Orok *čipo-* ‘to pick up with the fingers (of food remnants)’, Ma. *čibu-* ‘to be squeezed (into a narrow space)’, Sibe *čir čir* ‘a pointy object; a stitching pain’.

96. WIDE

pJ **nənpa-* > **nənpɪ-* ‘to become long and wide’: J *nobe-* (B), OJ *nobe₂₋* ‘to stretch, spread, lengthen (tr.)’, J *nobi-* (B), OJ *nobi₂₋* ‘to extend, lengthen, stretch, spread, grow; be postponed (intr.)’, J *nobas-* (B), OJ *nobas-* ‘to extend, lengthen, stretch, spread (tr.)’; Yoron (Amami) *nubasjuN* ~ *nubjuN* (tr.), *nubajuN* (intr.), Shuri (Okinawa) *nubir-* ‘to spread, extend (tr.)’ (B) *nubas-* (B) ‘to extend, lengthen (tr.)’, Hatoma (Yaeyama) *nubasuN* (tr.), *nubiruN* (intr.)

pK **nelp(i)-* ‘to be wide’: K *nelp-* ‘to be wide’, MK *nep-* ‘to be wide’, MK *nelu-* ‘to be wide’

pTg **nepte-* ‘to become flat and wide’: Even *nebde-* ‘to pull off the skin in one piece’, *nebde* ‘open(ness); wide(ness)’, *nebde-* ~ *nebdek-* ‘to unfold clothes’, *nebden-* ‘to unfold widely; open up (of cloth, wings); straighten out; open up (of leaves) (intr.)’ (Even *-(A)n₍₂₎-* processive), *nebdeñe-* ‘flat, wide’ (Even *-ñA* deverbil adjectivizer), *nebder-* ‘to open, come out (of flowers) (intr.)’, *nebdeku* ‘opened up; wide’, Evk. *nepte-* ‘to unfold, smooth out, spread out’, *nepteme* ‘even, flat, smooth’, *nəpti-rin* ~ *nıpti-rin* ‘wide, flat’, *nepte-ke-* ~ *napta-ga-* ~ *napta-ksa-* ‘a plain’, *nepte-ke-* ‘to level (ground); to smooth (with one’s hand)’, *nepte-l-* ~ *nekte-l-* ‘to plough up’, *nepte-li-* ‘to smooth out, to unfold; to spread; to lay out’, *nepten-* ‘to unfold; to lay out’, Evk. (Sakhalin, Urmi dialects) *nepeə-rge-* ‘to spread (about a plain); to get smooth (about wrinkles, folds)’, *nepte-rew-* ‘to open (about an umbrella, a parachute); to get smooth (about wrinkles)’, Neg. *nepte-nepte* ‘even’, Na. *nepte-nepte* ‘wide open, unbuttoned (of clothes)’, *nepteygē* ‘being flat (adverb)’, *nəptəmji-* ‘spreading (wings) (adv.)’, *nəptəram* ‘spreading (wings); to lay the robe hem flat; to unroll a flag’, Ulcha *nepte-nepte* ‘even, flattened’, *nete-nete* ‘opened up (of clothes)’, Orok *nette-* ~ *nepte-* ‘to spread out, to smooth out, to unfold’, Oroch *neptenŋe* ‘even, flat, smpth’, Ud. *neptele* ~ *nepteligi* ‘even, flat’, *nepteli* ‘a needle with a flat point’

pMo **nebse-* ‘to be(come) wide and long’: WMo. *nebseger* ‘wide and long’ (WMo. -*GA* deverbil quality noun (Poppe 1954: 46)), WMo. *nebseyi-* ‘to be wide and long (of clothes), to be tattered, in rags (intr.)’ (pMo **-yi-* anticausative), WMo. *nebsegene-* ‘to move (of something wide and long)’ (WMo. -*GA-* factitive; Poppe 1954: 61, pMo **-nA-* processive; Robbeets 2015: 235-237), Khal. *nevsiy-*, Bur. *nebši-*

Robbeets (2005: 375; 2008, 2015) argues that the voiced series in Japanese, which are internally derived from original nasal clusters, can be traced back to clusters in the Transeurasian languages. The original clusters can be divided into homogonic and heterogonic clusters. Homogonic clusters are composed of a sonorant and a stop (pTEA **-Rp-*, **-Rt-*, **-Rk-*) and merge in a nasal cluster (pJ **-np-* > OJ *-b-*, pJ **-nt-* > OJ *-d-*, pJ **-nk-* > OJ **-g-*) in Japanese. In heterogonic clusters, as illustrated in this etymology, on the other hand, the nasal and the stop have a different place of articulation, which results in the insertion of a parasitic stop (pTEA **-m^(P)T-*, **-n^(T)K-*,

-ŋ^(K)T-). The nasal is lost in the continental Transeurasian languages (-PT-, *-TK-, *-KT-), whereas Korean and Japanese lose the final stop (pJ *-mp- > OJ -b-, pJ *-nt- > OJ -d-, pJ *-ŋk- > OJ *-g-.)

pMo **dalba*- 'to be wide and flat': MMo. *dalbaru* 'wide and flat' (PMo *-ru ~ rü adverbializer), WMo. *dalbayi*- '1 to be wide and flat' (pMo *-yi- anticausative), *dalban* 'wide, broad, flat' (pMo *-n deverbial noun suffix), *dalbayar* (pMo *-yar ~ -ger deverbial nominal adjectivizer), Khal. *dalbay*- '1', Bur. *dalba*- '1', Kalm. *dalwä*:- '1' pTk **yalpa*- 'to be wide, flat' in pTk **yalpa-k* 'wide, flat' (pTk *-(O)k deverbial noun/adjective suffix, e.g. OT *yagu*- 'to come near' → *yaguk* 'near'): OT (Karakh.) *yalbi* '1 broad, flat', Tk. *yalpik* '1', Gag. *yalpaq* '1', Tkm. *yalpa* '2 blade, paddle', *yalpaq* '1, 3 shallow', Uz. *yalpaq* '1', Uig. *yalpaq* '1', Khak. *čelbax*, *nalpax* '1', Tuva *čalbaq* '1', Tofa. *čalbaq* '1', Yak. *salbax* '2', Dolg. *halbax* 'span; foot', Tat. *želpək* '1', Kirg. *žalpaq* '1', Kaz. *žalpaq* '1', Nog. *yalpaq* '1', Bash. *yalpaq* '1', Kpak. *žalpaq* '1', Kum. *yalpaq* '1', Karaim *yalpaq* '1'

97. STAR

pJ **pəsi* 'star': J *hosi* (2.1), OJ *posi* 'star'; Yamatohama (Amami) *husi*, Asama (Amami) *husii*, Yoron (Amami) *pusi*, Shodon (Amami) *husy*, Yonamine (Okinawa) *pusii*, Shuri (Amami) *husi*, Irabu (Miyako) *pusi*, Hirara (Miyako) *pusi*, Ishigaki (Yaeyama) *fusi* [*pusi*](B) ~ *pusu*, Hatoma (Yaeyama) *pusi*, Yonaguni *huci* (A), pR **posi* 'star'

pK **pe:li* 'star': K *pye:l*, MK *pyel* 'star' (Hyangka 12, 7. semantogram + li = ? MK *pyeli*)

Vovin (2009: 118) objected to the reconstruction of the proto-Koreanic vowel **e* because it is "based solely on MR's uncontrolled rage to "improve" the comparison". However, K *pye:l* and MK *pyel* 'star' are attested forms. Even without the preservation of the Hyangka form, we would reconstruct pK **pe:li* 'star' on the basis of the contemporary forms, considering a process of *i*-breaking in proto-Korean, which gave rise to such alternations as MK *khi*- ~ *khye*- ~ *hhye*- 'to kindle' or MK *ni*- 'go' ~ *nye*- 'to go around'.

Vovin's (2009: 118) suggestion that this form may be an early loan between proto-Japonic and proto-Koreanic recognizes the phonological similarity of both proto-forms. However, it is in contradiction with his own observation that early loans between Japonic and Koreanic are expected to lack cognates in Ryukyuan. Besides, it is difficult to understand why proto-Korean *-*l*- would be borrowed as pJ *-*s*- or vice versa.

98. IN

pJ **soko* 'depth, bottom: J *soko* (2.1), OJ *so:ko* 'bottom, sole, depth'; Yamatohama (Amami) *suxu*, Asama (Amami) *syuku*, Yoron (Amami) *siki*, Shodon (Amami) *suku* Yonamine (Okinawa) *sukuu* ~ *sikuu*, Shuri (Okinawa) *suku*, Irabu (Miyako) *suku*, Ooura (Miyako) *suku*, Ishigaki (Yaeyama) *suku*, Hatoma (Yaeyama) *suku*, Yonaguni *sugu* (A) 'bottom', pR **soko* 'bottom'

pK **soko* 'depth, inside': K *so:k* 'inside, interior', MK *swok* 'deep down, within, inside'

pMo **örü* ‘interior’: MMo. *oro* ~ *ore* ‘1 inside, interior, heart, abdomen’ WMo. *örü* ~ *öri* ‘1’, Dag. *erecu*: ‘chest, bosom, breast’, Khal. *ör* ‘1’, Bur. *üre* ‘1’, Kalm. *örə* ‘1’, Ordos *örö*, *ör* ‘1’, Mog. *ourä* ‘heart, mind’

pTk **ör₂* ‘interior’: OT *öz* ‘1 interior part of an organism, pith, marrow, spirit, self’, Tk. *öz* ‘1’, Az. *öz* ‘1’, Tkm. *öz*: ‘self’, Gag. *yöz* ‘1’, Uz. *oz* ‘1’, Uig. *öz* ‘1’, Yak. *üös* ‘1’, Dolg. *üös* ‘1’, Tat. *üz* ‘1’, Kirg. *öz* ‘1’, Kaz. *öz* ‘1’, Nog. *öz* ‘1’, Bash. *üđ* ‘1’, Karaim *öz* ‘1’, Kpak *öz* ‘1’, Kum. *öz* ‘1’, Khalaj *êz* ‘1’, Chu. *var* ‘1’

99. HARD

pJ **kata-* ‘to be hard, dense’: J *kata-* (A), OJ *kata-* ‘to be hard, solid, tough, rigid’; Yoron (Amami) *hata_saN* ‘thick (of liquid), dense (e.g. of seedlings), Yamatohama (Amami) *xathasari* ‘thick (of glue, gruel), densely packed (of hair, grass)’, Nakijin (Okinawa) *hataaseN* ‘strong (of tea), densely packed’, Shuri (Okinawa) *katasaN* (A) ‘to be hard, sturdy, sure, saturated’, Irabu (Miyako) *kataham* ‘thick (of liquid), dense (seeds, holes in a seive)’, Hatoma (Yaeyama) *kataaN* ‘strong (tea), hard’, pR **kata-* ‘to be gathered together in a dense fashion’

pK **kata-* ‘to be hard, severe’: K *kwut-*, MK *kwut-* ‘to be hard’, K *kkatalop-*, MK *skatalwop-* ‘to be hard, difficult, complicated; be harsh, severe’ (adj. n. + MK *-lwop-* ‘to be characterized by’); pK **s(u/o)-* intensive prefix

pMo **kata-* ‘to become hard, dry’: WMo. *qata-* ‘1 to become hard, dry (intr.)’, *qatayu* ‘2 hard’ (WMo *-yu / -gü* deverbal noun deriving quality words (Poppe 1954: 46)), MMo. *qata’u* ‘2’, *qätəmər* ‘dried (meat)’, Dag. *katən*, *katen*, *katu*: ‘1’, Khal. *xat-* ‘1’, *xatu*: ‘2’, Kalm. *xatə-* ‘1’, *xatu*: ‘2’, Ordos *gatu*: ‘2’, Kalm. *xatə-* ‘1’, *xatu*: ‘2’, Ordos *yatu*: ‘2’, Dong. *qidun*, *qitun* ‘2’, Bao. *χotoŋ* ‘2’, Eastern Yugur *yadu*: 1, Mog. *xata* ‘2’, Mgr. *xada-*: ‘1’, *xadoŋ* ‘2’

pTk **kat-* ‘to be hard’: OT *kat-* ‘to be hard, firm, though’, *katig* ‘2 hard’ (OTk. *-(X)g* deverbal noun suffix), OT (Karakh.) *kat-* ‘1’, *katig* ‘2’, Tk. (dial.) *kat* ‘2’, Az. *gati* ‘2’, Tkm. *gat*, *gati* ‘2’, Uz. *kətik* ‘2’, Uig. *ketik* ‘2’, Khak. *xatiy* ‘2’, Shor *kadiy* ‘2’, Tuva *ka’diŋ* ‘2’, Yak. *kīta:nax* ‘2’, Dolg. *kīta:nak* ‘2’, Tat. *kati* ‘2’, Kirg. *katu*: ‘2’, Kaz. *katti* ‘2’, Nog. *kat* ‘2’, Bash. *kati* ‘2’, Kpak. *katti* ‘2’, Kum. *kati* ‘2’, Chu. *xidä* ‘2’

In Korean, relatively retracted and non-retracted vowels alternate phonologically in certain color adjectives, mimetic and expressive adjectives, a phenomenon referred to as “ablaut” by Vovin (2008: 6) and as “heavy and light isotopes” by Martin (1992: 343-344). The non-retracted vowels *e*, *ey*, *wu*, *wi* (< MK *wuy*) are typical of the heavy isotopes, while the retracted vowels *a*, *ay*, *o* (MK *wo*), *oy* (MK *woy*) are typical of the light isotopes. The non-retracted vowels are associated with weighty, bulky concepts, while the retracted vowels are used for small and unsubstantial things, e.g. K *ce:k-* ‘to be small in number or quantity, few’ vs. K *ca:k-* ‘to be small in size, tiny’⁷. It is not surprising that the adjective meaning ‘to be large’ has a more advanced vowel in its default form K *khu-*. A trace of a retracted alternant, however, can be found in the

⁷ It can be noted that the interpretation of “heavy and light isotopes” in terms of a distinction between relatively high front versus relatively low back vowels (e.g. Martin (1992: 343-344) would suggest that lower vowels were used for smaller things. This runs counter the notions of “naturalness” of phonetic symbolism (a.o. Sapir 1929).

obsolete adjective K *ha-* (< MK *·ho-*) ‘to be large in number, much, many, be great’, lexicalized, for instance, in K *hankul* ‘hankul, lit. great script’. Similarly, the stem meaning ‘to be hard’ has developed an advanced vowel in its default form K *kwut-*, MK *kwut-* ‘to be hard’, while there is a trace of a retracted —and probably original— alternant in the adjective with metaphorical meaning K *kkatalop-*, MK *skatalwop-* ‘to be hard, difficult, complicated; to be harsh, severe’. This form can be derived from **s-kata-lwop-* (INT-hard-be.characterized.by). The first element is the intensive prefix pK **s(u/o)-* > MK *s-* > K reduplication (Lee 1977: 145, Ramsey 1977: 64, Martin 1996: 24, 27, 91), e.g. MK *tih-* ~ *stih-* ‘to pound’.⁸ The last element is the verbal adjective formant pK **-lwop-* > MK *-lwop-* > K *-lop-* ‘to be characterized by’ (Martin 1992: 677), e.g. K *say* ‘new’ vs. *saylop-* ‘to be new’. Apophony between the non-retracted vowel *wu* and the retracted vowel *a* can be found in other adjective pairs, such as in K *phalah-*, MK *·pha-la ho-* ~ K *phwulu-*, MK *phwulwu-*, *phwulu* ‘be blue’, where it is used for its expressive effects only.

100. CRUSH / GRIND

pJ **pinta-ka-* ‘to crush’ (pJ **-ka-* deverbial inchoative, e.g. OJ *par-* ‘to open (ground), clear (land) (tr.)’ → *paruk-* ?B ‘to clear up, open up (intr.)’; Robbeets 2015: 255-256): MJ *fidak-* (A), OJ *pidak-* ‘to crush’

pTg **pinče-* ‘to crush’: Even *he:nčik-* ~ *e:nčik-* ~ *hincuk-* ‘to crush’ (Even *-k-* deverbial suffix; Benzing 1955b: 47), *hinčil-* ~ *he:nčil-* ‘to break down’ (Even *-l-* deverbial inchoative; Benzing 1955b: 44), Neg *xinčel-* ‘to crush, break down, to crack’

pJ **sura-* ‘to grind, rub’: J *sur-* (B), *sure-* (B) ‘to rub against each other’, OJ *sur-* ‘to grind, rub’, J *surari* ‘without trouble, smoothly’ (*-ri* adverbializer), *sura-sura* ‘without a hitch, smoothly’, Shuri *sir-* ‘rub, grind’, *šiyuŋ* ‘to rub’, Shodon *k’usryum*, Hirara *sipagzi*, Ishigaki *sisuŋ*, Kabira *suri*, Yonaguni *ccituŋ*, *ciruŋ*, pR **suri-* ~ **kosuri-* ‘to rub’

pTk **sür(ü)-* ‘to rub, smear’ (pTk **-ti-* causative-passive; e.g. OT *ari-* ‘to be(come) clean (intr.)’ → *arüt-* ‘to clean (tr.)’; Robbeets 2015: 290-292): OT *sürt-* ‘1 to rub, smear (tr.)’, MT *sür-*, *sürüt-*, *sürt-* ‘1’, Tk. *sür-*, *sürt-*, Az. *sürt-*, Tkm. *sür-*, *sürt-*, Gag. *sürüt-*, Uz. *surt-*, Tuva *sür-*, Yak. *ür-*, Khak. *sürt-*, Kirg. *sür-*, *sürt-*, Kaz. *sürt-*, Nog. *sür-*, *sürt-*, Bash. *hür-*, *hürt-*, Balk. *sürt-*, Karaim *sürt-*, Kpak *sür-*, *sürt-*, Kum. *sürt-*, Chu. *sěr-*

I did not include pTg **süru-* ‘to whet, cut into strips’ in this etymology because the reconstruction of the vowel *ü* in proto-Tungusic is not well supported. Apart from the yodized *-u-* in Ma. *šuru-* ‘to spin, to peel off the skin of fruit in a spiral; to make on a

⁸ Whereas Martin reconstructs pK **s(u/o)-*, Ramsey and Lee refer to the s-clusters as reinforced pronunciations that do not necessarily go back to an original silibant prefix. The authors agree that the verbs with s-clusters represent intensive meaning. The intensification was apparently restricted to processive verbs in Middle Korean. Other examples of such verb pairs are MK *kužu-* ~ *skužu-* ‘to pull’, MK *pipuy-* ~ *spi-puy-* ‘to rub’, MK *twutuli-* ~ *stwu-tuli-* ‘to beat’, MK *sip-* ~ *ssip-* ‘to chew’, MK *·sus-* ~ *·ssus-* ‘to wash’, MK *kulh-* ~ *skulh-* ‘to boil’, MK *sa-hol-* ~ *ssa-hol-* ‘to chop’, MK *ku-cit-* ~ *skucit-* ‘to scold’. Instances of a descriptive verb pairs reflecting the intensive prefix are MK *polo-* (*-ll-*) ‘be straight, fast, act quickly’ vs. MK *·spol-* (*-ll-*) ‘be fast; be sharp, pointed’, MK *·so-* ‘be cheap’ vs. MK *·sso-* ‘id.’, MK *kel-* (*-ke(l)-*) ‘get stuck, obstructed’ vs. MK *·skelW-* ‘be difficult’.

lathe; to punt (a boat); to cut the meat of game into strips' and the *-u-* in Nanai *ču.ruð* 'female pointed knife for cutting ornaments', all other Tungusic languages have a vowel *-i-* for this verb: Evk *sir-* 'to cut out; to cut smth. into strips', Even *hir-* 'to cut smth. into strips', *hırqan* 'knife', Neg. *siy-* 'to cut', Solon *silun-* 'to whet, to sharpen' *silun* 'pointed; sharp', Na. *siru* 'a file for wheting (knives)', *siru-* 'to whet with a file; to cut a narrow leather strip with a knife', Olcha *siru* 'a file for wheting (knives)', *siru-* 'to whet with a file' and Orok *siri-* 'to whet with a file'. In a few cases Manchu displays a palatal sibilant *š-* rather than *s-* in correspondence with words with initial *h-* in Even and initial *s-* in the other Tungusic languages. As it concerns only a few cases and since the palatalization is restricted to Manchu, Benzing (1955a: 989-990) refrains from establishing a separate palatal sibilant **š-* in proto-Tungusic. The Manchu palatalization here may have an internal ground, notably a yodized *u* as a reflex of pTg **ü*. I do not consider Even *huruŋ-* 'to grind, pound, mash, pestle, crumble, divide in small parts', *huruwe:* 'bits and pieces, crumbs' to be related here. These forms derive from pTg **puru-* 'to crush', reflected in Evk. *huru-*, *hurgu-*, *horo-* 'crush', Ma. *furu-* 'to chop, cleave', Olcha *pori-* 'to crush', Na. *purtu* 'crumbs'.

pK **niki-* 'to crush to a pulp, knead': K *iki-*, MK *niki-* 'to crush to a pulp, mash, knead, beat water into flour'

pMo **niku-* 'to knead, crush': WMo. *niqu-* ~ *nuqu-* '1 to knead (flour), mash, crumple, rub, press, massage', *niquyur* 'implement for kneading dough', MMo. *nuqu-* '1', Khal. *nuxa-* '1', Bur. *ńuxa-* '1', Kalm. *nuxə-* '1', Ordos *nuxu-* '1', Bao. *noğə-* '1', Dag. *noqu-* '1', Mgr. *nuğu-* '1', Mog. *nuqu-* ~ *noqu-* 'to crush', Dong. *nuqu-* 'to hit with force'

pTk **yik-* 'to crush, demolish, destroy': OTk. *yik-* '1 to crush, demolish, destroy', OT (Karakh.) *yiq-* '1', Tk. *yik-* '1', Az. *yix-* '1', Tkm. *yiq-* '1', Gag. *yiq-* '1', Tat. *yiq-* '1', Kirg. *žiq-* '1', Karaim *yiq-* ~ *yix-* '1', Kaz. *žiq-* '1', Nog. *yiq-* '1', Bash. *yiq-* '1', Kpak. *žiq-* '1', Kum. *jiq-* ~ *jix-* '1', Uz. *yiq-* '1', Uig. *yiq-* '1', Khak. *yuq-* '1', Oirat *yiq-*, *điq-* '1', Khalaj *yuq-* '1', Chu. (dial.) *šax-* '1'.

Additional abbreviations used in Supplementary Information 3

Jur.	Jurchen
Karakh.	Karakhanide
MT	Middle Turkic
pJ	proto-Japonic
pK	proto-Koreanic
pMo	proto-Mongolic
pTEA	proto-Transeurasian
pTg	proto-Tungusic
pTk	proto-Turkic
WMo.	Written Mongolian

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This is a draft version of a chapter that appears in Robbeets, M and A. Savelyev (eds). The Oxford Guide to the Transeurasian Languages (OUP, 2020) see <https://global.oup.com/academic/product/the-oxford-guide-to-the-transeurasian-languages-9780198804628>.

The research leading to these results has received funding from the European Research Council under the Horizon 2020 Program/ ERC Grant Agreement n. 646612 granted to Martine Robbeets.

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