

# Origin of the word-initial consonant system of the Japanese-Ryukyuan (JR) language from Oceanic consonant system: Elucidation by JR-Oceanic consonant correspondence laws

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**Abstract:** proto-Japanese-Ryukyuan (pJR) word-initial word-initial consonants were found to regularly correspond to Malayo-Polynesian (MP)/Oceanic (OC) consonants. A nearly complete list of the correspondence laws were obtained based on cognate list of (p)JR and MP/OC. New Caledonian group shows close similarity in cognate comparison with pJR. **Keywords:** Consonant-correspondence laws, Oceanic affinity, New Caledonian

## I. INTRODUCTION

The Japanese-Ryukyuan (JR) language (or language family) consists of Mainland Japanese (MJ.Jpn) and Ryukyuan (Ryukyuan), and has been found to be closely related to Oceanic [1][2][3], although other theories such as Altaic affinities, Dravidian affinity, etc. have long been argued [4]. This paper elucidates Oceanic (especially New Caledonian) affinity of proto-JR (pJR).

## II. METHODS, RESULTS, DISCUSSIONS

JR words (Mainland Japanese (MJ.Jpn.), Ryukyuan (Ryu.) were compared with Austronesian (AN) vocabulary listed in Tryon's "Comparative AN

Dictionary" (1995) (CAD\*). JR-AN cognates thus found are listed in Table 1, from which word-initial consonant correspondence laws have been established in most cases as shown in Table 1 (Revised from [2]). Close phylogenetic affinities of JR to Oceanic/New Caledonian are undoubtedly established.

**References:** [1] Murayama, S. (1995) "Nihongo no Hikaku-Kenkyuu (Comparative Study of the Japanese language)", San'ichi Shobo. [2] Ohnishi (1999) Evolution of Mongoloid Languages, Shokado, Kyoto. [3] Ohnishi, K. and Kiriya, M. (2008) New Caledonian an origin of the Japanese-Ryukyuan language elucidated by word-initial consonant correspondence laws, and the importance of Ha teruma dialect. *Materials of the Research Center for Okinawa Languages (Okinawa Gengo-Kenkyuu Sentaa Shiryou)* #173 (pp. 1-18) (In Japanese with Tables in English). [4] Shibatani, M.: The Languages of Japan, Cambridge Univ. Press., Cambridge.

Table 1. Word-initial consonant correspondences between proto-Japanese-Ryukyuan (pJR) and Austronesian (AN) languages.

<p><b>ABBREVIATIONS</b> : ■■■ *xxxx = reconstructed form, "A &lt; B", "B &gt; A" = A has/had been derived from B, B has/had converted to B, "A &lt; &gt; B" = A is phylogenetically related to B. ; pXX = proto-XX (e.g. pJE, pAN, pMP, pOC). Wr. = Written, [XXX] = closest cognate(s) in AN, dial. = dialect</p> <p><b>Language names</b> : pX = proto-X (e.g., pJR, pAN, pMP, etc.) ■ JR = Japanese-Ryukyuan : MJ.Jpn. = Mainland Japanese, O.MJ.Jpn. = Old MJ.Jpn. ; RYU = Ryukyuan, Hate. = Hateruma dial., Kuro. = Kuroshima dial., Take. = Taketomi dial. ■ AN = Austronesian ; MP = Malayo-Polynesian, pMP = proto-MP. W.MP = Western MP. C.MP = Central MP : SHWNG = South Halmahera and Western New Guinea ; OC = Oceanic. W.OC = Western OC. ReOC = Remote Oceanic, NC = NCal = New Caledonian, MicroN = Micronesian ■ Others: DRA = Dravidian ; pEsk = proto-Eskimo ; pIE = proto-Indo-European ; Tbb = Tibeto-Burman ■ ■ ■ ■ ■ <b>Literatures</b> : ADD* = <i>An Ainu Dialect Dictionary</i> (ed. by S. Hattori, Iwanami Shoten, Tokyo, 1964) ■ ANDB* = Austronesian Database (Blast et al.) ■ CAD* = <i>Comparative Austronesian Dictionary</i>, Parts 1-4. ■ Coh* = Cohen, E.M./K. (1999): <i>Fundamentals of Austronesian roots and etymology, Pacific Linguistics D-94</i>, Australian National University, Canberra. ■ Handa* = Handa, I. (1999): <i>Ryukyuu-go Jiten</i> (半田一郎「琉球語辞典」大学書林) ■ IKJ* = Ohno, S.: <i>Iwanami Kogo Jiten</i> (Iwanami's Old Japanese Dictionary), Iwanami Shoten ■ Miyara* = Miyara-Zenshuu 8 (Yacamaa-Goi) (宮良全集8「八重山語彙」第一書房) ■ MRH* = Hirayama, T. (1988) <i>Minami-Ryukyuu no Hougen Kiso-Goi</i> (平山輝男「南琉球の方言基礎語彙」桜楓社) ■ Mu*95 = 村山七郎 (Murayama, S.) (1995), <i>日本語の比較研究</i>, 三一書房, 東京. ■ Pok* = Pokorny, J. (1959) <i>Indogermanisches etymologisches Woerterbuch I, II</i>, A. Franke Verlag, Tuebingen und Basel. ■ RHJ* = Nakamatsu, Ryukyuu Hougen Jiten (<i>The Dictionary of the Ryukyuan Language</i>), Naha Shuppansha, Naha, 1987 (中松竹雄「琉球方言辞典」那覇出版社) ■ Zorc* = Zorc, R.D., in CAD*, Part 1, Fasc.2, pp.1105-1197.</p>	
<p><b>I. BILABIALS (m-, p-, p', b-, β-) and LABIO-DENTALS (f-, v-)</b> ■ ■ ■ ■ ■ <b>#1. [pJR] *m-</b> ([Old MJ.Jpn] m-/[RYU] (Hate.) (Kuro.) m-) &lt; [pAN] *m- ■ ■ ■ <b>#1.1. 股 CROTCH:</b> [Old MJ.Jpn.] [RYU] (Hate.) mata "crotch" (&lt; [pJR] *mata &lt; *matan) ■ ■ ■ OC: [Kwaio] matan-na "crotch" ■ ■ ■ <b>#1.2. 目 EYE:</b> [MJ.Jpn.] ma- "eye" (&lt; *mā &lt; *maa &lt; *mara &lt; [pOC] *mata &lt; [pAN] *maCa "eye") ■ ■ ■ OC: [Lau] mā [Kwaio] mā-na) [Port Sandwich] mara-n [Lewo] kila-mara-na [(W.MP) [Adzera] mara- [Dami] mala [Takia] mala-n [Manam. Mabula. Yabem] mata "eye" (&lt; *mata &lt; [pAN] *maCa) ■ ■ ■ <b>#1.3. 見る to SEE:</b> [pJR] *mir- (un) [MJ.Jpn.] mir-u [RYU] (Hate.) mirun. (Kuro.) miri "to see" (&lt; (MP) *mir- "search") ■ ■ ■ OC: (W.OC) [Dami] -mirē- "to search", i-mirē-ya "to seek, to look for" (&lt; i- (3rd person, sing.) + -mirē- "search" + ya (INF))</p>	
<p><b>#2. [pJR] *p-</b> ([Old MJ.Jpn.] p-/[Mod.MJ.Jpn.] h-/[RYU] (Hate.) p-) &lt; (MP) *p- ■ ■ ■ [pJR] *p-/[RYU] (Hate.) (Kuro.) (Take.) p-/[MJ.Jpn.] h- ■ ■ ■ <b>#2.1. 鬚 BEARD:</b> [pJR] *pi-ge2/[Old MJ.Jpn.] pi-ge2/[RYU] (Yoron dial.) pigi "beard" (&lt; *pi- "check" + *ke2 "hair") ■ ■ ■ OC: [Lewo] pipi-na "cheek" ■ ■ ■ W.MP: [Bali.] pipi "cheek" ■ ■ ■ <b>#2.2. 尻 FART:</b> [Old MJ.Jpn.] pē (= pe2) "fart" ■ ■ ■ OC: [A'ijie] pē [Xaracuu] pe-a-tapo "to break wind"</p>	
<p><b>#3. [pJR] *f-</b> ([RYU] (Hate.) f-/[MJ.Jpn.] h-) ■ ■ ■ <b>#3.1. [pJR] *fu-</b> ([RYU] (Hate.) fu-/[Kuro., Take.] Φu-/[MJ.Jpn.] hu-) &lt; (MP) *bu- (OC: fu-, vu-, pu-, bu-, βu-) ■ ■ ■ <b>#3.1.1. 吹く to BLOW:</b> [pJR] *fu-ku(N) [MJ.Jpn.] huku, Φuku/[RYU] (Hate.) fukuN / (Kuro.) Φuku / (Takeshima) ΦukuN "to blow" (&lt; *fu- "to blow" + *ku "verbal suffix meaning "to do, to make", where *fu- &lt; [pMP] *bu- "to blow", and *ku &lt; (MP) ku ~ gu "to do") ; [MJ.Jpn.] ibuk-u "to blow" (&lt; *i-bu-k-) ■ ■ ■ OC: [Tolai] vuvu "blow" (&lt; *vu &lt; *bu "to blow") ; [Roviana] vua [Mekeo] (dialects) bua, boa, poa "to blow" (&lt; *bu-a) ; [Maringe] ifu "to blow" (&lt; *i-fu &lt; *i-vu- &lt; *i-bu) "to blow", [Kauling] βu-βuh [Lewo] wu "whistle" (&lt; *bu(h)) ■ ■ ■ ?IE: [pIE] *b(e)u- "to blow" (onomatopoeic) (Pok*) (Cf. [pE] *b(h)u- *bh(e)u- "to blow". Pok*) ■ ■ ■ <b>#3.1.2. 蓋 COVER:</b> [MJ.Jpn.] huta [RYU] (Hate.) futa [(Kuro.) (Takeshima) Φuta "cover" (&lt; *buta) (EML*, p.88) ■ ■ ■ C.MP: [Sika] buta "cover" (&lt; *buta) ■ ■ ■ OC: [Takia] futani "to shut, to close" (&lt; *futa-ni &lt; *buta-) ■ ■ ■ <b>#3.1.3. 二 TWO:</b> [pJR] *futa-/[RYU] (Hate.) futa-:tsi / (Kuro.) Φuta-tsi [Mdmr.MJ.Jpn.] huta-tsu "two" (&lt; *fut-(a) &lt; (OC) *fut- &lt; *buta-) ■ ■ ■ OC: [Tolai] evut, ivut "two" (&lt; *e-vut, *i-vut &lt; *vut "two")</p>	
<p><b>#4. [pJR] *b~ ~*b-</b> ■ ■ ■ ■ ■ <b>#4.1. [pJR] *b~ ~*β-</b> ([RYU] (Hate.) b-/[MJ.Jpn.] w-) ([pJR] *ba-, *bo-, *bi-) &lt; [pMP] [pAN] *b- (OC: b~-, p~-, β-,</p>	

v-, w-, p-) III # 4.1.1. 腹 BELLY, 内臓 GUTS: [pJR] \*b<sup>u</sup>atta ~ \*batta /RYU(Take.) batta (Hate., Kuro.) bata/(Kabira) bada /(Shuri in Okinawa) (Sani in Amami-Oshima) wata /MIJPN wata "belly, guts, owels" III W.MP: [Konjo] battan /Javanese wātən "stomach" (< \*bat(t)an) : [Balinese] basan "stomach, intestines, guts" ; [Molbog] babat (< \*bat) "stomach" II SHWNG: [Irarutu] ʔəta "stomach" II OC: (NC)[Xaracuu] b<sup>u</sup>ati /A'jie p<sup>u</sup>ari "stomach" (< \*b<sup>u</sup>ati < \*bati ~ \*b(a)ti) ; [Adzera] wasa? "inside, middle" ; (Vanuatu: from ANDB\*) [Tape] vetən /Nahavaq βeti "belly" III # 4.1.2. 男 MAN /MALE: [pJR] \*b<sup>u</sup>i ~ \*βi "man, male", [RYU] (Hate.) bi-dumu "man" (< [pJR] \*bi-domo < \*bi- "male, man" + \*-domo "nominal suffix meaning plural", Cf. [MIJpn.] ko-domo "child" < original meaning: "children".), (Kuro.) biki-dumu "male person" III OC: [Kaulong] βi "man" (< \*bi), [A'jie] wi "male" (< \*bi) III # 4.1.3. 若い YOUNG: [pJR] \*b<sup>u</sup>aga ~ \*βaga (< \*bag(u)?a < \*bag(u)ra < (MP) \*bagq(u)ra < [pAN] \*baq(e)RuH "new" ) /RYU] (Hate.) (Take.) бага- /Kuro.) baha- /MIJpn.] waka- "young" III AN: [pAN] \*baq(e)RuH "new", (W.MP)[Aceh] bag<sup>u</sup>uh /Palawan][Murut] bagu /IndoN][Sasak] baru /Uma] bo?u "new" II OC: [Yabem] waku? /Roviana] vagura /Kilivila] -βau /Tawala] wou-na /Nyindrou] ha?u "new" II FORM:[Paiwan] vaqu-an "new" (< \*baqu- III Uralic: [proto-Finno-Ugric] \*wuð'e- (< \*wouð'e- < \*bo?use < \*baguH-e) < [pAN] \*baqRuH- "new") III III # 4.2. [MIJpn.][RYU] b- < (MP) \*b- (mostly onomatopoeic ?) III # 4.2.1. ブ Gnat: JR: [MIJpn.] buyu "gnat" III [pAN] \*buyun "bumble-bee" III # 4.2.2. 唇 LIP: JR: [MIJpn.] kuti-biru "lip" (kui "mouth"), \*biru < (MP) \*bir ~ \*bil < \*biR ~ \*bi-biR III [pAN] \*bi-biR "lip, lips" II W.MP: [Batak Toba][Madurese] bibir /Sundanese] biwir /Bali.] bibih /Isnag, Aklanon, Kagayanen] bibig "lip" (< \*bibir) : [Kalinga Limos] sū-bil "lip" (< sū- "mouth" + \*bil), [Murut] bibil "upper lip" (< \*bil), Jabil "lower lip" (< \*ja-bil) II C.MP: [Manggarai] vivir /Sika] βiβir "lip" II OC: [Kilivila] bilibalo "lip" (< \*bili-balo)

II. DENTAL AND ALVEOLAR (t-, n-, s-) III # 5. t- III III # 5.1. [pJR] \*t- { [MIJpn.] t- /RYU] (Hate., Koro., Take.) t- } < [pMP][pAN] [pOC] \*t- III # 5.1.1. 鳥 BIRD: [pJR] \*to2ri ~ \*tori /Old Jpn.] tōri (= to2ri) /MIJpn.] tori /RYU] (Hate.) turu /Kuro.) turu /I Takeshima] tui "bird, fowl" ( [pJR] \*to2ri < [pJR] \*tori < (MP) \*toru) III C.MP: [Dobel] toru "fowl" III # 5.1.2. 手 HAND: [MIJpn.] \*ta- "hand" (Found in compounds such as: *ta-na-gokoro* "palm of hand", *ta-suku* "to help, to rescue"), [MIJpn.] \*ta- < \*ta- "hand", III W.MP: [Bangingi Sama] Batak Toba, IndoN, Minangkabau] Javanese, Madurese] taṅan "hand" (< \*taṅ-an < \*taṅ- "hand" + \*-an (= nominalizer meaning "place where (stem) is found/done", CAD\*, Part I-1, p.478) ) II OC: [Samoan] tapea "elbow" < \*ta-pea < \*ta- "hand" + pea "?" ) III # 5.1.3. 太陽 SUN: [RYU] tida /Kuro.) tida /Shuri] ti:da /Kumezima] ti:ra "sun" (< [pJR] \*tēda < (OC) \*tē-dā < \*tē- "to shine" + \*dā "day" ) III OC: [Lewo] tēpo "to shine", [Cemuh] tēat "sun" (< \*tē-āt < \*tē- "to shine" + \*āt "sun", where \*āt < \*ad "sun" < \*adlaw < [pAN] \*qal(e)jaw "sun" ) ; [Raga] rani /Lau] dani // (NC)[Xaracuu] dā // (MicroN)[Pnapean] rān "day" (< \*dani < \*da?ani < [pMP][Zorc\*] \*daqani "day") III III # 5.2. [pJR] \*t- { [Old MIJpn.][Mod.MIJpn.][RYU] t- } < [pAN] \*C- III # 5.2.1. TO HIT WITH FINGERS: JR: [MIJpn.] tutuk-u "to hit with fingers, stick, etc." (< \*tutuk- < [pAN] \*Cuk-Cug- ) III FORM: [Pawan] e-am-ug-eug "to hit with fingers" (< eug-eug = [pAN] \*Cug-Cug- < \*Cug- ) III Note: Cf. [pMP] dug-dug "to beat, to shake". III # 5.2.2. A PERSON / HUMAN: [pJR] pi-to2 ~ \*pu-to /RTU] (Hate.) pitu /Take.) hitu /Old MIJpn.] pi-to2- /Mod.MIJpn.] hito "person" (< \*pi-to2 < \*pi- "sun" ? + \*-to2 "person", where \*-to2 < \*tau < \*Cau "person, people" ) III OC: [Lau] tō-a /Motu] tau-dia /Yabem] Nyindrou] lau "people" (< \*tau- "people" < [pAN] \*Cau "person" ) II W.MP: [Sarangani Blaan] to /Bugis] tau "person" II FORM: [Tsu] you "person" (= \*Cáu) II [pAN] \*Cáu "person" III III # 5.3. [pJR] \*θ- /RYU] (Hate.) s-, (Kuro.) (Take.) t- /MIJpn.] t- < [pMP] \*D- (CAD\*, I(1), pp.70-72) ~ \*d2- (Zorc\*) ) II (W.MP)[Java.] [Madurese] ʔ- // (OC)[Nengone] θ- /A'jie] d- /Ponapean] ʔ- < [pMP] \*D- (CAD\*, I(1), pp.70-72) ~ \*d2- (Zorc\*) ) III # 5.3.1. 手 HAND: JR: [pJR] \*θē ~ \*tē /MIJpn.] te /RYU] (Hate.) fi: (MRH\*) /Take.] ti: "hand", [RYU] (Hate.) si /Take.) ti /Zamami] tee /Nakišin] ti, θi (Handa\*, p.888) (< \*θē "leaf" < \*dē < \*deu < \*dōu < \*dau < [pMP] \*d2ahun ~ \*Dahun "leaf" ) III OC (N.CAL): [Nengone] θe-mie "hand" (= "leaf-of-arm" < \*θē- "leaf" + \*mie "arm", where \*θē- < [pMP] \*d2ahun ~ \*Dahun "leaf" ) ; [A'jie] dē kē /Ponapean] tē "leaf" (< \*dē kei "leaf-of-tree" < \*dau "leaf" + \*kai "tree" ) III C.MP: [Ngada] tōke "hand" (< \*dō- "leaf" + \*kei "tree" ) II W.MP: [Bugis] dau /Uma] rau /Javanese] gō-ḡōḡ /Madurese] ḡaun /Aklanon] dahun "leaf" III [Ainu] tek "hand" (< \*te-ke "leaf-of-tree" ) III Note: Another example of [Nengone] θ- < [pMP] \*D- ~ \*d2- III W.MP: [Malagasi Merina] man-ḡuḡiḡa "to tear" (< \*ḡuḡi- < \*ḡuḡi- < \*Dubi- ~ \*d2ubi- ) II OC: [Nengone] iḡuba, ḡubi (< \*(i)ḡubi < \*iDubi) "to divide". III III # 5.4. [pRYU] \*ti- ~ \*ci- ([RYU] \*tʃi- (= ci-)) < \*ti- III # 5.4.1. 唾 SALIVA: JR: [RYU] (Tokunoshima) tʃidu /Sani dial.] tsidzi "spit", (Nishihara) tsidzi (< \*tsidzi) /Take.) ʃi ḡdʒi "saliva" (RHJ\*) (< [pRYU] \*tʃidu < \*tidu < \*tiduh < \*ciduh < [Sundanese] ciduh "spit".) III W.MP: [Sasak] tiʃu? /Sundanese] nīduh (ciduh) (< N- + ciduh) /Java.] idu "to spit" ; [Sasak] tiʃu? < \*ti-du? < \*ti- "water" + \*-duh, where \*duh < [pPHIL] \*duDaq /pMP] \*luZaq "to spit" III KOR: [Mod.Korean] tʃūm "saliva" (= cʰum < \*cju-m < \*ciju-m < \*tidu? < \*ti-duh) III [Ainu] ci- "water" (a prefix meaning "water".) < \*ti-

III # 6. n- III III # 6.1. [pJR] \*n- < [pMP] [pAN] \*n- III # 6.1.1. 心臓 HEART: [RYU] (Sani dial.) ni "heart" III OC: [Yabem] nip-kaləp "heart" (< \*ni-p-) ; [Cemuh] nime-n "heart" (probably, < \*ni-me-) III # 6.1.2. 中 INSIDE / 腹 BELLY: JR: [MIJpn.] na-ka "inside; belly, stomach, guts" III OC: [Cemuh] nā "stomach", [Ponapean] nan "inside, in" (< \*na-n) ( Cf. [Paamese] nain "inside, in" < \*na-in ?) III # 6.1.3. 脚 LEG: [pJR] \*ne "leg" (< OC: \*nē "leg" ), [Old Jpn.] sune "lower leg, fat of bone-marrow" (< \*su- "fat, fluid" + \*-ne "leg", IKJ\*) III OC: [Marshallese] ne /Ponapean] nē "leg", [Roviana] ne-ne "foot" III # 6.1.4. 舐める TO LICK: [pJR] \*nam- /MIJpn.] nam-u /RYU] (Komi dial., RHJ\*, p.141) nam-pisi: "to lick" III OC: [North Tanna] nam-n "tongue", nam-naman "flame" (= "tongue of fire" ) III Note: Cf. OC: [Kiribati] nam /Marshallese] næm "to taste" II [pMP] \*ñam+ñam "to taste" (Zorc\*) III III # 6.2. [pJR] \*n- < [pAN] \*ŋ- III # 6.2.1. TO BARE THE TEETH: [Old Jpn] nim-u "ro bare the teeth" (< \*ŋi-mu < \*ŋi- "tooth" ) III OC: [Marshallese] ŋi /Ponapean][Woleaian] ŋi "tooth" (< \*ŋi?i < \*ŋihi ~ \*ŋiji "tooth" ) II C.MP: [Ngada] ŋiʔi /Manggarai] ŋiʔis, ŋis "tooth" III [Ainu] nimāk "tooth" (< \*ŋi-māk ), (Horobetu dial.) nirus /Sakhalin dal.] niirus "gum" (\*nii-rus < [proto-Ainu] \*nii- "tooth" + rus "skin", [proto-Ainu] \*nii- < \*ŋiʔi < \*ŋiji "tooth" ) III Korean: [Middle Krea] ni "tooth" (< \*ŋi < \*ŋiʔi < \*ŋiji "tooth" ) III # 6.2.2. 私 I: [Old Jpn.] na "I" (< \*na ~ \*nā < \*ŋau "I" ) III OC: [Xaracuu] nā /Marshallese] ŋa "I" II Note: Further cognates with: (OC) [Kiribati] ŋgai /Takia] ŋai /Manam] ŋau /Lau] Kwai] nau "I" III DRAV: [Tamil] nān (< \*naun < \*ŋau-n) III # 6.2.3. 名 NAME: [MIJpn.] na /RYU] (Hate.) naN (RHJ\*), naŋ (Mu\*95, p.230) / (Koroshima) na ~: /Take.) na: (< [pJR] \*nāN, \*naaN (Mu\*95) < \*nāN < \*ŋaa-ŋ) III W.MP: [Sundanese] [Palawan] ŋaran /Aklanon] ŋātan /Kalinga Limos] ŋādan /Aceh] nan II C.MP: [Buru] ŋaa-n /Sika] nara-ŋ (< [pAN] \*ŋājan "name" ) II OC: [Yabem] (ŋa)e /Nyindrou] ŋāra-n ; [Maringe] naŋa /Kwaio] naŋhu III III # 6.3. [pJR] \*n- < \*ñ- < [pAN] \*ñ- III # 6.3.1. なま RAW: [MIJpn.][RYU] (Hate., Kuro., Take.) nama "raw" (< [pJR] \*nama "raw" < OC: ŋāma-) III W.MP: [Isnag] namāta "raw" II OC: [Nyindrou] ŋāmañak "raw" III III # 6.4. [pJR] \*n- < [pMP] \*N- III # 6.4.1. 菜 VEGETABLES: [MIJpn.] na /RYU] (MRH\*) [Ishigaki] nar. (Hate.) naN "vegetables" (< [pJR] \*Na(N) ~ \*Na(ŋ) ) III [pAN] \*NaCéuan "vegetables" (< \*Na-Céuan ?)

III # 7. s- III III # 7.1. [pJR] \*s- < [pMP][pAN] \*s- III # 7.1.1. 腕 ARM / 手 HAND: JR: [RYU] (Hate.) si: "arm (from shoulder to fingers)" (MRH\*) (< \*si: < \*siu < \*siʔu "hand/arm" < \*siku "elbow" ) III OC: [Rotuman] siʔu "hand" (< \*siku "elbow" ) ( Cf. [Takia] sikuru-n "hand" ) II C.MP: [Ngada] siiku /Sika] hiʔu-ŋ "elbow" (< \*siku(-ŋ) ) III Note: Probably further cognates with: (OC) [Nemi] hi-n /Cemuh] f-n "hand" (< \*hī-n < \*sī- < \*si: < \*siu- < \*siʔu "hand, arm" < \*siku "elbow" ). III # 7.1.2. BACK: [Old MIJpn] se, so2 (IKJ\*) /MIJpn.] se "back (body part)" III SHWNG: [Irarutu] se "after" (< \*sei "back, backwards" ) III [Ainu] sey "to carry on the back" (< \*se-i < \*se- "back" ), setur "back" (< \*se-tur "back-bone" < \*se- "back" + \*-turi "bone", where \*-turi < [Motu] turia "bone" ) III # 7.1.3. 太陽 SUN/光 LIGHT: [pJR] \*sina "sun ~ light" ; [RYU] (Hate.) ŋina "sun", [Old MIJpn.] sina- "light" ( example: sina-teru ) III OC: [E.Fijian] siŋa "sun", [Lau] snamaru "lightning" (< \*sina-) II W.MP: [Kagayanen] sinan /IndoN] bōr- sinar /Madurese]

sunar "to shine", [Konjo] 'sinara "light" || [Ainu] sin (= shin) "day, weather" || # 7.1.4. **UNDER**: [pJR] \*si- "under, below", [Ml.Jpn.] si-ta, si-mo "area below", a-si "foot" (< a "foot, leg" + \*-si "below") || OC: [Yabem] si? "downward" (CAD, #12.140), [Kaulng] sii "bottom" || # 7.1a. **[RYU](Hate.) ss- < \*sVs- (V = vowel)** || # 7.1a.1. **pus**: [RYU](Hate.) ssi "pus" (< \*ssu < \*susu) || OC: (W.OC) [Kaulong] susu-an "pus" || # 7.2. **s- < \*S-** || # 7.2.1. **風 WIND**: [Ml.Jpn.] si "wind", ara-si "storm" (< [pAN] \*Siup "to blow" || OC: [Nyindrou] si-yer "wind" || # 7.2.2. **WILD BORE / MEAT**: [pJR] \*sisi / [Ml.Jpn.] sisi "wild boar, deer: meat", [RYU](Shuri) jifi / (Komi) si:si "flesh" (< (MP) sisi < [pAN] \*Sisi) || [pAN] \*Sisi "meat" || FORM: [Rukai] ki-sisi "goat" || W.MP: [Yami] asisi / [Konjo] assi "flesh" || OC: [Mekeo] tsitsi "meat" || # 7.3. **s- < (OC) \*s- < [pAN] \*Z-** || # 7.3.1. **脂肪 FAT / 油 OIL (of MARROW)**: [pJR] \*sune / [Old Ml.Jpn.] sune "fat (~ oil) of bone-marrow, lower leg" (< [pJR] \*su-ne < [pJR] \*su- "fluid, liquid, soup" + [pJR] \*-ne "leg, IKJ") || [pRYU] \*suni / [RYU] (Take.) kara-zuni / (Kuro.) jini / (Kabira) sini "leg" (< \*zune) || OC: [Samoan] sua "liquid, fluid, soup" (< \*su-a < \*sū- < su?u < \*suru < [pMP] \*ZuRúq "soup, broth") || [Manam] suru / [Yabem] sulu "soup, broth" (< [pMP] \*ZuRúq) || C.MP: [Sika] luru "soup, broth" || W.MP: [Murut] dú? / [Palawan] [Molbog] duru? "soup, broth" (< [pMP] \*ZuRúq) || [Ainu] rúr (ADD\*) "soup, broth" (< \*ruru ~ \*luru < \*duru < [pMP] \*ZuRúq) || Note: [pJR] \*-ne "leg" < (OC) \*ŋe- "leg, foot" || OC: [Takia] ŋe-n "leg, foot", [Marshallese] ne / [Ponapean] nē "leg", [Roviana] ne-ne "foot" (< \*ŋe-(n)).

### III. VELAR (k-, g-)

# 8. **\*k-** || # 8.1. [pJR] \*k- ([Old Ml.Jpn.] [RYU](Hate., Kuro., Take.) k- < (OC) k- < [pMP] \*k- || # 8.1.1. **噛む to BITE**: [pJR] \*kam-u(N) / [Ml.Jpn.] kam-u / [RYU](MRH\*) (Ishigaki) kamuN / (Hatē) kampuN "to bite", [RYU] (RHJ\*) (Kohama) kamun "to chew" || OC: [Kilivila] kam-k"am "to chew" || [Quechuan] ccamu- (= k"amu-) "to chew" || # 8.1.2. **濃い DENSE (in colour)**: [RYU] (Hate.) kata- "dense" || OC: [W.Fijian] kata "dark (in colour)" || # 8.1.3. **声 VOICE**: [pJR] \*ko?we / [Old Ml.Jpn.] ko?we / [RYU] (Hate., Kuro., Take.) kui (< \*koc) / [Mod.Ml.Jpn.] koe "voice" || OC: [A'ijie] kō "loud" || # 8.1a. [pJR] \*k- ([Old Ml.Jpn.] k-, [RYU] (Hat.) (Take.) k-, (Kuro.) h- < (OC) k, γ-, k" - || # 8.1a.1. **噛む to CHEW**: [RYU] (Miyara dial. in Ishigaki Isl.) kantari / (Hate.) kanderuN / (Kuro.) hanzari / (Take.) kanderu(N) "to chew" (RHJ\*, p.1421, p.191) < [pRYU] \*kantar-uN ~ \*kandar-uN "to chew" || OC: [Kiribati] kanta "to chew" (< \*kan-da < \*kan "to eat" + \*da "to eat") || [Mbula] -kan / [Port Sandwich] xan-i / [Raga] ŋani / [Roviana] ŋani-ŋani "to eat" (< \*kan- "to eat") || [Xaracuu] da "t o eat" || W.MP: [Wolio] ka?de (< \*kan-de) / [IndoN] [Minangkabau] ma-kan / [Kalinga Limos] manan (= maN + kan) "to eat" || FORM: [Paiwan] k-am-an (= kan + -am- "INFX") "to eat" || Eskimo: [North Buffin dial.] qaniq "mouth" (< \*qani-q < \*kan-i ~ \*yan-i- "to eat" < [pAN] \*kan- "to eat") || # 8.1a.2. **肩 SHOULDER**: [Mod. Ml.Jpn.] kata / [RYU] (Hae., Take.) kata. (Kuro.) hata || OC: [Nengone] kata?ad (< \*kata-?ad) || # 8.1a.3. **風 WIND**: [pJR] \*kadza-, \*kadzi- / [RYU] (Hate.) kati / (Kuro.) hadzi / (Take.) kadzi "wind", [Ml.Jpn.] kaze, kaza- "wind, cold", kazi-kamu "to numb with coldness" (< \*kadzi- "wind" + \*kam-u "to bite") || OC: [Xaracuu] k"ade "wind" (< \*kazai-?) || # 8.1a.4. **皮膚 SKIN**: [Old Ml.Jpn.] kaΦa, kawa / [RYU] (Take.) ka- (Shur) ka: "skin" (< [pJR] \*kaΦa ~ \*kava "skin" < (MP) \*kaba "clothes, clothing"), [RYU] (Hate.) ki:nu-ka, (Kuro.) ki:nu-ha: "bark of tree" (< \*kii-no kawa < \*kii "ree" + -no + \*kawa "skin, bark") || OC: [Mbula] kawāla / [Wolean] xapa?a "clothes, clothing" (< \*kaba-(a)la "clothing"), (Cf. [Dami] ā gabari "bark", ā "tree") || FORM: [Paiwan] kava "clothes, clothing" (< \*kaa ~ \*gaba?) || Eskimo: [proto-Inuit] \*qavaRuciq "outer skin of whale" || # 8.1b. [pJR] \*k- < (OC) g-, γ-, k- < [pW.MP] [pAN] \*k- || # 8.1b.1. **齧る to GNAW**: [Ml.Jpn.] kadir-u (< \*kadzi- < \*kač-i- < \*kaC-i) || OC: [Kilivila] gadi / [Raga] ŋasi / [Paamese] gati / [Port Sandwich] xač-i (< \*kač-i ~ \*yač-i) / [W.Fijian] kasi-a / [Mele-Fila] kaji-a / [Maringe] ka?hu "to bite" (< \* || [pW.MP] [Coh\*, p.C-40]) \*kati? "bitten" (< [pAN] \*kat+kat "to bite" < > [pW.MP] [Coh\*, p.C-40]) \*kati? "bitten") || DRA: [Tamil] ka?i "to bite" (Ohno, 1981). || STb: [Thai] kād "to bite" || Note: Cf. [pAN] \*kaRat / [Palawan] kagat "to bite" (Zorc\*) : ?[pHF]? \*gadiŋ "ivory". || # 8.2. [pJR] \*k- < (MP) \*g- || # 8.2.1. **日 DAY**: [Old Jpn.] [Ml.Jpn.] -ka "day" (for counting)" (< (MP) \*gā "sun"). Example: nano-ka "seven days" || OC: (W.OC) [Dami] gā "sun" || # 8.2.2. **心 HEART**: [pJR] \*ko?ko?ro? "heart, mind" (< \*ko?ro? "heart" < \*goru "heart") (> [Old Ml.Jpn.] ko?ko?ro? "heart, mind", [RYU] (Kuro.) kukuru "mind") || OC: [Kwajio] goru "heart" || Cf. OC: [Roviana] kor-koro "lung". || # 8.2.3. **口 MOUTH**: [Ml.Jpn.] kutu- "mouth" (in a compound word, *kutu-wa*) (< MP: \*gutu "lip"). [Ml.Jpn.] kuti / [RYU] (Hate.) futsi / (Kuro.) (Take.) Futŋi "mouth" (< [pJR] \*kutu-i) || OC: [Mele-Fila] gutu "lip" || ?[Anu] kut "throat" (< \*gut(u)?)

# 9. [pJR] \*g- (RYU) g- / [Ml. Jpn.] k- < (MP) \*g-, \*ŋg- || # 9.1.1. **狭い NARROW**: [pJR] \*goma- "narrow, (thin)", [RYU] (Kuro.) guma- / (Take.) kuma-sa "narrow" (< [pRYU] \*guma < [pJR] \*goma-), [Old Ml. Jpn.] [Mod.Ml.Jpn.] koma-ka-, koma- "thin, minute" || OC: (W.OC) [Mbula] ŋgomŋgomŋa- (< \*ŋgom-(ŋa)-) "narrow" (< \*N- + \*gomŋa?) || # 9.1.2. **蜘蛛 SPIDER**: [pJR] \*gobu / [RYU] (Kabiira dial.) go:Φu / [Ml.Jpn.] (Kushuu dial.) kobu "spider" (Mu\*78, p213). || W.MP: [Murut] lawa?-gobuk "wolf-spider" (< lawa?- "spider" + \*gobuk)

IV. GLOTTAL (ʔ-, h-) || # 10. [pJR] \*ʔ- || # 10.1. [RYU] (Yaeyaman) ʔ- / [Ml.Jpn.] ʔ- < [pJR] \*ʔ- < (OC) (C.MP) ʔ- || # 10.1.1. **槍 SPEAR**: [RYU](Hate.) ʔui "spear" (< \*ʔui < \*ʔuri) || OC: [Lau] ʔuia "to shoot" (< \*ʔui-a < \*ʔuri-) || C.MP: [Dobel] ʔuri "sword" || Note: (MP) [Dobel] [Lau] ʔ- does not reflect [pAN] \*q-, since [Dobel] k"- / [Lau] ʔ- < [pAN] \*q-. Example: [Dobel] k"usan / [Lau] uta "rain" < [pAN] \*quZán "rain". || # 10.1.2. **さつま芋 SWEET POTATO**: [RYU](Kuro.) ʔun "sweet potato", kosa:ʔuN "satoimo, a kind of yam" (< [RYU] \*ʔun ~ \*ʔuN "sweet potato") || OC: [Adzera] ʔunas "sweet potato" || # 10.1.3. **織る to WEAVE**: [pJR] \*ʔoruN "to sew" (< (MP) \*ʔoru-(ŋ) (> [Old Jpn.] or-u (= o[r-u] / [RYU](Hate.) (Take.) oruN / (Kuro.) ʔuri (< [pJR] \*ʔoruN) ) || C.MP: [Sika] ʔoru "to weave" || # 10.2. [RYU] ʔ- / [Ml. Jpn.] ʔ- < [pJR] \*ʔ- < [pMP] [pAN] \*q- || (MP) [Manggarai] ʔ- / [Dobel] k"- / [Adzera] g- / [Tongan] ʔ- || # 10.2.1. **陰茎 PENIS**: [Ml.Jpn.] tin-tin, tin- "penis" (< [pJpn.] \*tin- < \*ti-n "penis" < \*uti-n < \*qúŋin "penis") || OC: [Takia] uti-n / [Manam] [Yabem] uti / [Maringe] tʰiti "penis" (< \*uti-n < [pAN] \*qúŋin "penis") || C.MP: [Roi] uti-k || NHWNG: [Irarutu] ti (< uti- "penis") || [Ainu] ci "pens" (< \*ti < \*uti < [pAN] \*qúŋin "penis") (Mu\*92, p.71) || # 10.2.2. **上 UPSIDE / ABOVE**: [pJR] \*ʔu- "(in compounds) up, above" (< \*ʔul- "(in compounds) up, above" < > OC: [Tolai] ul- "head (in compounds)" < \*ulu- < \*ʔulu- < [pAN] \*qúluH "head") || [RYU] (Hate.) (Kuro.) ʔui / (Sonai) ui / (Shuri) ʔui / [Ml.Jpn.] u-Φe-u-he, u-e (< \*ʔu-Φe < \*ʔu-pe < \*ʔu- "up, above" + \*Φe ~ \*pe) || OC: [E.Fijian] ulu- / [Samoan] ulu / [Tongan] ʔulu / [Tolai] ulu, (in compounds) ul- "head" (< \*qulu), [Raga] ulu- / [Rotuman] ulu-ŋa / [Samoan] taua-luŋa [Rapaŋui] [MeleFla] ruŋa (< \*lu-ŋa < \*ulu-ŋa < \*qulu-) "top" || W.MP: [Sasak] [Bugis] ulu / [Sundanese] hulu "head" || C.MP: [Dobel] k"ulu- "head" (CAD\* #04.201) || FORM: [Paiwan] kulu "head" || Eskimo: [pEsk] \*qula- "area above" || TbB: [Atsi] ʔulum "head" (< \*ʔulu-m < \*qúluH) || Korean: [Mod. Korean] ui "upside" (< \*ʔu-i). || # 10.3. [pJR] \*ʔ- < (MP) \*ʔ- (< \*qal-) || # 10.3.1. **五 FIVE**: [pJR] \*ʔi- / [RYU](Hate., Kuro., Take.) ʔi- / [Old Ml. Jpn.] [Modern Ml.Jpn.] i "five" (\*ʔi- < \*li ~ \*ri ~ \*li < \*lim < [pAN] \*lima "five") || OC: [Kaulng] eip (< \*e-i-p < \*e-i- < \*lim) / [Paamese] elim (< \*e-lim) / [Sawai] pe-lim / [Motu] [Mekeo] ima / [Tahitian] (Archaic) rima (< \*lim(a) < [pMP] \*lima "five, hand, arm") ; (NC) [Nemi] nim / [Cemuhi] nfm (< \*lim(a)) "five" || W.MP: [Molbog] [Balinese] [Konjo] lima / [Da'a] alima "five" (< \*lima ~ \*alima < \*qal)lima?), [Aklanon] alima / [Palawan] alima / [Molbog] lima "arm" || # 10.3.2. **注ぐ to POUR**: [Old Ml. Jpn.] ir-u "to pour" (probably, < [pJR] \*ʔir- < [pMP] \*ʔiR-) || MP: [pMP] [Zorc\*] \*ʔiR "to flow" (< \*ʔaliR < [pMP] [Coh\*] \*qaliR "to flow") || # 10.4. [pJR] \*ʔ- < \*ʔ- < [pHF] \*ʔ- < [pAN] \*ʔ- || # 10.4.1. **日 MORAR**: [Ml.Jpn.] usu / [RYU] (Hate.) usi / (Kuro.) ʔufi / (Taketoami) usu (< [pJR] \*ʔusi < \*ʔusu < \*ʔusun < \*ʔusun) || MP: [pHF] \*ʔusun (CAD\* #05.80). \*ʔiR+sun (Zorc\*) / [Kalinga Limos] ʔusun / [Aklanon] ʔusun / [Aech] ʔusun "morar" (< \*ʔu+sun ~ \*ʔiR+sun) ; [IndoN] ʔusun / [Sundanese] ʔisun (< \*ʔiR+sun) "mortar": [Sarangan Blaan] sun "mortar" || FORM: [Atayal] ʔuhun (< \*ʔusun) "mortar" || Note: Cf. (W.MP) [Sar.Blaan] lu

"pesle". [Kalinga Limos] lusug < [Kalinga Limos] lu "pesle" + sug "mortar". III III ## 10.5. [pJR] \*?r- < \*r- < [pMP] \*d1- (Zorc\*, Coh\*) ~ \*D- (Coh\*) II  
OC: [Raga] d- / [Motu] r- / [Nengone] d- III # 10.5.1. 垢 BODY-DIRT: [RYU] (Tokunoshima) ?aki "body-dirt" (< \*raki- < (MP) \*daki- < [pAN] \*dakfH-  
"dirt, body dirt, dirty") III W.MP: [Balinese] daki "dirty" (< \*daki). [Aklanon] dakiH / [Molbog] da?ki / [Sasak] raki "dandruff" II C.MP: [Sika] mi?ak "dirty" (  
probably, < \*mi-?aki) II OC: [Nyindrou] ko?ak "dirty" (probably, < \*ko-?aki) III [Quechua] llequi (= leki < \*lki) "body-dirt" III # 10.5.2. 赤い RED:  
[pJR] \*?ag(g)a- / [RYU] (Hateruuma) ?aga-haN / (Kuro.) ?aka-ha / (Take.) ?akka-saN / [MLJpn.] aka-, "red" ([pJR] \*?ag(g)a- < \*rag(g)a- < [pAN] \*daRaQ  
"blood") III OC: [Raga] daya- / [Manam] dara / [Motu] rara-na / [Paamese] rāk- / [Nengone] da / [Marshallese] ra "blood" (< \*daRa-). [Takwa] dara-n / [Manam]  
dara-dara "red" (< [pMP] (Zorc\*) \*d1aRaQ, (Coh\*) \*d1aRaQ- \*DaRaQ) II W.MP: [Isnag] dāga / [Mnangkabau] darah / [Sasak] dāra "blood" (< \*daRaQ  
"blood") [Isnag] daggān "red" III # 10.5.3. 刺 THORN: [Old MLJpn.] (IKJ\*) u-bara / [Mdm MLJpn.] i-bara "thorned wild rose" (< [pMLJpn.] \*(?)u-bara  
\*u- "thorn" + -bara "rose", where \*(?)u- < \*ru- < \*rui < \*duRiH "thorn") III OC: [Nemi] dui / [Cemuh] dū-n / [A?ie] jū / [Nengone] dun / [Ponapean]  
fī / [E.Fijian] sui / [Tongan] hui / [Motu] turia-na / [Tolai] ur / [Nyindrou] d'uiw- n "bone" (< \*duri < [pMP] \*duRiH "thorn, spine") III III ## 10.6. [pJR]  
\*?- (~\*Ø-) < \*r- < \*l- < \*d3- III [Wr.Mongolian] d- III # 10.6.1. 音 SOUND: JR: [pJR] \*?ottō / [RYU] (Hate.) ?uto:, (Kuro.) ?utu, (Take.) ?uttu / [Old  
MLJpn.] o2to2 "sound" ([pJR] \*?ottō < \*?ontō < \*?on- "sound" + \*tō "sound, noise", where \*?on- < (OC) \*ron ~ \*lon "to hear" < \*lon < \*donol <  
\*duŋol "to hear" < [pAN] \*d3ē + ŋēr "to hear", and \*tō cognates with [Rotuman] tō / [Lewo] to-na "sound, noise".) III OC: [Ponapean] ron / [Marshallese]  
ron / [Woleaian] ŋonŋonŋo / [Kiribati] ŋon / [W.Fijian] ŋonŋo- / [Raga] ŋonŋo / [Paamese] [Lewo] [Manam] lonŋo "to hear" (< \*donŋo "to hear" < [pAN] \*d3ē +  
ŋēr "to hear"). II W.MP: [Kalinga Lmos] donol / [Molbog] [Murut] donŋo / [Gorontalo] mo-?o-duŋohu "to hear" III Mongolc: [Wr.Mong.] duyul- "to hear" (<  
\*duŋul < (W.MP) \*duŋol ~ \*donol) III # 10.6.2. 二 TWO: [pJR] \*-(?)wo (in a compound word, to2wo "ten"). "two" (< \*?wo < \*?uwo < \*ruo "two" <  
\*duo < \*dua "two"), [OldJpn.] to2wo "ten" (< \*to-?wo < \*to- "arm" + \*?uwo "two", where \*?uwo < \*luwo < \*duo < \*dua "two" < [pAN] \*d3uSā "two")  
III OC: [Kilivila] -luwo-tala "ten" (= "ten(s)-one", -luwo- < \*luo < \*lua "two" < dua "two", [Lewo] lua-lima "ten" (= "two-hand"), [Yabem] lemeŋ-lu "ten" (= "hand-two") (-lu < \*lua < \*dua "two") III # 10.6.3. 焼く to BURN: [pJR] \*jagu(N) / [Old MLJpn.] jaku / [RYU] (Hate.) jaguN (< \*(?)ia-gu(N) <  
\*(?)i?ia-gu(N) "to burn (v.t.)" < \*?ila-gu(N) < \*d3ila-gu(N) "to burn" < \*d3ila- "flame (= tongue of fire), tongue" \*gu(N) "suffix for making a transitive verb")  
III W.MP: [Murut] dila? / [Acheh] dilah / [Uma] jila? / [Konjo] lila "tongue" II OC: [Eastern Fijian] yame- "tongue" (< \*ya-mea < \*ia-mea < \*i?a-me < \*?ila-mea  
\*d3ila-mea < \*d3ila- "tongue" + \*mea "tongue"), [Raga] mea- / [Kwaio] mea "tongue" III III ## 10.7. [pJR] \*?i- / [RYU] (Hate.) ?i-, (Kuro., Take.) Ø-  
OC) \*l- III # 10.7.1. 脂肪 FAT / 油 OIL: [pJR] \*?abura / [MLJpn.] abura / [RYU] (Hate.) aba, -?aba, (Kuro.) ava, (Take.) aba "fat, oil" (< \*?am<sup>m</sup>bura  
\*?am(u)bura < \*lamu-bura "fat, grease" < \*lamu- "fat, grease" + \*?ura "fat, grease") [RYU] (Hate.) ?uwa-nu-?aba "grease of pig" (?uwa "pig") III OC:  
[Paamese] amur "fat, grease" (< \*am-ur ~ \*am-bur < \*?am(u)-?ura ~ \*?am(u)-bura < \*lamu-lura ~ \*lamu-bura < \*lamu- "fat, grease" + \*lura "oil" (<  
[Dobel] lura "oil") ~ \*?ura "fat, grease") II C.MP: [Sika] ?ura "fat, grease" II W.MP: [Sasak] lamu / [Indonesan] lemak / [Minangkabau] lemak / lama? "fat,  
grease" III # 10.7.2. 足 FOOT: [pJR] \*?a- / [Old MLJpn.] a, a-si "foot, leg" (\*?a- < \*lā "foot"). [RYU] (Ishigaki, MRH\*) ?asi-atu "foot print" (< \*?asi-ato <  
\*?a-si- "foot" < \*?a- "foot" + \*si- "below") III OC: [Yabem] ā / [Cemuh] ā-n / [Rotuman] lā / [West Fijian:] -lā "foot, leg" (\*a- < \*?ā- < \*lā- "foot"), [Kwaio]  
?ā-?ae "foot" (< \*?ā- "foot" + \*?ae "foot", where \*?ā- < \*lā- "foot"), [Lewo] la-na "leg" III Note: Cf. [Kiribati] ā / [E.Fijian] rā "down, below". III # 10.7.3.  
馬 HORSE: [pJR] \*?uma(-N) / [MLJpn.] uma / [RYU] (Hate.) mmaN "horse" (< \*luma) III OC: [Lau] luma nia bulumakau / [Lewo] yumama-na puluku  
"horse" (< \*luma) III Note: The correspondence, [MLJpn.] Ø- / [Lau] l- / [Lewo] y-, completely coincides with [MLJpn.] ma / [Lau] luma "house". III Note: Cf.  
[Rotuman] rī ?on mōnmōnu "horse". III III ## 10.8. [pJR] \*(?)V- / [MLJpn.] ØV- < \*rV- III # 10.8.1. 煙す to SMOKE: [MLJpn.] ibu-su "to smoke"  
(< \*ribu-su < \*ribu- "smoke" + \*su "to do") III [pW.MP] (Coh\*) \*ribun "smoke" III # 10.8.2. 垢 BODY-DIRT: [MLJpn.] aka "body-dirt" (< \*?aka <  
\*raga(t)) III W.MP: [Javanese] ragat "dirty"  
## 11. [pJR] [pRYU] \*h- / [RYU] (Hate.) Ø- / (Take.) h- / [MLJpn.] Ø- < [pRYU] [pJR] \*h- < [pMP] \*h- III III # 11.1. 開ける to OPEN: JR: [pJR]  
\*ha-ku- / [MLJpn.] a-ku "to open (v.i.)", [RYU] (Kuro.) haki, (Take.) hattairuN, (Hate.) agiru / [MLJpn.] akeru "to open (v.t.)" III [Ainu] ha "empty", hasa "to  
be open : to open the mouth" (Ba\*) (probably, < \*ha-sa < [Ai] ha "empty" + [Ai] sa "(adj.) open, spread out") III [pAN] \*haŋap (Lopez) "to open mouth"  
(from WW\*) II W.MP: [Acheh] hah "to open" II OC: [Manam] ?a?a "to open" (< \*?a < \*ha) III IE: [Hittite] ḫaš- (= ḫas) "to open" (< [pIE(K.O.\*)] \*H2as- <  
\*has-) III # 11.2. ENEMY: [RYU] (Hate.) ha: (< \*hā- ~ \*ha-(ŋ) ?) III FORM: [Tsu] haŋi III # 11.3. 明るい to be LIGHT: [RYU] (Take.) hai-saN "to be  
light" (< \*hai- < [pJR] \*hari "day, sun" ?) III W.MP: [Balinese] ai "sun" (< \*hai "sun" ~ \*hari "day"). ?[IndoN] hari / [Batak Toba] ?ari / [Minangkabau] ari  
"day" III Korean: [Mod.Korean] hāi "sun"  
V. Semivowel (w-) ## 12. [pJR] \*w- III III ## 12.1. [pJR] \*w- / [RYU] [MLJpn.] w- < [pMP] \*w- II [pDR] \*w- III # 12.1.1. 輪 RING: [MLJpn.]  
wa "ring, circle, wheel", [RYU] (Take.) wa: "wheel" (< [pJR] \*wa- ~ \*wā "ring, wheel") III OC: [NwCAL] [Nengone] waela "round" (< \*wa-ela). wačo  
"sphere, ball" (< \*wa-čo), wa-čuen "wheel"; [Tongan] va?e "wheel" (< \*va- < \*wa-) III DRA: [Tamil] āṇi "circle, ring, wheel", [Kannada] āṇi "circle,  
roundness", āṇi "roundness" (< [pDRA] \*ā- "circle, ring" < \*wā- < \*wa- "circle") III # 12.1.2. 泉 SPRING: [Old Jpn.] wi (= wi?) / [MLJpn.] i-, wi  
"spring, well" (< [pJR] \*wi2 < \*wui < (OC) \*wei ~ \*wai < \*wahi < [pMP] \*wahiR "fresh water"), [MLJpn.] i-dzu-mi, widzu-mi / [RYU] (Shuri) ?id3uN  
"spring, well" (< [pJR] \*wi2-du-mi) III OC: [Lewo] wi / [Mekeo] vei / [Nemi] we "water" (< \*wei < \*wai "water"), [Raga] [E.&w.Fijian] wai "water" II W.MP:  
[Bugis] wae / [Kagayanen] waig "water" (< [pMP] \*wahiR "fresh water" (Zorc\*), \*vayey (Dm\*)). (Mu\*74. p.110). III # 12.1.3. 太陽 SUN: [Old  
Ryukyuan] we "sun" (< \*we < \*wai < [pMP] \*waRi "sun") (Mu\*95. p.159) III W.MP: [Javanese] wai, we "sun", [Balinese] wai "day" II FORM: [Rukai] vai  
/ [Atayal] wayi? "sun"  
VI. Disappeared Consonant (Ø-) ## 13. [pJR] \*Øi ~ \*j- < \*?- ~ \*?j- < \*ri- < [pMP] \*d2i- ~ \*Di- III III # 13.1. 少 LITTLE: [RYU] (Kohama)  
ik'ira-saŋ "little, few" (Murayama, 1995, from lha) (probably, = iki-ra-saŋ < \*(?)iki- "small, little" < \*d2iki "small") III W.MP: [Konjo] diki "small" (<  
[pAN] \*dikit (Coh\*) "small" (Cf. [pAN] (Zorc\*) \*d2ikiq "small") III ?Mongolic: [Wr.Mongolian] jigi "small, little" (< \*ji-jig < \*jig < \*dig < [pAN] \*d2ikiq  
"small") III # 13.2. 夜 NIGHT: [Old MLJpn.] jo1 "night" (= jo < \*?io < \*riō < \*diō "darkness" < \*dio?o < \*diolo < \*di?olo < \*di-holom(o) "darness") III  
OC: [Kiribati] (te) rō (< \*riō < \*diō) / [Ponapean] rō1 / [W.Fijian] d'iofiofio (< \*d'io < \*diō < \*dio?o) II W.MP: [Gorontalo] di?olomo (< \*di-holomo) /  
[Batak Toba] (na) holom "darness" (CAD\*, #01.620) III Note: Most plausibly, \*di- (in [Gorontalo] di?olomo < \*di-holomo) < [pAN] \*Di- in [pAN] \*DiRem  
"darkness" (Coh\*). Cf. [pMP] \*d2e+d2em "dark" (Zorc\*).  
## 14. [pJR] \*Øm- (Ø = disappeared) < \*mm- ~ \*um < \*(?)um- < (OC) \*rum- ~ \*lum- < [pAN] \*Rum-  
# 14.1. 部屋, 間 ROOM: [MLJpn.] ma "room, space" (< \*mma ~ \*uma < \*uma ~ \*yuma < \*luma ~ \*ruma < \*rumah < [pAN] \*Rumaq "room"),  
[RYU] (Southern Okinawa Island dial.) -ma "place" (Handa\*) III OC: [Motu] ruma / [Lau] [Kwaio] luma / [Raga] im<sup>w</sup>a / [Lewo] yum<sup>w</sup>a / [North Tanna] nima  
/ [Kwamera] nim<sup>w</sup>a / [Cemuh] m<sup>w</sup>a / [A?ie] m<sup>w</sup>a / [Xaracuu] m<sup>w</sup>a / [Nengone] mma / [Kiribati] (te) uma / [Rotuman] rī "house" II C.MP: [Roti] uma / [Buru]  
huma "house" III W.MP: [Bali.] umah / [Minangkabau] rumah / [Madurese] ruma / [Bangngi Sama] luma? "house"