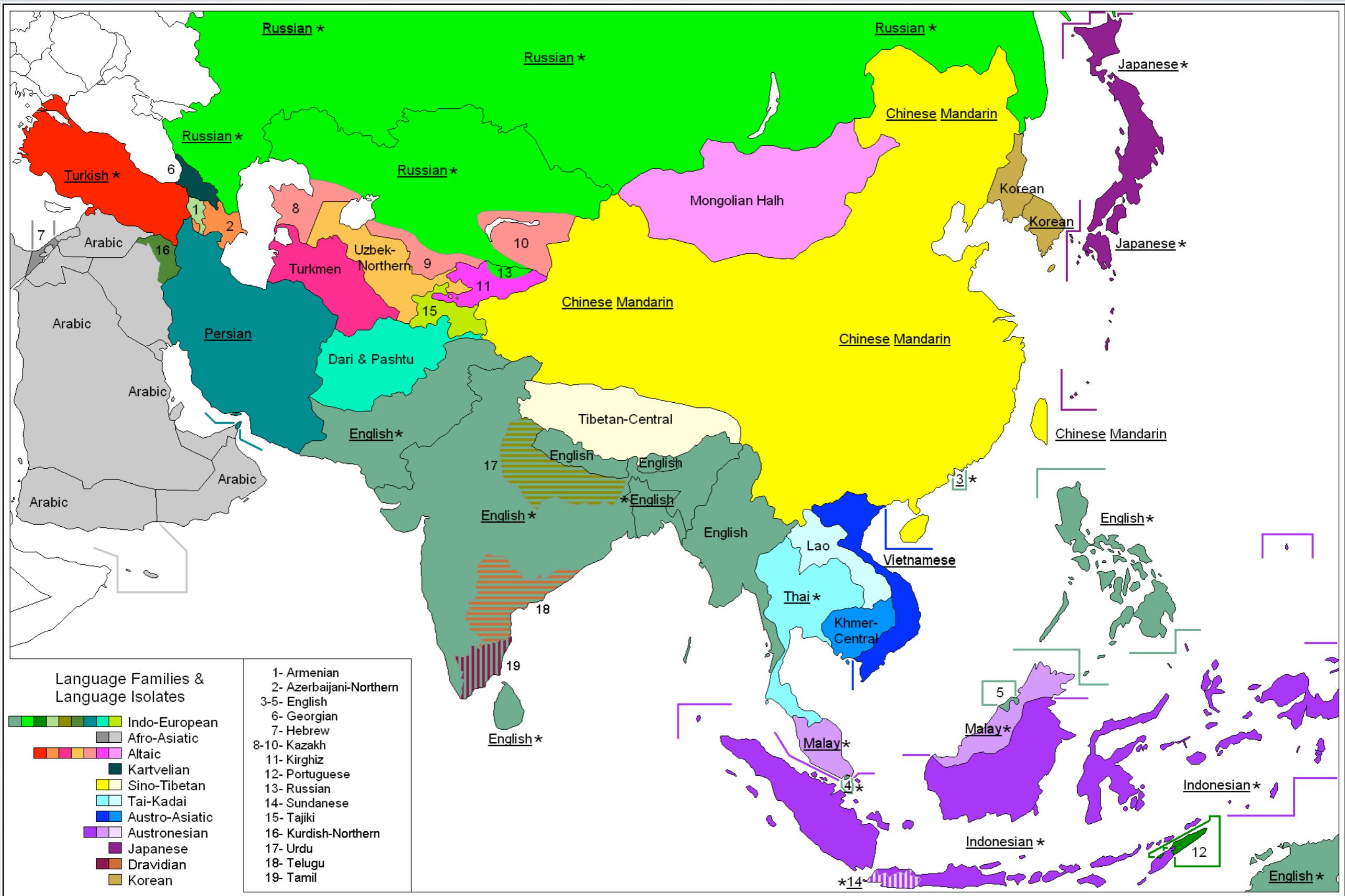


ASIA BEFORE COLONIAL TIMES



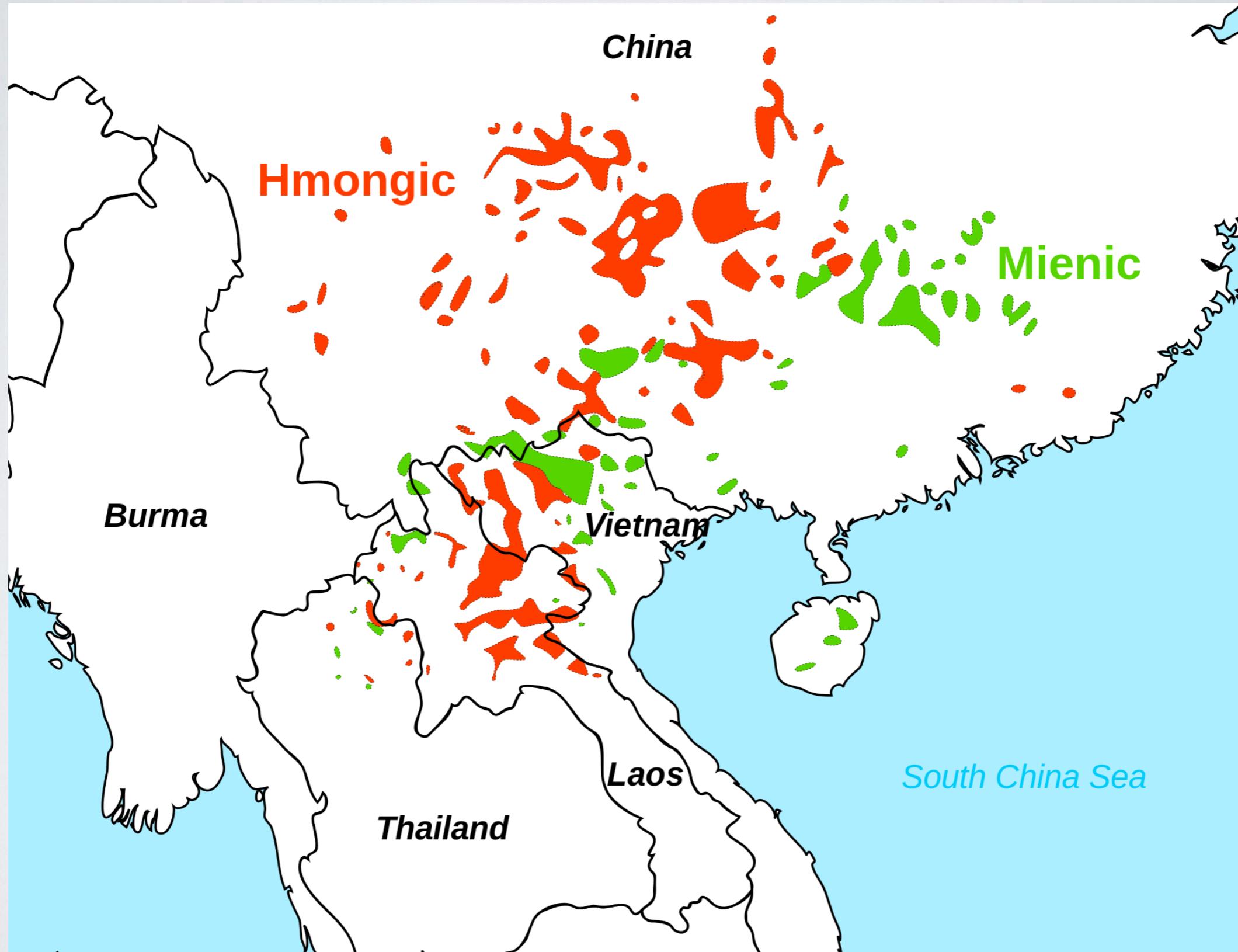
MAJOR LANGUAGES OF ASIA



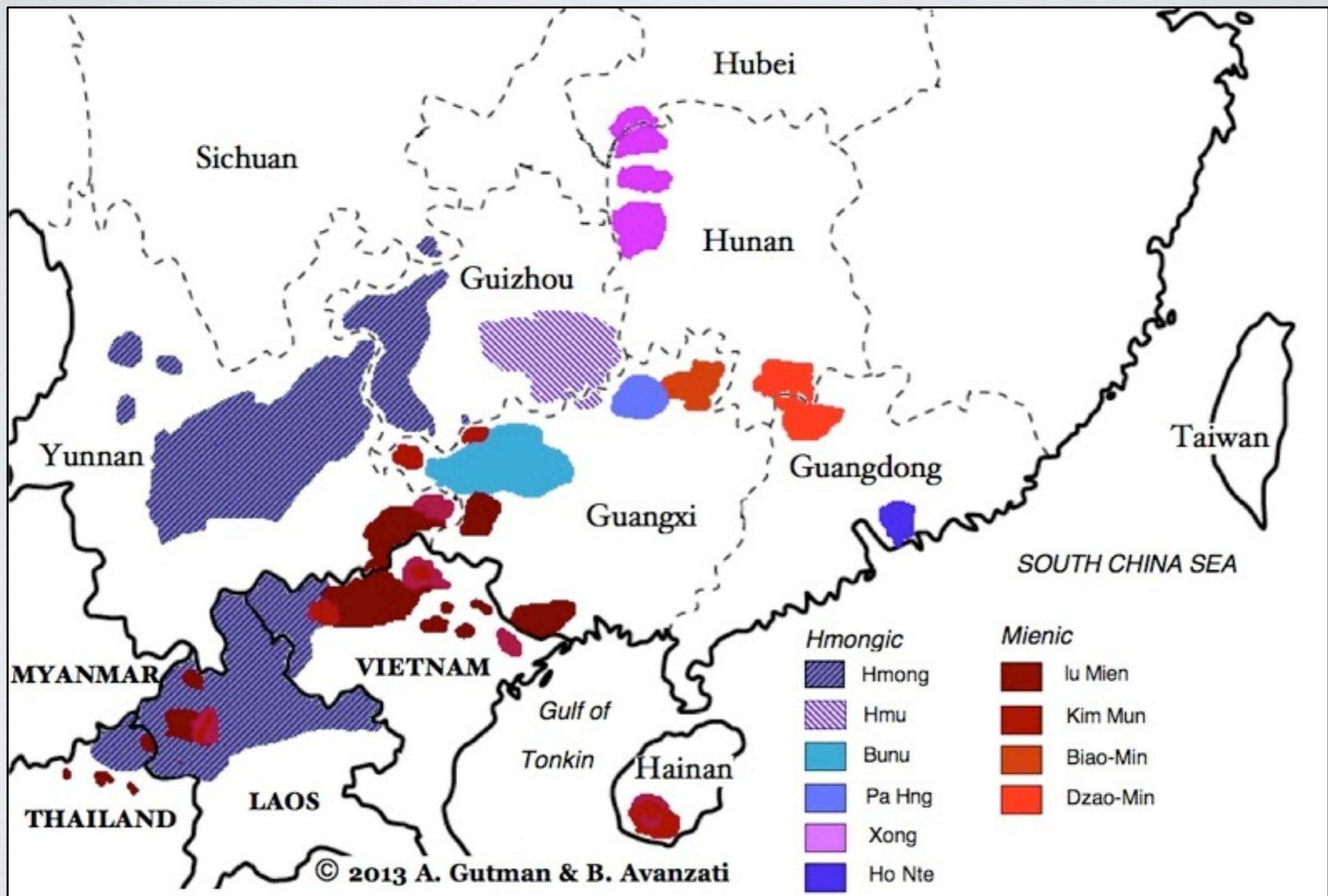
AUSTRO-ASIATIC FAMILY



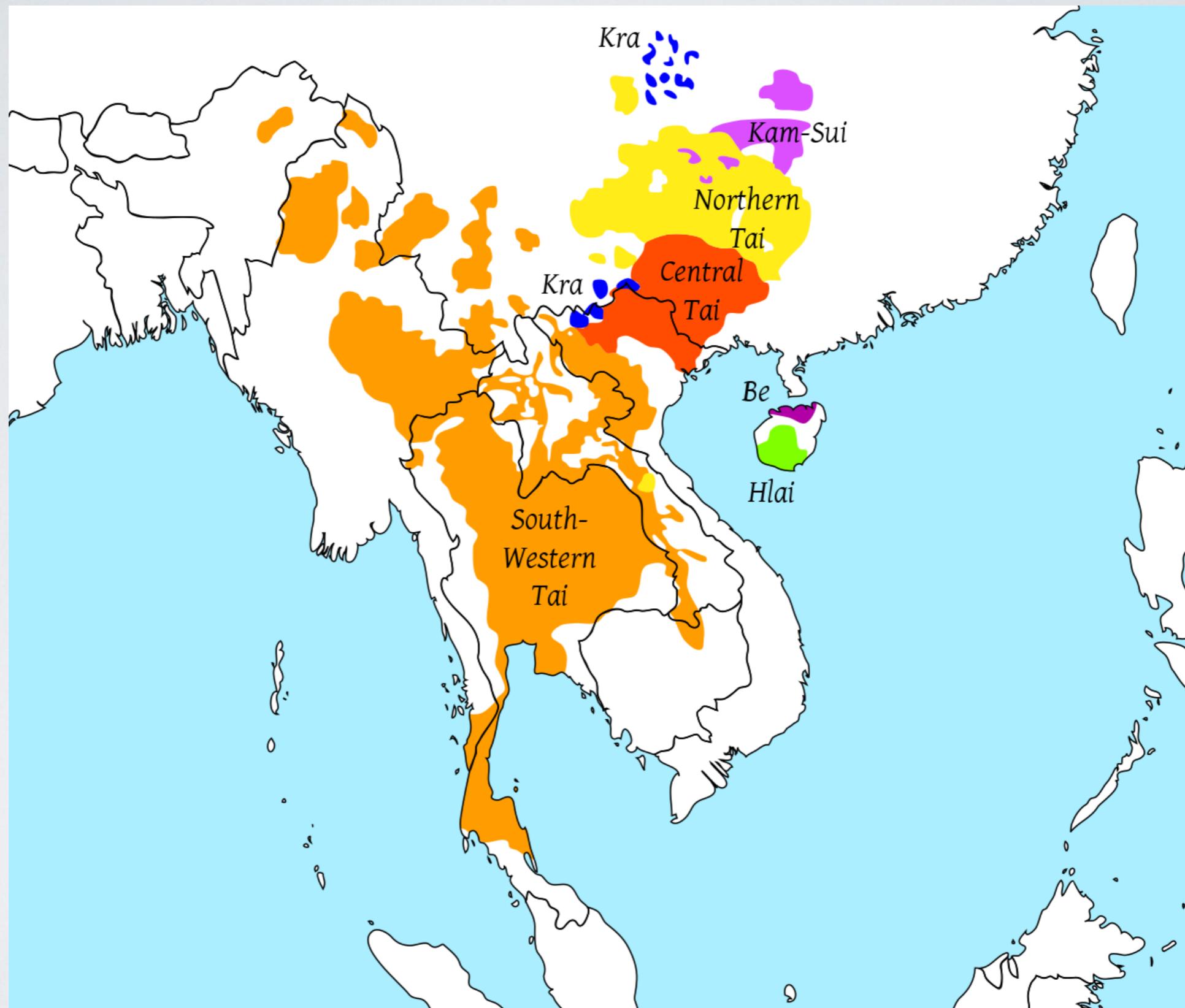
HMONG-MIEN FAMILY



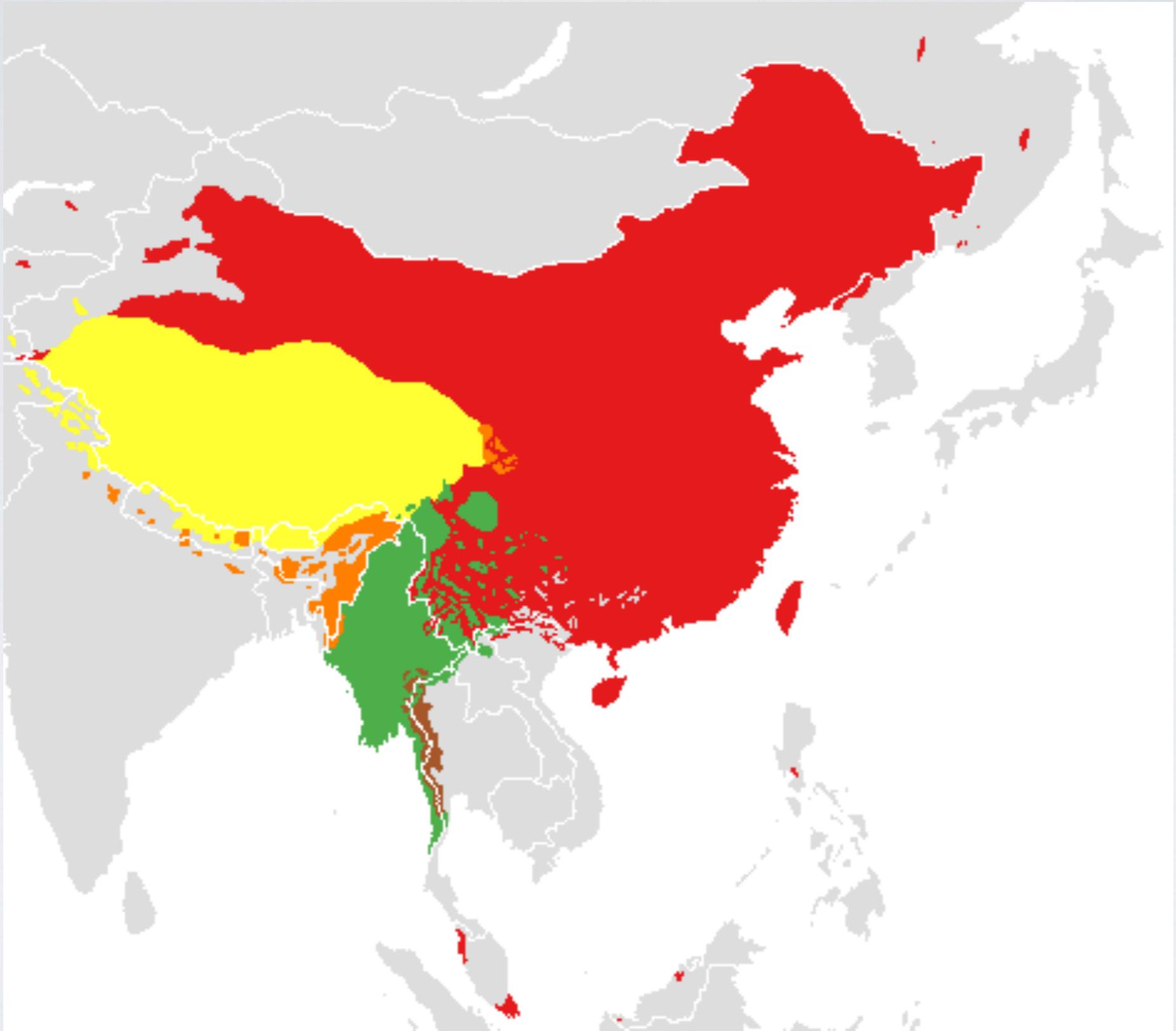
HMONG-MIEN FAMILY



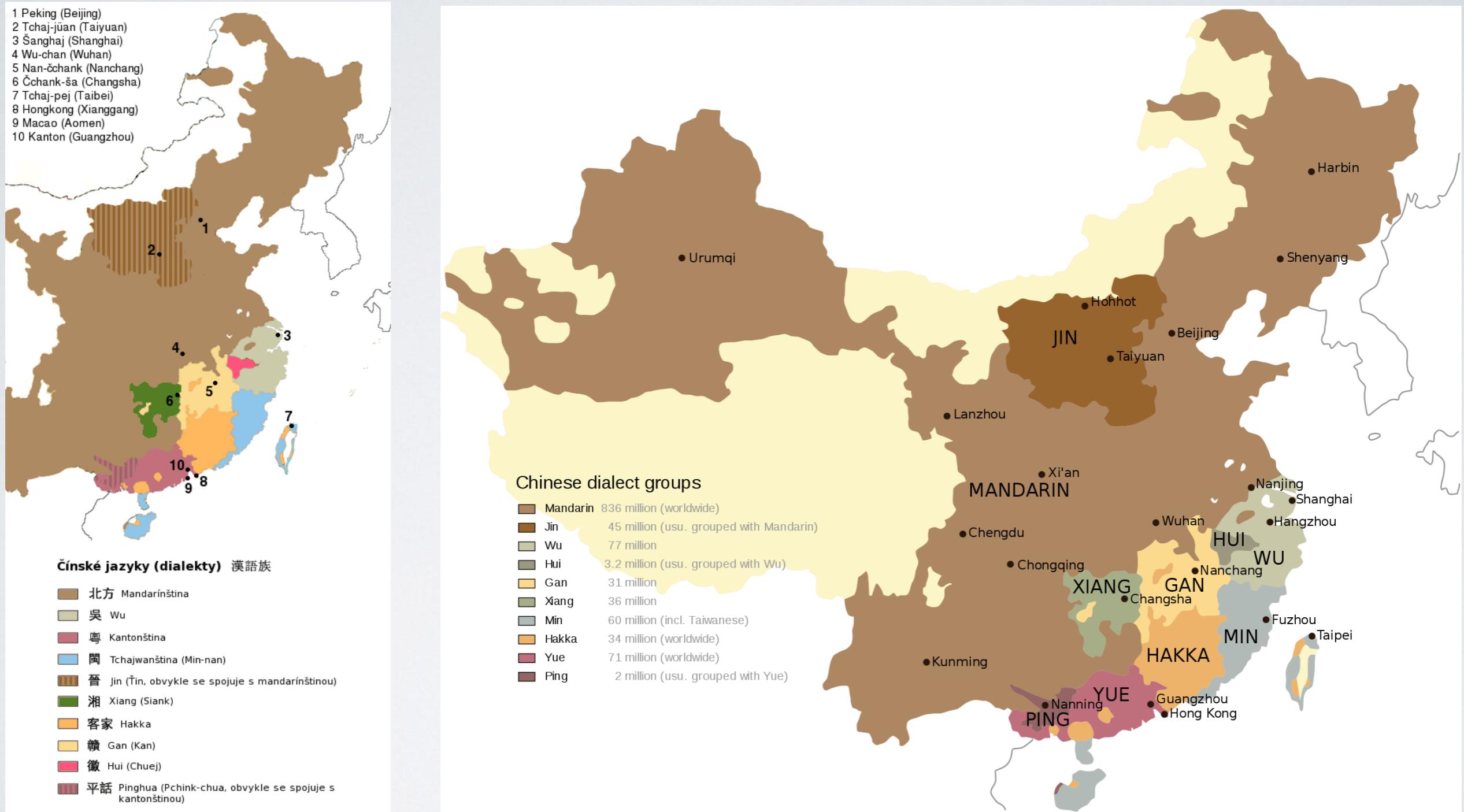
TAI-KADAI FAMILY (NOW A BRANCH OF AUSTRONESIAN)



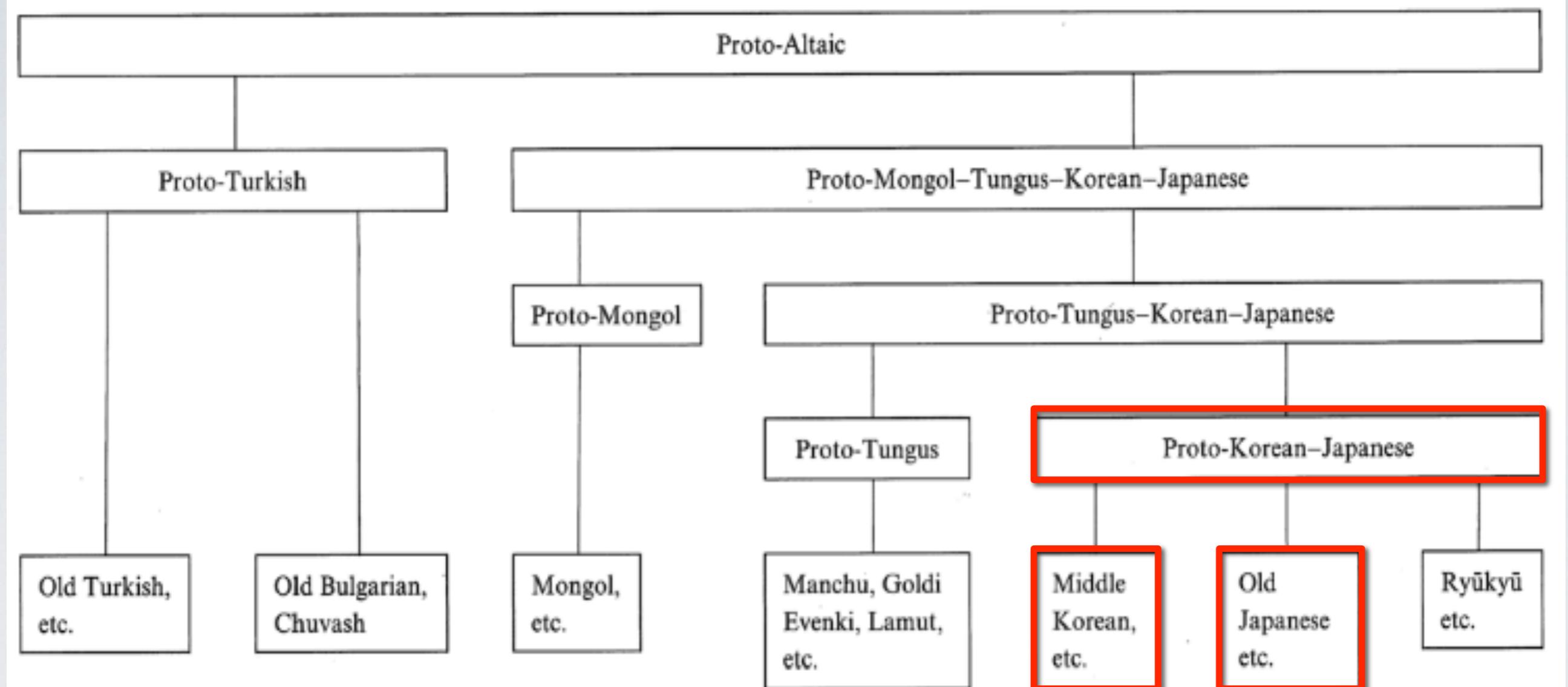
SINO-TIBETAN FAMILY



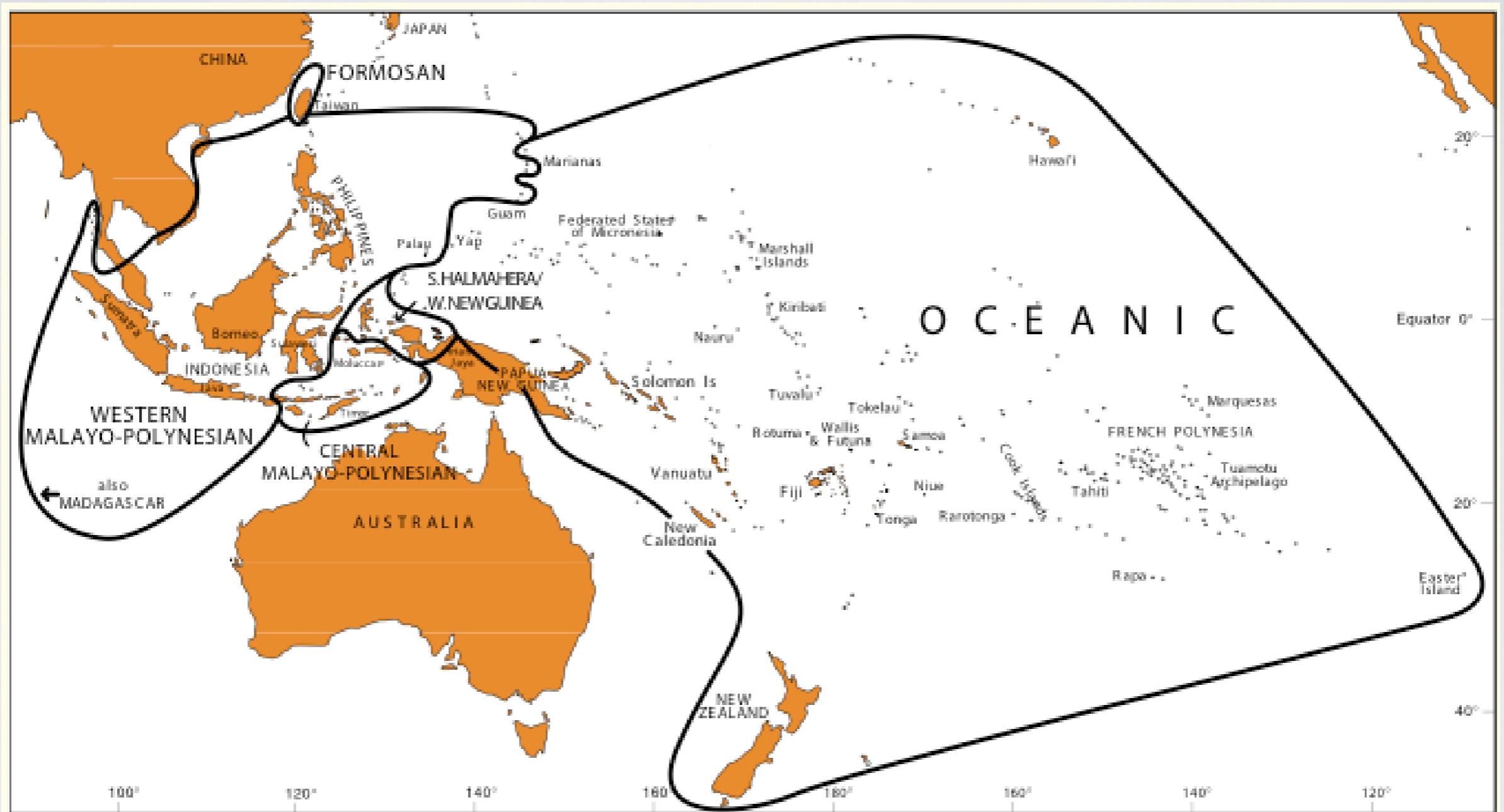
SINITIC BRANCH



ALTAIC HYPOTHESIS



AUSTRONESIAN FAMILY



Ross 2009

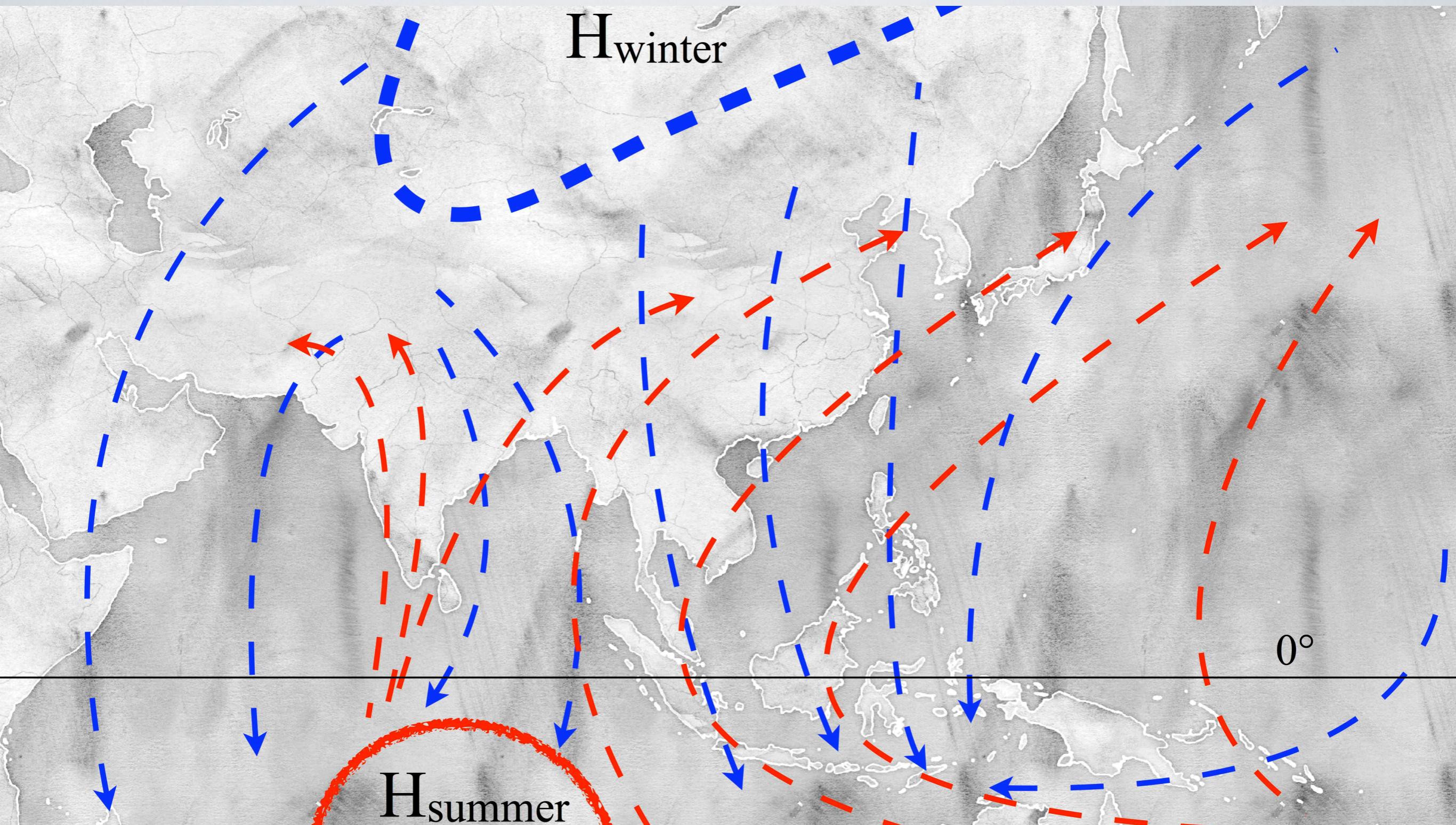
RELIEF OF EAST AND SOUTHEAST ASIA



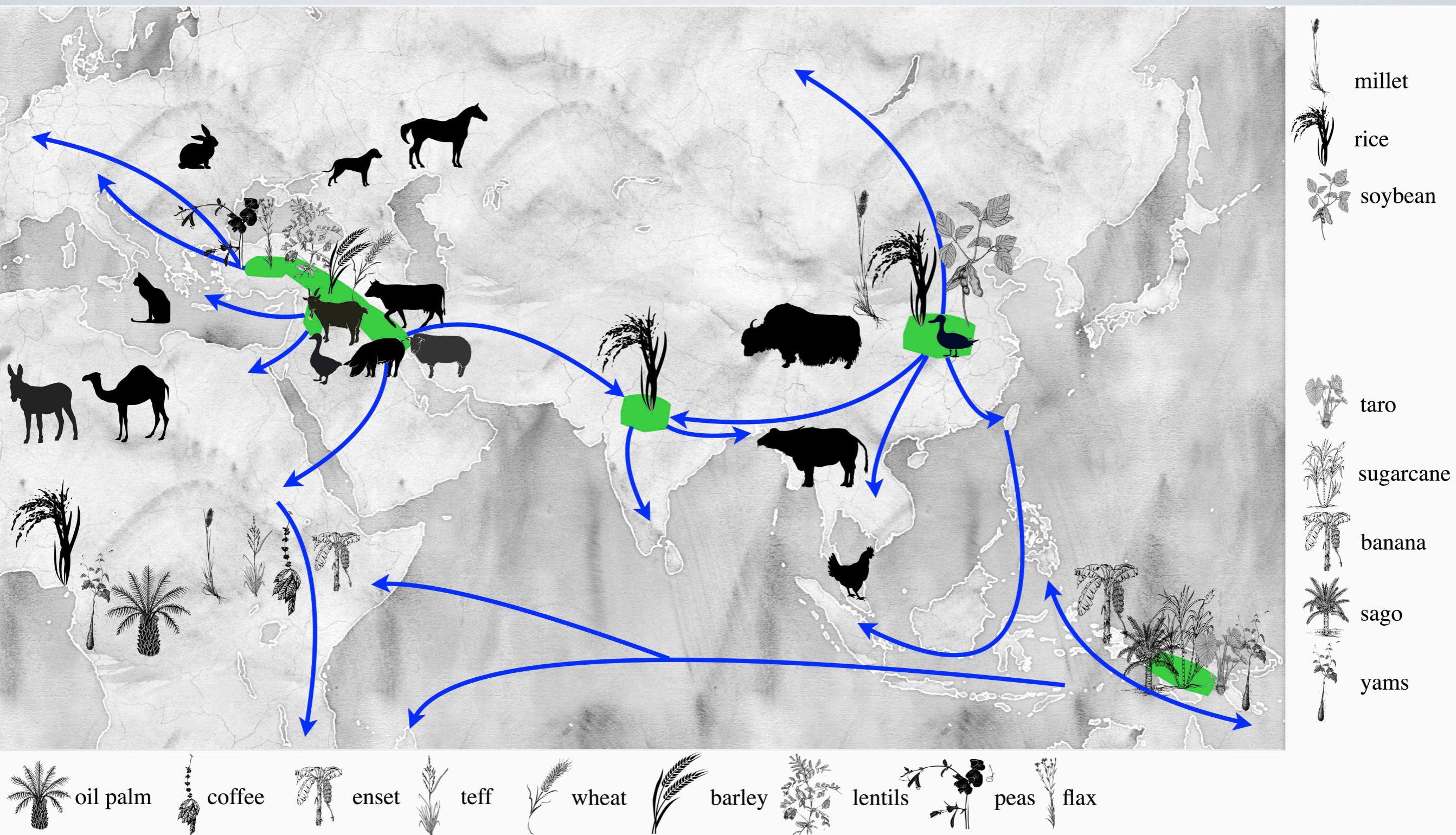
RELIEF OF MAINLAND SOUTHEAST ASIA



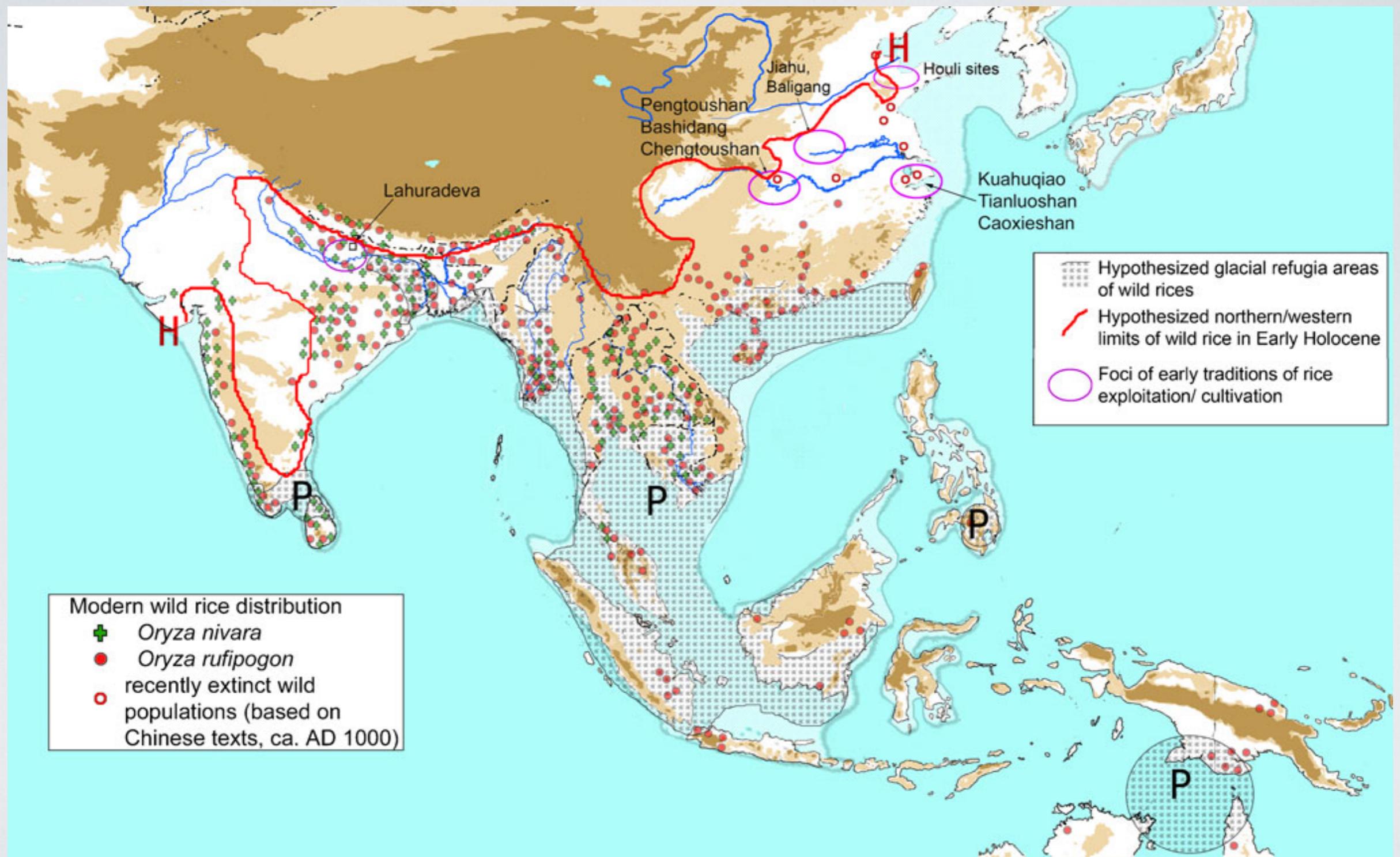
MONSOON PATTERNS



CULTURAL CROPS

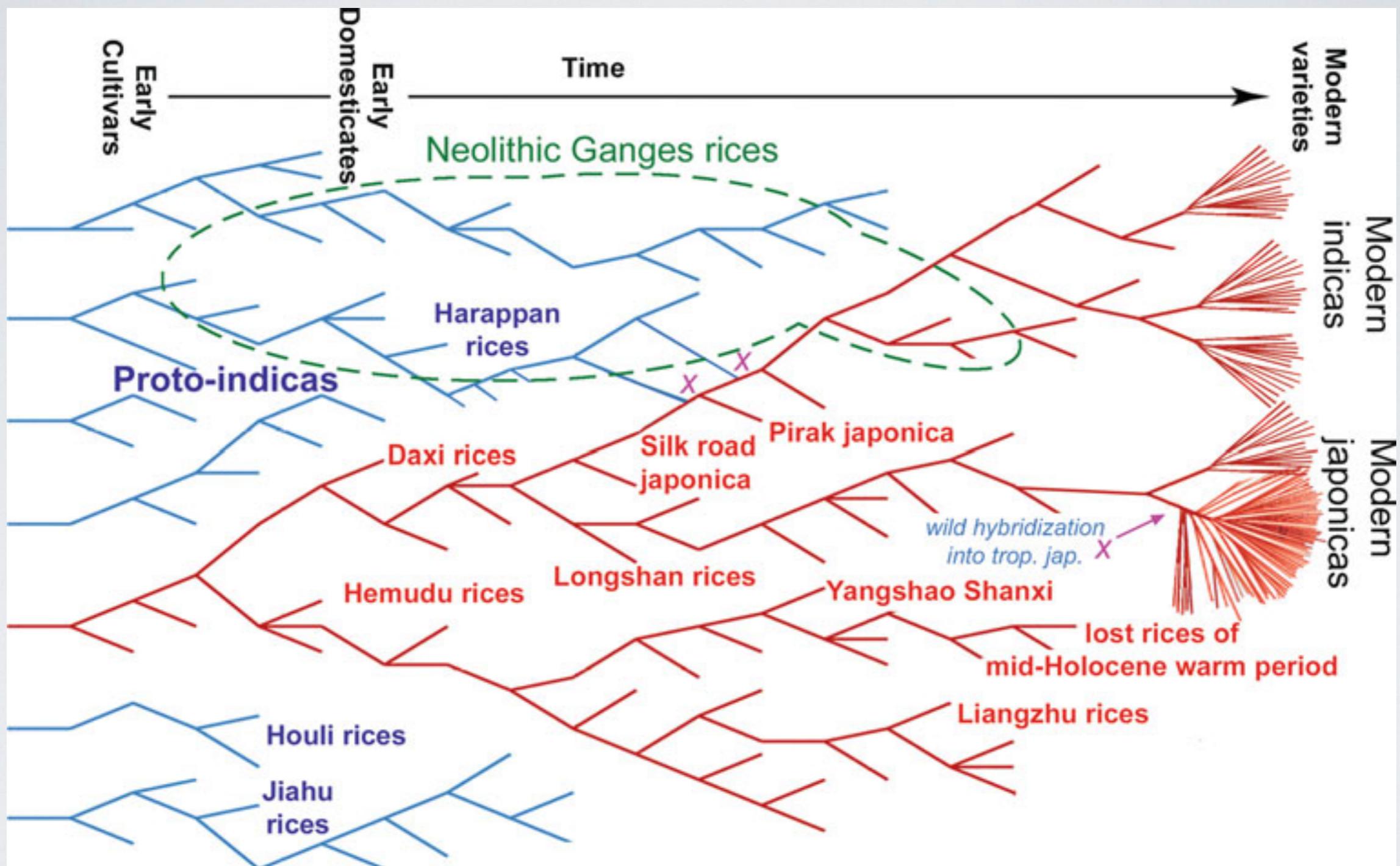


LAST GLACIAL PERIOD SEA LEVELS AND NATURAL REFUGIA OF WILD RICE



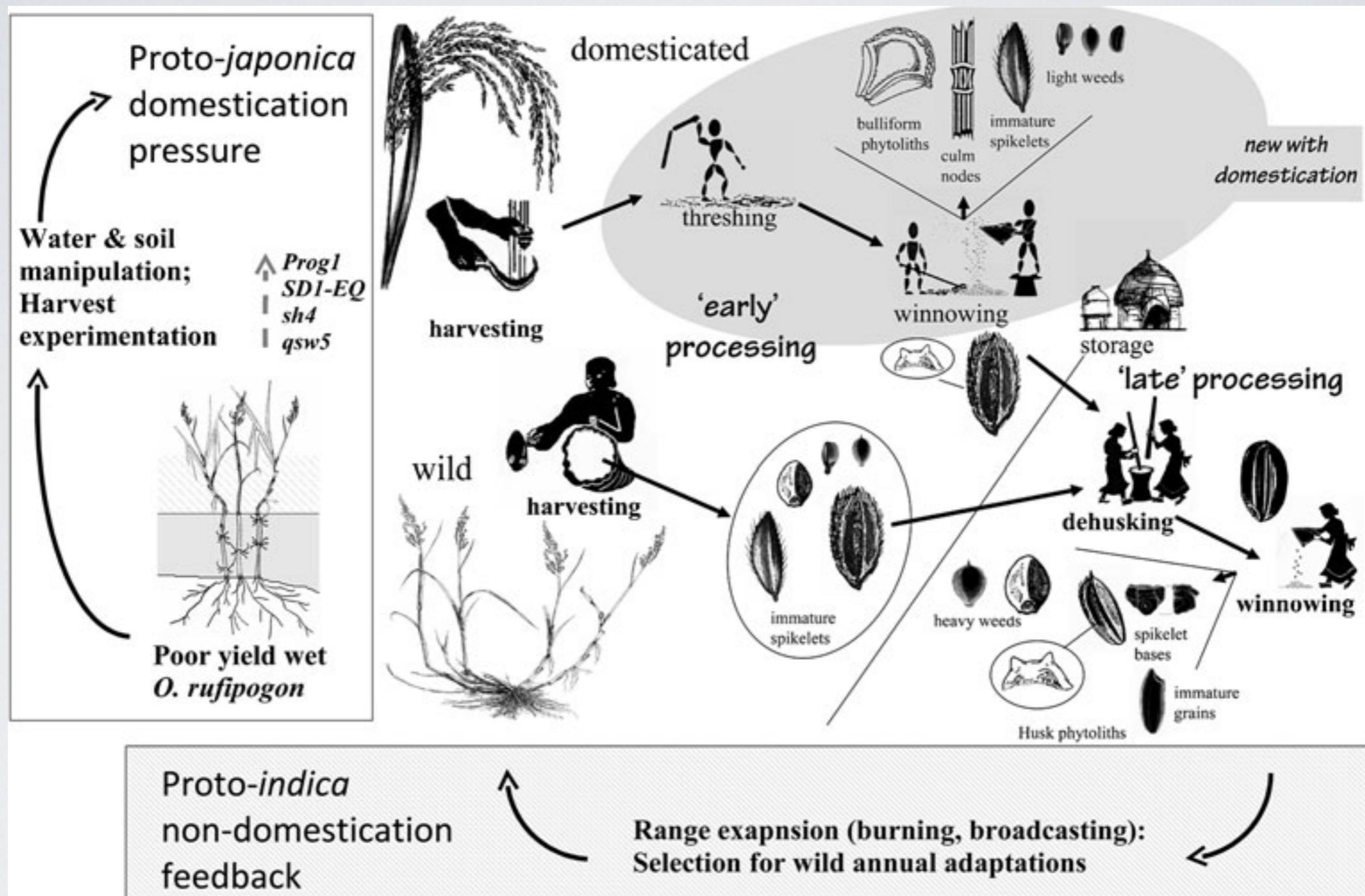
Fuller 2011

GENETIC DIVERSITY OF RICE



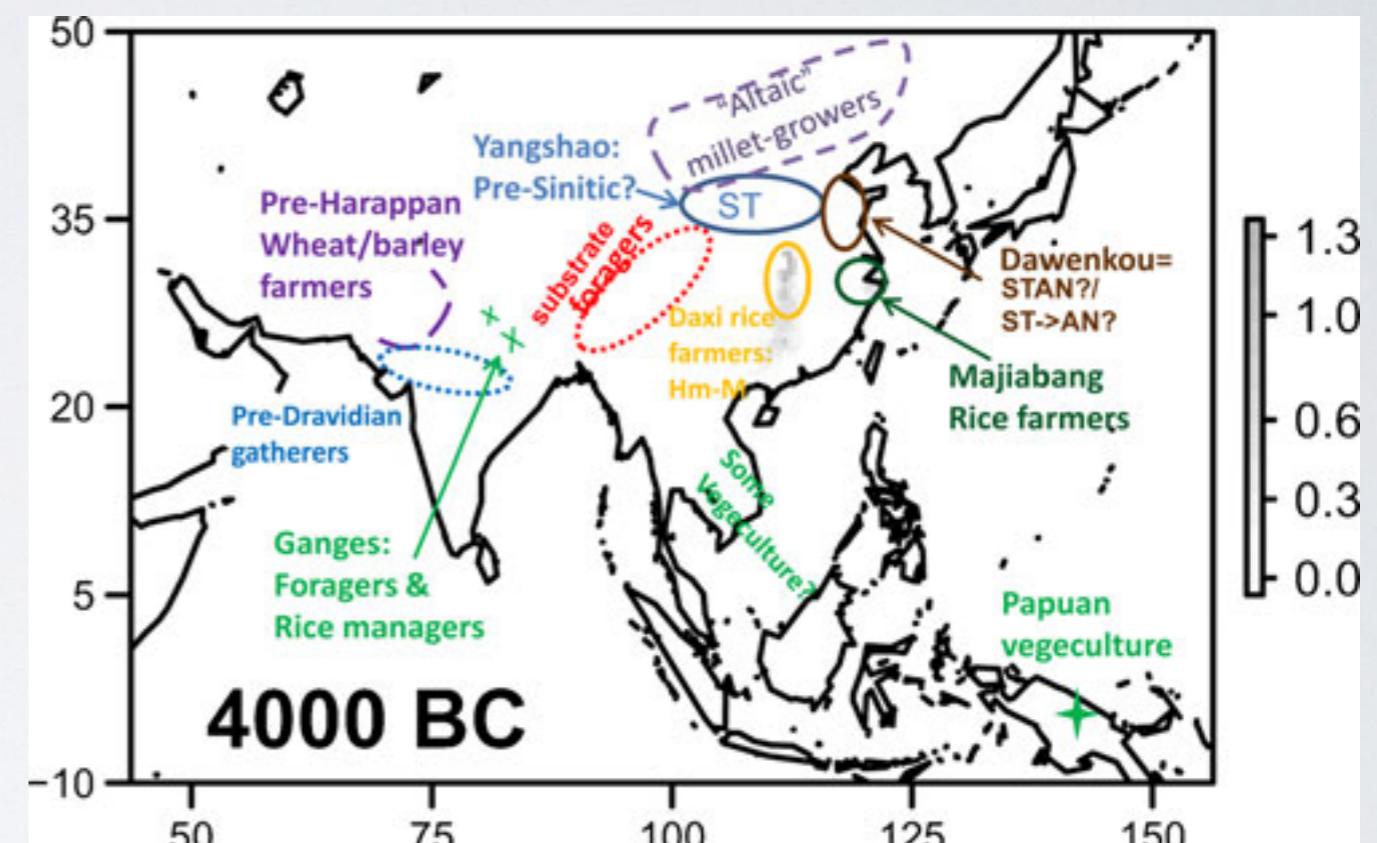
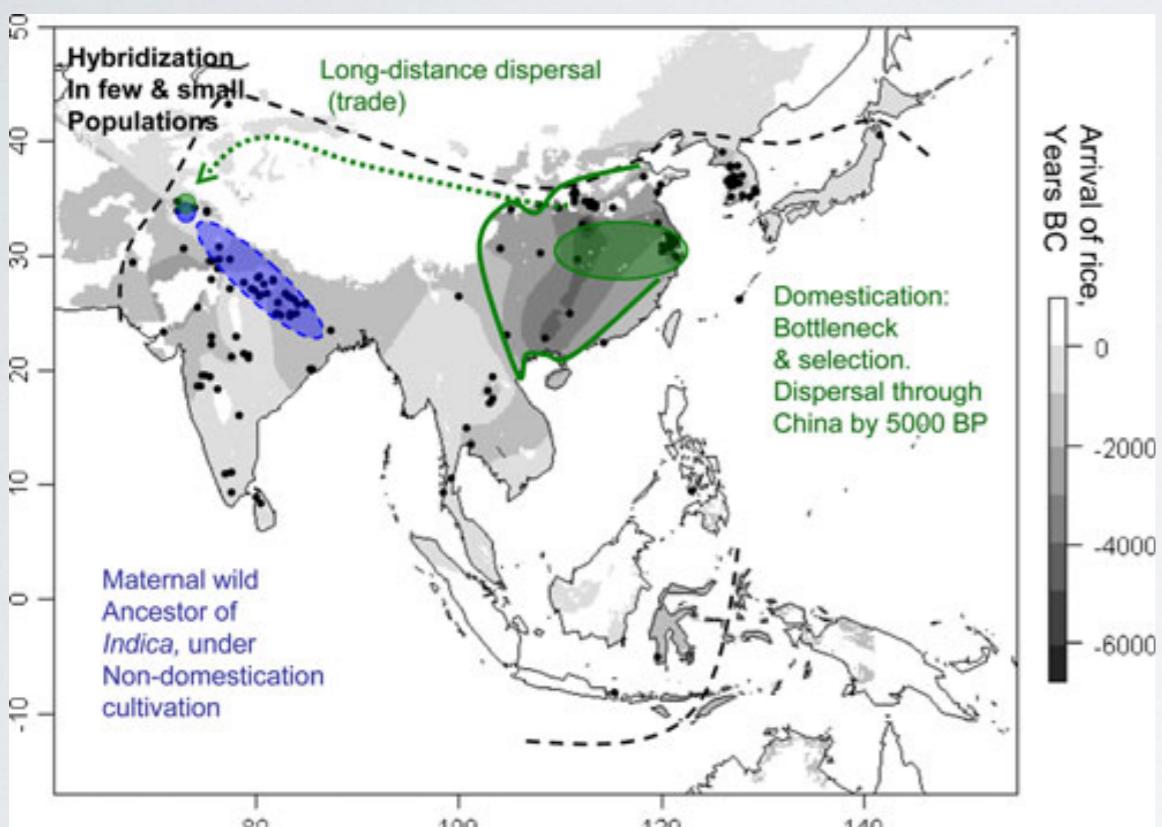
Fuller 2011

DOMESTICATION PRESSURES ON RICE



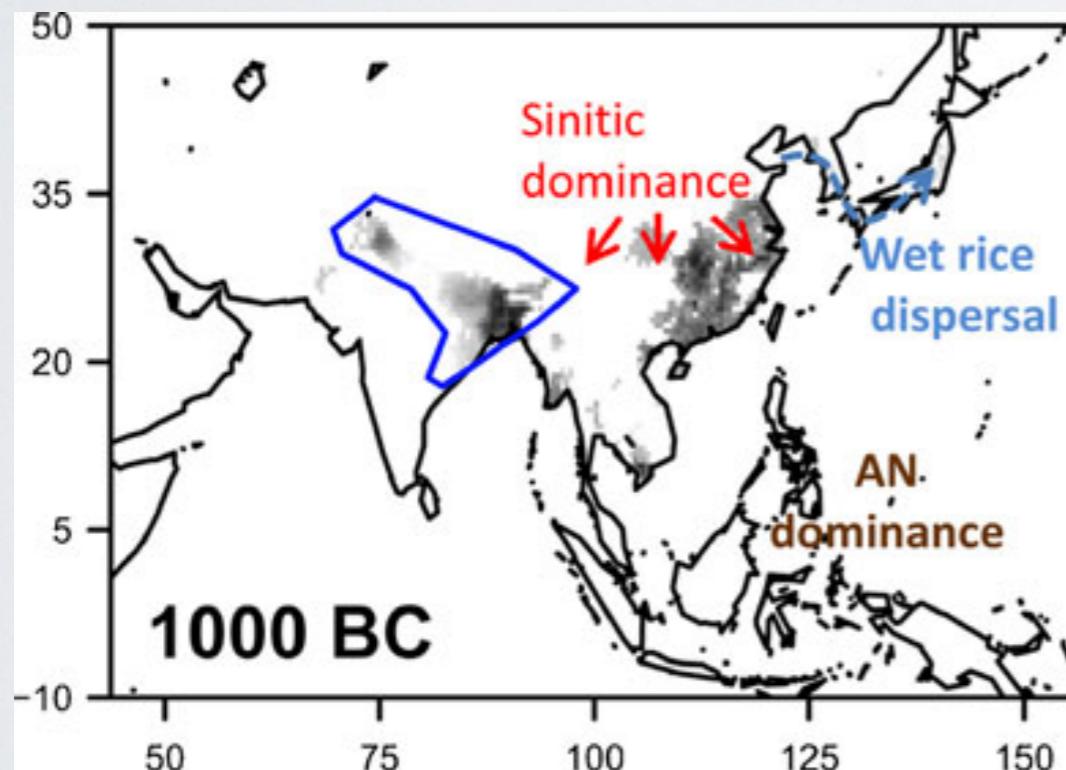
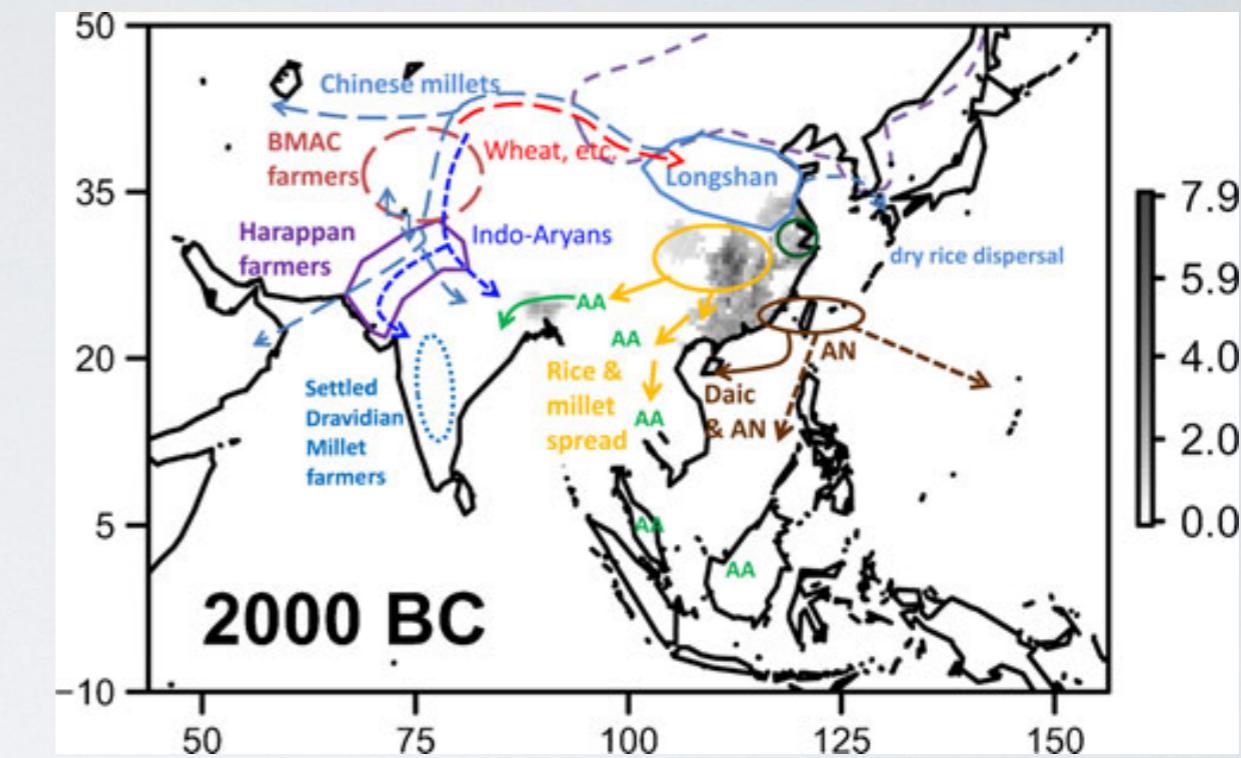
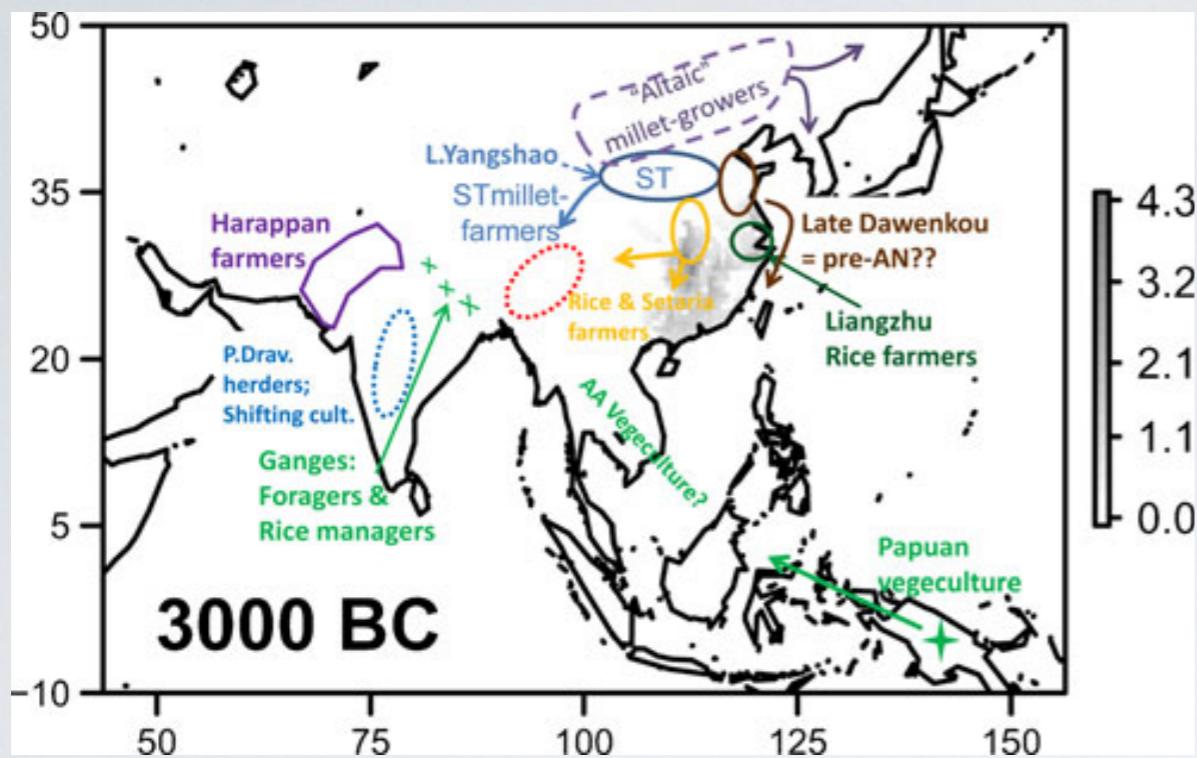
Fuller 2011

SPREADING OF RICE HYBRIDS

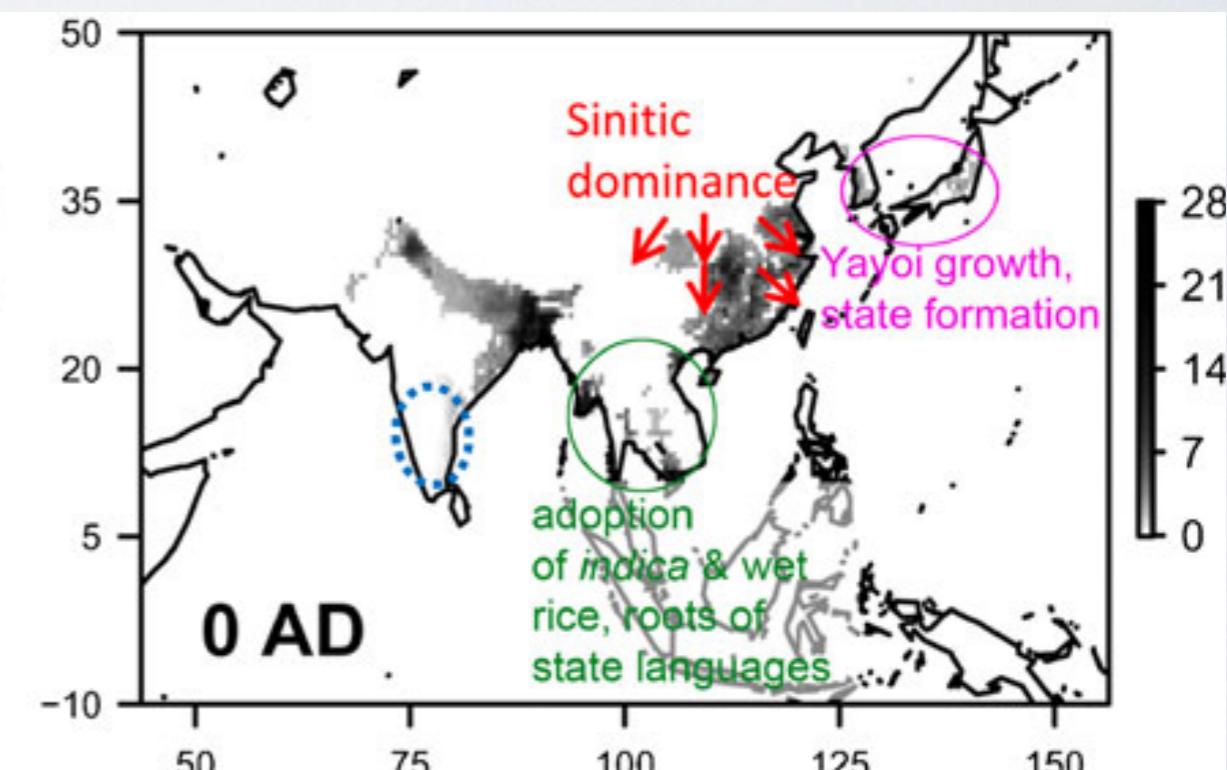


Fuller 2011

SPREADING OF RICE HYBRIDS

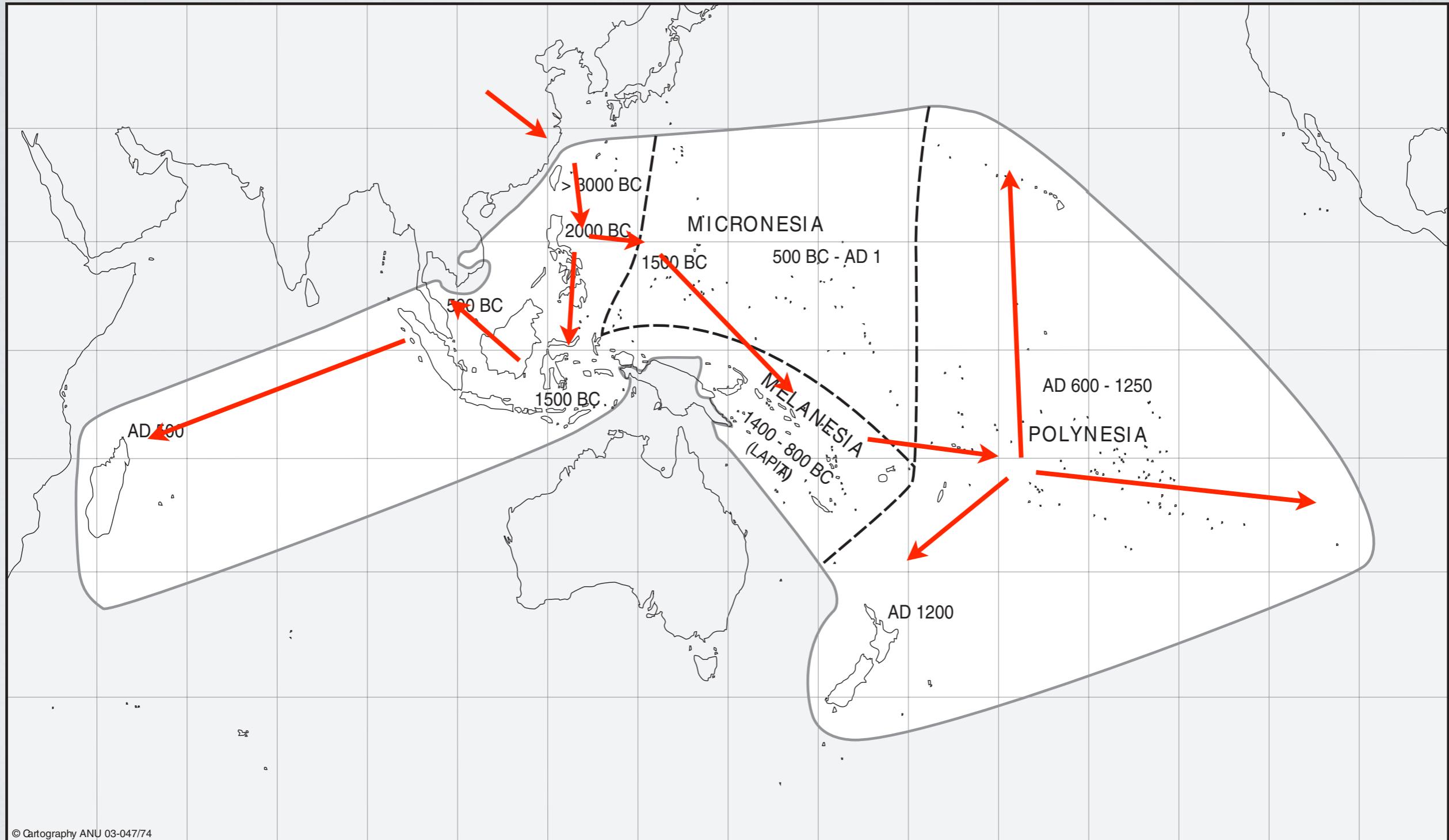


Major population growth
Pushed Indo-Aryan to dominance;
State-formation; Dispersal to Ceylon



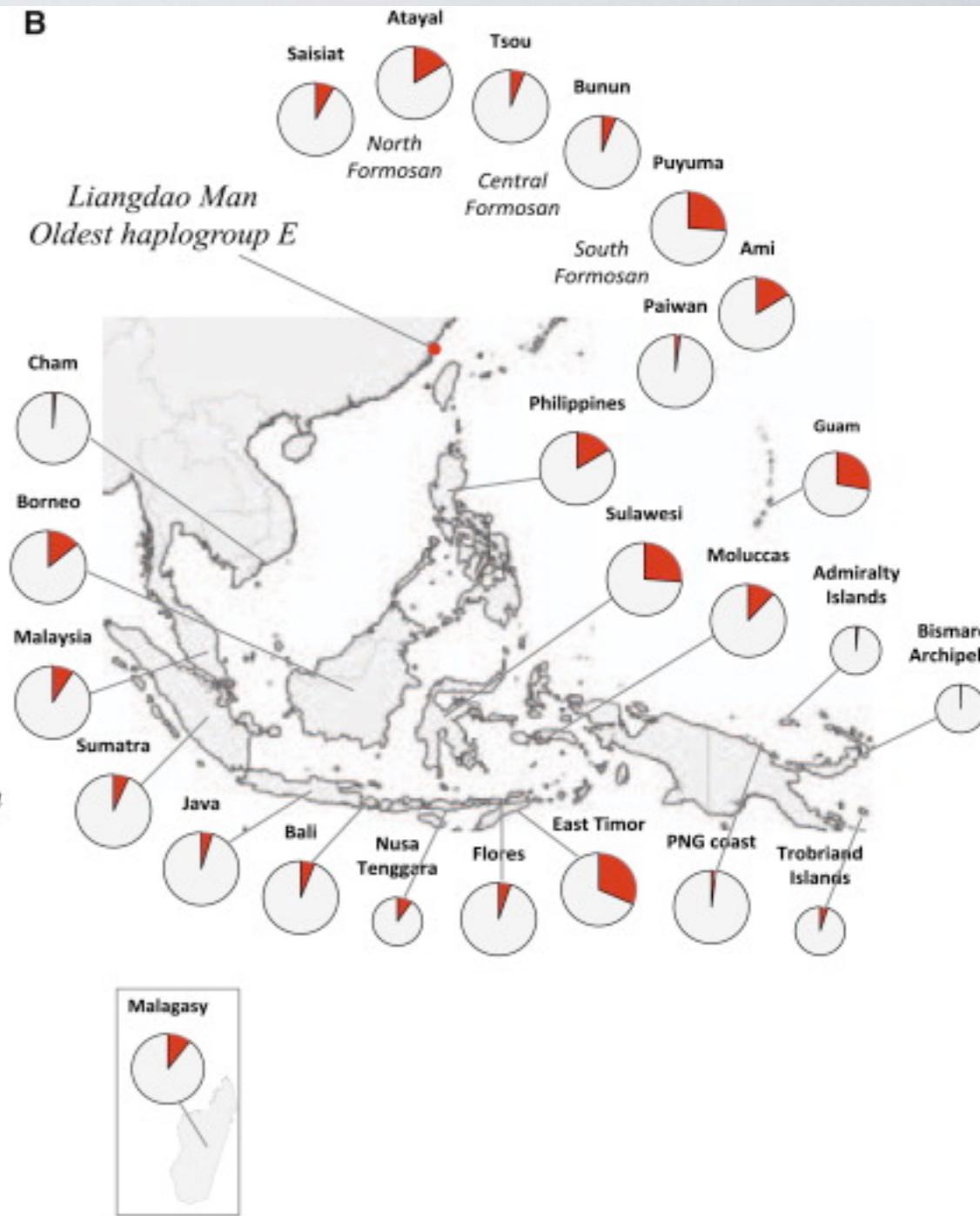
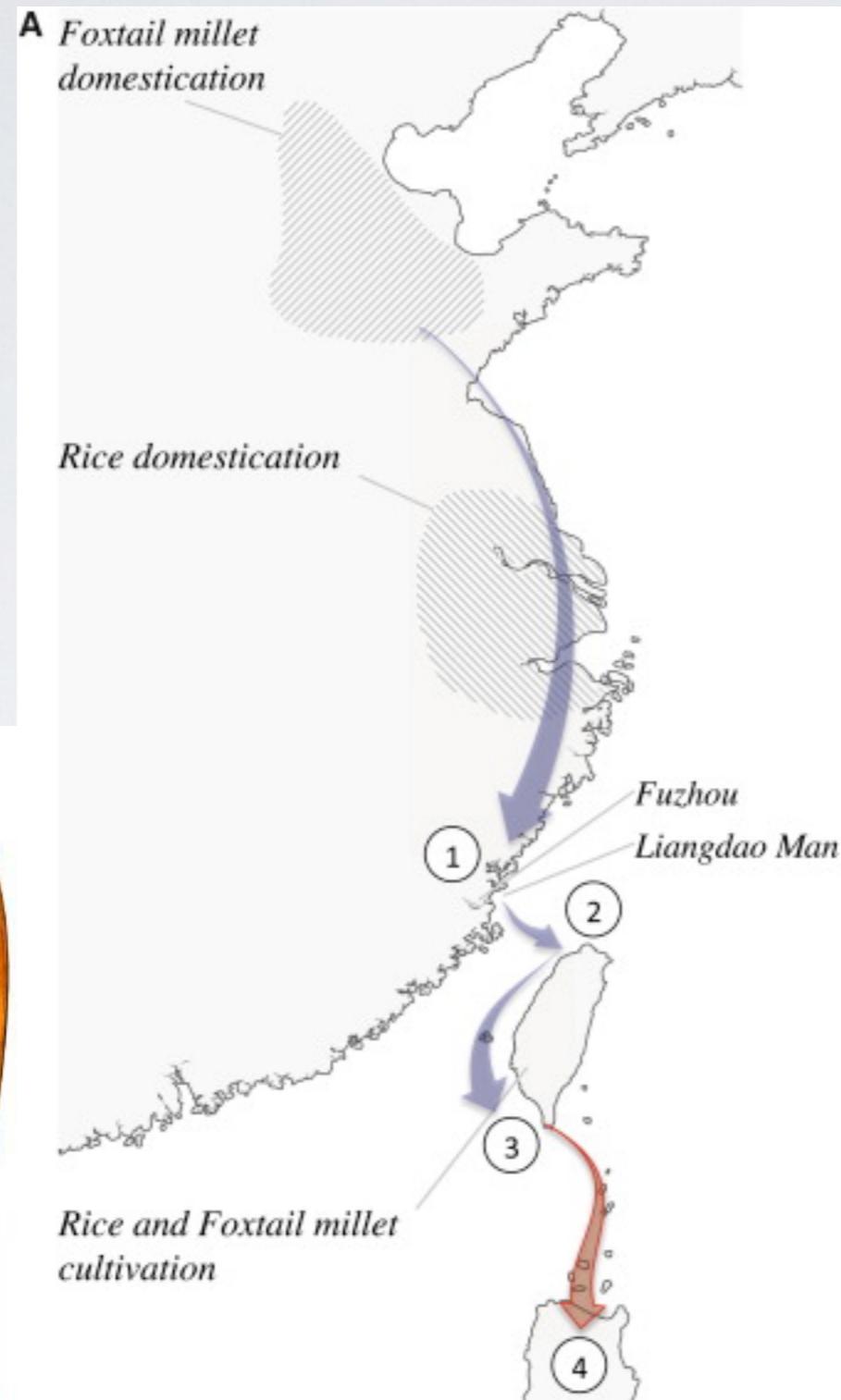
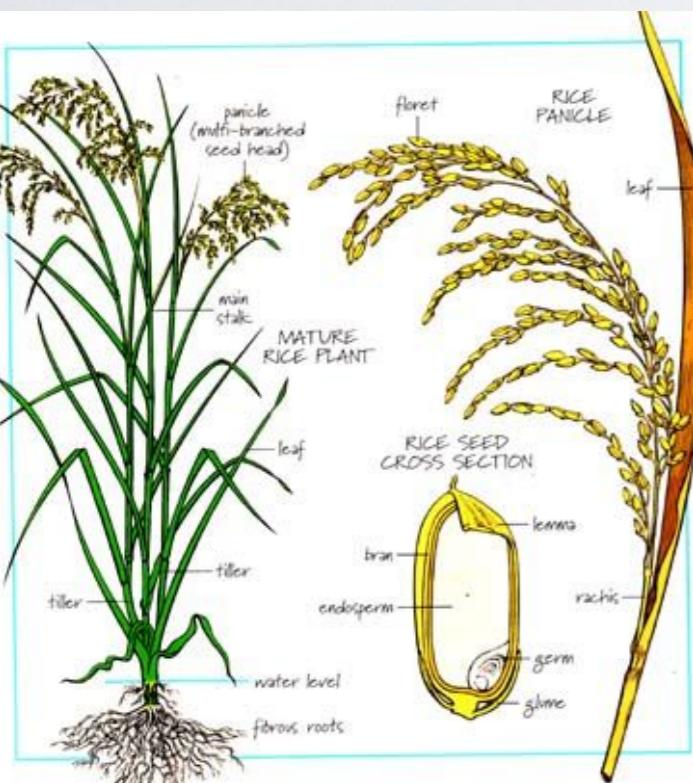
Rice-based Dravidian & Maharati State-formation

RECONSTRUCTION OF AUSTRONESIAN EXPANSION



Bellwood and Dizon 2008

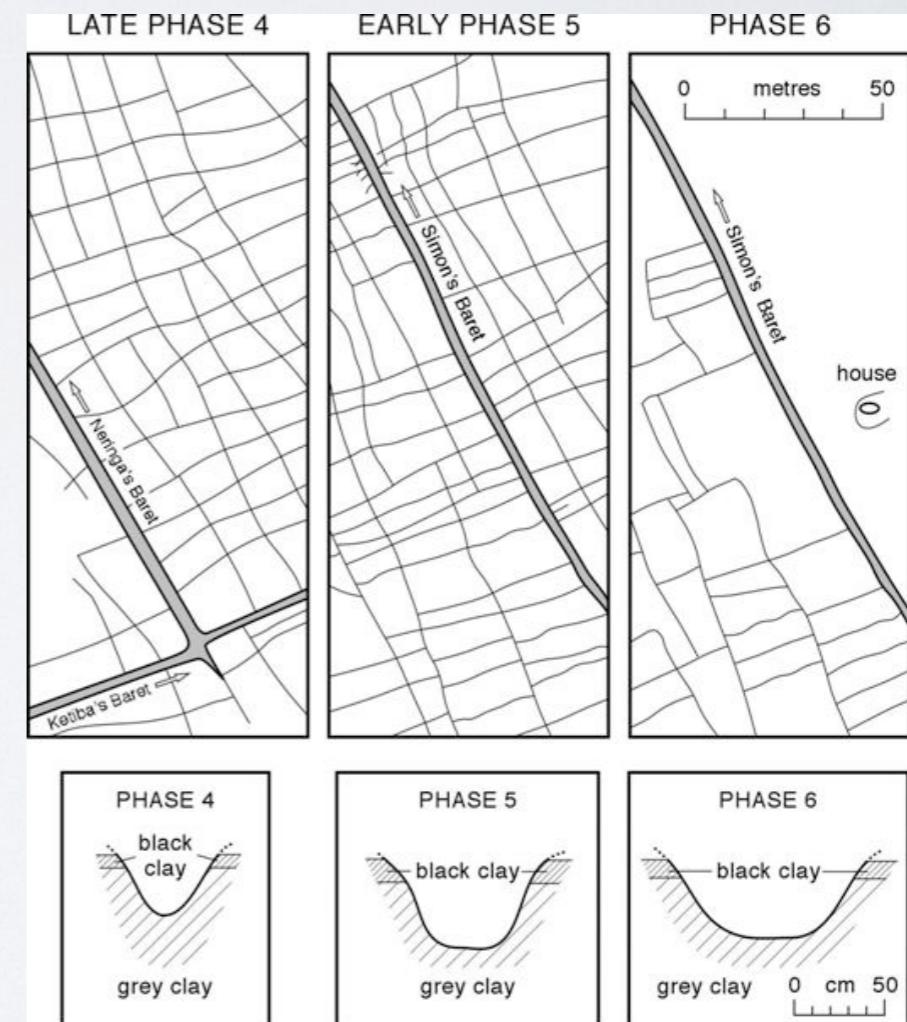
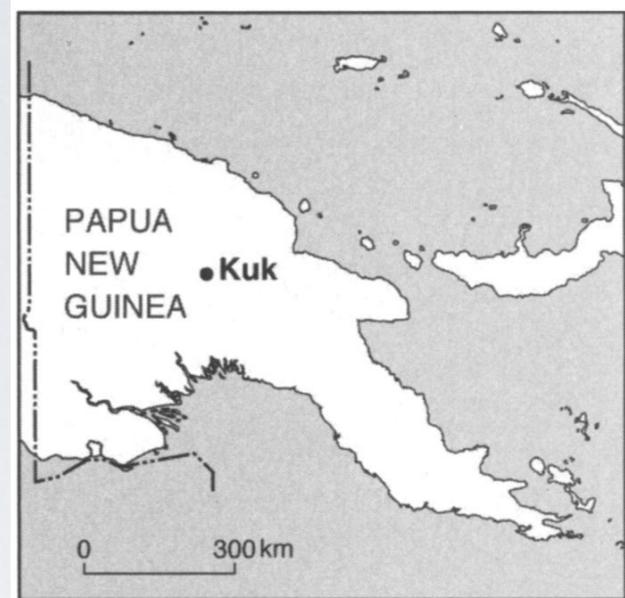
MILLETS



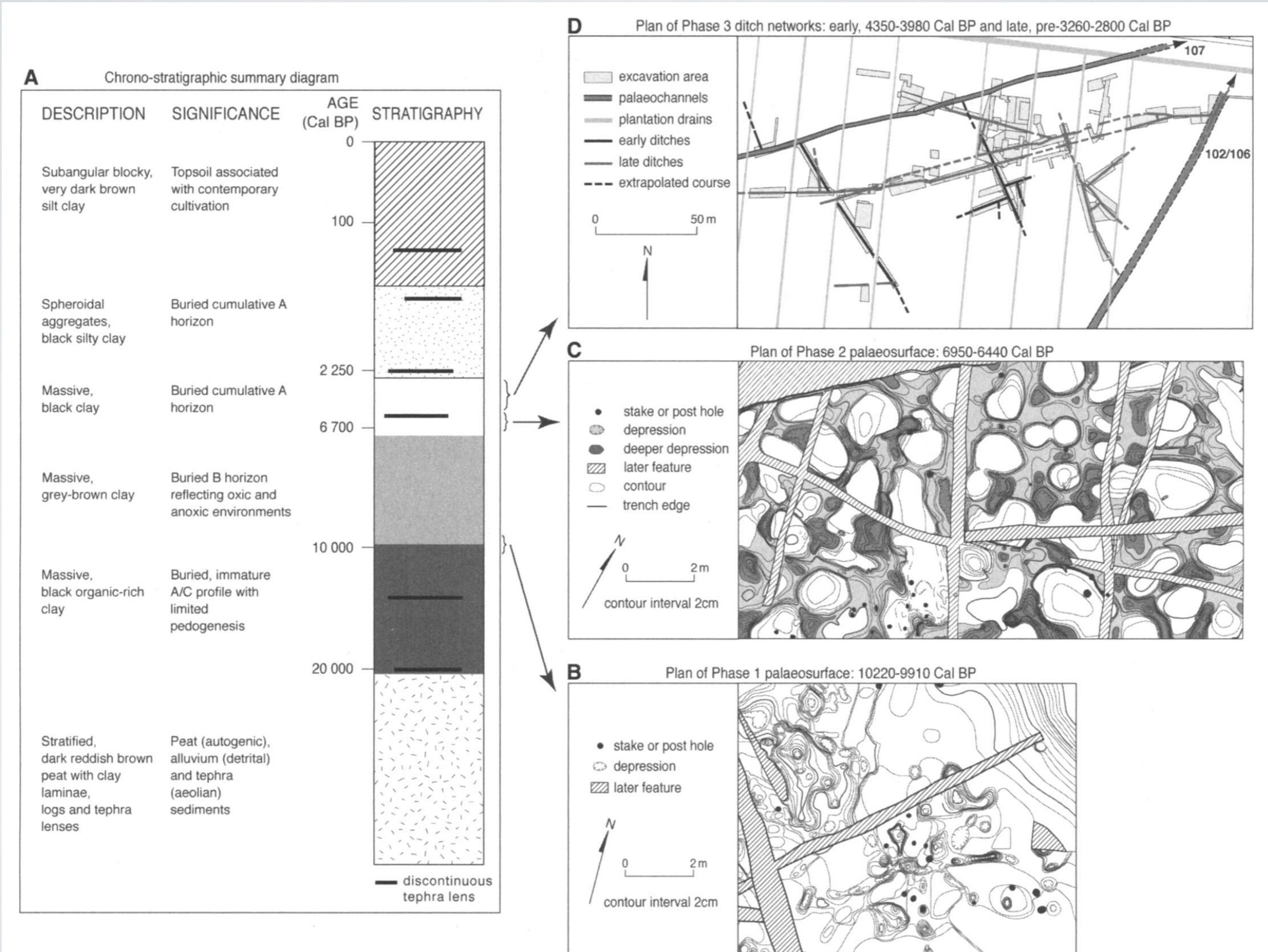
Suggested Migration Route for Early Austronesians Into and Out of Taiwan and the Worldwide Distribution of Haplotype E1 (A) Geographic regions in China of foxtail millet domestication (source: Ko et al. 2014)

TARO DOMESTICATION

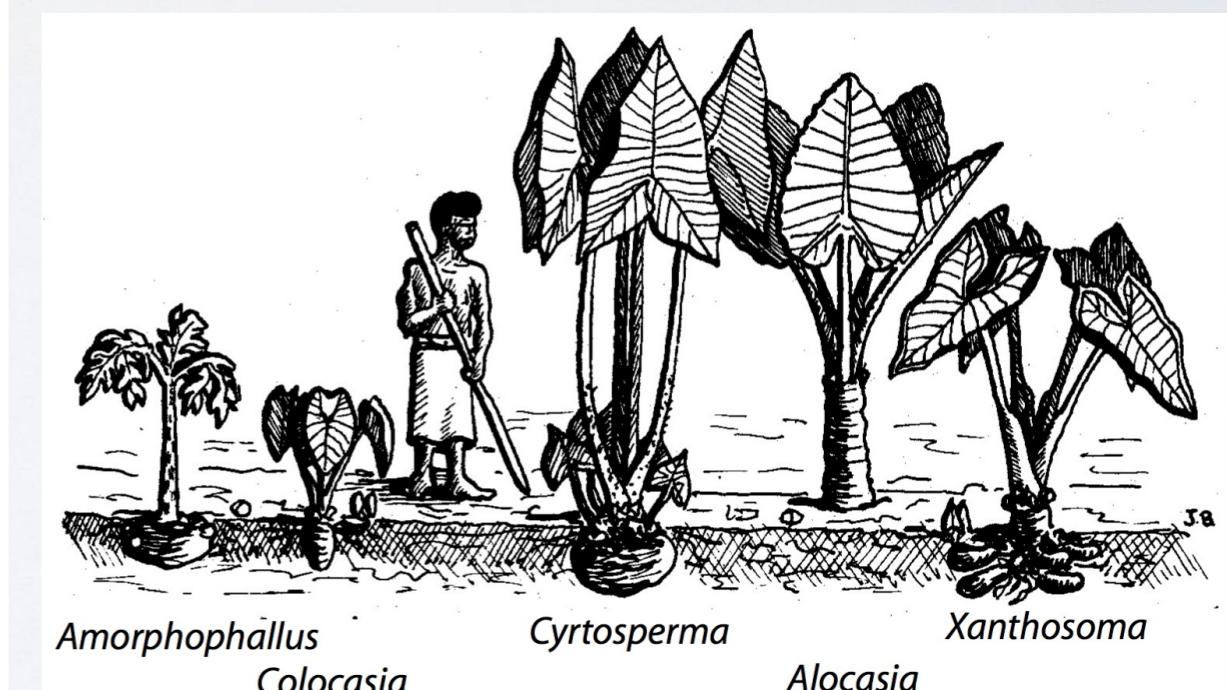
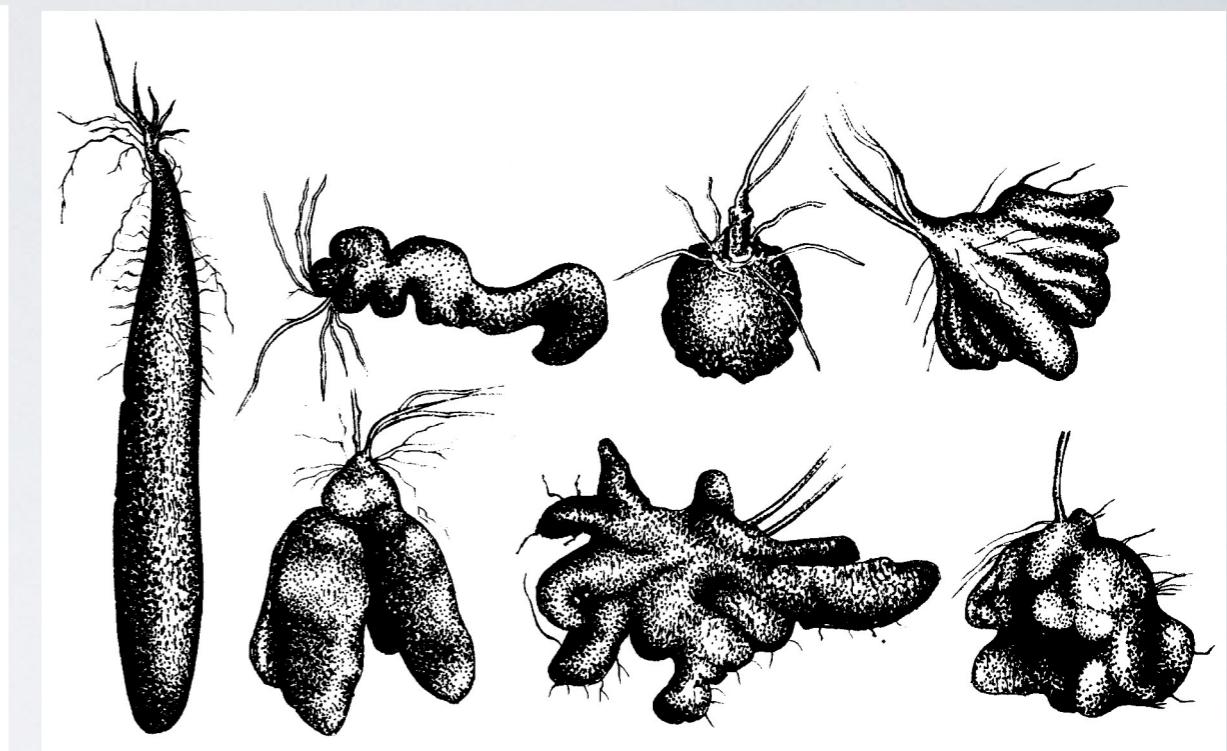
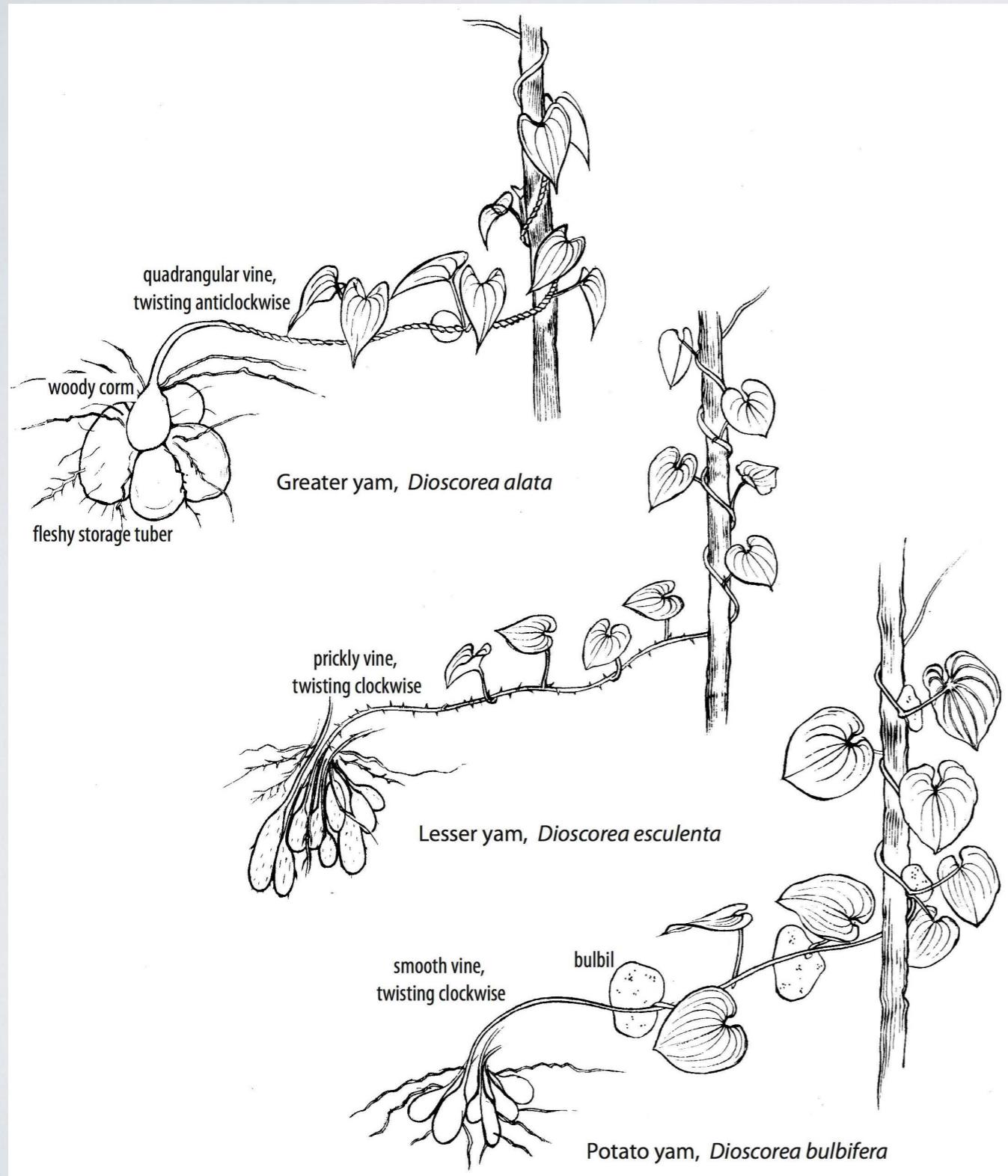
Multidisciplinary investigations at Kuk Swamp in the Highlands of Papua New Guinea show that agriculture arose independently in New Guinea by at least 6950 to 6440 calibrated years before the present (cal yr B.P.). Plant exploitation and some cultivation occurred on the wetland margin at 10,220 to 9910 cal yr B.P. (phase 1), mounding cultivation began by 6950 to 6440 cal yr B.P. (phase 2), and ditched cultivation began by 4350 to 3980 cal yr B.P. (phase 3). Clearance of lower montane rainforests began in the early Holocene, with modification to grassland at 6950 to 6440 cal yr B.P. Taro (*Colocasia esculenta*) was utilized in the early Holocene, and bananas (*Musa spp.*) were intensively cultivated by at least 6950 to 6440 cal yr B.P.



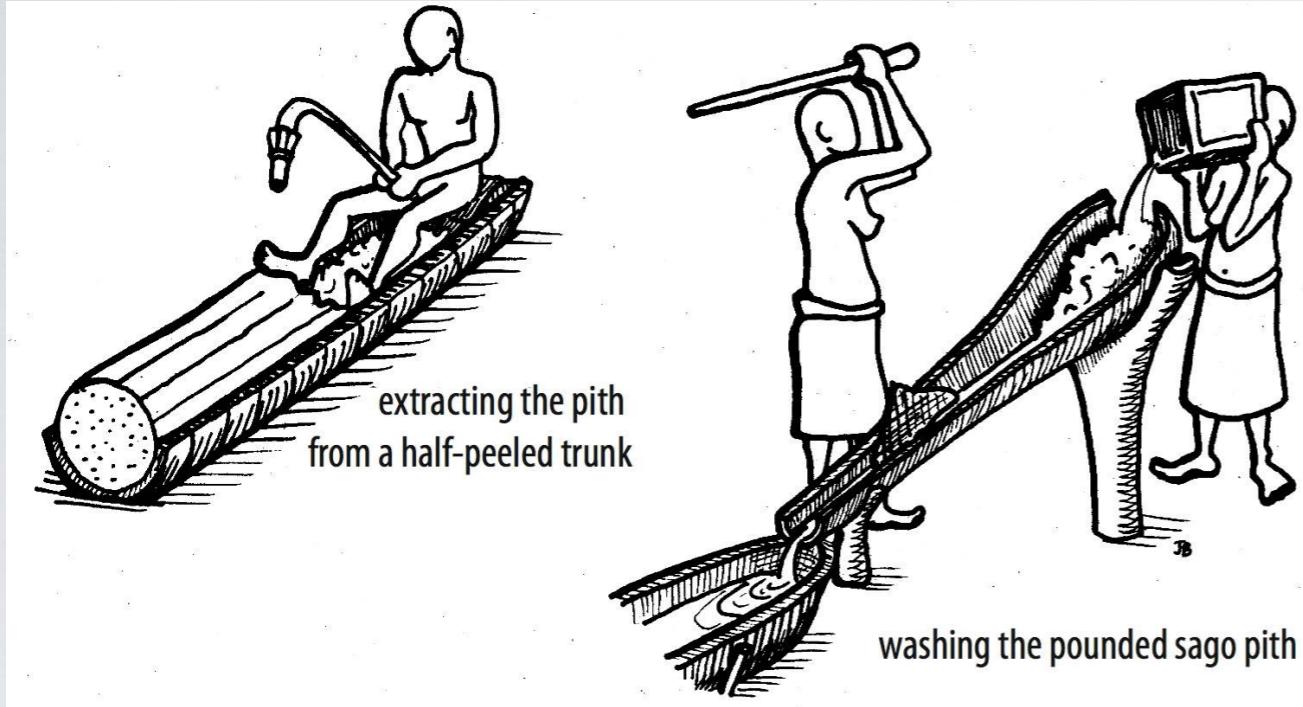
TARO DOMESTICATION



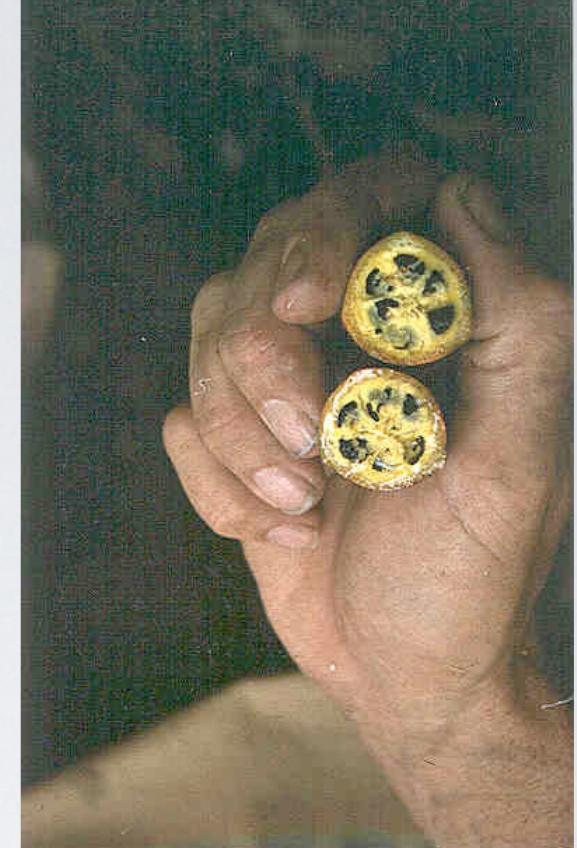
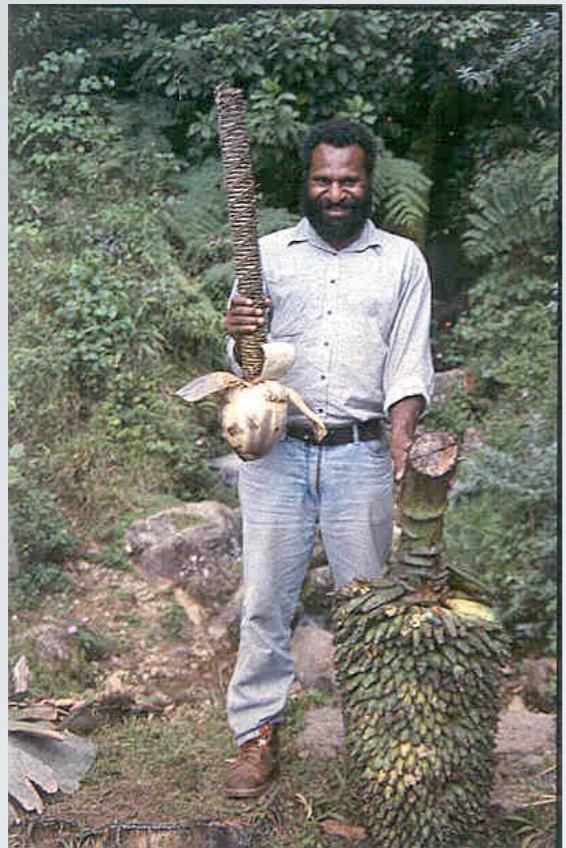
NEW GUINEAN DOMESTICATIONS: TUBERS



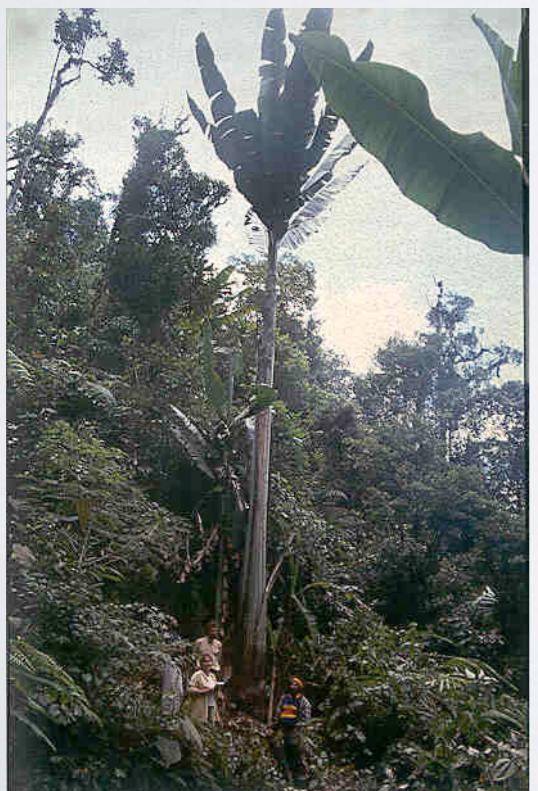
NEW GUINEAN DOMESTICATIONS: SAGO



NEW GUINEAN DOMESTICATIONS: BANANA



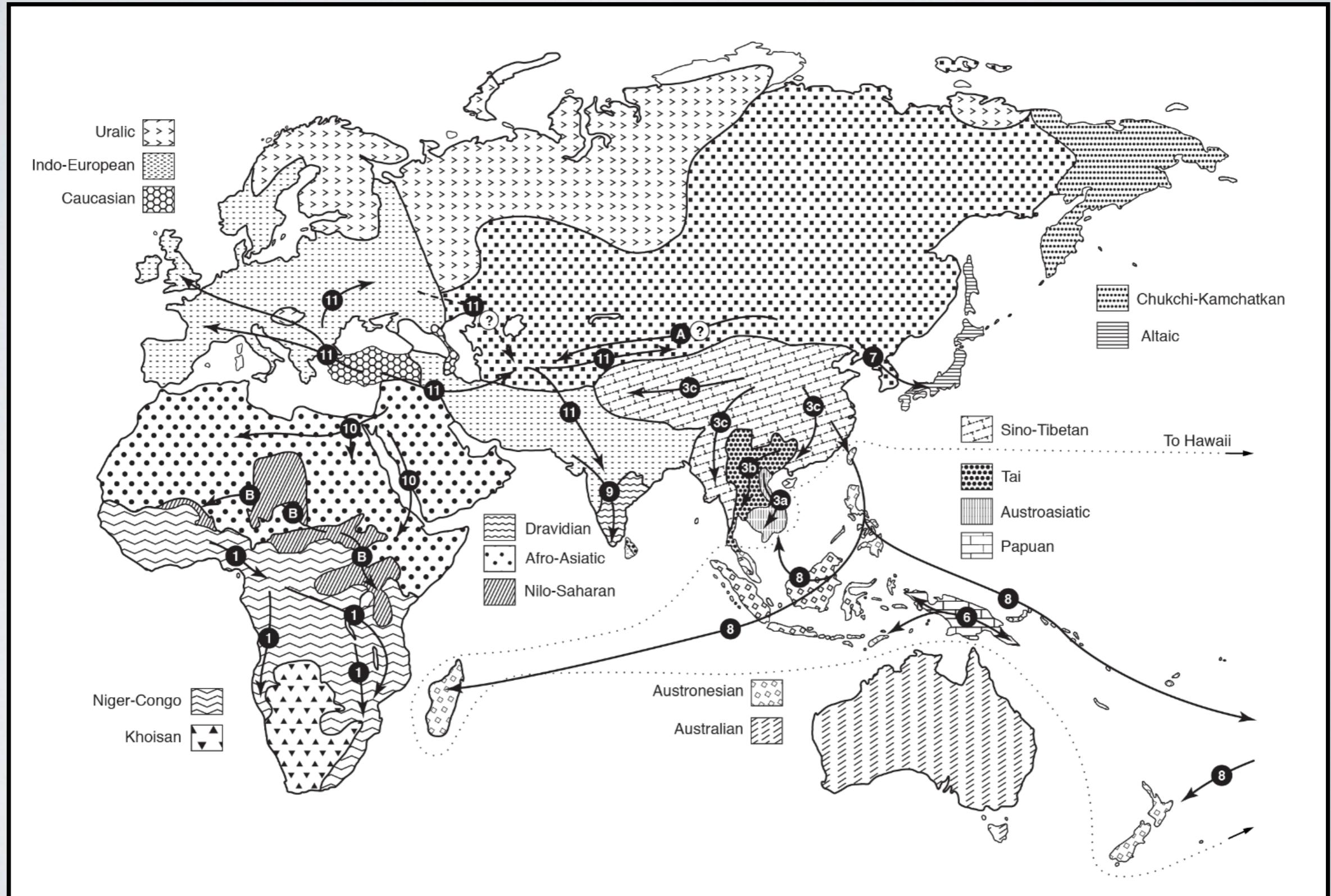
Over 100 new accessions of wild and cultivated bananas were obtained from a wide geographic region including West New Britain, East New Britain, New Ireland, Western Highlands, East Sepik, Madang and Milne Bay



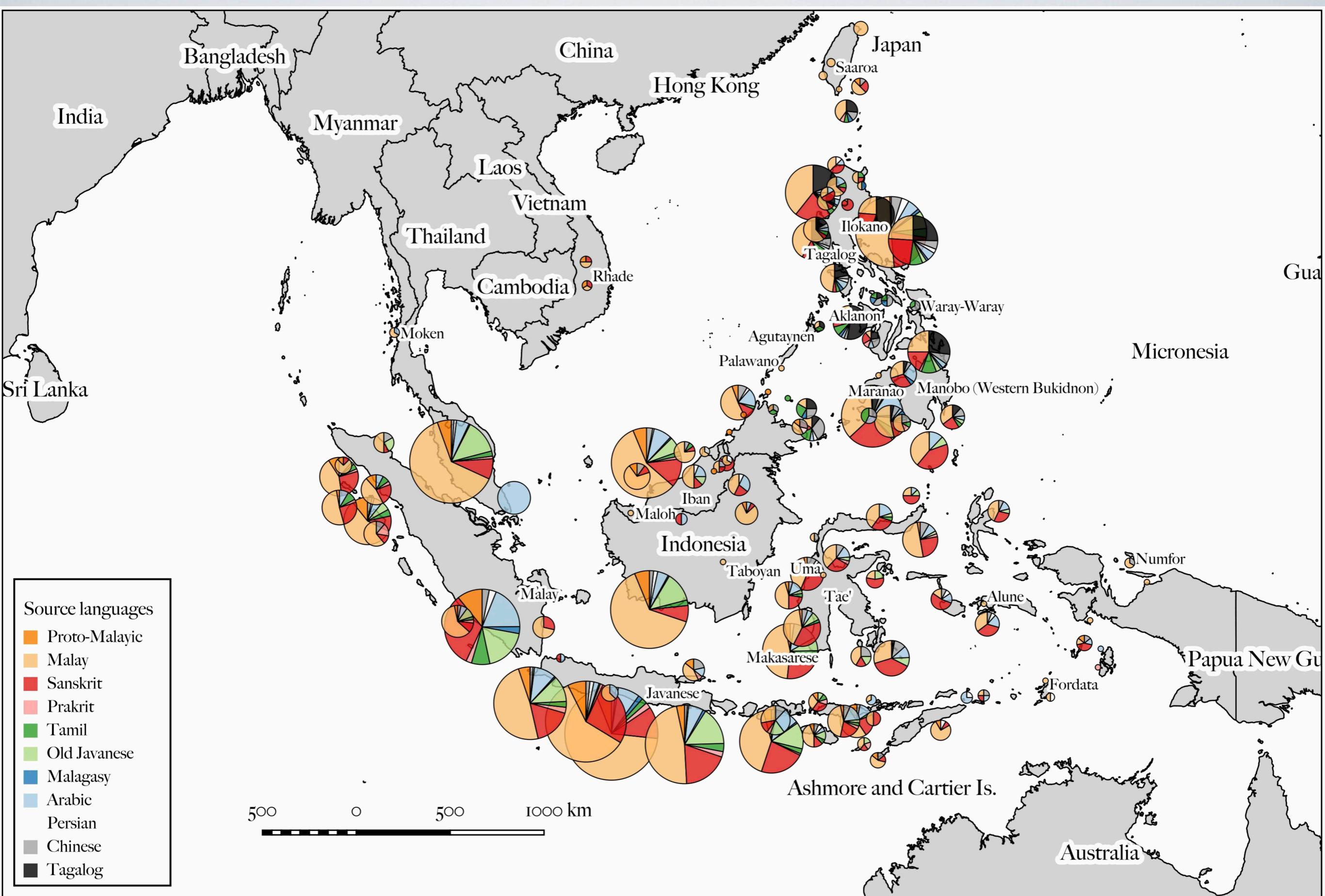
NEW GUINEAN DOMESTICATIONS: SUGAR CANE



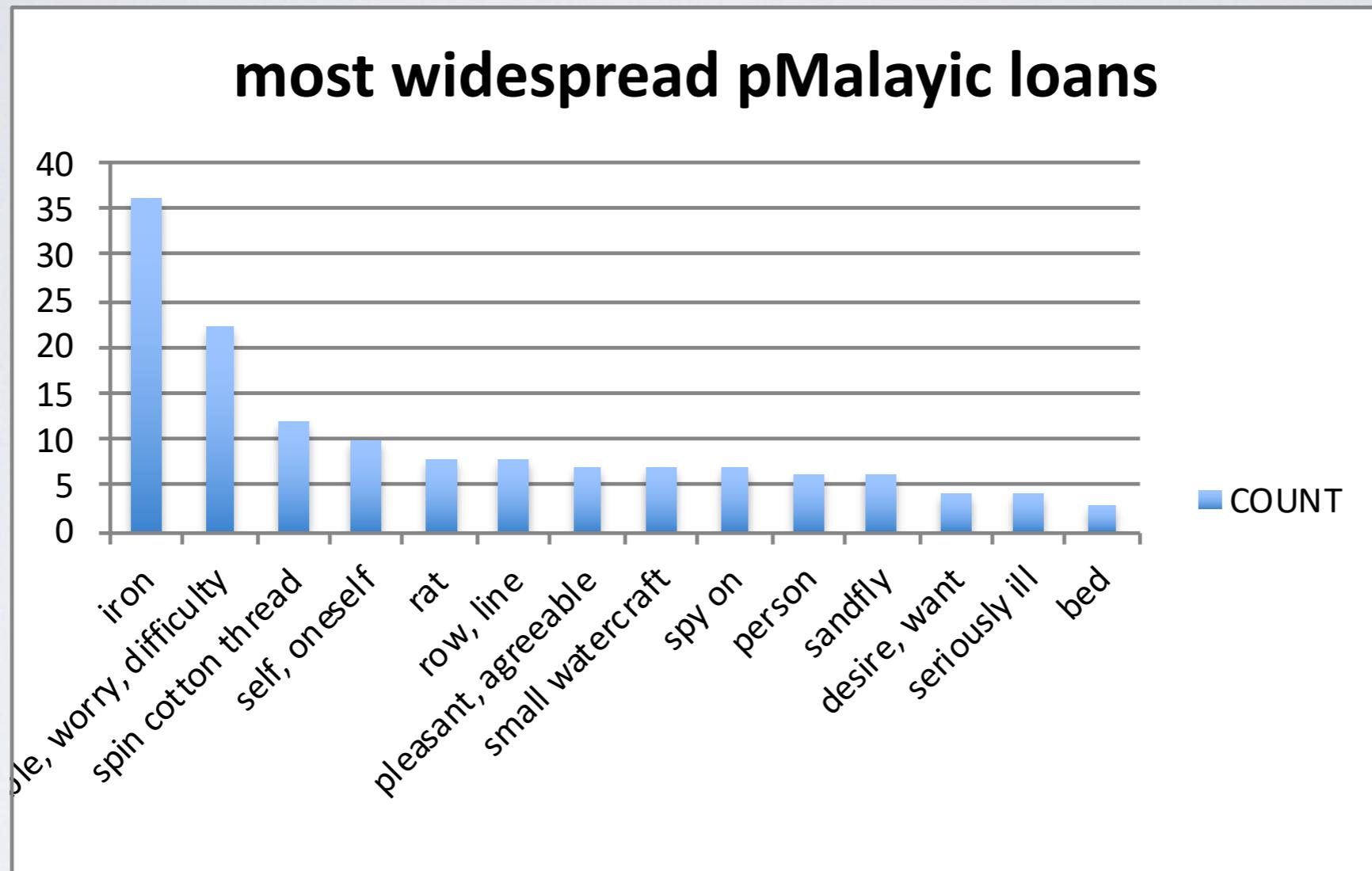
CULTURAL CROPS AND LANGUAGE FAMILY EXPANSIONS



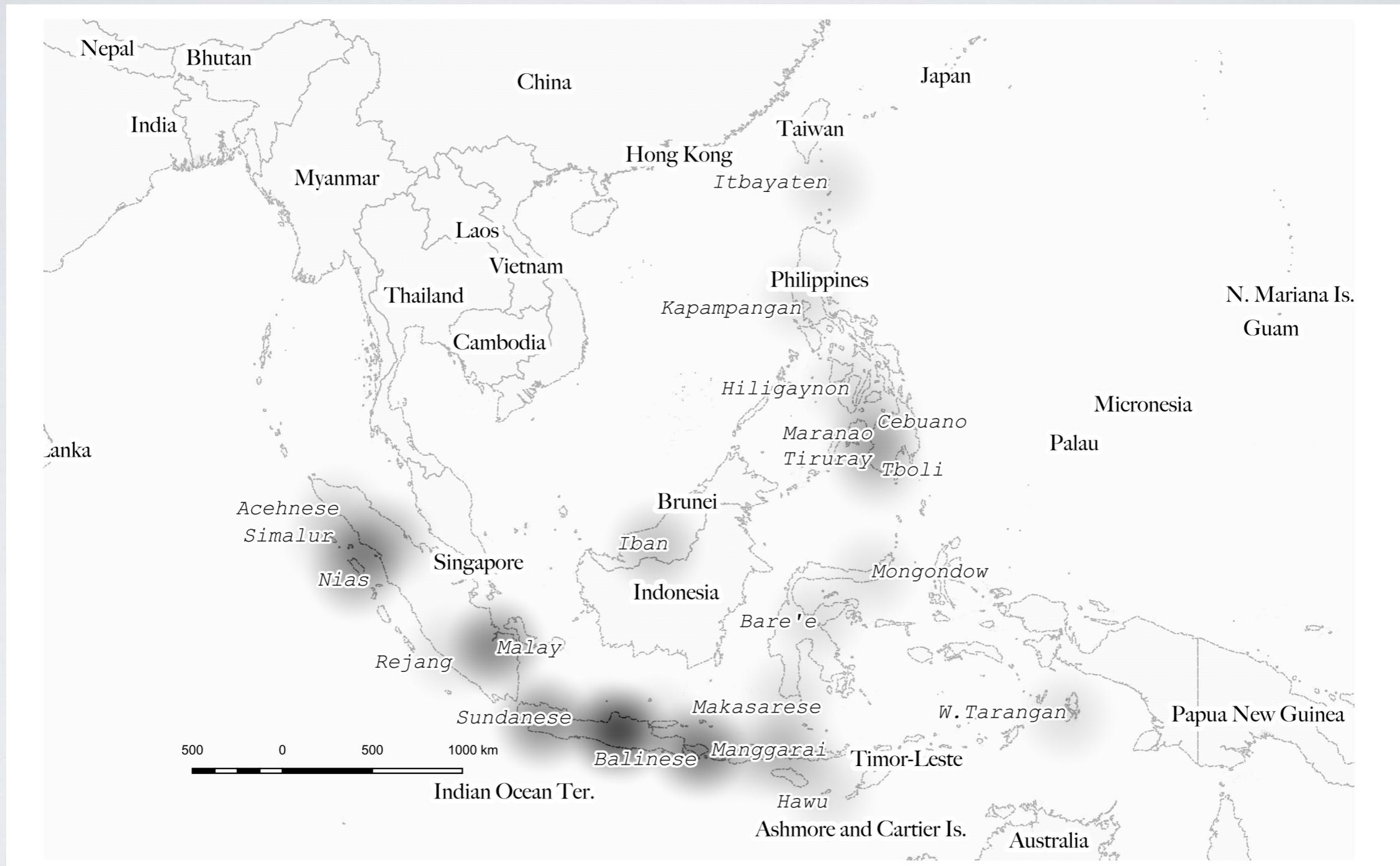
LEXICAL BORROWING IN AUSTRONESIAN



MALAYIC LOANWORDS

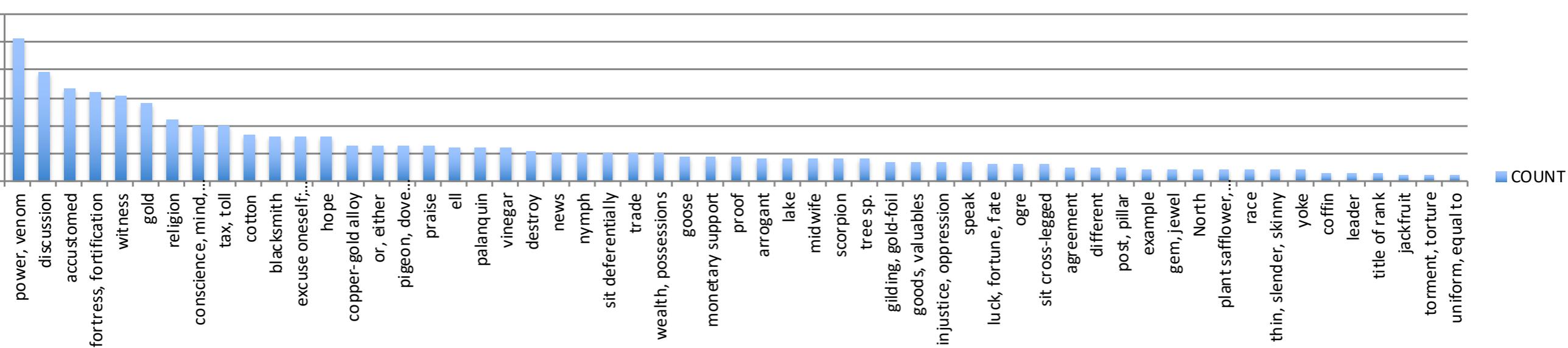


INDIC LOANWORDS



INDIC LOANWORDS

most common Sanskrit loans in languages of SEAsia



MAY SIVA BLESS THOSE WHO TAKE DELIGHT IN THE LANGUAGE OF THE GODS

GRANTHA AND PALLAVA SCRIPTS

Phoenician	Aramaic	Value	Brahmi	Value
𐤀	𐤁	*	𐤁	a
𐤁	𐤂	b [b]	𐤃	ba
𐤂	𐤄	g [g]	𐤂	ga
𐤅	𐤆	d [d]	𐤇	dha
𐤇	𐤈	h [h], M.L.	߱	ha
߲	߳	w [w], M.L.	ߴ	va
ߵ	߶	z [z]	߷	ja
߷	߸	ħ [ħ]	߹	gha
߹	ߺ	t [t̪]	߻	tha
߻	߻	y [j], M.L.	߻	ya
߻	߻	k [k]	߻	ka
߻	߻	l [l]	߻	la
߻	߻	m [m]	߻	ma
߻	߻	n [n]	߻	na
߻	߻	s [s]	߻	ṣa
߻	߻	‘ [r̪], M.L.	߻	e
߻	߻	p [p]	߻	pa
߻	߻	š [s̪]	߻	ca
߻	߻	q [q]	߻	kha
߻	߻	r [r̪]	߻	ra
߻	߻	ś [ʃ̪]	߻	śa
߻	߻	t [t̪]	߻	ta

Indian scripts are derived from Greco-Phoenitian alphabet

କ	ବ	ଗ	ଘ	ଙ୍ଗ
k	kh	g	gh	ṅ
ଚ	ଛୁ	ଜୁ	ଝୁ	ଞ୍ଜୁ
c	ch	j	jh	ñ
ଟୁ	ଓ	ଭୁ	ଭୁ	ଣ୍ଣୁ
t	ṭh	ḍ	ḍh	ṇ
ତୁ	ଯୁ	ଧୁ	ଧୁ	ନ୍ତୁ
t	th	d	dh	n
ପୁ	ପ୍ରେ	ପ୍ରୋ	ପ୍ରୋ	ସ୍ତୁ
p	ph	b	bh	m
ଯୁ	ରୁ	ଲୁ	ଲୁ	ଲୁ
y	r	l	v	l
ଶୁ	ଶ୍ରେ	ଶ୍ରେ	ଶ୍ରେ	ଶ୍ରେ
ś	ś	s	h	

ଶୁ	ଶୁ	ଶୁ	ଶୁ	ଶୁ	ଶୁ
a	ā	i	ī	u	ū
ରୁ	ରୁ	ରୁ	ରୁ	ରୁ	ରୁ
ଏଣୁ	ଏଣୁ	ଏଣୁ	ଏଣୁ	ଏଣୁ	ଏଣୁ
e	ai	o	au		
୦	୦				
ମୁ	ମୁ				

PALLAVA SCRIPT

AUSTRONESIAN SCRIPTS DERIVED FROM INDIAN

Kawi
(700-1500 AD)



Javanese
(still in use)

ဟା ନା କା ରା କା
Hā Nā Cā Rā Kā

ଦା ତା ସା ଵା ଲା
Dā Tā Sā Wā Lā

ମା ଗା ବା ନା
Mā Gā Bā Ngā

ପା ଜା ଯା ନ୍ୟା
Pā Jā Yā Nyā

Cham
(still used)

Consonants

କ	ଖ	ଗ	ଘ	ଙ୍ଗ	ଚ	ଛ	ଜ	ଝ	ନ୍ଧ	ମ	ମ୍ବ	
ka	kha	ga	gha	ngue	nga	cha	chha	ja	jha	nhue	nha	nhja

Vowels

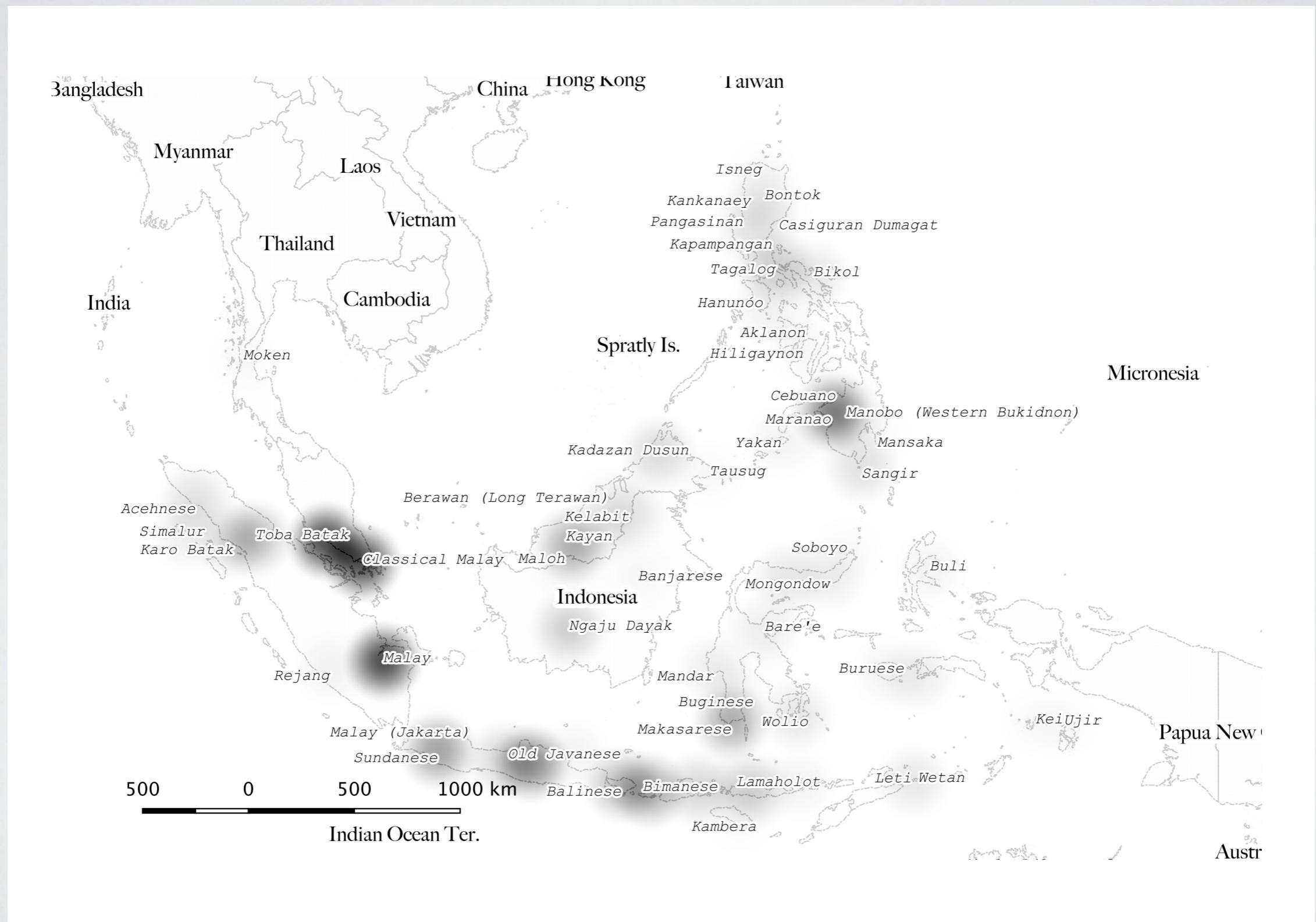
ା	ି	ି	ୀ	ୀ	ୀ	ୀ	ୀ	ୀ	ୀ	ୀ	ୀ
a	i	u	e	ai	o	a	i	ii	ei	u	uu

Vowel diacritics

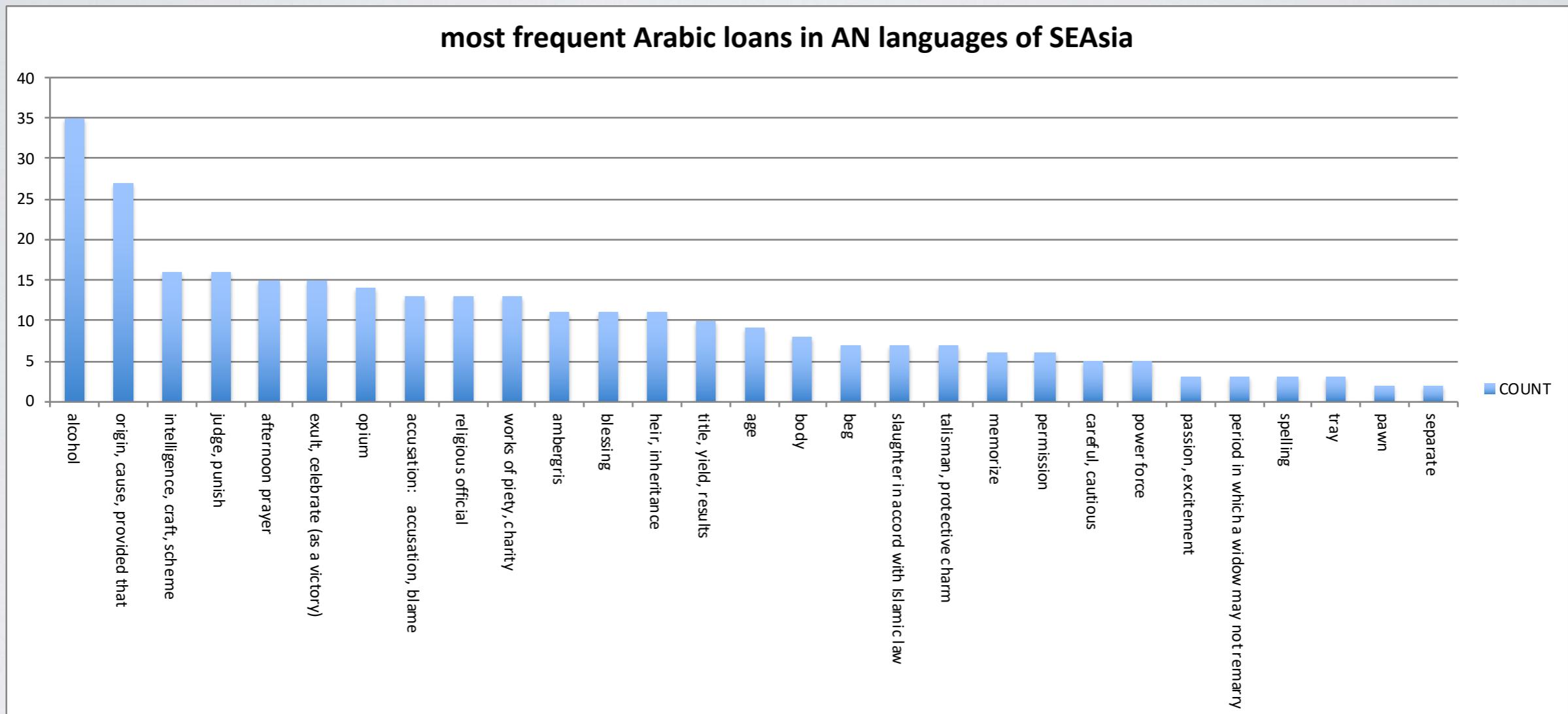
ା	ି	ି	ୀ	ୀ	ୀ	ୀ	ୀ	ୀ	ୀ	ୀ	ୀ
ା	ି	ି	ୀ	ୀ	ୀ	ୀ	ୀ	ୀ	ୀ	ୀ	ୀ

Balinese
(still in use)

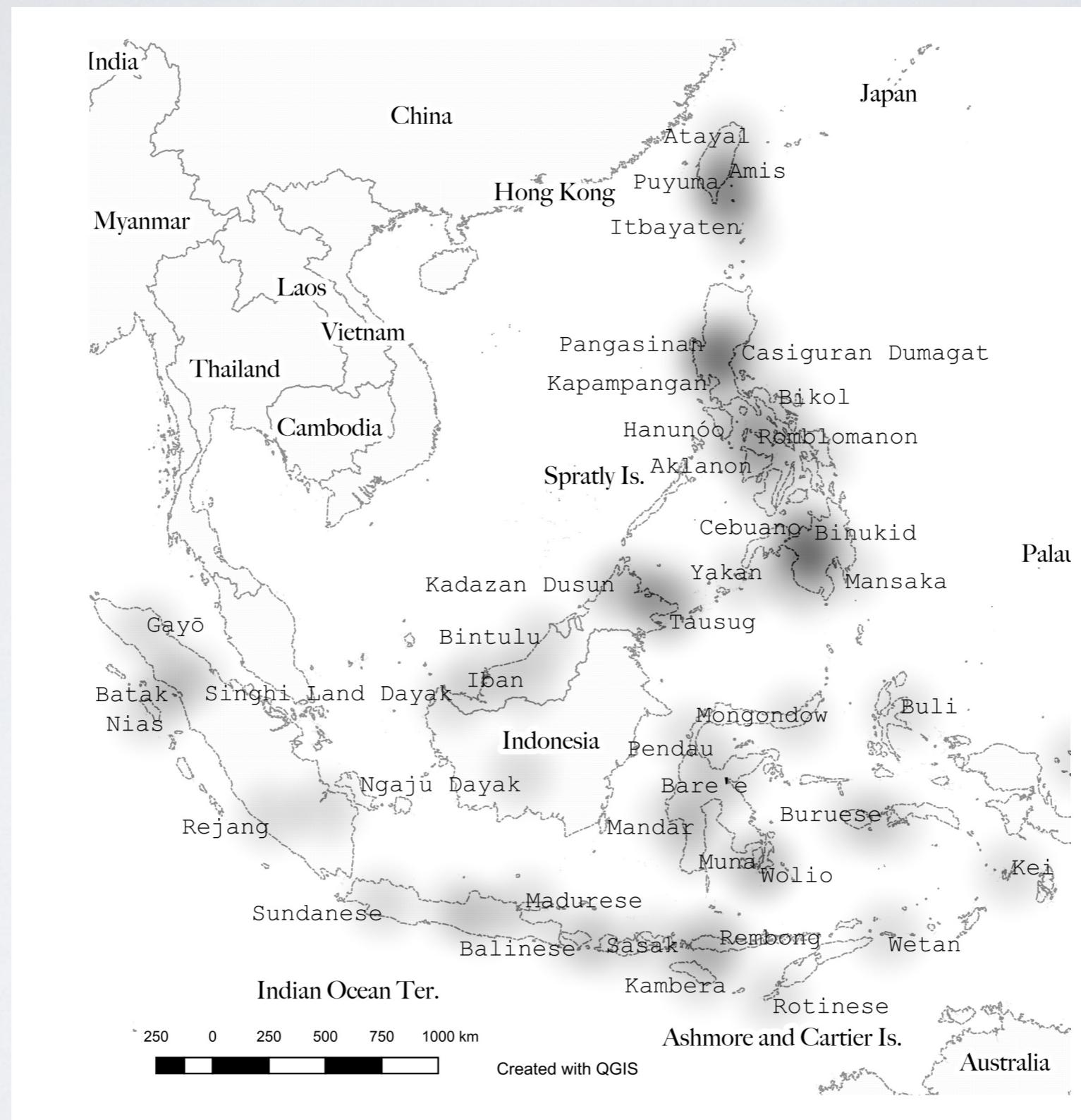
ARABIC LOANWORDS



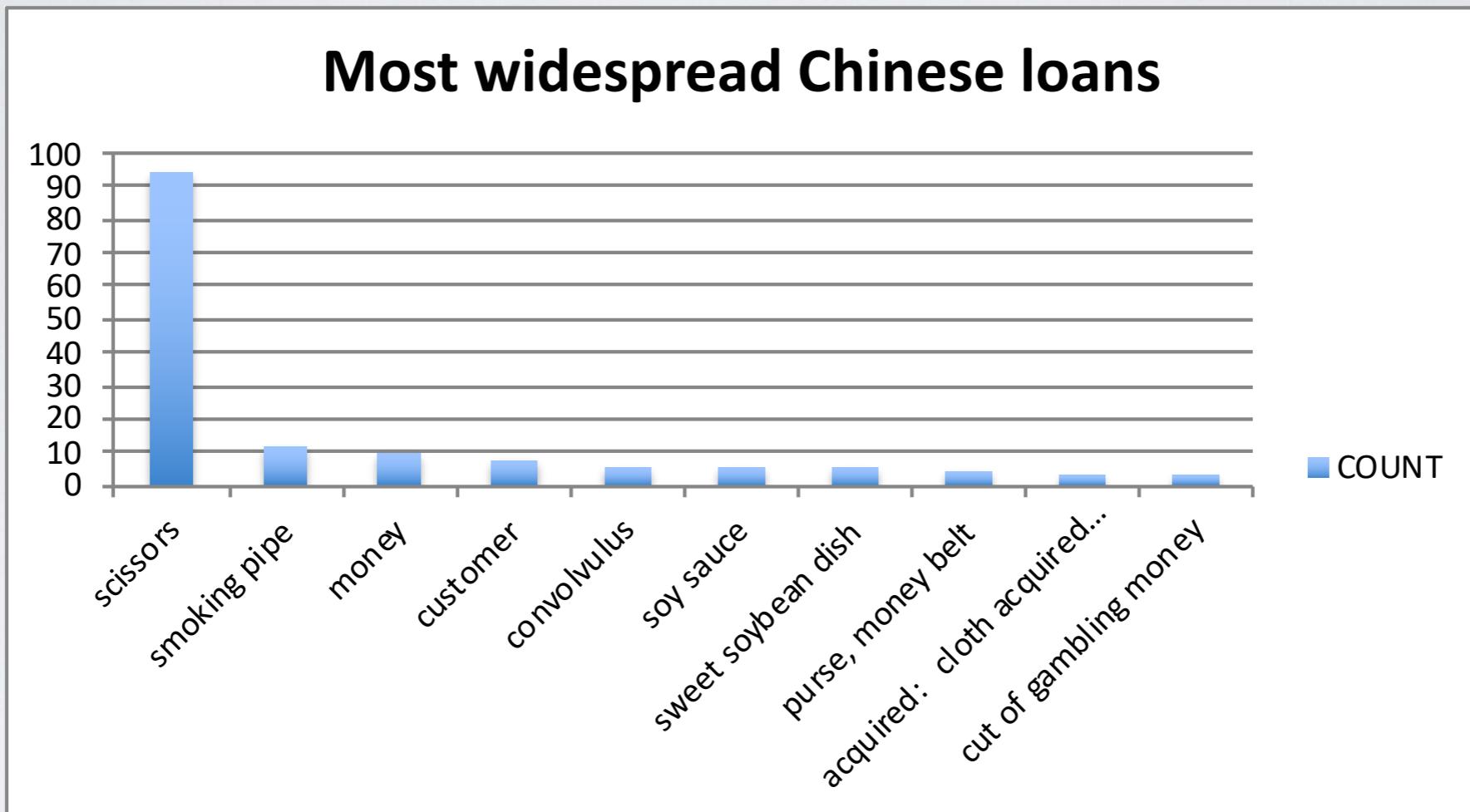
ARABIC LOANWORDS



CHINESE LOANWORDS

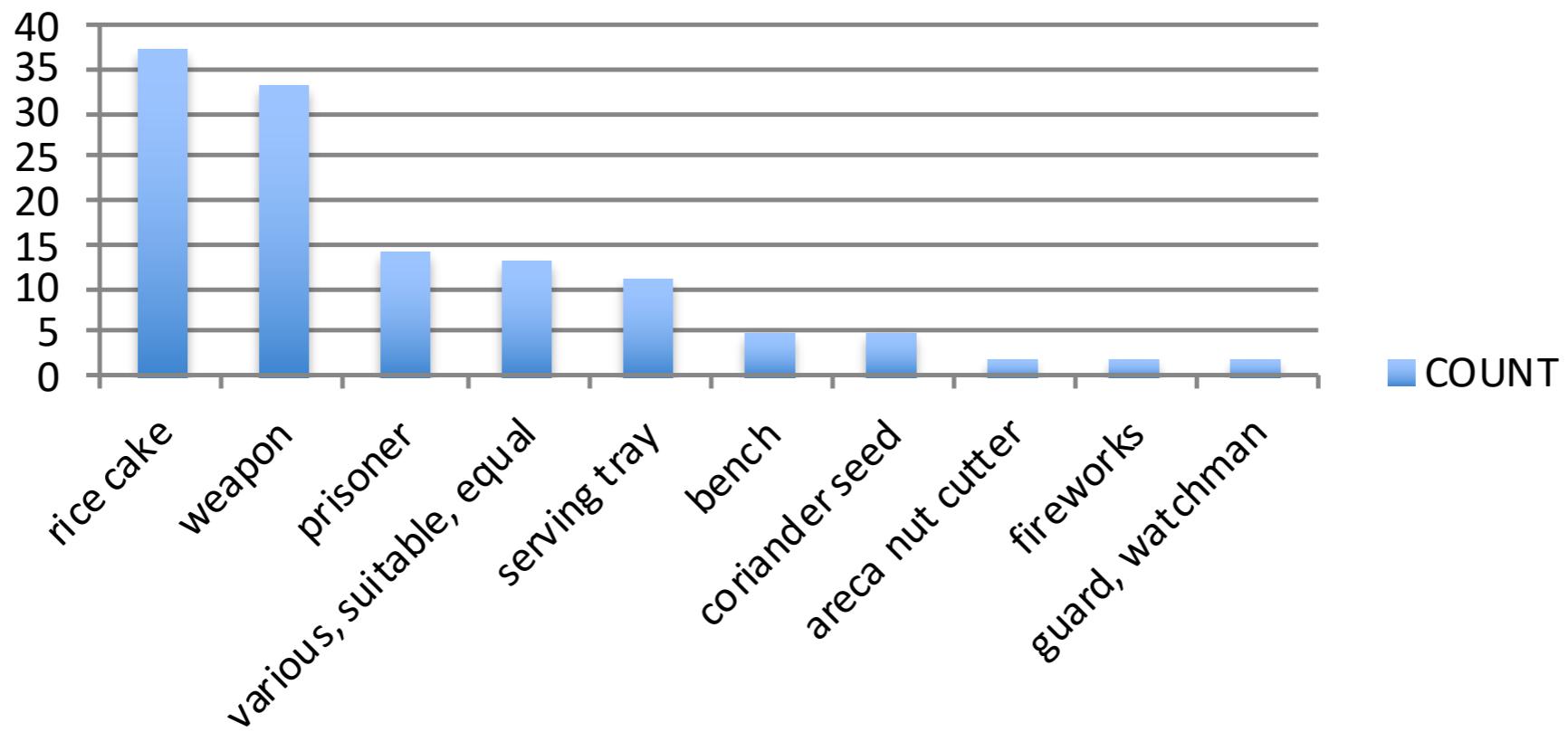


CHINESE LOANWORDS

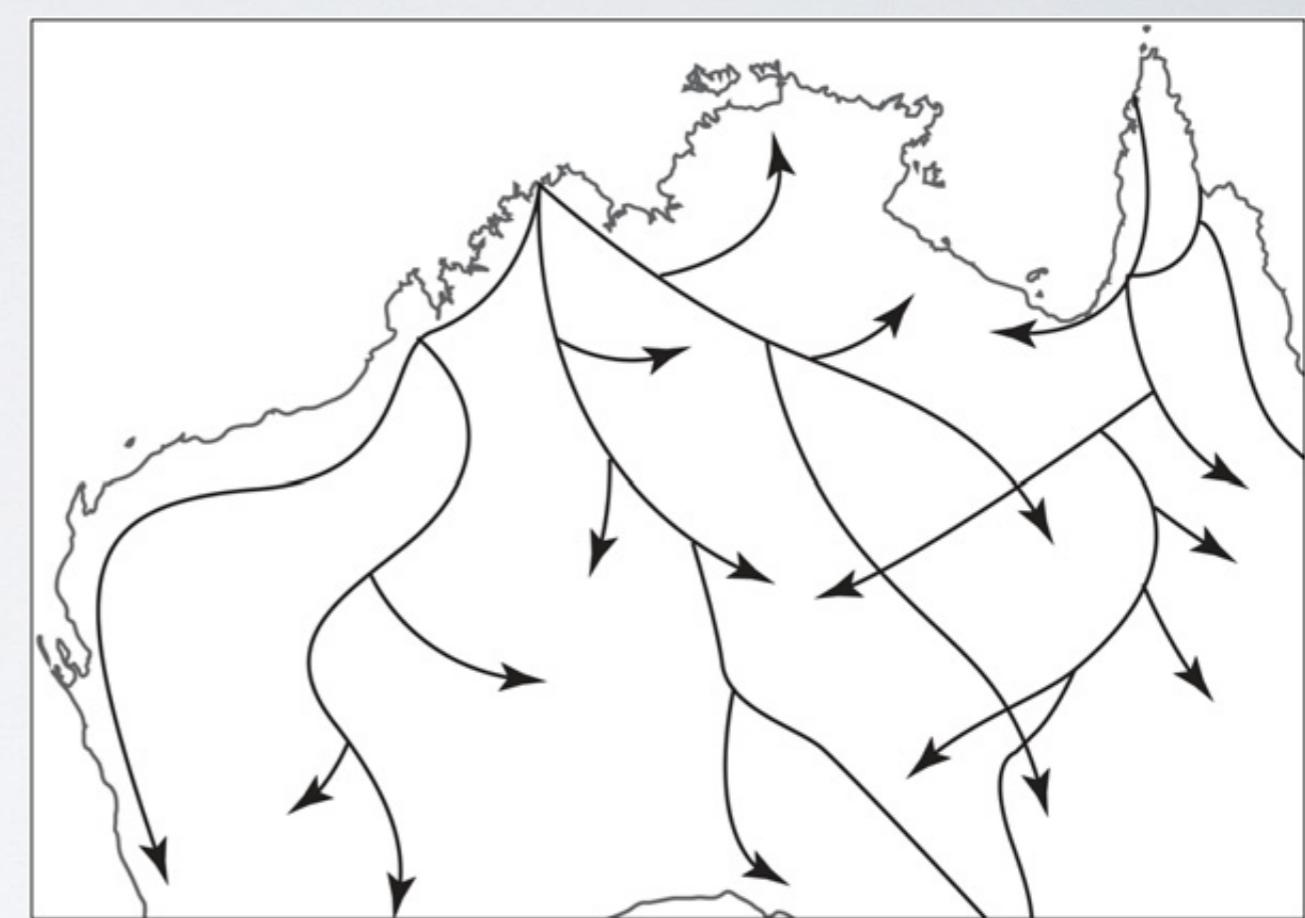
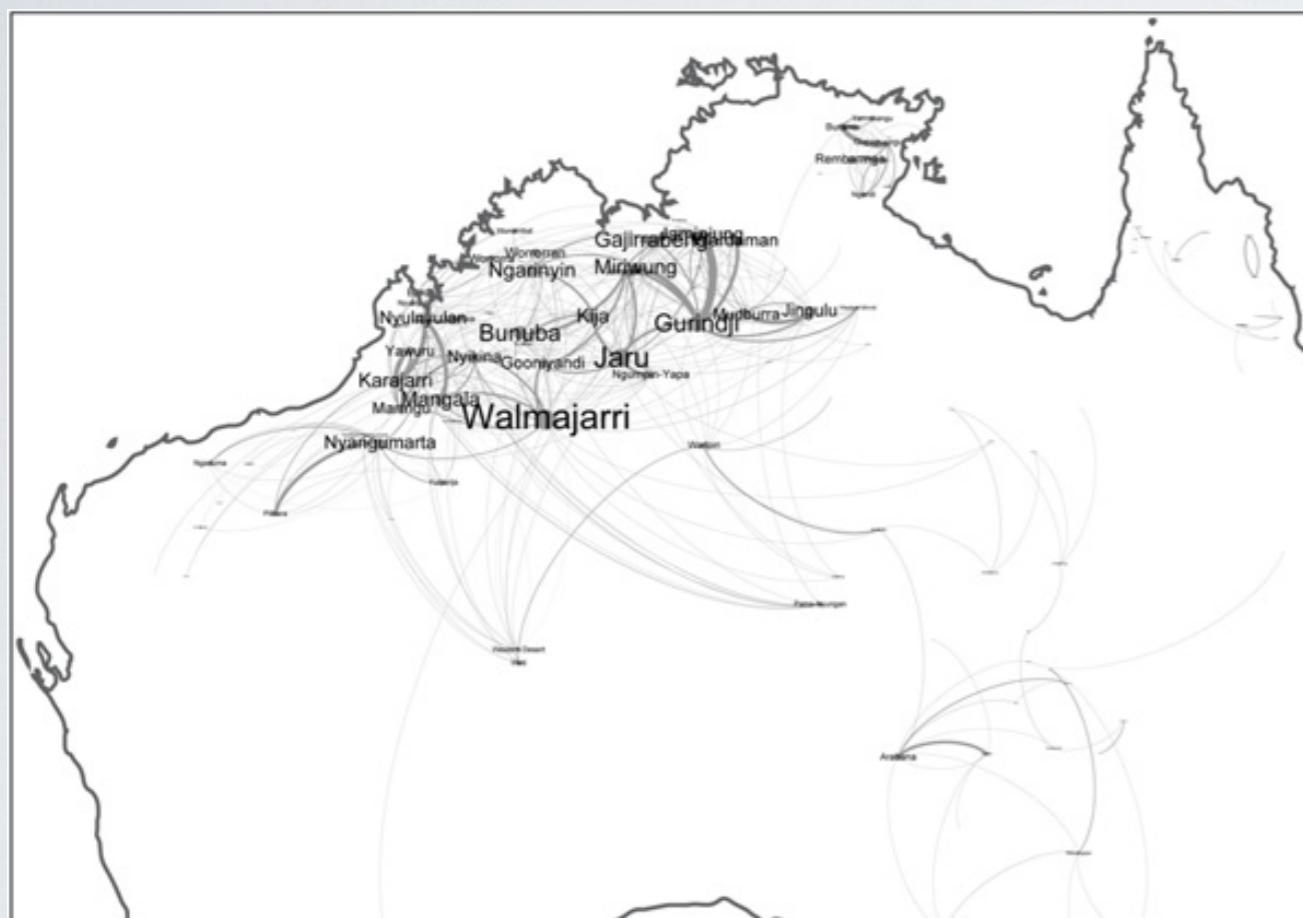


TAMIL LOANWORDS

Most common Tamil loans in languages of SEAsia



WANDERWÖRTER IN LANGUAGES OF THE AMERICAS AND AUSTRALIA



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