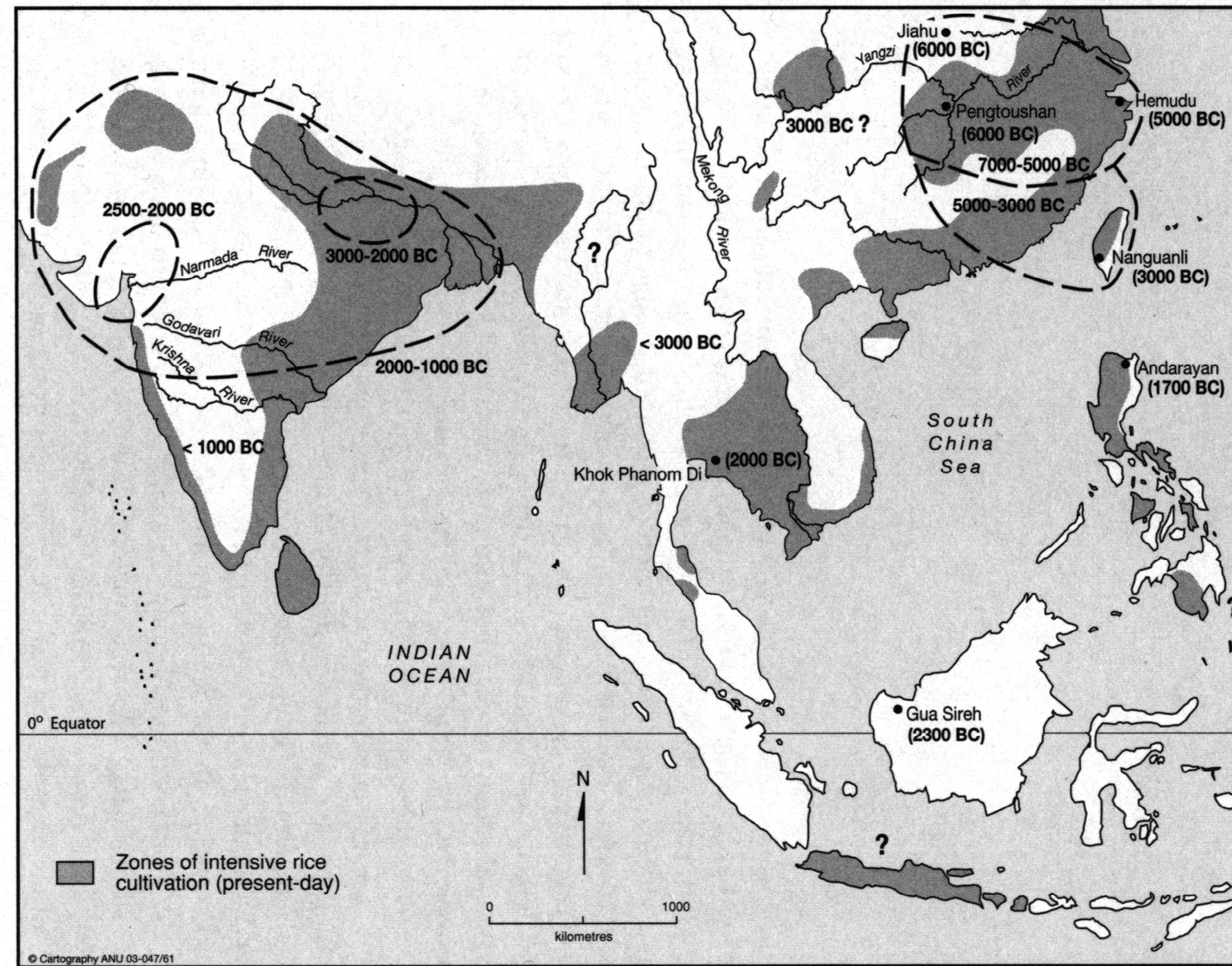


Correlating the lexicon and dispersal of proto-Austroasiatic with the arrival of rice agriculture in Mainland SEAsia

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All discussions about the origins of the Austroasiatic languages have considered the fact that an elaborate vocabulary relating to rice agriculture is reconstructable for the proto-language, and this has been interpreted as indicating a historically deep familiarity with rice.



Historical distribution of rice cultivation by Peter Bellwood

Classification:

The principles of dialect geography suggest that, all things being equal, the zone of greatest diversity will correlate with the homeland (e.g. dialect diversity in the UK exceeds English diversity abroad). No assessable justification has been offered for published Austroasiatic classifications, so this writer has reassessed the question with computational phylogenetics with the assistance of Russell Gray and Simon Greenhill (University of Auckland). The results indicate a strongly branching tree with little if any nested sub-branching.

The tree on the immediate right shows our Bayesian analysis of 54 AA languages (dollo relaxed time analysis allowing for variable rates of change). All 13 consensus branches are identified with high confidence but high nested branching is found to have low confidence (figures below 0.9 are too weak to rely upon).

Importantly there is no support for the long held idea that Munda languages of India represent a primary split in the phylum, and other studies (e.g. Donegan & Stampe 2004) explain the typological restructuring of Munda. Therefore it is likely that the centre of genetic diversity of AA is in Indo-China around the mid-Mekong. Such a homeland can explain the dispersal of AA languages by the least number of moves.

Both Diffloth and Shorto reconstruct similar proto-Austroasiatic/Mon-Khmer lexicon for rice and rice agriculture:

Diffloth (2005)

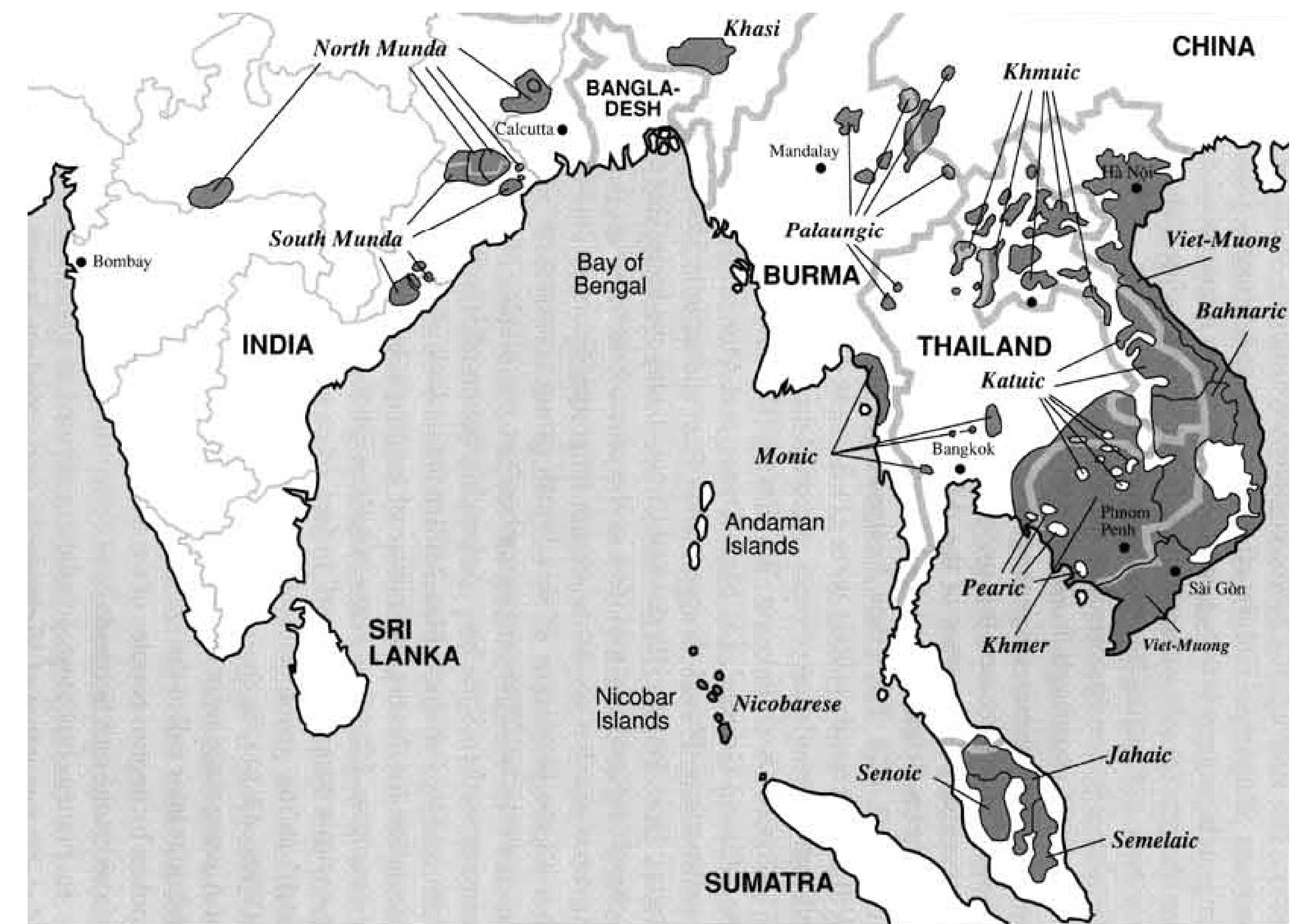
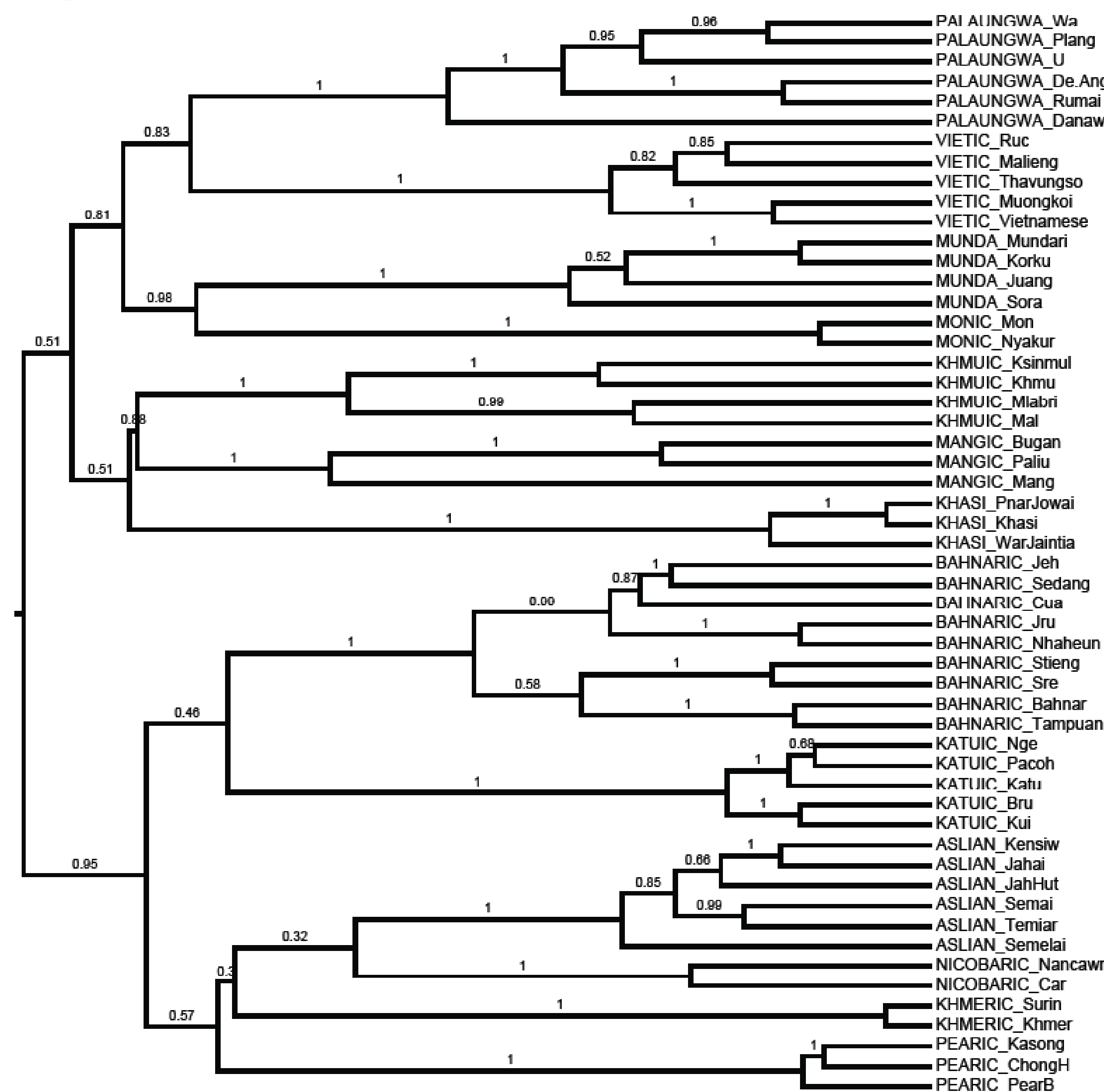
- #(kə)ba:ʔ ‘rice plant’
- #rəŋko:ʔ ‘rice grain’
- #cəŋka:m ‘rice outer husk’
- #kəndək ‘rice inner husk’
- #phe:ʔ ‘rice bran’
- #təmpal ‘mortar’
- #jənrəʔ ‘pestle’
- #jəmpjər ‘winnowing tray’
- #jərmuəl ‘dibbling-stick’

Shorto (2006)

- *baʔ ‘paddy’
- *rk[aw]ʔ ‘husked rice’
- *ska:mʔ ‘chaff, husks of paddy’
- *lʔək ‘rice-bran’
- *[p]heʔ ‘husked rice’
- *tpal ‘mortar for pounding rice’
- *nrəjʔ ‘pestle’
- *epjər ‘to blow, to winnow’
- *jmuəl ‘to dibble’

This is more elaborate than the equivalent set of terms in either proto-Tai, proto-Hmong-Mien, proto-Sino-Tibetan. One interpretation is that this is indicative of great antiquity, and therefore should be correlated with the oldest rice cultivating regions (e.g. central Yangtze valley).

Is this logically necessary? AA languages are well known to have large, un-analyzable lexicons, which is quite different to other regional phyla (especially Tai!). What do other lines of evidence say?



Present distribution of Austroasiatic languages

Archaeology:

Archaeology reveals cultural/technical innovations emerging in Indo-China at around the same time as the earliest dating of rice:

The main peculiarity of the incised & impressed pottery style is its sudden appearance around the second half of the 3rd millennium B.C.E. in Neolithic sites distributed in the major river plains of mainland Southeast Asia Incised & impressed pottery style, moreover, does not appear in isolation, but it is associated recurrently with: small polished stone tools; stone or shell bracelets and necklace beads. (Rispoli 2008:238)

Roger Blench & I suggest that the sudden expansion of this distinctive pottery style and associated toolkit and decorative elements is a marker of the Austroasiatic expansion. With it, the integration of rice farming into established Neolithic tuberculture may be been the catalyst which sparked the expansion and diversification of Austroasiatic. In a version of the ‘farming-language’ hypothesis, it is the greater flexibility and productivity of the new hybrid farming system, with the facility to farm dry rice in areas upland from main waterways, that facilitated the outward East-West spread overland.

We speculate that there was cultural (non-linguistic) transmission of rice agriculture from early Tai expansion out of SEChina and into the Mekong valley.