WAS THERE AN AUSTROASIATIC PRESENCE IN ISLAND SOUTHEAST ASIA PRIOR TO THE AUSTRONESIAN EXPANSION?

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ABSTRACT

No Austroasiatic languages are spoken in island Southeast Asia today, although we know from the Chamic languages of Viet Nam and the Sa Huynh culture that contact was extensive between the mainland and the islands. However, the diversity of Neolithic materials in various island sites has led some archaeologists to question the Austronesian 'Neolithic package' model, without advancing a positive alternative. This paper suggests that Austroasiatic speakers had reached the islands of Southeast Asia (Borneo?) prior to the Austronesian expansion and that this can be detected in both the archaeology, the languages and the synchronic material culture. The paper will focus in part on the transfer of taro cultivation as part of this process.

INTRODUCTION: PROBLEMS IN THE PREHISTORY OF ISLAND SOUTHEAST ASIA

The dominant model to account for the Neolithic settlement of island Southeast Asia (ISEA) is the Austronesian expansion. There are *a priori* good reasons for working with this model because:

- Only Austronesian languages are spoken in the islands today, except in the east, on the lesser Sundas, particularly Timor, and Halmahera.[1]
- It is claimed that there is a widespread "package" (red-slipped and often punctate stamped and incised pottery, with associated stone adzes, shell beads and bracelets, fish bones, pig and dog bones) which points to an important demographic expansion.
- Although archaeology clearly shows pre-Austronesian populations going back to the Pleistocene (Tabon and Niah caves), it is generally presumed that these reflect the forebears of the Austro-Melanesian type populations today (although direct evidence for this is limited).
- Within island Southeast Asia today, Austro-Melanesian populations only exist in the Philippines, and they speak exclusively Austronesian languages. Phenotypically similar populations exist in the Andamans and peninsular Malaya, speaking respectively Andamanese and Aslian (i.e. Austroasiatic) languages.

One of the most persuasive recent narratives in recent prehistoric scholarship has been that of the Austronesian expansion, deriving from the original hypothesis of the kinship of over a thousand languages in Southeast Asia and the Pacific. This hypothesis was first established by Dempwolff (1920, 1934-8) using modern linguistic methods although Schmidt (1899) had previously grouped these languages into categories still used today (Polynesian, Micronesian, Melanesian etc.) based on lexical resemblances. Dempwolff did not clearly identify and situate the languages of the Taiwanese Austronesian peoples, an omission rectified by the second major figure in Austronesian studies, Isidore Dyen (1963). Blust (1984/1985, 1999) may have been the first author to clearly establish that the diversity of Formosan languages required that they be ancestral to all others and constitute a primary branching[2]. This hypothesis was adopted by Peter Bellwood (1979) to account for the archaeological evidence, whence emerged a story about the ancestors of the Austronesians leaving Taiwan by means of developed sailing technology and reaching the furthest shores of the Pacific as well as the East African coast. A Neolithic package was deemed to accompany these ocean navigators, consisting of pigs, dogs, chickens, rice, pottery and stone adzes, as well as distinctive types of jewellery. Various sub-narratives such as "out of Taiwan" (Diamond & Bellwood 2003; Bellwood 2008) reached high-profile journals and the idea has acquired a certain currency in global prehistory. Blust's hierarchy of nodes branching from the Austronesian tree until Oceanic, the branch identified with the Lapita potters and ultimately giving rise to Polynesian, seemed to reflect what was known about this early expansion.

The Austronesian expansion has further developed into a more general narrative about migration and demographic growth in prehistory which has it that the dispersals of many of the world's language phyla were driven by agriculture

(Bellwood 2002, 2005; Bellwood & Renfrew 2002). This version of prehistory has been enormously influential, and the prefaces to various graduate dissertations pay obeisance to it. Moreover, it continues to be vigorously defended by its two main originators, Peter Bellwood and Colin Renfrew, who support it with fieldwork and publication.

In the case of ISEA and the Pacific the "Austronesian hypothesis" has long had its detractors, notably Meacham 1984/1985; Solheim 1964a, 1984/1985; Terrell et al. 2001; Oppenheimer and Richards 2001; Oppenheimer 2004; Szabó and O'Connor 2004; Terrell 2004; Lewis et al. 2008; Bulbeck 2008) but their failure to engage with the linguistic evidence has meant their arguments lack a key element. Spriggs (2007) explores the disconnect between the current dates for the ISEA Neolithic and the linguistic evidence. Blench (2011) evaluates the linguistic arguments for the language phyla of Southeast Asia in some detail. Bellwood & Diamond (2005) have responded to some of the more unusual claims by Oppenheimer and his collaborators. In some areas, notably Near Oceania and Polynesia, it would be hard to deny such a demographic expansion, since this was the colonization of previously unoccupied territory. But Polynesia has never really been the problem; it is the large complex islands and archipelagos such as the Philippines, Borneo and Sulawesi that have to be explained. In recent years there has been a rising chorus of discontent from archaeologists who are increasingly claiming that the data does not fit the simple demographic expansion model. The claim, put simply, is that assemblages seem to be rather diverse and complex and do not correspond to a simple model of incoming Neolithic farmers replacing foragers. Rather, the patterns of material culture in prehistory seem to point to earlier and more complex inter-island interactions than the Austronesian expansion model would seem to imply. Linguists have been less vocal, but then the number of linguists who are really interested in big-picture Austronesian is quite restricted. With Blench (2005), Donohue & Grimes (2008), Denham & Donohue (2009) and Donohue & Denham (2010) the chorus of discontent is now rather loud.

There is moreover, a specific point concerning pigs, dogs and chickens. It has been shown that the majority of modern pigs in island Southeast Asia originate not from Taiwan, but from the mainland, probably Việt Nam (Hongo et al. 2002; Larson et al. 2007; Dobney et al. 2008). Larson et al. (2010) trace the Pacific clade (their MC2) to Laos, Yunnan and far Northwest Vietnam. In ISEA, this clade occurs in Sumatra, Java, Eastern Indonesia and New Guinea. Exactly what route this implies is as yet unclear, without more records from coastal mainland Southeast Asia (MSEA). Unambiguously domesticated pigs are conspicuously absent from the archaeological record in the main islands until significantly later than the Austronesian expansion, although this might be an artefact of the low number of open-air sites in ISEA. There is a small pocket of domestic pig in assemblages in Taiwan, and the extreme northern Philippines (Piper et al. 2009), but this does not appear to spread southwards into the main body of the archipelago, or at least there is no data for Borneo or Sulawesi. There has apparently been an independent domestication of a highly local race on Lanyu (Orchid island) which may account for these finds (Larson et al. 2010).

ONE PART OF THE STORY: EARLY AUSTROASIATIC PRESENCE IN BORNEO

Since there is evidence for vegetative crops such as bananas spreading westwards from Melanesia in pre-Austronesian times (Denham & Donohue 2009), it is tempting to argue that vegecultural systems were present in ISEA prior to the Austronesian expansion. Hunt & Rushworth (2005) report evidence for disturbance in the tropical lowland forest at Niah, Sarawak, Malaysian Borneo at 6000 BP which they attribute to cultivation. Although the evidence for rice and foxtail millet in Taiwan makes it a credible staple for speakers of proto-Austronesian, cereals in ISEA are generally much later, apart from the rice attested at Gua Sireh at about 4000 BP. Given the proximity of large islands such as Borneo to the Vietnamese mainland, it is quite conceivable that Austroasiatic speakers could have settled the western edges of ISEA. This is also suggested in Bellwood (1997:237-238) based both on the comments on language in Adelaar (1995) and the presence of paddle-impressed pottery, both at Gua Sireh and Niah cave.

Solheim (1964b) observed that there are remarkable similarities between types of pottery found in the Southern Philippines, Borneo, Vietnam and parts of Thailand, his "Kalanay" tradition. More recent studies (e.g. Yamagata 2008) have extended and expanded the evidence for connections with Việt Nam, at least for the period since 2500 BP, during the Sa Huynh culture. This pattern led Solheim (1984/85, 2006) to propose a "Nusantao'" trading network which was deemed to account for these similarities and was to go back to 5000 BC. In other words, a maritime culture was carrying trade goods around the region which would account for the similarities, without the need for demographic expansion. A similar view is put forward in respect of the Polynesians by Oppenheimer & Richards (2002) on the basis of supposed genetic data, which should certainly add to our scepticism of the faith that can be placed in such methods.

In this model, then, Austronesian develops as a trade language, thereby accounting for the similarities between individual languages. It is hard to see what archaeological evidence supports such an old date and moreover, Austronesian shows no sign at all of being a scattered trade language. Its diversification corresponds well to an expansion, either of people or of a culture. Malay does show all the signs of a trade language, with fragmented dialects spoken in pockets across a wide swath of Southeast Asia and probably associated with the growth of the authority of Srivijaya (see Mahdi

Subgroup	Language	Attestation
Borneo	Dayak Bakatiq	kabih
Borneo	Land Dayak	kobus
Aslian	Kensiu	gabis
Aslian	Semelai	khbəs
Aslian	Temiar	kʌbəs

Table 1. A common root for 'Die, Death, Dead.'

Subgroup	Language	Attestation	Gloss
Borneo	Central Dusun	rasam	rain
Borneo	Visayan	laʃam	rain
Aslian	Batek	ləsəm	rain
Aslian	Semelai	lsəm	to rain

Table 2. A common root for 'Rain'

Subgroup	Language	Attestation
Borneo	Kayan (Uma Juman)	laʔuŋ
Chamic	Acehnese	rueng
Chamic	Phan Rang Cham (Eastern Cham)	rauŋ
Katuic	proto Katuic	*klooŋ, *kloŋ

Table 3. A common root for 'back (of body).'

2008 for an account of this process). However, that is significantly later and clearly will not do to explain the similarities in the pottery.

This paper will argue that the connections between the mainland of Southeast Asia and parts of Borneo in particular go far beyond what is found in the archaeological record. It suggests there are striking elements in the material culture and borrowings in the language which point to a pre-Austronesian farming culture on Borneo of Austroasiatic origin. The strong assumption must be that it was assimilated by the Austronesians.

EVIDENCE FOR SUBSTRATES IN BORNEAN LANGUAGES

Austroasiatic and Austronesian: accounting for similarities

Part of the argument of this paper is that Austronesian languages in Borneo show borrowings from Austroasiatic languages. However, there is a long research history of observed similarities between the two language phyla, and it is appropriate to provide some context for this claim. Austronesian and Austroasiatic are generally recognised as coherent and internally consistent language phyla. However, it has been recognised since Schmidt (1906) that they share some common vocabulary, which has led to proposals to join them together in a single phylum, generally known as the Austric macrophylum. If so, then similarities between lexical items might be due to inheritance from a common ancestor. The argument for Austric has remain highly controversial, and Reid (2005), a proponent of Austric, has reviewed the abundant literature. Shorto (2006) offers probably the largest compilation of Austronesian/Austroasiatic cognates, although he leaves open the interpretation of individual items. Blust (2009b:690-698) has reviewed the existing arguments with an appropriately sceptical eye.

To determine whether an individual word is inherited from the hypothetical common ancestor of proto-Austronesian (PAN) and proto-Austroasiatic (PAA) it must be attested in the languages of Taiwan, which are generally considered to be primary branches of PAN (Blust 1999). If no

Family	Language	Attestation	Gloss in source
Borneo	Punan, Lundayeh, Kenyah	*kuboŋ	flying lemur *Cynocephalus variegatus*
Aslian	Semelai	kubuŋ	red giant flying squirrel (*Petarista petaurista*)

Table 4. A common root for 'flying lemur.' Comment: This root is suspect because Malay also has kubuŋ. However, this cannot be reconstructed for PAN and may well be a borrowing into Malay (from Aslian, for example).

Family	Language	Attestation	Gloss	Reference
Borneo	Kenyah (11-17)	dok	*Macaca nemestrina*	Puri (2001:174)
Bahnaric	proto South-Bahnaric	doːk	monkey	
Katuic	proto Katuic	*ɗɔk, *ɗook	monkey (kind of)	
Vietic	proto Vietic	*ɗoː	*singe*, monkey	

Table 5. Root for monkey sp. borrowed into Borneo languages.

Family	Language	Attestation	Gloss in source	Reference
Borneo	PTN	kuyan	*Macaca fascicularis*	Puri (2001:173)
Borneo	Kenyah (11-18)	kuyaŋ	orang utan	Puri (2001:176)
Bahnaric	Chrau	kwaɲ	howler monkey	
Bahnaric	Sedang	kɔ̃n	gibbon, spider monkey	

Table 6 Both 'howler monkey' and 'spider monkey' are New World genera, illustrating the difficulties of working with poor identifications. All we can reasonably say is that these terms refer to some monkey species.

Family	Language	Attestation	Gloss in source	Reference
Borneo	proto-Bidayuh	pǎyu	deer	Rensch et al. (2006: 354)
	Punan, Lundayeh, Kenyah	payo(u)	sambar	Puri (2001:202)
Katuic	Bru	pɔːyh	barking deer	
	Pacoh	pa.ɲɔh	deer	
	Ngeq	paɲɔh	deer	
	Ta'Oi	paɲɔh	deer	
Vietic	Malieng	poːjʰ¹	*chevreuil*, deer	
	Thavung	pɔjʰ¹	*chevreuil*, deer	

Table 7. Root for 'barking deer' borrowed into Borneo languages .

such evidence is forthcoming then a more economical account would be that cognates are the consequence of intensive contact between Austroasiatic languages and Austronesian. In fact, we find at least three types of evidence for lexical contact, and thus contact between populations. These are

a. Similarities between MSEA branches (Bahnaric, Katuic, Vietic) of Austroasiatic and Borneo Austronesian
b. Similarities between the Aslian languages of the Malay Peninsula and Borneo Austronesian
c. Similarities between Austronesian and Austroasiatic due to the trade-driven expansion of Malay

The interest of these, in particular the first two, is that these populations have no contact today. Borrowing such as we find must therefore be evidence of past contact in prehistory by processes that remain to be described.

BORNEO LANGUAGES AND THE AUSTROASIATIC CONNECTION

The observation that Borneo languages show some surprising external connections goes back to Skeat & Blagden (1906) who identified lexical items shared with the Aslian languages spoken by the residual foraging populations in the Malay Peninsula[5]. Sander Adelaar (1995: 81) has pointed to unusual

Family	Language	Attestation	Gloss in source	Reference
Borneo	Kenyah	taking, tahang	*Gonocephlus doriae/ G. liogaster* Doria's angle-head agamid	Puri (2001:219)
Katuic	Kuy	(t)luː	scincoid lizard	
Katuic	Bru	talu̯aʔ	lizard (skink)	
Katuic	Ong	takɔɔnʔ	monitor	
Vietic	proto Vietic	*t-lɔː	*lézard*, lizard	
Aslian	Kensiu	talɔgŋ	iguana lizard	
Aslian	Temiar	taɹɔʔ	lizard	

Table 8. Root for 'lizard sp.' borrowed into Borneo languages .

phonological features of Borneo languages as a consequence of a possible Austroasiatic substrate. He says;

> The Land Dayak languages have a few striking lexical and phonological similarities in common with Aslian languages. This suggests that Land Dayak originated as the result of a language shift from Aslian to Austronesian, or that both Land Dayak and Aslian have in common a substratum from an unknown third language.

Moreover, the lexical similarities are in fundamental vocabulary, such as the words *to die* and *to wash*, and therefore are clearly not the result of casual trade contact. Tables 1 – 4 present evidence for these similarities[6]. None of these terms go back to PAN and thus cannot be ascribed to a hypothetical Austric macrophylum.

The second set of lexical cognates comprises similarities between the Austroasiatic languages of MSEA and the languages of Borneo. In this case I have focused on faunal names, in part because if Austroasiatic mariners reached Borneo, they are likely to have transferred names of animal species familiar on the mainland to similar animals on the island. We are fortunate to have quite complete listings of names for Borneo animals in Puri (2001, 2005) and Payne & Francis (2005). Tables 5 through 8 make some proposals for borrowings from mainland Austroasiatic into Borneo languages.

Blust (2009c) makes some further interesting proposals for innovations in mammal names and other lexical items in Borneo which sometimes have Malay-Chamic cognates, pointing to directions for further research on connections with the mainland.

THE SPREAD OF TARO

Taro is an archetypical Austronesian crop and indeed the Polynesian languages are the source of the English name. The idea that taro as a cultigen is deeply embedded in Austronesian derives from a purported Proto-Malayo-Polynesian reconstruction **tales* proposed by Dempwolff (1934-1938). However, there is no evidence that taro was cultivated on Taiwan until recently, where the characteristic aroid was *Alocasia macrorrhizos*. The root corresponding to **tales* is not attested in Taiwan or the Northern Philippines, but only in other parts of island Southeast Asia including Palawan, Borneo and Sulawesi. However, it *is* attested across Austroasiatic with the same phonological shape even among the remote Munda languages in Northeast and Central India, which strongly suggests it is a borrowing into Austronesian from Austroasiatic. Given the distribution of the root it is here suggested that it is associated with early Austroasiatic settlement in Borneo and Palawan. Table 9 shows the distribution of reflexes of *#traw?* for taro;The extremely widespread attestations in Austroasiatic suggest that it was part of the original ancestral subsistence package (unlike rice, which has a far less convincing distribution in Austroasiatic). Sidwell and Blench (2011) argue that the quest for humid valley bottoms suitable for taro was one of the "engines" of the Austroasiatic expansion. In the main islands of the Philippines taro names are a scattering of different roots (listed in Madulid 2001) which point to a relatively recent diffusion, probably from diverse sources. There is a separate claim for an independent domestication and spread of taro from Melanesia (Walter & Lebot 2003; Lebot et al. 2004; Denham 2004). Blench (2012) argues that Austronesian languages in Near Oceania have indeed borrowed a Papuan term for taro, *#ma*, but at least linguistically this does not spread far into ISEA.

MATERIAL CULTURE

If there were indeed Austroasiatic speakers in West-Central Borneo when the Austronesians arrived, synchronic ethnography should also point to this type of early contact. Indeed there are similarities in material culture between mainland Southeast Asia and West-Central Borneo. The mouth-organ,

Phylum	Branch	Language	Attestation	Gloss in source
Sino-Tibetan	Naga	Garo	tariŋ	arum
Austroasiatic		Proto-Mon-Khmer	*$t_2$raw?	
Austroasiatic	Monic	Mon	krao	
Austroasiatic	Monic	Nyah Kur	traw	
Austroasiatic	Vietic	Thavung	t^hoo^3	
Austroasiatic	Vietic	Vietnamese	sọ	
Austroasiatic	Vietic	Proto-Vietic	*sro$^?$	
Austroasiatic	Khmeric	Old Khmer	trav	
Austroasiatic	Khmeric	Khmer	tra:v	
Austroasiatic	Khmuic	Khmu	sro?	
Austroasiatic	Pearic	Chong	k^hre:^{A}	
Austroasiatic	Bahnaric	Proto-South Bahnaric	*təraw	
Austroasiatic	Bahnaric	East Bahnar	trɔɔu	amaranth
Austroasiatic	Katuic	Proto-Katuic	*craw	
Austroasiatic	Katuic	Bru	ʔarạ̈w	
Austroasiatic	Katuic	Kuy	ʔaaràaw	
Austroasiatic	Katuic	Sre	traw	

*Table 9a. The difficulty with this etymological link is the presence of the final fricative /s/ in Austronesian forms. The Austroasiatic root clearly had a final consonant, today generally reflected in the semi-vowel /w/ or the glottal stop /ʔ/. However, the Khmer forms point to the identity of this consonant as the labiodental fricative /v/ so a shift to the alveolar fricative /s/ would be phonetically plausible, although it would be more convincing if an intermediate consonant were to occur. The consistent /r→l/ shift between Austroasiatic and Austronesian is not problematic in a region where these two sounds are frequently allophones. The most puzzling aspect of the distribution of *tales roots within Austronesian is the gap between the western and eastern occurrences. Both Kitsukawa (2000) and Ross et al. (2008:266) who have considered this have no solution to the absence of reflexes in the intermediate zone. Ross et al. (2008) also point out that *talo(s) is more solidly attested in Eastern Oceanic languages and that Western Oceanic reflexes in, for example Motu, Manam and Roviana may well be borrowings via Pidgin. Additionally, this term is usually considered proto-Polynesian, the reflexes in Rensch & Whistler (2009) do not include Tongan and Samoan, but seem to be largely in Eastern Polynesia. This strange mosaic of reflexes suggests that taro was being moved around at an unknown period and that we should be wary of assuming it was actually part of either the original Oceanic or Polynesian subsistence repertoire.* *Continued on next page.*

Phylum	Branch	Language	Attestation	Gloss in Source
Austroasiatic	Katuic	Mlabri	kwaaj	
Austroasiatic	Katuic	Ong	raw	
Austroasiatic	Palaungic	Riang	sroʔ	
Austroasiatic	Palaungic	Palaung	tɔh	
Austroasiatic	Palaungic	Danaw	kăro[1]	
Austroasiatic	Palaungic	Proto-Wa	kroʔ	
Austroasiatic	Palaungic	Lamet	ruəʔ	
Austroasiatic	Palaungic	Khang	hɔ	
Austroasiatic	Khasian	Khasi	shriew	arum
Austroasiatic	Muṇḍā	Sora	‘saro	*Caladium esculentum*
Austroasiatic	Muṇḍā	Mundari	saɽu	edible root
Austroasiatic	Muṇḍā	Santal	saru	
Austronesian		Proto-Malayo-Polynesian	*tales	taro
Austronesian	Philippines	Palawan	talas	taro (? < Malay)
Austronesian	Barito	Dusun	tadis	kaladi (Malay name)
Austronesian	Malayic	Indonesian	talas	taro
Austronesian	Oceanic	P-Oceanic	*talo(s)	taro

Table 9b. Continued from previous page.

a free-reed instrument with multiple pipes and a gourd wind-chamber, is highly characteristic of MSEA and is found all along the western side of Borneo as far as Sabah. It does not otherwise occur in the Austronesian instrumentarium, nor indeed elsewhere in the world, making independent invention very unlikely. Moreover the morphology of the instrument is virtually identical to Việt Nam (there are many subtypes on the mainland). Photo 1 shows a Dayak mouth-organ and Photo 2 a similar instrument from Việt Nam.

More examples can be sought, but it remains to be seen whether this can be tied to archaeology. Bulbeck (2008) has reviewed a wide range of evidence for maritime connections both within ISEA and between the islands and the mainland. Of particular interest here is his Table 5 and Figures 1 and 3, where he draws attention to links between Việt Nam, Sarawak and Palawan. He claims that there are similarities between the basket-impressed ware at Gua Sireh and finds in the Da But sites of Việt Nam (Bulbeck 2008: Figure 3). Also mentioned are similarities between the edge-ground stone tools found in Bacsonian sites in North Việt Nam and those in Niah cave (Bulbeck 2008: Figure 1). These fall within an age range of 4500-4000 BP. However, much of this is challenged by Bellwood (personal communication: email), who however says:

> “I would allow some possibilities for Borneo, especially between Gua Sireh and our sites in the Vam Co Dong Valley in Long An, such as An Son, not yet published. This had rice, pigs, dogs, and similar pottery to some of that from Gua Sireh at c. 3500 BP. But lots of things common at An Son do not occur in Gua Sireh—shouldered adzes, bone fishhooks, incised and punctate pottery, polished projectile points.”

The Aslian-Borneo link also appears to find some support from archaeology. A particular type of paddle-impressed pottery described in Bellwood (1997), occurs in numerous sites between Borneo, the Malay Peninsula, Java and Sumatra. In a region where there are still relatively few sites, ar-

Photo 1. Orang Ulu mouth-organ, Sarawak Museum

chaeologists will not always agree as to the similarities of particular categories of material culture. Whether these observations will hold up in the long term remains to be seen, but they do indicate the sort of maritime connection suggested by the other types of evidence presented in this paper.

Photo 2. Vietnamese mouth organ, Institute of Musicology, Hanoi

SYNTHESIS AND CONCLUSIONS

It has previously been assumed that during the early phases of Austronesian expansion in ISEA the only resident populations were Austro-Melanesian foragers. Such a simple picture looks increasingly unlikely in view of the diversity of the archaeology, but few proposals have been advanced as to the ethnolinguistic identity of other precursor groups settled on the islands. It is suggested here that there were Austroasiatic-speakers in West-Central Borneo, as far as the island of Palawan, prior to the arrival of Austronesian in the area. The probable origin of these populations was present-day Việt Nam, as attested by similarities in past and current material culture. The rough chronological scenario proposed here is as follows:

- Austroasiatic speakers, cultivating taro and rice, using shouldered adzes, making paddle-impressed pottery and playing mouth-organs, reach western Borneo and Palawan prior to Austronesian expansion.
- The Austronesian speakers assimilate them and adopt taro cultivation. A mixed Austroasiatic/Austronesian culture develops.
- These populations, with paddle-impressed pottery, reach peninsular Malaya and Sumatra.
- In the Malaya peninsula they meet resident Austroasiatic speakers and overwhelm them culturally, accounting for lexical links between Aslian and Borneo.
- Subsequent to this there is the Chamic (i.e. Austronesian) migration from SW Kalimantan or a similar Malayic region about 2200 BP.
- This is reflected both in the Chamic languages of Việt Nam and in Acehnese.

Figure 1 graphically represents the various elements of this scenario. The evidence for this scenario remains suggestive, not conclusive. Further research should concentrate on a

Figure 1. Proposed scenario of early Austroasiatic-Austronesian contact.

more nuanced analysis of the lexical links between Austroasiatic and Austronesian as well as identifying more common elements in synchronic material culture. Further archaeological work will enrich our analysis of the similarities or otherwise of particular material culture elements in the region between Việt Nam, Borneo and the Malay Peninsula.

NOTES

1 - Some of these languages are demonstrably related to the Papuan languages of New Guinea (such as a cluster on Timor), others are best treated as "Non-Austronesian", since, although they are typologically similar to Papuan, it is not possible to demonstrate any clear affiliation. The languages of the Andamans (Abbi 2006) are generally considered isolates and not necessarily related to one another.

2 - Although this idea had an interesting precursor in the nineteenth century with the work of Terrien de Lacouperie (1887).

3 - Though see the robust reply in Blust (2009a)

4 - It appears that not all these populations were necessarily foraging. Kruspe (2010) notes that the *Besisir* recorded in the Malay Annals of the 15th-century, can be identified with the Mah Meri, when they may have had permanent community settlements on the southeast coast of Selangor.

5 - The sources of the Austroasiatic data are all to be found on the SEALANG website (http://sealang.net/monkhmer/dictionary) and are thus not given here in detail. Similarly, Austronesian data are drawn from the Austronesian Basic Vocabulary Database (http://language.psy.auckland.ac.nz/austronesian)

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