UNEARTHING SOUTHEAST ASIA'S PAST

۲

Selected Papers from the 12th International Conference of the European Association of Southeast Asian Archaeologists, Volume 1

Edited by

Marijke J. Klokke and Véronique Degroot



۲

© 2013 Marijke J. Klokke and Véronique Degroot

Published by:

NUS Press National University of Singapore AS3-01-02, 3 Arts Link Singapore 117569

Fax: (65) 6774-0652 E-mail: nusbooks@nus.edu.sg Website: http://www.nus.edu.sg/nuspress

ISBN 978-9971-69-641-2 (Paper)

All rights reserved. This book, or parts thereof, may not be reproduced in any form or by any means, electronic or mechanical, including photocopying, recording or any information storage and retrieval system now known or to be invented, without written permission from the Publisher.

National Library Board, Singapore Cataloguing-in-Publication Data

European Association of Southeast Asian Archaeologists. International Conference (12th: 2008 Leiden)

Unearthing Southeast Asia's past: selected papers from the 12th International Conference of the European Association of Southeast Asian Archaeologists. Volume 1 / edited by Marijke J. Klokke and Véronique Degroot. -- Singapore: NUS Press, c2013.

p. cm. ISBN: 978-9971-69-641-2 (pbk.)

Excavations (Archaeology)--Southeast Asia--Congresses. 2. Southeast Asia--Antiquities--Congresses.
Klokke, Marijke J. II. Degroot, Véronique. III. Title.

DS523 959.01 -- dc23

۲

OCN811125431

Front cover image: Pœng Tbal: Test pit 3000 being excavated (By Phnom Kulen Program / ADF) *Back cover image*: Prasat Anlong Thom, western view (By Phnom Kulen Program / ADF)

Typeset by: Forum, Kuala Lumpur, Malaysia Printed by: C.O.S. Printers Pte Ltd

PART 1

۲

Southeast Asia's Neolithic: Common Origins, Cultural Diffusion and Antiquity of Human Occupation

۲



Chapter 1

The Prehistory of the Daic- or Kra-Dai-Speaking Peoples and the Hypothesis of an Austronesian Connection

Roger Blench

Introduction

The Daic or Kra-Dai (also Kadai, Tai-Kadai or Zhuàng-Dòng) languages cover a substantial region of East and Southeast Asia. Thai, their best-known representative, dominates Thailand, but the family is generally considered to originate in South China, where the languages are most diverse. Despite their importance, little is known about their prehistory, homeland and the causes of their expansion; proposed archaeological correlations deal only with the most recent phases. An earlier literature offered a wide variety of proposals, informed by only a little archaeology and a great deal of crypto-racial speculation (e.g. Dodd 1923; Mote 1964; Solheim 1964; Terwiel 1978).

A substantial literature concerning the identity of the ancient Yue peoples (e.g. Unknown 1992), whose cultures are extensively recorded in Chinese sources, exists in Chinese but has been little exploited by archaeologists. A connection of some type between Daic and Austronesian languages has long been noted, but recently, more linguists have begun to take seriously the argument that Daic is simply a branch of Austronesian, albeit radically restructured under the influence of mainland languages. This would imply that Austronesian speakers landed on the mainland and settled there at the same period as their movement out of Taiwan towards the Philippines. One possible confirmation of this hypothesis are the links in material culture and iconography between the cultures of aboriginal Taiwan and the Daic peoples. If so, this would imply rethinking our interpretation of the archaeological record. The paper examines linguistic, ethnographic, archaeological and iconographic evidence in support of this hypothesis.

The Daic Languages

The Daic or Kra-Dai languages are spoken from southern Thailand into Laos, Cambodia and China. Overviews of the phylum are given in Edmondson and Solnit (1988, 1997a) and Diller *et al.* (2008). Figure 1.1 shows the internal classification of Daic updated from Edmondson and Solnit (1997b) and *Ethnologue* (2009). The view that Daic languages are relatively closely related and that the greatest diversity is found in South China goes back to Haudricourt (1953):

The Tai languages situated west of the Red River such as Siamese, Shan, Lao, White Tai, Black Tai are very similar to one another; on the contrary on the eastern side of that river we find the languages which are more or less aberrant: Dioi, Caolan, Mak, Sui, or languages which are distant cousins such as Kelao, Tulao, Lati, Laqua. It seems that the Tai languages may have originated in the south of China and may not have spread across the Red River before the 10th century A.D. (123)

However, prior to the most recent "military" phases, the "engine" of this expansion is highly uncertain. Daic is almost certainly a candidate for an expansion driven by agriculture, as both crops and domestic animals can be reconstructed for the Daic proto-language. Ostapirat (2000) presents glosses that are shared across all three branches, including "pig" and "dog" and at least some crops. Table 1.1 shows reconstructible items relating to subsistence in Daic.

3/25/2013 7:35:07 PM

ROGER BLENCH



Figure 1.1: Figure Internal classification of Daic.

Table 1.1: Daic lexicon illustrative of subsistence

Language	chicken	pig	dog	sesame	'yam'
Gelao	qai	map	mpau	ŋklau	mbø
Lachi	kε	mye	m		mĥa
Laha	kəi	məu	maa		mal
Paha	qai	muu	maa	ŋaa	man
Buyang	?ai	muu		ŋaa	man
Biao	qai	muu	maa	ŋĥɯa	mhən
Hlai	khai	pou	pou	kew	man
Sui	qaai	muu	maa	?ŋaa	man
Tai	kai	muu	maa	ŋaa	man

Source: Ostapirat (2000).

Blench (2005) has presented evidence for the argument that speakers of proto-Daic were not originally rice-growers, and that they borrowed cultivation techniques from Austroasiatic speakers. Reconstruction has yet to produce positive evidence for their subsistence strategies, and it may be that

۲

۲

tubers such as taro, which is hard to detect archaeologically, was previously a significant staple (see below). But without greater insights into the pattern of Daic dispersal, linking it directly with any of the known archaeological horizons of South China remains speculative.

The Argument for a Link with Austronesian

All the language phyla of East Asia have been connected with one another at different times. Early "Indo-Chinese" hypotheses linked Daic with Chinese, or later, Sino-Tibetan (Van Driem 2005). Influential for a period was the "Austro-Thai" hypothesis, first advanced by Benedict (1942, 1975), which broadly claimed that Austronesian and Daic were related. Benedict (1990) later expanded his view to include Japanese, a direction few have followed. A problem for many authors was that Daic and Austronesian appear to be so very different on the surface; Daic is highly tonal with very short words, Austronesian is non-tonal and tends to have CVCV stems plus affixes. Hence, the tendency was to treat Daic as isolated or to link it with Tibeto-Burman, which appears much more similar in terms of morphology.

Benedict is often criticised for irregular semantics and individual arguments for each form, which lowers the threshold for a demonstration of relatedness. Indeed, Thurgood (1994) argued that the apparent relationship with Austronesian is simply that of loanwords. However, Ostapirat (2005) has supported a genetic affiliation with regular sound-correspondences in a way more acceptable to mainstream comparativists. Ostapirat does not advance a hypothesis as to the place of Daic, linking his "proto-Kra-Dai" with the Austronesian reconstructions of Blust in *Austronesian Comparative Dictionary*, now online at www.trussel2.com/ACD. Sagart (2004, 2005) puts Daic on a level corresponding to Malayo-Polynesian as branch of "Muish", part of his proposed phylogeny of Formosan Austronesian. The model is as shown in Figure 1.2.



Figure 1.2: Ancestry of Daic, according to Sagart 2005 (Source: Condensed from Sagart [2005]).

Sagart (2004) cites evidence from Buyang, a mainland Daic language, showing conservation of typical Austronesian morphology (Table 1.2).

Table 1.2: Evidence for Daic-Austronesian links

Gloss	Buyang	PAn	Malayo-Polynesian
die	ma-te ⁵⁴	maCay	matay
eye	ma-ta ⁵⁴	maCa	mata
bird	ma-nuk ¹¹	manuk	
head	qa-d'u ³¹²	quluh	quluh
louse	qa-tu ⁵⁴	kuCu	kutu
fart	qa-tut ⁵⁴	qetut	
raw	qa-?dip ⁵⁴	qudip	
cover v.	ta-qup ¹¹	1 1	WMP ta(ŋ)kup

Source: Adapted from Sagart (2004), following Haudricourt.

ROGER BLENCH

		1	
Gloss	Pre-Hl	PHI	PAn
slap	*pi:k	*phi:k	*pik
rub rope~weave	*bən	*pʰən	*bəl+bəl
pinch	*ti:p	*t ^h i:p	*a-tip (PMP)
seven	*tu:	*t ^h u:	*pitu
three	*tu:?	*t∫ʰu:?	*təru
sharp	*J9:m	*tɕʰə:m	*tajəm
five	*ma:	*hma:	*rima
six	*nom	*hnom	*?ənəm
maternal grandmother	*na:?	*hna:?	*ina 'mother's sister'
that	*C-na:	*C-na:	*i-na?
bury	*lomh	*hlomh	*taləm
fish scale	*C-lə:p	*C-lə:p	*quşəlap
eight	*ru:	*ru:	*waru
sell	*ri:w?	*ri:w?	*sariw

Table 1.3: Shared lexicon between Austronesian and proto-Hlai

Source: Norquest (2007: 413).

Norquest (2007: 413) points out that the Hlai branch of Daic shares some striking lexical items with proto-Austronesian which do not occur in the other branches. These are shown in Table 1.3.

This clearly demonstrates that typical Austronesian morphology was retained by Daic *after* the arrival of speakers back on the mainland and that the reduced forms now typical of most Daic languages are a later development. The pattern of morphosyntactic reduction is identical for the cognates with Kra pointed out by Ostapirat, namely the deletion or assimilation of the first syllable of the Austronesian form in Daic. None of these lexical items are specifically Formosan; they can just as well be PMP, which is certainly the case for Kra-Austronesian cognates identified by Ostapirat. The retention of these forms, in particular the numerals, is a striking testimony to the early diversification of Daic. Hlaic must have branched off at the same time as the Kra languages, retaining a specific set of Austronesian lexical items.

If this linguistic scenario is accepted, then proto-Daic speakers would have migrated back from the southern tip of Taiwan to the mainland in about 4000 BP, almost immediately splitting into the Kra and Hlaic branches. Kra speakers would have headed inland through Guangzhou, while Hlaic speakers remained on Hainan Island. At the same time, other Austronesian speakers were colonizing the northern Philippines and reaching the Marianas, apparently aided by newly-developed maritime techniques. Recent research has pointed to specialized deep-sea fishing techniques that enabled the capture of pelagic species such as the sailfish and the dolphin fish in the Northern Philippines and the Marianas (Iza Campos pers. comm.).

At this period, the Chinese mainland would have presented a ethnolinguistic picture very different from today. The main body of the Chinese population would have been further north and there would have been a diverse body of minority ethnic groups, speaking Hmong-Mien, Austroasiatic and other Tibeto-Burman languages (of which Tujia and Bai may well be the only remnants today) as well as entirely lost language phyla. The speakers of Daic would have spread inland slowly, gradually diversifying. Their most ancient branches were then assimilated by the southward expansion of the Han in all the areas near the coast. Widespread bilingualism would have been responsible for the pervasive restructuring of the language, in particular the development of a system of tones and the almost complete loss of the Austronesian prefixes. A second wave of evolution, whose immediate origins are unknown, was responsible for the rapid expansion of the Tai branch some 2000 years ago, leading to the characteristic pattern of extremely homogeneous languages in the southern Daic zone today. The military expansion of the Thai and their imposition of a national language must also have been responsible for language levelling, leading to the distinctive northern dialects coming closer to Central Thai.

Archaeological and Ethnographic Correlates

Archaeology

Is there an archaeological signature of the Daic expansion? Broadly speaking, no archaeological horizon has been identified that would correspond to such an expansion in its earliest phases (irrespective of the connection with Austronesian). However, it is striking that there is evidence for the rapid spread of the Neolithic in the Yunnan/northern Vietnam borderland, for example at Baiyuncun and Phung Nguyen some 4000 years ago (Higham 2002: 85ff). These sites are characterized by the "incised and impressed" pottery that spreads very rapidly across the region in this period (Rispoli 2008). The Myanmar Neolithic sites described in Moore (2007) have suggested similar material culture, although the few dates available so far are not as old as those further east. If Daic-speakers were Austronesians then they would already have had some type of cereal-based agriculture on leaving Taiwan. However, recent remodelling of the AN expansion points to a highly mobile "fisher-forager" subsistence (Bulbeck 2008) rather than the Neolithic "pigs and rice" economy that has until recently been dominant in the literature (e.g. Bellwood 2004). However, there is a better candidate for a correlation with "incised and impressed" pottery: the Austroasiatic languages, also apparently spreading around this time (Sidwell and Blench in press). It may therefore be that contact with Austroasiatic and Hmong-Mien speakers caused the incoming Austronesians to restructure what was a largely foraging economy and, in particular, to adopt vegeculture. This goes quite far out on a speculative limb; recent rethinking of the dates of the Bronze Age in northern Thailand have tended to support more recent dates, but evidence for subsistence systems remains indirect (Higham and Higham 2009). Indeed, further north and east, many of the widely-accepted dates for agriculture are coming into question (Fuller et al. 2008).

Contact with Austroasiatic languages would explain some things that are presently puzzling about the linguistic prehistory of Southeast Asia. It has long been noticed that there are a few words (such as the words for "eye" and "bird") which appear to be very similar in Proto-Austronesian and proto-Austroasiatic; this was taken by earlier scholars as evidence for an "Austric" macrophylum (see Reid 2005 for a review of this theory). But if such words were borrowed into Austroasiatic from the type of Daic spoken 4000 years ago, which would have resembled much more closely proto-Austronesian, this would explain the similarities without indulging an otherwise problematic genetic hypothesis.

Ethnographic Practices

Comparative ethnography is treated as having limited value in mainstream anthropology; some practices seem to be too common worldwide to constitute evidence in local cultural history. Nonetheless, in Southeast Asia, a combination of archaeological finds, textual records and ethnographic practice make it possible to support particular historical trajectories. Nonetheless, for this narrative to stand up to scrutiny, cultural practices have to be identified that are common to Taiwan and the Daic area and not simply regional; if something is common among many groups then it may simply be diffused and thus not relevant. Moreover, common features in the culture of South China can be shared with island Southeast Asia as part of the Austronesian heritage, and are thus interesting but not useful for this argument. But combining textual references and ethnography records distinctive practices such as dental mutilation and teeth-blackening, which show links to Taiwan. Some of these at least can be confirmed in the archaeological record. Common synchronic material culture, such as idiosyncratic musical instruments, may also be used as additional evidence.

Face-tattooing

Yue (i) was a general name for a complex of loosely-related ethnic groups which inhabited broad areas of southern China, often referred to as Bai yue (Hundred Yue). According to *Records of the Late Han Dynasty: a history of the southern aborigines*: "The two prefectures, Zhuya and Dan'er were on the island, about one thousand *li* east to west, 500 *li* (~ 250 km) from south to north. The headman of

ROGER BLENCH

the aborigines living there thought it was noble to make their ears long, so the people there all bored holes in their earlobes, and pulled them down close to their shoulders ... and called it *Dan'er*." Sima Qian (1993) in the section *Record of the Southwest and southern barbarians*, part of *Records of the grand historian* (史記), states that the ancestors of the Dai in Yunnan were the Dian Yue (滇越). In *A survey of the aborigines* (Tang Dynasty), Fan Chuo (1961) refers to them as "Black Teeth" and as "Face-tattooed". Figure 1.3 shows a terracotta figurine excavated in Yunnan that almost certainly represents a tattooed face.

Tattooing on the face was common with most Taiwanese groups. Under the Japanese occupation, there was a violent and ultra-cruel campaign to eliminate it, hence it is hardly seen today. Figure 1.4 shows a set of Atayal tattooing equipment. Tattooing is noted as a feature of the Yue in early Chinese descriptions and is still practised among groups such as the Gelao and Dulong today. Figure



Figure 1.3: Face-tattooing represented on a terracotta figurine excavated in Yunnan. Courtesy of Xishuangbanna Autonomous Prefecture Nationality Research Institute (Reproduced from Liu Yan 1999).



Figure 1.4: Atayal tattooing equipment (Courtesy of The Taiwan Museum. Reproduced from Chen 1968).

۲

۲

THE PREHISTORY OF THE DAIC- OR KRA-DAI-SPEAKING PEOPLES

1.5 shows typical face tattooing among the Trung [= Dulong], a Tibeto-Burman group in Yunnan. Tattooing is widespread but patchy in the region especially in the Austronesian world. For example, it is not typical in the Northern Philippines, but occurs in Borneo and Polynesia (Hambly 1925; Gilbert 2001). It occurs in Japan and Siberia, but in China proper it is never on the face and has a strong association with criminality (Ceresa 1996; Chen Yuanming 1999); hence its salience of the "southern barbarians" for Chinese historians.

Dental Ablation or Evulsion

Dental ablation or evulsion is the deliberate taking out of teeth, most notably the front incisors, but often others as well. It can be detected in the archaeological record as well as in ethnographic accounts, but has tended to disappear in recent times, like many types of permanent body mutilation. Dental ablation has a worldwide distribution: for example, it is common in the Lakes Region of Central Africa (Frazer 1910). It occurs in Siberia and Jomon period Japan, although there is some debate about whether the ablation seen in skeletal material was intentional or simply loss through use. Its pattern in the Southeast Asian region is quite striking. It is not in use generally in island Southeast Asia (see Van Rippen 1918) and an exhaustive review of Philippines ethnographic practice reports no examples (Zumbroich and Salvador-Amores 2009). Despite this, it is common in Taiwan (and incidentally associated with the millet harvest in some groups). Figure 1.6 shows a Tsou woman in Taiwan with dental ablation, photographed by Segawa in the 1930s (Yuasa 2000:61). Yuasa (2000:39) also reproduces a series of photographs of Tsou men, showing both ablation and teeth blackening.



Figure 1.5: Tattooed Trung woman (Reproduced from Rongfen 1995).



Figure 1.6: Tsou dental ablation in Taiwan (Photograph: Segawa Kohkichi, taken in the 1930s).

Ablation is recorded ethnographically and archaeologically in South China (and some sites in North China). Zhu Feisu (1984) reports ablation from pre-Qin sites in Guangdong. Chinese records also mention dental ablation and teeth colouring (Mote 1964). The *Tianbao shilu* (Veritable Record of the Celestial Treasure Reign period) says that "the Jiu mountains in Rinan county are a connected range of an unknown number of *li*. A *Luo* (lit. naked) man lives there. He is a descendant of the Bo people. He has tattooed his chest with a design of flowers. There is something like purple-coloured powder that he has painted below his eyes. He has removed his front two teeth, and he thinks of it all as beautiful decoration."

9

ROGER BLENCH

Ethnographically, a number of Daic peoples of South China still practise ablation. Figure 1.7 shows a Tai woman with her two bottom front teeth removed. Tapp and Cohn (2003) have republished an 18th-century album of "Savage Southern Tribes" showing pre-marital dental ablation among the Gēlǎo [仡佬 also Qilao], a Kra-Dai group (Fig. 1. 8).

The distribution of dental ablation on the mainland in archaeological sites is also quite indicative. There is no record of its occurrence in Daic-speaking peoples in Thailand today. The most comprehensive review of Southeast Asian dental ablation is Tayles' (1996) who describes its occurrence at Khok Phanom Di. Sangvichien *et al.* (1969) report ablation from Ban Kao while Nelsen *et al.* (2001) argue for its presence at Noen U-Loke in Northeast Thailand (ca 200 BC to ca AD 500). However, it is extremely common in dental material from northern and Central Thailand from about 3500 BP onwards. These dates should be



Figure 1.7: Current Tai dental ablation (Courtesy of Yunnan Museum of Minority Nationalities).

quoted with some caution, since radiocarbon dates from the Southeast Asian mainland are going through a period of uncertain re-appraisal. It seems that many older dates will have to be discarded and trust can only be reposed in those with a Bayesian network of credible dates (Higham and Higham 2009). Oxenham (2006) reports possible cases of ablation from the Da But period sites in northern Vietnam. Figure 1.9 shows two skulls excavated in South China that also illustrate dental ablation clearly. The patterning shows that this cannot possibly be accidental tooth loss.



Figure 1.8: Qilao [= Gēlǎo] ablation before marriage (Part of an illustration in the *Album Description of the Wild Tribes of China*. British Library 16594/5, prior to 1797).

۲

THE PREHISTORY OF THE DAIC- OR KRA-DAI-SPEAKING PEOPLES

Teeth Blackening

Teeth-blackening is distinct from betelchewing and uses plant-derived dyes to colour the teeth. It is reported among the various minorities on Taiwan, including the Tsou (see above). Chen (1968:256) says "Tooth-blacking was also common among the Paiwan and Ami". Zumbroich and Salvador-Amores (2009) show that, until recently, it was common in many parts of the Philippines and that a highly diverse range of botanical resources were used to create the desired effect, including New World plants introduced by the Spanish. Tooth blackening is also common among various Yunnan



Figure 1.9: Archaeological Dongyis skulls from South China (Courtesy of Xishuangbanna Autonomous Prefecture Nationality Research Institute. From Liu Yan 1999).

minorities and is referred to in the Chinese historical sources cited above. Zumbroich (2009) has reviewed the Southeast Asian ethnographic and historical sources for this practice, which seems to occur as far west as Myanmar. The usual plant used for this purpose, both in Taiwan and Yunnan is the fevervine, *Paederia scandens* (Fig. 1.10) (see also Yuasa 2000: 61). However, teeth-blackening is also common among the Vietnamese (an Austroasiatic-speaking people). Frank observes (1926: 168):

about marriage time, which in Annam is early in life, every Annamese, of either sex, is expected to have his teeth lacquered black by a process said to be very painful ... and to the Annamese a person is handsome



Figure 1.10: Paederia scandens, fevervine, the tooth-blackening plant (Wikimedia Commons).

ROGER BLENCH

only if his teeth were jet-black. "Any dog can have white teeth" say the Annamese, looking disparagingly at Europeans.

There are two other types of dental modification in the region which may eventually turn out to have historical significance, the use of inserts, either of jewels or precious metals and teeth-filing. The filing of the teeth into a characteristic V-shape occurs both in island Southeast Asia and among minorities on the mainland and should be detectable in the archaeological record.

Musical Instruments: The Multi-Tongue Jews' Harp

The Jews' harp is a plucked aerophone found across Eurasia from Korea to the British Isles. However, it takes a particular form in the East Asian region, which is quite exceptional. It has multiple tongues, which enable the player to produce a variety of fundamentals and thus to develop relatively complex melodies. It also has a highly restricted distribution, being known only in Taiwan and in South China. Speakers of Austronesian languages in Taiwan developed some unusual types with multiple tongues (Fig. 1.11), which made possible various types of speech-imitation (Li Hwei 1956; Ling 1961; Lenherr 1967; Wu 1994; Hsu 2002). Such types are also widespread in South China (Fig. 1.12) (Yuan Bingchang and Mao Jizeng 1986: ill. following p. 240). There is a common feature in Taiwan and the mainland: the use of these Jews' harps in courtship rituals. The tonal nature of these languages allows "talking" and speech-imitation, where the changing pitches of a melody mimic those of speech-tones. The extreme organological specificity of this instrument and its restricted occurrence, together with an extremely similar context of use, point strongly to a connection between the two regions.



Figure 1.11: Amis multi-tongue Jews' harps (Courtesy of The Taiwan Museum. Reproduced from Ling 1961).



Figure 1.12: Multi-tongue Jews' harp in Yunnan (Courtesy of Yunnan Museum of Minority Nationalities).

Conclusions: Further Research

This paper has pulled together a variety of evidence — linguistic, archaeological, ethnographic and textual — supporting the hypothesis that Daic is a branch of Austronesian and that its earliest speakers may have left Taiwan during the period of the earliest Austronesian expansion that also resulted in the Malayo-Polynesian languages. The linguistic evidence for a genetic affiliation of Austronesian with Daic seems convincing, but the historical and cultural evidence remains scrappy and difficult to interpret. This paper contains some suggestions for lines of evidence to pursue, and are not fully worked out arguments. In particular, the absence of an archaeological signature needs to be addressed. Figure 1.13 shows a map which illustrates schematically the proposed expansion of the Austronesian speakers, the movement of Daic back to the mainland and its subsequent dispersal.

THE PREHISTORY OF THE DAIC- OR KRA-DAI-SPEAKING PEOPLES



Figure 1.13: Map showing hypothetical expansion of Daic speakers.

Acknowledgements

I would like to thank Doug Cooper, George van Driem, Laurent Sagart and Thomas Zumbroich and the anonymous referee for discussions, comment and access to unpublished data that have improved the argument of this paper.

References

۲

- Bellwood, Peter (2004), "The origins and dispersals of agricultural communities in Southeast Asia", in *Southeast Asia: from prehistory to history*, ed. I. Glover and P. Bellwood. Abingdon: RoutledgeCurzon, pp. 21-40.
- Benedict, Paul King (1942), "Thai, Kadai, and Indonesian: a new alignment in Southeastern Asia", *American Anthropologist* 44: 576–601.
 - ____ (1975), Austro-Thai language and culture, with a glossary of roots. New Haven: Human Relations Area Files Press.
 - (1990), Japanese/Austro-Tai. Ann Arbor: Karoma Publishers (Linguistica Extranea Studia 20).
- Blench, R.M. (2005), "From the mountains to the valleys: understanding ethnolinguistic geography in SE Asia", in *The peopling of East Asia: putting together archaeology, linguistics and genetics*, ed. Laurent Sagart, Roger Blench and Alicia Sanchez-Mazas. London: Routledge, pp. 31–50.
- Bulbeck, David (2008), "An integrated perspective on the Austronesian diaspora: the switch from cereal agriculture to maritime foraging in the colonisation of island SE Asia", *Australian Archaeology* 67: 31–52.
- Ceresa, Marco (1996), "Written on skin and flesh: the pattern of tattoo in China, Part One: Generalities", in [s.n.] *Studi in Onore Di Lionello Lanciotti*. Naples: Institute Universitario Orientale, pp. 329–40.
- Chen Yuanming (1999), Shenti yu huawen-chuantong shehui de wenshen xishang ji qi liubian (Chen Yuanming's own translation: *Tattooing the body in traditional China*). Taipei: Institute of History and Philology, Academia Sinica.
- Chen, Chi-lu (1968), Material culture of the Formosan aborigines. Taipei: National Museum.
- Diller, Anthony V.N., Jerold A. Edmondson and Luo Yongxian, eds. (2008). *The Tai-Kadai Languages*. London [etc.]: Routledge.
- Dodd, W.C. (1923), The Thai race. Iowa: Cedar Rapids.
- Edmondson, J.A. and D.B. Solnit, eds. (1988), *Comparative Kadai: linguistic studies beyond Tai*. Dallas: Summer Institute of Linguistics and the University of Texas at Arlington.
 - _____ eds. (1997a), *Comparative Kadai: the Tai branch.* Dallas: Summer Institute of Linguistics and the University of Texas at Arlington.
- Edmondson, J.A. and D.B. Solnit (1997b), "Introduction", in *Comparative Kadai: the Tai branch*. Dallas: Summer Institute of Linguistics and the University of Texas at Arlington, pp. 1–32.

ROGER BLENCH

Fan, Zhuo (ed. Gordon H. Luce) (1961), *Man Shu: Book of the Southern Barbarians*. Ithaca: Cornell University Press (Southeast Asia Program Data Paper 44).

Frank, H.A. (1926), East of Siam: ramblings in the five divisions of French Indo-China. New York: Century Books.

Frazer, J.G. (1910), Totemism and exogamy, vol. IV. London: Macmillan.

Fuller, D., Lin Qin and Emma Harvey (2008), "Evidence for the late onset of agriculture in the Lower Yangtze region and challenges for an archaeobotany of rice", in *Human migrations in continental East Asia and Taiwan: matching archaeology, linguistics and genetics*, ed. Alicia Sanchez-Mazas, R.M. Blench, M.D. Ross, I. Peiros and Marie Lin. London: Routledge, pp. 40–83.

Gilbert, Steve (2001), The tattoo history source book. New York: Juno Books.

- Hambly, W.D. (1925), *The History of tattooing and its significance, with some account of other forms of corporal marking*. London: Witherby.
- Haudricourt, A-G. (1953), "La place du viêtnamien dans les langues austroasiatiques", *Bulletin de la Société de Linguistique de Paris* 49, 1: 122–8.

Higham, Charles (2002), Early cultures of mainland Southeast Asia. Bangkok: River Books.

- Higham, Charles and Thomas Higham (2009), "A new chronological framework for prehistoric Southeast Asia, based on a Bayesian model from Ban Non Wat", *Antiquity* 83: 125–44.
- Hsu, Tsang-houei (2002), "Taiwan: music of the Taiwan aborigines", in *East Asia: China, Japan and Korea: Garland Encyclopaedia of World Music, Volume 7.* London: Routledge, pp. 523–9.
- Lenherr, Joseph (1967), "The musical instruments of the Taiwan aborigines", Bulletin of the Institute of Ethnology, Academia Sinica 23: 109–25.
- Li Hwei (1956), "A comparative study of the jew's harps among the aborigines of Formosa and East Asia", *Bulletin of the Institute of Ethnology, Academia Sinica* 1: 85–140.
- Ling, Mary (1961), "Musical instruments of the Ami tribe", *Bulletin of the Institute of Ethnology, Academia Sinica* 4: 185–210 (Chinese with English summary: 217–20).
- Liu Yan (1999), An on-the-spot investigation into the southerly migration of the Dai race. Kunming: Yunnan Nationality Press.

Moore, Elizabeth H. (2007), Early landscapes of Myanmar. Bangkok: River Books.

Mote, F.W. (1964), "Problem of Thai prehistory", Social Science Review 2: 100-9.

Nelsen, K., N. Tayles and K. Domett (2001), "Missing lateral incisors in Iron Age South-East Asians as possible indicators of dental agenesis", Archives of Oral Biology 46: 963–71.

Norquest, Peter K. (2007), "A Phonological Reconstruction of Proto-Hlai", PhD thesis, Department of Anthropology, University of Arizona.

Ostapirat, Weera (2000), "Proto-Kra", Linguistics of the Tibeto-Burman area 23, 1.

(2005), "Kra-Dai and Austronesian: Notes on phonological correspondences and vocabulary distribution", in *The peopling of East Asia: putting together archaeology, linguistics and genetics*, ed. Laurent Sagart, Roger Blench and Alicia Sanchez-Mazas. London: RoutledgeCurzon, pp. 107–31.

Oxenham, Marc F. (2006), "Biological responses to change in prehistoric Viet Nam", Asian Perspectives 45, 2: 212-39.

Reid, Lawrence A. (2005), "The current status of Austric", in *The peopling of East Asia: putting together archaeology, linguistics and genetics*, ed. Laurent Sagart, Roger Blench and Alicia Sanchez-Mazas. London: RoutledgeCurzon, pp. 132–60.

Rispoli, F. (2008), "The incised and impressed pottery of mainland Southeast Asia: following the paths of Neolithization", *East and West* 57: 235–304.

Rongfen, Luo (1995), Face-tattooed women in nature: the Dulongs. Kunming: Yunnan Education Publishing House.

Sagart, Laurent (2004), "The higher phylogeny of Austronesian and the position of Tai-Kadai", *Oceanic Linguistics* 43, 2: 411–44.

(2005a), "Sino-Tibetan-Austronesian: an updated and improved argument", in *The peopling of East Asia: putting together archaeology, linguistics and genetics*, ed. Laurent Sagart, Roger Blench and Alicia Sanchez-Mazas. London: RoutledgeCurzon, pp. 161–76.

(2005b), "Tai-Kadai as a subgroup of Austronesian", in *The peopling of East Asia: putting together archaeology, linguistics and genetics*, ed. Laurent Sagart, Roger Blench and Alicia Sanchez-Mazas. London: RoutledgeCurzon, pp. 177–81.

Sangvichien, S., P. Sirigaroon and J.B. Jørgensen (1969), *Archaeological Excavations in Thailand Vol. III*. Copenhagen: Munksgaard.

Sidwell, Paul and R.M. Blench (in press), "The Austroasiatic *Urheimat*: the Southeastern Riverine Hypothesis", in *Dynamics of human diversity: the case of mainland Southeast Asia*, ed. N.J. Enfield and Joyce C. White. Canberra: Pacific Linguistics.

۲

 \bigcirc

THE PREHISTORY OF THE DAIC- OR KRA-DAI-SPEAKING PEOPLES

Sima Qian (trans. Burton Watson) (1993), *Records of the grand historian: Han dynasty*. Hong Kong: Research Centre for Translation, The Chinese University of Hong Kong. Second revised edition.

Solheim, W.G. (1964), "Thailand and prehistory", Silpakon 8: 42–77.

- Tapp, Nicholas and Don Cohn (2003), *The tribal peoples of Southwest China: Chinese views of the other within*. Bangkok: White Lotus.
- Tayles, N. (1996), "Tooth ablation in prehistoric Southeast Asia", *International Journal of Osteoarchaeology* 6: 333–45. Terwiel, B.J. (1978), "The origin of the T'ai peoples reconsidered", *Oriens Extremus* 25, 2: 239–58.
- Thurgood, Graham (1994), "Tai-Kadai and Austronesian: the nature of the relationship", *Oceanic Linguistics* 33, 2: 345–68.
- Unknown. (1992), From the Yues to the Thais. Kunming: not known.
- Van Driem, G.L. (2005), "Tibeto-Burman vs. Indo-Chinese: implications for population geneticists, archaeologists and prehistorians", in *The peopling of East Asia: putting together archaeology, linguistics and genetics*, ed. Laurent Sagart, Roger Blench and Alicia Sanchez-Mazas. London: RoutledgeCurzon, pp. 81–106.
- Van Rippen, B. (1918), "Dental procedures among the natives of Australasia, Melanesia, Polynesia and Micronesia", *Journal of the Allied Dental Societies* 13: 365–87.
- Wu, Rung-Shun (1994), *The music of the aborigines on Taiwan island, Vol. 5. The Songs of the Atayal Tribe.* TCD 1505. Wind Records, Taipei.
- Yuan Bingchang and Mao Jizeng, eds. (1986), *Zhongguo shaoshu minzu yueqi zhi* [The musical instruments of ethnic minorities in China: a dictionary]. Beijing: Xinsjijie Chubanshe.
- Yuasa, Hiroshi (2000), Segawa's illustrated ethnography of indigenous Formosan people: the Tsou. Taipei: SMC publishing.
- Zhu Feisu (1984), "Several problems related to the archaeology of Neolithic Guangdong", in *Archaeological finds from pre-Qin sites in Guangdong*, ed. P.Y.K. Lam. Hong Kong: Hong Kong Chinese University Press, pp. 30–42.
- Zumbroich, Thomas J. (2009), "Teeth as black as a bumble bee's wings: the ethnobotany of teeth blackening in Southeast Asia", *Ethnobotany Research and Applications* 7: 381–98.
- Zumbroich, Thomas J. and Analyn Salvador-Amores (2009), "When black teeth were beautiful: the history and ethnography of dental modifications in Luzon, Philippines", *Studia Asiatica* 10: 125–65.