

THE PREHISTORY OF THE DAIC (TAI-KADAI) SPEAKING PEOPLES AND THE HYPOTHESIS OF AN AUSTRONESIAN CONNECTION

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1. Introduction

The Daic or Tai-Kadai (also Kra-Dai and Zhuang-Dong) languages cover a substantial region of East and SE Asia. Thai, their best-known representative, dominates Thailand, but the language family is generally considered to originate in South China, where they 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 made 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 exists in Chinese concerning the identity of the ancient Yue peoples (e.g. unknown 1992), whose cultures are extensively recorded in Chinese sources, but this 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 actually 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 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.

2. The Daic languages

The Daic or Tai-Kadai languages are spoken from southern Thailand into Laos, Cambodia and China. Overviews of the phylum are given in Edmondson & Solnit (1988, 1997a) and Diller et al. (2008). Figure 1 shows the internal classification of Daic updated from Edmondson & Solnit (1997b). 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.’¹⁰

Haudricourt (1953:123)

However, prior to the most recent ‘military’ phases, the ‘engine’ of this expansion is highly uncertain. Although Daic is almost certainly a candidate for an expansion driven by agriculture, there is no obvious archaeological correlate. Both crops and domestic animals can be reconstructed for proto-Daic. Ostapirat (2000) presents some glosses that appear to be shared across all three branches, including ‘pig’ and ‘dog’ and at least some crops. Table 1 shows reconstructible items relating to crops and domestic animals in Daic.

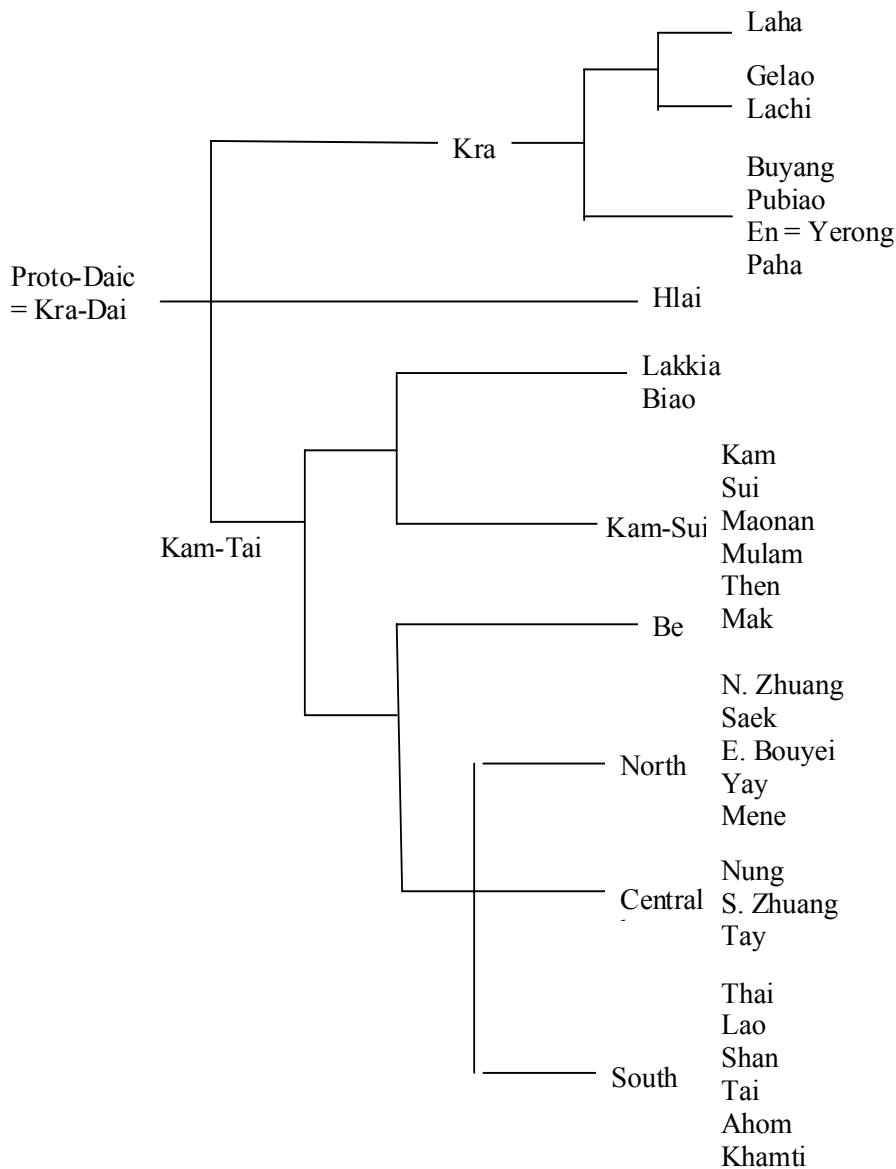
Blench (2005) has presented some evidence for thinking that speakers of proto-Daic were not originally rice-growers, and that they borrowed cultivation techniques from Austroasiatic speakers. Reconstruction has yet to produce positive evidence for their subsistence strategies, and it may be that they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

Table 1. Daic lexicon illustrative of subsistence

Language	chicken	pig	dog	sesame	'yam'
Gelao	qai	map	mpau	ŋklau	mbø
Lachi	ke	mye	m	—	mfa
Laha	kəi	məu	maa	—	mal
Paha	qai	muu	maa	ŋaa	man
Buyang	ʔai	muu	—	ŋaa	man
Biao	qai	ṃuu	ṃaa	ŋfiua	mfiən
Hlai	khai	pou	pou	keu	man
Sui	qaai	ṃuu	ṃaa	ʔŋaa	man
Tai	kai	muu	maa	ŋaa	man

Source: Ostapirat (2000)

Figure 1. Internal classification of Daic



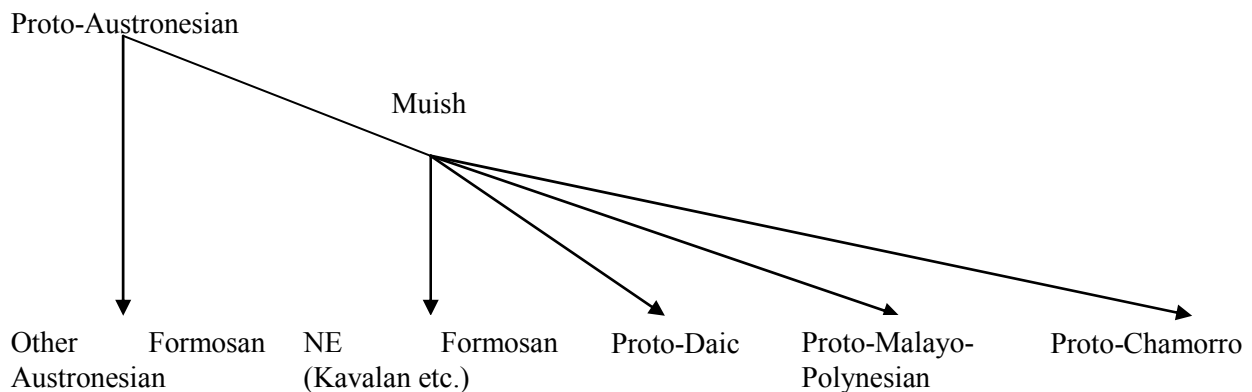
3. The argument for a link with Austronesian

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 'Austro-Thai', a hypothesis first advanced by Benedict (1942, 1975), which broadly claimed

Austronesian and Daic were related. Benedict (1990) later expanded his view to include Japanese, a direction in which 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 Sino-Tibetan, 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. Sagart (2004, 2005a,b) puts Daic on a level corresponding to Malayo-Polynesian as branch of ‘Muish’, part of his proposed phylogeny of Formosan Austronesian. The model is thus;

Figure 2. Ancestry of Daic according to Sagart (2005)



Source: Condensed from Sagart (2005b)

Sagart (2004) cites evidence from Buyang, a mainland Daic language, showing conservation of typical Austronesian morphology (Table 2).

Table 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-ʔdip ⁵⁴	qudip	
cover v.	ta-qup ¹¹		WMP ta(η)kup

Source: adapted from Sagart (2004)

This demonstrates neatly 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.

If this linguistic scenario is accepted, then proto-Daic speakers would have migrated back from the southern tip of Taiwan about 4000 BP, at the same time that other Austronesian speakers were colonising the northern Philippines and reaching the Marianas, apparently aided by newly developed maritime techniques. At a period of significant maritime dispersal, there is no reason in principle why there should not also have been a back-migration to the mainland.

At this period, the Chinese mainland would have presented a very different ethnolinguistic picture 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 Sino-Tibetan 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. Probably their most ancient branches would have been assimilated by the southward expansion of the Han in all the areas near the coast. Pervasive 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 today of extremely homogeneous languages in the southern Daic zone. 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.

4. Archaeological and ethnographic correlates

4.1 Archaeology

Is there an archaeological signature of the Daic expansion? Broadly speaking, no archaeological horizon has been identified which 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 expansion of the Neolithic in the Yunnan/Northern Vietnam borderland, for example at Baiyuncun and Phung Nguyen some 4000 years ago (Higham 2002: 85 ff.). These sites are characterised 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 suggestively similar material culture, although the few dates so far available as not as old as those further east. If Daic-speakers were Austronesians then they already had some type of agriculture on leaving Taiwan. The encounter with foraging economies may have enabled them to initiate an agricultural revolution which would account for their rapid expansion. However, there is an alternative candidate for a correlation with ‘incised and impressed’ pottery, the Austroasiatic languages, also apparently spreading around this time. This is to go quite far out on a speculative limb; the density of archaeological sites is not such that we can be very certain about the exact dates and transmission of agriculture. Indeed, further north and east, many of the widely-accepted dates for agriculture are coming into question (Fuller et al. 2008).

Nonetheless, contact with Austroasiatic languages would explain some things that are presently puzzling about the linguistic prehistory of SE Asia. It has long been noticed that there are a few words (such as the word for ‘eye’) which appear to be very similar in Proto-Austronesian and proto-Austroasiatic; this was taken by earlier scholars as evidence for an ‘Austriac’ macrophylum (see Reid 2005 for a review of this theory). But if they 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.

4.2 Ethnographic practices

4.2.1 General

Comparative ethnography is treated as of limited value in mainstream anthropology; some practices seem to be too common worldwide to constitute evidence in local cultural history. Nonetheless, in SE 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, cultural practices have to be identified that are common to Taiwan and the Daic area and not simply regional; if something 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 SE Asia as part of the Austronesian heritage, and are thus interesting but not useful for this argument. But combining textual references and ethnography can suggest directions in which to look. Early texts describe the minorities of South China, and modern 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.

4.2.2 Face-tattooing

Yue (越) 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, 500 *li* (~ 250 km) from south to north. The headman of 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) in his states that the ancestors of the Dai in Yunnan were the Dian Yue (滇越). Fan Chuo (1961) in *A Survey of the Aborigines* (Tang Dynasty) refers to them as 'Black Teeth' and as 'Face-Tattooed'. Photo 1 shows a terracotta excavated in Yunnan that almost certainly represents a tattooed face.

Photo 1. Face-tattooing represented on a terracotta excavated in Yunnan



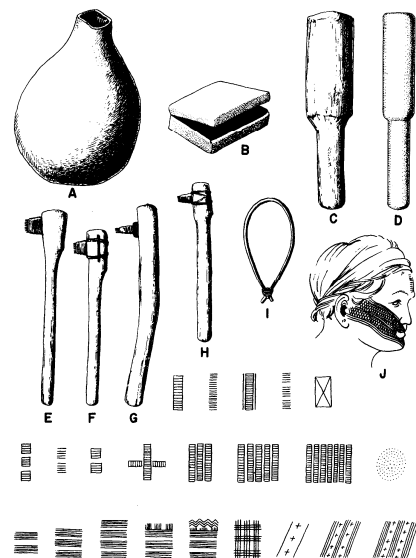
Tattooing on the face was common with most Taiwanese groups. Under the Japanese occupation there was a violent and ultra-cruel campaign to eliminate it, hence it is hardly seen today. Figure 3 shows a set of Atayal tattooing equipment. Tattooing is noted as a feature of the Yue in early Chinese descriptions and is still practised among groups such as the Gelao and Dulong today. Photo 2 shows typical face tattooing among the Trung [=Dulong], a Sino-Tibetan group in Yunnan. Tattooing is widespread but patchy in the region especially in the Austronesian world. For example, it is not typical of the Northern Philippines, but occurs in Borneo and Polynesia (Hambly 1925; Gilbert 2001). It does occur 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 for Chinese historians of the 'Southern Barbarians'.

Photo 2. Tattooed Trung woman



Source: Rongfen (1995)

Figure 3. Atayal tattooing equipment



4.3.3 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 SE Asian region is quite striking. It is not in use generally in island SE Asia (though see Van Rippen 1918) but is common on Taiwan (and incidentally associated with the millet harvest in some groups). Photo 3 shows a Tsou woman on 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.

Photo 3. Tsou dental ablation on Taiwan



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.’

Photo 4. Current Tai dental ablation



Ethnographically, a number of Daic peoples of South China still practise ablation. Photo 4 shows a Tai woman with her two bottom front teeth removed. Tapp & Cohn (2003) have republished an eighteenth century album of ‘Savage Southern Tribes’ showing pre-marital dental ablation among the Gelao [Qiao] a Daic group (Photo 5).

Photo 5. Qiao [=Gelao] ablation before marriage



The distribution of dental ablation on the mainland in archaeological sites is also quite indicative. There is no record of its occurring in Daic-speaking peoples in Thailand today. The most comprehensive review of SE Asian dental ablation is Tayles (1996)

Photo 6. Archaeological skulls from South China



who describes its occurrence at Khok Phanom Di. Sangvichien et al. (1969) report ablation from Ban Kao. Nelsen et al. (2001) argue for its presence at Noen U-Loke in NE Thailand (ca 200 BC to ca 500 AD). However, it is extremely common in dental material from Northern and central Thailand from about 3500 BP onwards¹. Oxenham (2006) reports possible cases of ablation from the Da But period sites in Northern Vietnam. Photo 6 shows two skulls excavated in South China which also clearly

¹ I quote this date with some caution, since radiocarbon dates from the SE Asian mainland are going through a period of uncertain re-appraisal (Higham 2008). 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.

illustrate dental ablation. The patterning shows that this cannot possibly be accidental tooth loss.

4.2.4 Teeth blackening

Teeth-blackening is distinct from betel-chewing 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-blackening was also common among the Paiwan and Ami’. Tooth blackening is also common among various Yunnan minorities and is referred to in the Chinese historical sources cited above. The usual plant used for this purpose, both in Taiwan and Yunnan is the fevervine, *Paederia scandens* (Photo 7) (see also Yuasa 2000: 61). However, teeth-blackening is also common among the Vietnamese (an Austroasiatic-speaking people). Here is Frank (1926:168);

Photo 7. *Paederia scandens*, fevervine, the tooth-blackening plant



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

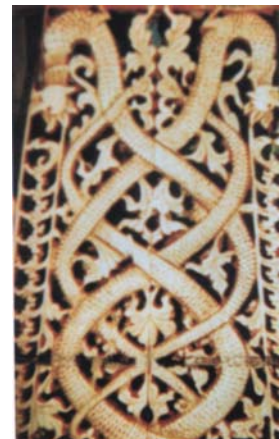
4.3 Iconography: intertwined snakes

Snake cults are deeply embedded in Taiwanese indigenous culture and a particularly widespread image is of two snakes intertwined. Photo 8 shows a panel with two intertwined snakes from Taiwan. Snake cults also survive among such groups as the Zhuang in South China. This is not evidence in itself, as snake cults are widespread in the region. However, in South China the typical representation is more commonly two intertwined dragons which closely resembles the Taiwanese imagery

Photo 8. Intertwining snakes: Taiwan



Photo 9. Carved wooden panel, showing two dragons: South China



4.4 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 on Taiwan and in South China. Speakers of Austronesian languages on Taiwan developed some unusual types with multiple tongues, 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 (Yuan Bingchang & Mao Jizeng 1986: ill. following p. 240). There is additional common feature to Taiwan and the mainland, the use of these Jews' harps in courtship rituals. The tonal nature of these languages makes possible 'talking', 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.

5. 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 which 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, not fully worked out arguments. In particular, the absence of a archaeological signature needs to be addressed. Figure 5 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.

Figure 4. Amis multi-tongue Jews' harps

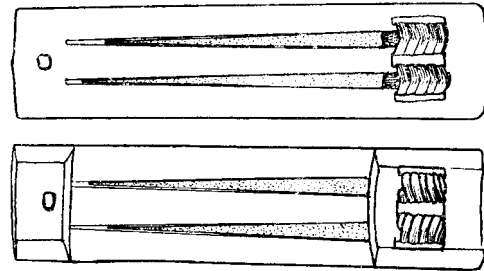


Photo 10. Multi-tongue Jews' harp in Yunnan



Figure 5. Map showing hypothetical expansion of Daic speakers



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