AUSTRO-THAI AND AUSTROASIATIC[1]

Paul K. Benedict
Visiting Scholar, Columbia University

The reconstruction of Austro-Thai in its broad outlines, along with the establishment of a core Austro-Thai vocabulary, naturally leads to the question: can a relationship be set up between this group of languages and Austroasiatic? Schmidt (1906) proposed that an "Austric" superstock be recognized, to include Austronesian along with Austroasiatic, and presented 215 comparisons between the two stocks. The problem has been much discussed since that time but remarkably little of value has been added: Winstedt (1917) offered some direct comparisons between Khasi and Malay, Cowan (1948) emphasized the presence of some specific lexical tie-ups between Achinese and Cham and/or Mon-Khmer (this point still stands in need of clarification, but a Mon-Khmer substratum in Sumatra seems the least likely of several possible explanations) and Kuiper (1948), in a contribution of some importance, compared the Munda languages with Austronesian. The writer (Benedict 1942: 599, note 55) provisionally accepted the "Austric" thesis but made no detailed study of the problem at that time. Now, with the availability of Austro-Thai reconstructions supposedly tapping an even deeper level, we are in a position to examine the relevant material. As clearly demonstrated by Schmidt--and emphasized repeatedly by later writers--the Austroasiatic and Austronesian families exhibit a basic similarity in

orphology, with striking correspondences in prefixes nd infixes. Pinnow (1960) has presented a strong ase for including suffixes in the basic Austronesian attern. The mainland Austro-Thai languages (Kadai nd Miao-Yao) provide no significant new information n this point inasmuch as they tend to reduce all orms to monosyllables, with consequent disruption of he affixation features. In view of this we shall mphasize in this paper a comparison of phonological ystems and of specific lexical forms. The basic uestion to be answered can be formulated as follows: n addition to the congruency in over-all configura- ion, which might be ascribed to areal factors, do ustro-Thai and Austroasiatic share a common corpus f roots from the core vocabulary, sufficient to ustify a conclusion that these two superstocks are enetically related, or are the lexical agreements hat exist of a lesser order, to be explained in erms of borrowing/substratum or the like?

Comparative Austroasiatic studies languished for any years after Schmidt's pioneering efforts in the arly 1900's but then Shafer (1952) presented some rovisional reconstructions for the Palaung-Wa lan- uages and Pinnow (1959) provided a powerful impetus or the field as a whole in his comprehensive anal- sis of the intricate Munda materials. Recently roto-language sound systems have been set up for everal local groupings in the eastern Austroasiatic egion, including Proto-Jeh-Halăng (Thomas and Smith 967), contributing to Proto-North-Bahnaric (Smith 972) and Proto-Viet-Muong (Thompson, in this collec- ion; Barker and Barker 1970), while Benjamin (Aus- roasiatic Subgroupings and Prehistory in the Malay eninsula, in this collection) has presented compara- ive material on the Aslian (Malay Peninsula) lan-

guages (the basis for our cited Aslian reconstructions). Shorto has contributed several important papers in the field, including an analysis of the Northern Mon-Khmer (Palaung-Wa) languages (1963), and has now achieved a provisional reconstruction of Proto-Mon-Khmer vocalism (see his paper in this collection). As a result of this surge of activity in the field we are now in a position to make a preliminary survey of the Austroasiatic stock as a whole from the very special point of view of comparing the phonological framework with that of Austro-Thai and of uncovering any basic lexical agreements that might exist. This effort is perhaps premature but we do have available the possibility of using reconstructed Austro-Thai forms to confirm, so to speak, suggested reconstructions for Austroasiatic, as can be seen in the analysis that follows.

AUSTROASIATIC CONSONANTS

ORAL								NASAL/ORAL	NASAL
p	b						w	*mb*	*m*
t	d	[ts]	[dz]	s	[z]	l			n
ć	ɟ			[ś]		r	y	[ńś]	ń
k	g				[ɣ]	[ɭ]			ŋ
q	G				[R]			Nq	
ʔ				h					

The above schema of reconstruction for AA consonants is similar to that for AT (see Benedict 1973: Introduction) and it is anticipated that the obvious lacunae, especially in the nasal/orals, will eventually be filled in as comparative AA studies continue. Shorto (1971) has set up a series of prenasalized plosives for Old Mon: *(ŋk), *ńć, *nt, *mp; *ŋg, *ńɟ, *nd, *mb, to explain variant complex

orms such as ?ba, mba, ?mba 'father' [<*?(m)ba], hile Kuiper (1948) has pointed out the existence of asalized obstruents in Munda, with the development: asal/stop > nasal, as commonly found in AT (see Benedict 1973: Introduction); cf. Sa. umul, Mu., Ho mbul, Sora um-mul-ən 'shadow' < PM *umbul; Sre mbur, heng hmăl, perhaps also (through metathesis) Khm. lup, id., all from PAA *[u]mbul. There is an AT comparison for one root (Munda forms adapted from Kuier): Ku. ma, Mu., Ho ma? 'cut, hew', Ku. kuma, Mu. uma? 'beat, strike', Ku. kua (<*kuba), id., Sa. uba? 'hew, slash', all from PM *[ ](qu)(m)bak; Mon ak 'cut, cut down/off', PW: Da. mɔk, Ri. mak ∿ mɔk, a (Tung Va) mʊk, id., from PMK *(u)(m)bak (see below or the vocalism); cf. AT *(N)qa(m)pak ∿ *[ta](m)bak cut down/off, chop', perhaps from an earlier (N)qu(m)pak ∿ *(N)qu(m)bak by assimilation. There is lso an AT comparison for *ńś (see 'blood', below) nd an apparent early loan by Thai confirms the reonstruction of *Nq in the following root for 'neck': h. kɔŋkɔ < *kɔ/ŋkɔ (redupl.), Ju. kuŋka, Sa., Mu. ɔʈɔ? (Pinnow: prob. old compound) [cf. Mon katak nape of neck'] < PM *qɔ(/Nqɔ); Mon kɔ [kɔ?], Khm. kɔ, ahn. akɔ, St. kou, Vn. cổ [kổ], Sre ŋko (note the reservation of the nasal/oral here as in the root or 'shadow'); PW: Ri. kok < *ko/k(o), Da. kɔŋ < kɔ/ŋ(kɔ), Wa (Tung Va) ŋɔ? < *ŋgɔ? < *ŋkɔ? (cf. Sre); slian *tɔ/ŋkɔk (cf. PW) < PAA *qɔ(/Nqɔ), whence Thai ɣoo [ɣɔ:] < *Goo < *Nqoo [Nqɔ:], all by regular shifts.

The evidence for a distinct postvelar series for AA comes largely from Munda, with *q especially well epresented. There are two sets of reflexes here: h., Ku. k = Mu., Sa. h = Sora, Gu. ∅ (Pinnow: *q); h., Ku., Sora, Gu. k = Sa., Mu. h (Pinnow *q/k).

The comparative evidence suggests that the former is for (original) initial *q, the latter for (original) medial *q; cf. PM *qaso 'pain, ill(ness)' (Kh. kɔsu, Mu. hasu, Sa. haso, Sora asu:, Gu. isi); PW: Da. katsu, Ri. s'u?, Pal. seu, Wa (Tung Va) saɨ? 'to be in pain', contrasting with PM *[]qa:p: Sa. ha?b 'take into the mouth, nip', Mu. ha?b 'bite', Korwa ha?b 'cut', Ku. kap, Sora ka:b 'bite with the incisors'; Khm. kap 'cut, cut off', Bahn., St., Sre, Jeh kap 'bite', Aslian *kap, id., Por hap, id. (the eastern AA forms indicate short medial *a); AT *[t]aNqap ∿ *[ta](N)Gap 'seize, hold, close (mouth), bite' (see below for the vocalism). This analysis of PAA *q casts further doubt on the widely held view that PAA *qa 'fish' (PM *qa, PMK *ka) is somehow cognate with IN *ikan, id., the latter considered a suffixed form: *ika/n. This is possible but unlikely in view of the above; also note that the AN root is to be reconstructed *iś́ikan, as shown by Bunun (Formosa), with *ś́ > Ø in IN (see Tables in Benedict 1973) [no known cognates in MY or Thai and related languages].

Final *-q, as found in many AT roots, appears to be indicated for the following AA root for 'leaf': Munda: Kh. ula?, Sora o:la:-n, Gu. o:la:, Remo o:la: ∿ ula:; Mon sla ∿hla [hla?], Khmu hla?, Ri. la?, Vn. lá (for tone, see below), Khm. slək 'leaf', sla 'betel' (<the betel leaf, chewed with areca nut), Khs. slak ∿ sla, Aslian *səla?, all from PAA *s[u:]laq (for initial, see below). Khasi, which regularly replaces PAA final *-k by *-? and has final -k only marginally (Henderson 1965), also has final -k corresponding to Mon -Ø in khwak 'vampire bat', Mon kawa [kəwa?] 'bat', suggesting PAA *k[a]waq, but Luce

1965) gives an OM form kilwa 'bat' and cites Malay əlawar, id., the latter possibly from IN *kəlawaɣ < k/l/waɣ. Final *-G is also a possibility for the AA consonantal schema, perhaps in the root for 'arm/and', as suggested (for PM) by Pinnow: Sa., Ho, Ku. i (ti:), Kh. ti?, Mu. ti? ∿ ti:, So. (ə)s?i:-n, Gu., emo ti ∿ titi:; Mon tei ∿ tai [toa], Khm. ṭai [dai], hmu, Ri. ti?, Wa (Tung Va) tai?, Pal. dai ∿ dei, Vn. ay [tai] [note ngang rather than sắc tone], Aslian ti[ŋ,k], Khs. kti < PAA *(k/)tiG (final *-g is also ossible here; see below).

The evidence for glottal stop as a phoneme at an arly level in AA is rather more substantial than in T, where there are only marginal indications for etting up this phoneme, as in the root for 'blood' elow (the Atayal cognate has final -?). Proto-orth-Bahnaric, as reconstructed by Smith (1972), hows a well-attested distinction between final *-? nd *-Ø (vocalic final), *e.g.* *ya? 'grandmother', u? 'drink', *phi? 'full (after eating)', as dis-inct from *kla 'panther/tiger', *phe 'husked rice', nd (from roots cited above) *hla 'leaf', *ti 'hand'. t is possible that the final *-? is secondary in ome instances, as noted below for 'one', but in gen-ral it would appear that this final must be recog-ized at the PMK level, and by inference at the PAA evel. The distinction between final *-? and *-Ø eems to be poorly or irregularly maintained in MK enerally. Shorto (1963) has shown that in Northern K only one of these finals is to be reconstructed he opts for *-?); note also Khmu (=khmu? 'person'; ee Smalley 1961), which has final -? for AA roots: a? 'fish', blu? 'leg', ti? 'arm/hand' (main excep-ions are certain pronominal forms: bɔɔ 'you'), but

vocalic final in loans from Thai and elsewhere: haa 'five', ʔyuu 'stop', pii 'year'. Haudricourt (1954) has sought to show that Vietnamese reflects final *-ʔ in its sắc (high < surd initial) and nặng (low < sonant initial) tones but some basic problems remain here, e.g. PNB has *ka (rather than *kaʔ) 'fish' corresponding to Vn. cá [ká], also *ćaw 'grandchild' corresponding to Vn. cháu, *pun 'four' corresponding to Vn. bốn, the last possibly to be explained in terms of an earlier prefixed *ʔ/ (see below). The fact that the Vietnamese tones in question occur freely with finals (notably final *-w and nasals) which are not glottalized in PNB or elsewhere in MK constitutes a major difficulty for the Haudricourt hypothesis, hence the basic question of just how tones were originally assigned to AA roots in Vietnamese remains to be answered.

Preglottalized consonants, which appear in Mon, Bahnar, and elsewhere, must be reconstructed at the PMK and probably also the PAA level, with the indicated analysis: *ʔ + C(onsonant). These elements are well represented in PNB, which lacks *ʔg but has *ʔŋ: *ʔbom 'tuber' and *ʔme 'rain; *ʔdok 'monkey' and *ʔnaw 'new'; *ʔʃuʔ 'sour' and *ʔńaw 'wash hands'; *ʔŋam 'sweet'; note also *ʔbok 'grandfather', ʔbaʔ 'father' (cf. Mon forms cited above). It seems likely that these clusters originated from prefixed *q/ or similar forms, as in Thai, which forms a Sprachbund with MK in its preglottalized consonant series (only *ʔb, *ʔd, *ʔy and possibly *ʔʃ in Thai, but the closely allied Kam-Sui languages also show the preglottalized nasals, which must be reconstructed for the parent Kadai proto-language). The Kadai clusters have typically been de-

rived from *q/ forms, especially the ubiquitous AT
q/ prefix, e.g. Thai *?ba = /?baa/ 'shoulder', from
AT *q/baya via *?ba(y)a (regular loss of unstressed
intervocalic *y). Two excellent AT/AA correspon-
dences bear on this point: cf. AT *(N)qa(m)bar
'twin, double(d), two'; PM *a(m)ba:r; Mon ?ba (OM
?bar), Bahn. ?ba:r, Pal. ar (<*?ba:r), Ri. kə/?ar
(re-prefixed), Khs. ar, Wa (Kengtung) a:, Nic. ạ:
(<*?am[ba:r]), Aslian *?mba:r 'two', from PAA
*?a(m)ba:r; also AT *qa/baŋ 'boat' (Thai *?baaŋ
'classifier for boats'); Mon k?baŋ 'boat' (re-pre-
fixed; cf. Riang form for 'two'). Kadai also tends
to replace initial *t- and other consonants in ini-
tial unstressed syllables with *?-, as in AT
*(n)tu(m)ba 'fish poison' > Thai *?bɨa via *təba; cf.
AT *(n)tobos 'sugarcane'; Mon ?bau (also written
?bau), id., from an earlier *[to]bo[s] (see below
for the final). The PNB root for 'sugarcane' is
*kataw, apparently from *ka/to[bos] (cf. Formosa:
Saisiat ka/təbos 'sugarcane'), reflecting AT pre-
fixed *ka/ ∿ *qa/; Khmer has ɔ̃bau = ɔmbau, as if from
an earlier *[?t]o(m)bo[s], suggesting the possibility
of loss of initial unvoiced stops when preglottal-
ized. There is also evidence that prefixed *?/ can
yield secondarily aspirated surd stops, as in AT;
cf. Munda: Kh. u?phe ∿ u?fe 'three'; Kh. i?phɔn ∿
?fɔn, Ku. uphunia 'four'; also Ri. kə/pun ∿ kə/phuon
(cf. kə/?ar 'two'), Pal. pho:n, phun, Vn. bốn (per-
haps from *?pôn; see above), id. These forms all
suggest an extension of the prefixed *?/ of 'two' to
the adjoining numerals: Kuy has ?abia 'two', ?apay
'three', ?apoon 'four'; PNB has *?moy? 'one' (with
secondary glottalization through assimilation) and
*?ba:r 'two'; Kantu has muy? 'one', from *?muy; cf.

also PNB *?ba? 'father', with secondary glottalization.

The postvelar continuant *R can be reconstructed for eastern AA, it appears, on the basis of the following root, which has an excellent AT comparison: AT *(k/)weR[i] 'left (hand)'; cf. Mon ʃwi (<*ʃ/wi), Khm. cwəŋ (<*c/wəŋ), Brou avêr (cf. atoam 'right'), Pal. i-ve (cf. i-təm 'right') (poss. loan from Burmese lak-wa̰ > *-wè), Aslian *(sa)w[e]l but Central Sakai [Semai] (Wilkinson 1915) k'ŋwil (<*k-n-wil; cf. kĕntok 'right'), id. < PMK *( )w[e]R; cf. the AT reflexes: Mal. k/iri, Fiji ma/wi, Paiwan (Formosa) ka/viri, Kuvalan (Formosa) kumawi:li < *k/m/a/wi:li, Sediq (Formosa) ?iril; Sek (Kadai) vel, Li (Kadai) vieŋ ∿ viŋ; Yao kwɛŋ < *k/wɛŋ. AT *R and *ɣ tend to fall together and the distinction is made with difficulty (AT *R: Jav. h∿Ø = Yami r = Paiwan r∿R = Kuvalan l; AT *ɣ: Jav. r = Yami y = Paiwan Ø = Kuvalan ɣ). For final *-ɣ there is one good comparison, indicating general replacement by -i in AA; cf. AT *ts[i]ŋa[a]ɣ 'light, shine, moon, sun, dawn, morning' (Fiji siŋa 'sun', Samoan seŋi/seŋi 'twilight', Tongan heŋi/heŋi 'early morning'; Thai *hŋaay < *sŋaay [*-ɣ > -i after the long vowel] 'light, moonlight; shine; moon', *ŋaay 'morning; breakfast'); PM *sɨŋgi 'sun/day'; Khm. thŋai, Mon tŋai, id. (both from *[ma]t-ŋai; cf. Halăng mat ŋai 'sun' = 'eye of the day'; also IN *mata-waɣi, Thai *ta-wan, id.), Pal. săŋai ∿ săŋei, Wa (Tung Va) sɨŋai?, Ri. s'əŋi?, Da. ts'i (<ts'[ŋ]i), id., Vn. ŋày 'day' (mặt trời 'sun' = 'eye of the heavens') Khs. sŋi, Nic. heŋ (<*seŋ[i]) 'sun', Sakai [Semai] təŋi? 'day', mat-təŋi 'sun' (cf. the analysis above); also Bahn. nar 'day', mat-nar 'sun', St. and Chrau nar

un', showing *ŋ>n assimilation to *t, viz. *[ma]t-
r > *t-nar > nar. If this analysis is correct,
must infer an earlier PAA final *-ɣ, generally
elding final -i (as in Thai) but -r in Bahnar.
nda provides another possible example of final -r
r an earlier *-ɣ, cf. Sa. kur 'behind, after', AN
w)ikuɣ 'tail' (Paiwan iku), but this form might
tter be compared with AT *[(m)po](ŋ)kor 'behind/
ck/buttocks' (Thai *kon 'buttocks'). Munda does,
wever, offer an excellent comparison for medial
-ɣ-: Kh. suru?b 'to breathe, gargle', Sa. siṛu?b
o sip, suck in audibly', Mu. si?b (<*si[r]i?b) 'to
oke', Sora serub 'to suck, sip', sumrub (<*su/m/-
b) 'to suck with noise' < PM *si[ɣ]up (Kharia and
ra *i>u by assim. for V_1); AT *[si]ɣup 'to sip,
ck, drink'; Munda has a unique set of reflexes
re: Kh., Sora r = Sa. ṛ = Mu. Ø, suggesting a re-
nstruction such as *ɣ (not noted by Pinnow, who
mply includes this root under Sa., Mu. ṛ, r = Kh.,
ra r); cf. also Khm. sro:p 'absorb, suck up, swal-
w up, gulp in', Pal. hrup ∿ hṛip, Wa (Praok) ṛip
drink'. The evidence from these roots suggests the
rovisional reconstruction of *R as well as *ɣ for
AA; neither phoneme can be reconstructed in initial
osition with any confidence.

The glottal (laryngeal) series in AA is repre-
ented by *h as well as *? (above). Final *-h,
hich is uncommon in AT, is prominent in AA but the
nly comparison with AT unfortunately is for Munda,
hich has lost this final: AT *nu[h]/nuh 'breast'
Hova 'nipple'); cf. PM *nunu 'breast, nipple, suck,
uckle' (*contra* Pinnow, distinct from PM *n̓u
drink'; note Sa. nunu 'breast', n̓u 'drink'). There
s also one AT (only in AN) correspondence for me-

dial *h, indicating loss of this element: AN *mbahu 'smell (bad), stink, odor'; cf. Bahn. bou ∿ mou, Mon mou ∿ mau 'smell(ing)', apparently from *mba(h)u (see above for the initial). Of particular importance here is the fact that AA final *-h does *not* correspond to Malay and Javanese final -h, the latter a reflex of IN/AN final *-q. On this basis several promising AA and IN/AN or AT comparisons must be excluded, including the very comparison upon which Schmidt leaned so heavily, viz. PMK *pooh (Shorto): OM poh, SM /puh/ 'to shoot with pellet-bow', Khm. /bɔh/ 'to throw, to gin [cotton]'; also *p/n/ooh: SM /nuh/ 'pellet-bow', Khm. /phnɔh/ 'bow for beating cotton'; also Bahn. panah ∿ pənah ∿ prah 'shoot (bow, crossbow)', Kontu ponoḥ 'arrow'; cf. AT *pan[aq] ∿ *pa/pan[aq] 'arrow/shoot' (often 'bow' in IN/PN) (Thai *p++n 'arrow'). Schmidt (*contra* Pinnow) certainly analyzed the AA forms correctly but was mistaken in interpreting the *-an- of the AT root as infixed */n/ (the AN infix is vocalized as */ən/) and in equating AA with Malay/Javanese final -h (to make matters worse, the vocalism also appears to be divergent); Pinnow appears to confuse the AA root with eastern AA *paṅ 'shoot (bow)' as well as with PM *panɨć 'bowstring'.

Apart from the palatals (see below), the remaining stops present a relatively clear picture. AT *p/b, *t/d and *k/g occur in all positions but the voiced members are uncommon as finals. At first glance the AA languages appear to have only one reconstructable set of stop finals, including *-ć (see below) as well as *-p, *-t and *-k (and now *-q, see above). The corresponding Munda finals are generally recorded as glottalized sonants and must be

handled morphophonemically as sonants but might be reconstructed at the PM level as surds. Kharia occasionally has final -?b for -Ø elsewhere, and fortunately there is a good AT comparison available to indicate that PM final *-b must be reconstructed for this series; cf. Kh. uku?b, Sa. oko, Mu. uku 'conceal, hide' < PM *okob; Kh. lɔ?b 'to be burnt', lɔ?blɔ?b 'warm, hot', Sa., Mu. lɔ 'to burn, scald', lɔlɔ 'to heat' hot, warm' < PM lɔb(/lɔb); cf. AT *( )koḷob 'heat, dry (by heat)'. A third comparison indicates that this final *-b has been dropped in eastern AA; cf. Kh. rɔmku?b (<*rɔ/m/ku?b or *rɔŋku?b by assim. to the final) 'unboiled rice', Sora ruŋku:-n 'husked paddy and millet of all kinds', Remo, Pareng (Gorum) ruŋku, Gu. ruku, Ju. runku: ∿ ruku:, id. <PM *rɔ(ŋ)kub (*ɔ>u by assimilation for V_1); Chong ruko, Por rokho 'rice', Khmu rəko? 'rice in husk', Pal. răko ∿ răkao, Da. ko, Ri. ko?, Wa (Tung Va) ŋgau? (<*ŋko?), Sakai [Semai] rəkua? 'husked rice' <PMK *rɔ(ŋ)ko < *rɔ(ŋ)ku[b] by assimilation. A fourth root shows the equation: Mu., Ho final -?b = Kh. final -m, with an excellent IN comparison with final *-b; Mu. uru?b, Ho urub 'burn', Kh. urum 'warm', rum 'burn'; cf. IN *urub 'burn' (no known cognates in Kadai or Miao-Yao); the Kharia form is probably a derivative of an original reduplicated form: *urub/urub > *urum(b/urub), a development closely paralleled in several roots in AT (see Benedict 1973: Introduction). It is possible that other voiced final stops will eventually be reconstructed for AA roots, including *tiG or *tig 'arm/hand' (see above).

As within Austro-Thai, the palatals and the dental affricates/sibilants present problems. The pala-

tal series is poorly developed in Austro-Thai and the surd stop (*-ć) is entirely lacking in final position. The configuration in Austroasiatic on first examination would appear to be almost the reverse, without any evidence of dental affricates, but a closer analysis indicates that a pattern essentially identical with that of Austro-Thai must be reconstructed at the PAA level. Shafer (1952) noted that the Palaung-Wa languages show evidence of three sets of initials of *s type but he did not suggest a reconstruction. The actual situation, including material from Danaw (Luce 1965), is even more complex, especially when considered together with reflexes elsewhere in Mon-Khmer, Khasi and Munda. The reconstructed schema for Palaung-Wa is shown in Table 1; the Vu, Amok and Angku forms are from Shafer, the remaining from Luce; Danaw and Riang tones are high unless marked low (`).

The Riang forms (Luce) are for White Striped Riang; the Black Riang forms have the same initials except for ts- = ty- (tsaŋ 'bitter', kətsàn 'heavy', tsòŋ 'foot/leg').

As Shafer has shown, Palaung normally retains voicing (regularly lost elsewhere in PW) but Table 1 shows that it is lost after *dz and *z; similarly, Danaw and Riang regularly have low tone after original voiced initials, yet they show high tone after *z (but low after *dz).

The PW reconstructed schema appears faithfully to reflect the basic PAA pattern, as shown by Table 2, with the exception of the initial *ts- vs. *tsh- distinction, which is undoubtedly a PW innovation, resembling a similar distinction often found in the neighboring TB languages.

	PW	*Danaw*	*Riang*	*Pal.*	*Wa:TV*	*Vu*	*Amok*	*Angku*
hair	*s[o]k	ńok	huk	hu?	haɬk	hak	suk	s'uk
snake	*b/sań	păθen	heiń	han?	-?uiń	-	-	-
leaf	*[ś]la	la	la?	hla	la?	-	la	la
bathe	*[ś]um	θɔn	hum	-	hɐm	-	-	-
blood	*ś/n/am	kă̆nan	na:m	hnam	nam	nam	nam	sinam
eat	*zuam	sue	s'uam	hɔm	sɔm	sa:m	-	-
bird	*tsim	tsɐn	s'i:m	sim	śi:m	s'im	-	-
pain	*(ka)tsu	katsu	s'u?	seu	saɬ?	s'a	-	-
louse	*ʦi	tsi	s'i?	sai	śi?	-	-	-
cooked	*(a)tsin	atsɛn	s'i:n	si:n	śi:n	-	-	-
sun/day	*tshɐŋi	ts'i	s'ɐŋyi?	sɐŋai	śiŋai?	s'aŋɛ	-ŋi	-
salt	*tshuak	ts'a	s'uak	sɛ?	-	-	-	-
bitter	*ć̆aŋ	tsaŋ	tyaŋ?	saŋ	so:ŋ	-	-	-
heavy	*(ka)dzan	kă̆tsàn	kɐtyèn	tyaŋ	ǰi:n	-	-	-
foot/leg	*ǰ[o]ŋ	-	tyɔ̀:ŋ	dyan dyen	tyauŋ	ć̆ɔŋ	ć̆uŋ	-

Table 1

Table 2

	PAA	*PM*	*PW*	*Khasi*	*Mon*	*Khmer*	*Bahn.*	*St.*
hair [AN *busuk]	*sok	*s[o]k	*s[o]k *s/n/ok	su? śńiu?	sok	sâk	sok	sok
snake [Muong sań]	*b/sań	--	*b/sań	--	--	--	--	--
leaf [Chamic *sula]	*śu:laq	*ula[?]	*[ś]la	slak sla	sla hla	slək sla	hla	la
bathe	*śum[a]	*um[a]	*[ś]um	sum	hum	--	hum	um
blood [AT *( )ntsaam-]	*[i]ńśa:m	*m/lńa:m	-- *ś/n/am	-- sna:m	ćhim	jha:m	maham pham	maham
eat	*z[ɔ]m	*jɔm	*zuam	--	--	--	--	--
bird [Vn. chim]	*ts[e:]m	*si:m *tsi:m	*tsim	kasim kasem	gaćem	--	śe:m	ćum
pain	*qatso	*qaso	*katsu	--	--	--	--	--
louse [Vn. chấy]	*ts[əy]	*tsɛ	*tsi	ksi	ćai	ćai	śi	si
cook(ed) [Vn. chín]	*[i]tsin	*isin	*atsin	--	ćin	--	śin	sin
sun/day [AT *ts[i]ŋay	*tsəŋay	*s+ŋgi	*tshəŋi	sŋi	tŋai	thŋai	nar	nar
foot/leg [Vn. chân]	*jəŋ	*j[ə]ŋ	*j[o]ŋ	--	jəŋ	jəŋ	jəŋ	jəŋ zəŋ

OTES ON TABLE 2:

'hair': Khasi (standard: Cherrapunji) śñiu?, nar dial. su?.

'snake': cf. the Cambodian calendar form msaṅ, hich reflects an archaic (prefixed) Muong level; the W correspondence here provides support for this view Benedict 1967) and also indicates that these animal erms formerly had some extension in Austroasiatic.

'leaf': cf. Vn. lá; note that the Chamic form sula reflects the early vocalism for V_1 in this oot, indicating that it was an early loan from AA.

'bathe': North Bahnaric (incl. Bahnar) *hum, outh Bahnaric (incl. Stieng) *um; note that Stieng hows initial *ś- > ∅- here and in 'leaf', contrast- ng with medial *-ś- > -h- in 'blood'.

'blood': AT *( )ntsa[a]m[u?]: Formosa (East, tayalic) *dzamu? < *ntsamu?; MY *nćyaam < *[]ntsaam palatalized); the AA root now supplies first-hand vidence for the initial palatalizing element (*i-) f the root, which also palatalized the AA root, long with loss of the stop element (*nts > *ńć > ńś); note PAA *ś>∅ in Munda in this cluster, paral- eling initial *ś- > ∅; note also the consistent vowel ength shown in this root, with MY correspondence; Mon him < *(i)him < *(i)ham by assimilation, supplying vidence for the *i vocalism for V_1.

'eat': *this root might also be reconstructed* ith initial *ź-, especially in view of PM initial ʃ-, but the PW series suggests a dental rather than palatal.

'cook(ed)': Vn. chín 'ripe'; cf. the PW series, here the gloss (Luce) is 'ripe, cooked'.

'sun/day': cf. also Vn. ŋày 'day'; the AA root might also be reconstructed *ts[i]ŋ[g]aɣ, on the basis that V_2 shows the effect of assimilation to an original V_1, also that the PM nasal/oral *-ŋg- represents an archaic doublet of the AT root (*ŋg>ŋ is a characteristic AT shift); see above for an analysis of the MK forms.

It now appears that AA, like AT, prefers *ts to *ć, at least in initial position. PM *ć as an initial is distinctly peripheral, with one good comparison with MK, viz. *ćaćak 'tear/torn' (only Kherwari group cognates); cf. Mon ćak 'torn', also Khm. ćak 'prick, pierce, perforate'. The AA cognates of PW *ćaŋ 'bitter' are uncertain; Khasi has both ksaŋ and kəthaŋ, the latter comparable with Mon kataŋ, Bahn., St. taŋ, but the PM root is to be reconstructed *(ə)səŋ: Kh. ɔsɔŋ 'bitter'; Sora asaŋ 'of raw taste', asaŋ-ən 'acerbity', pisaŋ ∿ pisiŋ 'astringent' (A. Zide, Nominal Combining Forms in Sora and Gorum, in this collection, cites pisaŋ ∿ əsaŋ 'bitter'.) Pinnow reconstructs PM *ś for the series: Kh., Mu., Sa., Sora, Gu. s = Kh. s∿ś, contrasting with PM *s for the series: Kh., Mu., Sa., Ku. s = Gu. s∿ø = Sora ø, but the comparative evidence (above table) suggests that the former series derives from PM *s, the latter from *ts, showing retention of the stop element after prefixed *g/ or *k/ ('bird' and 'louse') but not after *q- ('pain'). An additional comparison is available for AT *s, viz. Sora sĕrum 'to smell' (Kuiper 1948), from PM *ser[o]m; cf. AT *s[a]rom 'smell/fragrant' (IN *harum, Paiwan *s/m/arum, Thai *hoom < *sroom/hoom, MY *hɔm).

It is not clear at this time whether the final palatal stop (usually -ć, but -ʔǰ in Munda) commonly

ound in AA roots is to be reconstructed as AA *-ts ather than *-ć, in keeping with the AT pattern, hich lacks the final surd stop (*-ć). It is possile that AA has final *-s for an original *-ts but in he most promising correspondence available the comlex AT etymon shows interchange of final *-ts with -s and even *-t; cf. AT *(ŋ)kus(/kus) ∿ *kuts/kuts ∿ (ŋ)kut(/kut)...*kəs(/kəs)... ∿ (ŋ)kə[t,ts](/kə[t,ts]) ∿ *kits(/kits) ∿ kats(/kats) 'scratch, scrape, ig, claw/nail'; Khm. kos 'scratch, scrape', Central akai [Semai] kos 'scrape'; also Khm. kakis 'scratch ontinually and light', probably from *ka[s]/kis. ore surprisingly, final *-s is preserved in the Asian group in one key cultural root, far from any ossible late borrowing source (AN final *-s preerved only in Formosa and Borneo); cf. AT *(n)tobos sugarcane' (Thai *ooy < *owoy < *obos); Aslian *b[u]s, d.: Bersisi [Mah Meri] bois, buh; Sakai [Semai] ouś, bus (entry lacking in Benjamin, Austroasiatic ubgroupings and Prehistory in the Malay Peninsula, n this collection); see above for other MK forms for his cultural root.

AA *y occurs both initial and as a final (*-ai = -ay, etc.), as in AT, and is subject to intervocalic oss, again as in AT. Three AT comparisons are vailable here: Bahn. hiup 'blow, whistle', from PAA *[ś]iup < *[s]iup through palatalization; cf. AT *iyup ∿ *[iyu]p/iyup ∿ *(n)s/iyup ∿ *t/iyup 'blow/whistle' (Thai *phiu ∿ *thiu); Khm. pek, St. bek 'to be separated', Bahn. pek 'to separate', Khs. pia? ∿ phia? to divide, split', from PAA *piak; cf. AT *(q/)biyak ∿ *piyak 'divide/distribute/separate' (Thai *?biak distribute'); PM luaŋ 'iron' (cit. by Bhattacharya 1966); cf. AT *lu[y]aŋ 'copper/brass' (Dioi luaŋ, Sek

luoŋ 'copper'); for the semantics, cf. Atayal (Formosa) baliq ∿ balyeq 'iron, metal, copper' < AT *(m)baxliaq 'iron' (Thai *hlek, N. Thai *mwa).

The characteristic AT distinction between *l and *ļ, as maintained intact in some Formosan languages, is not in evidence in AA and the question remains of whether it might be reconstructable for this stock. Both *r and *l commonly remain as such both in PM and PMK, the most promising possible exception being complicated by an apparent infixed */r/; cf. PM *ʃura[ʔ] 'thorn'; Mon ʃala, Bahn. ʃəla, Theng ʃĕrla, Aslian *jə/r/laʔ: Tembi [Temiar] ʃərlaʔ ∿ ja:lak, Sakai [Semai] ʃərlak < PAA *j[u]ļa[ʔ] or *ʃ[u]/r/la[ʔ/ (whence PM *ʃura[ʔ]). It should also be noted that PM appears to have medial *-l- corresponding to AT *-ļ- in one root ('heat', above). Munda has both r and ṛ, the latter generally interpreted (as in Pinnow) as the result of areal influences (Indic, Dravidian). It possibly stands for an earlier PAA *ļ in some roots; cf. PM *ramba[r,ṛ]a 'green gram [chickpea], leguminous plant [Phaseolus varieties]'; Mon ʔbai (also written t?bai) 'bean'; PW *rəbai, id.: Da. bai, Ri. rəbai ∿ bai, Pal. rəbai, Wa (Tung Va) pɛ, apparently from *ra(m)ba[ļ]a, with *ļ>y (= i), a shift sometimes found in AT. Final *-ļ is a possible reconstruction for the following root, which would otherwise be difficult to explain: PM *ba[g]a 'flower'; Mon pkao, Alak pakao, Sre bəkao, Aslian *bəkaw, but Kaseng pakaɨ and Khm. phka, id., from PAA *baka[ļ]. Initial *ļ-, on the other hand, is a possibility for the following MK root for 'sesame', probably to be considered a relatively late acquisition from AT: Rengao rəŋa, Mon laŋau ∿ daŋau, PW: Da. loŋ ŋaʔ, Ri. lək ŋaʔ, ləŋaʔ, Pal. rəŋa, Wa (Tung Va)

ŋa?, ŋye?, ŋɛ < PW and PMK *[l̥]əŋa (Palaung regularly has r, l for PW *r, *l); cf. AT *l̥əŋa (IN *ləŋa, Thai *ŋa, Dioi ra < *r[əŋ]a).

Austro-Thai has a rich set of consonant clusters (see Benedict 1973, Introduction), which have been reconstructed for the most part only with great difficulty because of the widespread tendency toward simplification of various kinds, notably to t, t̥, ts, s, h and the like. We must now ponder the question: did Austroasiatic once have a similar set of clusters, or any clusters at all? The resemblance between the MY forms for 'dog': *kl̥u ∿ *kl̥[um] and Mon kluiw = klɘw has long been noted, and in 1966 Haudricourt suggested a connection also with Vn. chó, since ch- sometimes corresponds to an earlier *kl (Vn. chuối 'banana', Thai *kluay, id.), Khmu sɔ? and even Kh. sɔlɔ? ∿ śəlɔ? (forms adapted). The PM root is probably *sɔ, often with various accretions (perhaps sɔlɔ? < *klɔ/lɔ?), which together with the evidence from eastern AA languages points rather to an original PAA *ts-; cf. PW: Da. tso, Ri. s'o?, Wa (Tung Va) so? (suggesting PW *tso), St. sõu, Chrau śo, Alak, Halăng śo, Aslian *ć[o]?, Khs. kseu. There are two completely "irregular" forms, however, viz. Pal. ă/?o? and Bahn. ko. The latter form, which is usually simply omitted when cognate lists are given (!), virtually compels us to reconstruct the cluster *kl- or the like; Guilleminet (1959-63) cites ćo only as a dialectical variant used by the Rengao subtribe of the Bahnar and the language lacks any substantial parallel for this alternation. The original cluster might have been *kl̥- rather than *kl- on the basis of the AT correspondence, and if we follow the Mon (and perhaps Khasi) evidence in reconstructing the final

as *-əw we arrive at a perfect fit with the AT root: PAA *kl̥əw; AT *[wa]kl̥əwm[a] [AN *(w)atsu; Kadai *khl[ ]ma].

There is no firm evidence for other PAA consonant clusters and it appears that simplification had generally taken place, although certain groupings of cognate forms at times suggest the possibility of an original cluster, e.g. those for 'eight': PM *tham (Kh.) ∿ *t̥am (Sora, Gu.); pham (St., Halăng, Chrau), tham (Brou, Boloven, Churu), tam (Suk), ntəm (Amok), tsan (<*t̥sam) (Da.), daća:m (Mon), tam (<*sam) (Vn.), ham (Alak, Kaseng), all as if from an earlier PAA *(m)pram > *(m)phram. One basic root comparison indicates that the labial cluster had already been simplified in medial position at the PAA level; cf. PM *məṭ, PMK *maṭ < PAA *məṭ 'eye'; AT *mapl̥a, id. (IN *maṭa, Thai *pra > *ṭa). *This highly significant comparison* indicates not only fore-stress with loss of final syllable, as is characteristic of Miao-Yao [MY *maay < *maat < *mapl̥(a)], but also simplification to *t̥ (as in Formosa: East; see Table in Benedict 1973), leading to centralization of the vowel (*a>ə). Note that this does *not* mean that we are to reconstruct *t̥ and the like for PAA, simply that the prototype for PAA *məṭ had been developed in that fashion, as discussed below.

The PMK vowel system has been reconstructed by Shorto (Vocalism of Proto-Mon-Khmer, in this collection) as follows: /i ii e ee a aa ə əə ɔ ɔɔ o oo u uu; iə uə ai/. Shorto postulates three principal types of variation: (1) between short and long vowels; (2) between simple vowel and diphthong: ii ∿iə, uu∿uə, occasionally aa∿ai; (3) between diphthong and ə: iə∿ə, uə∿ə. Pinnow (1959) sets up a

vowel schema of Thai type, which adds a high central (ɨ) and low front (ɛ) vowel to the above seven-vowel system, for the "younger" stage of Munda, developed from an "older" stage lacking e and o. Much remains to be done in the analysis of the correspondences between the Munda and MK systems but it appears that neither *ɨ nor *ɔ will be required at the PAA level, leaving a 6-vowel schema much like that of AT (/i e a ə o u/). AT has the diphthong *ia but apparently lacks *ua; it is possible that both clusters (*ia∿*iə; *ua∿*uə) will eventually be reconstructed for PAA, but not *ai (Shorto), which seems dubious even at the PMK level (see 'kite', below). As indicated by the variations noted by Shorto, there has been much "leveling off" of diphthongs; cf. (long vowels written as geminate clusters) PW *(k/)liat 'lick', Khm. liit, id., Bahn., St. lɔpiet, Jeh lapiat (<*l/p/iat) 'tongue', Khs. thəliet (<*t/liat), id. < PAA (eastern) *liat; also PW *kuan 'child', Khm. kuun, Mon kon ∿ kwen, Bahn., St. kon, Vn. con [kɔn], Boloven kuon, kuən, Khs. kuun, Nic. kooen, koon, id.; also PM qɔɔn, id. < PAA *quan. Inasmuch as Khmer shows "leveling off" of both basic clusters (*ia>ii; *ua>uu), the vowel clusters that do appear in that language stand in need of an explanation. It appears that in AA, as in AT, we must postulate vocalic transfer, or the moving of a vowel forward in syllabic reduction: $CV_1CV_2C > CCV_1V_2C$, etc.; cf. Chong paliŋ 'above' ∿ pliŋ '(comp.) cloud', Jeh, Halăng pliŋ, Lemet mpliŋ, Aslian *(m)baliŋ 'sky', from PAA (eastern) *(m)baliŋ, yielding Khm. bhliəŋ (<*[ ]bliaŋ) 'rain/to rain'. Many of the vocalic variations and/or "irregularities" in MK will eventually be explained, it seems, in terms of influences (esp. stress distinctions) exerted by the

"missing" V_1 in the $C[V_1]CV_2(C)$ formula; cf. PAA (eastern) *kalaŋ 'kite (bird)' (Pacoh kalaŋ; also Nic. kalâŋ 'sea eagle'), whence the early loan to Chamic *kalāŋ (Headley, Some Sources of Chamic Vocabulary, in this collection); also MK (generally) *klaaŋ, whence the early loan to MY *klaaŋ; also *kəlaŋ (unstressed) >*kələŋ (assimilated), whence the early loan to ST *k/ləŋ (Benedict 1972); also *kĕlaŋ (unstressed), whence Khm. khlaeŋ (Shorto reconstructs *k-laiŋ); also *kĭlaŋ (unstressed) >*kĭliŋ (assimilated), whence Khs. kliiŋ; also cf. Mon bak, Ri. mak ∿ mɔk, Da. mɔk, Wa (Tung Va) mʊk 'cut/cut/down' (see above), from PMK *(u)(m)bak; PM *[](qu)(m)bak.

The question of whether to reconstruct vocalic length at the PAA level is of some concern inasmuch as Pinnow (with reservations) reconstructed this feature for PM on the basis of its presence in Southern Munda (Sora, Gutob, et al.). As can be seen from the above example (PM *qɔɔn 'child' < AA *quan), this length might be secondary in many if not all cases. N. Zide (1965) has attempted an interpretation of this length in terms of laryngealization but this hardly seems feasible at the PAA level. A similar problem exists in AT, in which length can generally be analyzed as of secondary origin, often as the result of vocalic transfer (see above), e.g. AT *ma/-play 'die' > Sek praay. A similar process can be seen at work in AA, it appears, either in reduplicated forms or elsewhere; cf. AT *(q/)ud ∿ *q/ud/ud 'suck/smoke/drink' (Thai *ut 'smoke' < *ud; *ʔduut 'suck, inhale, smoke' < *q/(u)dud); PM *uut 'suck, drink, swallow' < *(ud/)ud (note final *-d > -t, as in Thai); AT *g[a]rut 'scratch' (Thai *gruut 'scratch, tear, rake' < *g(u)rut through assimilation and vocalic transfer),

complex doublet of AT *k[ə]rud 'scrape'; Khs. hruut 'scratch' < *k(u)rut; also (see above) PMK *kap bite/cut'; PM *[]qaap, id., from *[]aqap; cf. AT [t]aNqap. Perhaps the best evidence for vocalic length at the PAA level is furnished by PM/PMK *aa corresponding to MY *aa in 'blood' (above); cf. also the following, with consistent vocalic length distinction shown, yet vocalic transfer could be invoked in explanation; the AT roots are *(q/)(m)par 'spread out/fly' and *(N)qa(m)bar 'twin, double(d), two':

	PM	*Mon*	*Khmer*	*Bahnar*	*Jeh*	*Vietnamese*
fly	[*apir]	pau>pɔ	par	par	pal	bay [bay]
two	*a(m)baar	ʔbar>ʔba	bir	ʔbaar	baal	vài [vàay]

Note that Khm. bir 'two' shows vocalic effect from the initial *ʔb (<*q/b-); cf. also Mon ʔdak, Khm. dɨk 'water' < PAA *ʔdak (<*q/dak); cf. also Mon sla ∿ hla, Khm. slək ∿ sla 'leaf/betel (leaf)' < PAA *ʂu:laq; the postvelars have a similar vocalic effect in AT, especially in Kadai. The PM form *apir 'fly' probably represents an old AA doublet; AT also has *(q/)(m)pər(/pər) 'fly', apparently yielding Thai *ʔbin, Sek bil ∿ bɨl. The different reflexes for PAA final *-r in Mon apparently reflect the old length distinction.

We are now in a position to review the basic lexical agreements between AT and AA. Schmidt (1906) presented a large number (215) of such agreements but the vast majority of them are of mediocre quality or even entirely unconvincing, e.g. IN *susu 'breast', Sa. susu 'to sniff, snort'. Most of the significant lexical agreements that we have turned up have already been cited above; we review them here by cate-

gories:

NUMERALS: only 'twin/two', with AA showing the derived meaning.

PRONOUNS: only a somewhat similar contrast in demonstratives: AA type *na (Pinnow 1965: 15.1) 'this, 3rd pers. sing. prn., that' and type *ni/ne (Pinnow 1965: 15.2) 'this'; cf. AT *na 'that (one), there' and *[i]nəy 'this, here' (IN *ini, Thai *ni ∿ *nay).

KINSHIP TERMS: in general entirely distinct; MK has a root *(m)bap 'father' (Boloven mbap, Churu ba:p, Kasen bəp) which looks like a late acquisition from AT/IN *bapa, although PM has both *aba and *apa; cf. also Mon *?(m)ba (above). The most interesting possible agreement in this category is supplied by PM *aʃi 'older sister' (Sa., Ho), 'older brother's wife' (Kh.), 'sister-in-law' (Ku.), 'grandmother' (Mu.) ∿*aʃiŋ (unexplained final; cf. the IN nasalization), 'older sister' (Ju.), 'younger sister' (Sora); also Semang [Jehai] aʃoi 'younger sister' (Benjamin [personal communication] describes this as a vocative term), apparently by vocalic transfer from *(o)ʃi (cf. the AT form): cf. IN *a(ń)g'i ∿ *ha(ń)g'i 'younger sibling' ∿ 'sibling of the other sex', Formosa (East; Atayalic) *(suw)aʃi 'younger sibling', from AT *(s[o]w)a(n)ʃi; in view of the semantic shift in Munda one might also compare Thai *aay ∿ *ɨay (<*ay/ay) 'eldest in sibling series' (the former used mainly for males, the latter for females), from *a(j)i, a regular shift for Thai.

BODY PARTS: three basic roots ('hair', 'eye', 'blood'), also (Munda only) 'breast'. In addition, two MK roots of restricted occurrence have likely

:ognates in AT or Miao-Yao; cf. AT *(u)q[a]lay 'penis 'male'; PW *klɛ 'penis': Da. le (high tone), Ri. :lɛ?, Wa (Tung Va) kli?; also Miao *hmi(ŋ) 'tooth'; :hm. thmeń, Bahn. samiŋ; note also Khs. dop 'bark'; IY *dop 'skin/bark'.

NATURAL PHENOMENA: 'day/sun' presents the only significant agreement.

ANIMAL LIFE: 'dog' presents the only significant agreement, since 'fish' has been rejected as an "imposter". Three roots in this category have been exported, at an early period, to neighboring language families: *k[a]laŋ 'kite' to Chamic, MY and ST (see above); *k[u]la 'tiger' to ST (Burmese-Lolo *k/la, Chinese hu<*xlo<*khla; see Benedict 1972) and *p[ ]ləm 'leech' to Chamic (Headley, Some Sources of Chamic Vocabulary, in this collection) and MY (Yao *p[ ]om).

VERBS: include several of interest ('fly', 'smell', 'suck/drink', 'cut/bite') but hardly a core vocabulary ensemble.

OTHER GENERAL: 'left (hand)' is the outstanding example here.

CULTURAL ITEMS: present many historical problems because of the different time levels involved and the possibility of early loans from AN through the Chamic languages, which have long been in close contact with Mon-Khmer languages, with many loans in both directions (see the discussion in Headley, Some Sources of Chamic Vocabulary, in this collection). A number of forms found in MK only, with no known cognates in Munda, appear to be relatively late loans from IN/AN/AT; cf. Mon pasai 'iron' (Schmidt also cites Sa. pɛsi 'iron staple'), IN *bat'i ∿ *bət'i, id. (Mal. bĕsi); Bahn. təlei, Khs. təlai 'cord', IN

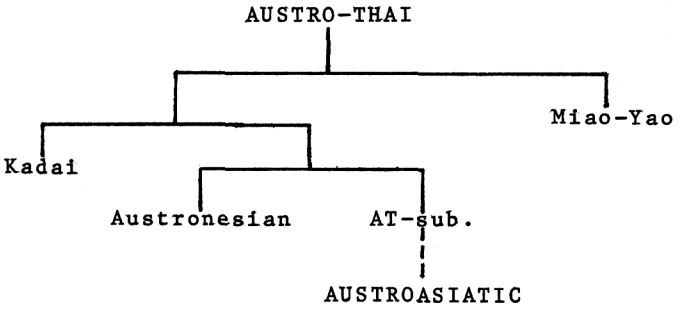
*tali, id. (Mal. tali) (note the similar vowel treatment, suggesting borrowing via Chamic, which has *-i >*-əy); PMK *kmpor 'lime' (Shorto): MM gapuiw, SM /həpo/, Khm. /kɔmbao/, IN *kapuy, id. (Mal. kapur) (note the nasalization in the Khmer form, as in 'sugarcane'); PMK *kdiiŋ (Shorto): Khm. /khti:ŋ/ 'wild ox' ∿ *k-n-diiŋ: SM /kəloiŋ/ 'gaur', AT ka/-(n)triŋ 'cattle/buffalo'; Khm. prāk 'silver', IN *pirak, id.; Khm. mās, St. mahi, Biat maih 'gold', IN *əmat', id. (Mal. ĕmas), but Shorto (1972) suggests a derivation by infixation from PMK *i?aas 'shine/shining'. Two other forms, although restricted only to MK, appear to be somewhat earlier loans from AT: 'boat' and 'sesame' (above). Of special importance is the root for 'sugarcane', from AT *(n)tobos, which appears to be of great antiquity in MK although not found in Munda; note the strange "fragmentation" of the root, as shown above, including a remnant *b[u]s in Aslian which preserves the final *-s. We come now finally to the one cultural item which is represented, albeit with semantic shift, in Munda, viz. AT *lu[y]aŋ 'copper/brass', yielding PM *luaŋ 'iron', the final piece in the puzzle (the "missing" y) being supplied by Mon sluy 'copper' (cf. slāk 'bronze')[2], from *s/luy[aŋ]. Thus it appears that the "culture word" of greatest antiquity in all Southeast Asia should designate the metal (copper/bronze) that was probably first produced in history by the people (AT-speaking) of this region.

We believe that the answer to the problem posed at the outset of this paper is as follows: AT and AA do not have a core vocabulary in common, despite the morphological similarity of the two language stocks, hence the idea of an "Austric" superstock must be

bandoned. There are a number of lexical agreements, owever, and these are best explained by postulating hat a mainland branch of AT, now extinct, became substratumized" by AA, yielding up certain roots in he process. Two of the basic roots involved, those or 'dog' and 'left (hand)', are precisely the pair perro, izquierdo) which the "Iberian" substratum assed on to the conquering Romans in Spain, while he word dog itself, apparently of non-Indoeuropean rigin, has survived a series of upheavals in Great ritain to emerge triumphantly in modern English. he left side of the body is endowed with various agical properties (cf. French gauche, a Germanic word usting Old French senestre < Latin sinister), and he body parts involved above are closely connected ith "spirit life": 'hair (strength)', 'eye (evil)', blood (life/soul)', 'breast (mother)', etc. The ords for 'eye' and 'day/sun' probably traveled to- ether as a pair ('sun' = 'eye of the day'), with eference again to an object (the sun) of vast magi- al properties. We can visualize a conquered group assing on much of its esoteric (cult) learning to ts conquering masters, along with certain cult "para- hernalia" in the form of lexical items.

The relationship of this "substratumized" AT roup, which we shall label AT-sub., to other ranches of AT is of some interest. Lexically it tands closest to AN, which has cognates for all the ain forms represented here, including 'hair' (AN busuk). Like the other mainland branches of AT, his AT-sub. branch showed a tendency to reduce to onosyllables, as in 'hair' and 'eye', yet it appar- ntly retained some disyllabic forms, as in 'blood', copper' and 'sugarcane' (to account for the various

forms found in AA). Specifically, AT-sub. reduced AT *mapḷa 'eye' by fore-stress and retroflexing (>*maṭ), followed by centralization of the vowel (>*məṭ), the latter development not found elsewhere in AT. The indicated semantic shifts: 'twin/double' > 'two'; 'light/shine' > 'sun/day' are encountered elsewhere in AT but a third shift: 'copper' > 'iron', which appears to be unique, represents a development within Munda itself, after separation from the ancestral AA-speaking people, as proved by Mon sluy 'copper', retaining the earlier meaning. The following diagram represents our present view of the relationships involved:



With Austro-Thai and Austroasiatic in place, it can be seen that the three language stocks of Southeast Asia show a line of primary cleavage dividing one of these stocks (ST) from the other two (AT, AA). Along this line, or within the region of linguistic separation that it implies, there developed an early transitional zone, with areal diffusion from ST to the two AT substocks (Kadai and MY) remaining on the mainland as well as to the Viet-Muong group, situated peripherally with reference to the parent AA stock. The principal language features involved here can be tabulated as in Table 3.

Sino-Tibetan	*AUSTRO-THAI*		*Austronesian*	*Austroasiatic*
	Kadai	*Miao-Yao*		
syllables 1	syllables 1 (+2)	syllables 1	syllables 2 (+1,3)	syllables 2/1
nasal/orals lacking	nasal/orals (>nasals) (>stops)	nasal/orals {initial {medial	nasal/orals {initial {medial	nasal/orals medials only
velars only	postvelars	postvelars >velars	postvelars	postvelars
secondary aspiration	secondary aspiration	secondary aspiration	no secondary aspiration	no secondary aspiration
final *-Ø only ↓ unvoicing: tones	final *-Ø only ↓ unvoicing: tones	final *-Ø only ↓ unvoicing: tones	final *-Ø (∿final *-h) ↓ unvoicing: no change	final *-Ø/? ∿final *-h ↓ unvoicing: registers
basic tones 2 (>3)	basic tones 3	basic tones 3	basic tones lacking	basic tones lacking

Table 3

The above table clearly shows the effect of areal diffusion from ST at a very early period into the transitional zone (enclosed in heavy lines), with transformation of the mainland AT substocks into essentially monosyllablic, tonal languages showing secondary aspiration of stops (in initial position), with less marked influence on features such as nasal/orals and postvelars (both lacking in ST). Viet-Muong, not included in the table, underwent closely similar changes, also at an early period. The basic two-tone scheme of ST, which early (2nd-1st millenium B.C.) developed a third sandhi tone in Chinese, was diffused in this form, along with certain cultural loanwords, to Kadai and MY (see Benedict 1973, Introduction). Another basic feature of ST, the lack of final *-h (only final *-Ø = vocalic final, without alternation with final -?), apparently also influenced the loss of this final in Kadai and MY, although within the AN substock final *-h was also lost in IN (and Tsouic, but maintained in Atayalic and East Formosan). Later, with the widespread unvoicing of initial stop consonants, the Kadai and MY languages paralleled ST languages in reflecting this change in various *tonal* phenomena, thus substituting one kind of glottal feature (tone production) for another (voicing). Austroasiatic, which shows a basic contrast between final glottal stop (-?) and continuant (-h), reflects the unvoicing in various *register* phenomena, which can be viewed as fundamentally another kind of glottal feature: *constricted* (glottal stop) vs. *expanded* (glottal spirant continuant = h), a distinction secondarily transferred to that of tone-root position[3]. This serves to explain the striking contrast along the primary cleavage line in Southeast Asia between tone

nd register phenomena, tying them in with a basic egmental feature (absence or presence of final *-h).

In addition to the features of the early transiional zone, as shown in the table, later areal facors have also been at work, e.g. in the reduction of he isolated (from AN) Chamic languages to largely or ven (Rade) completely monosyllabic speeches; note lso a similar monosyllabicizing trend in the AA anguages, with the Mon-Khmer group regularly reducng the CVCV(C) pattern to CCV(C). Khasi shows secndary aspiration, apparently under the influence of he surrounding TB languages, while at least two of he Palaung-Wa languages (Danaw, Riang) have develped a two-tone system as a result of unvoicing, gain in keeping with the TB pattern. Finally, as n exception to the general rule that areal factors n Southeast Asia have operated in the ST>AA direcion, one Southern Burmese-Lolo language (Akha) has eveloped a register system very much like that of he neighboring AA languages.

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[1] *This revised version of the paper presented at* he conference is also being published as an appenix to Benedict 1973.

Abbreviations: AA Austroasiatic; AN Austronesian; Asl. Aslian; AT Austro-Thai; Bahn. Bahnar; *BSL Bulletin de la Société de Linguistique de Paris*; Da. Danaw; Gu. Gutob; IN Indonesian; *IPLS Indo-Pacific Linguistic Studies* (G. B. Milner and E. J. A. Henderson, eds.), Part 1, Amsterdam: North Holland Publishing Company, 1965 (= Lingua 14); Ju. Juang; Kh. Kharia; Khm. Khmer; Khs. Khasi; Ku. Kurku; MK Mon-Khmer; MM Middle Mon; Mu. Mundari; MY Miao-Yao; Nic. Nicobarese; OM Old Mon; PAA Proto-Austroasiatic; Pal. Palaung; PM Proto-Munda; PMK Proto-Mon-Khmer; PNB Proto-North-Bahnaric; PW Palaung-Wa; Ri. Riang; Sa. Santali; *SCAL Studies in Comparative Austroasiatic Linguistics*, ed. by N. H. Zide, Mouton (Indo-Iranian Monographs, vol. 5), 1966; SM Spoken Mon;

St. Stieng; ST Sino-Tibetan; TB Tibeto-Burman; TV Tung Va; Vn. Vietnamese.

[2]Shorto (1972) also cites Khm. luy 'money', a loan (directly or indirectly) from Chinese (Min) lui (id., apparently to be referred ultimately to the same basic root for 'copper').

[3]Cf. the discussion in K.J. Gregerson, "*Tongue-root and register in Vietnam languages*," in this collection.

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