ANOMALOUS EXPANSIONS IN KHMER MORPHOLOGY

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In the course of sifting data for a forthcoming lexicon of
Khmer wordbases and derivatives Dr Saveros Pou and I have come
upon a small number of derivative-like forms which, to the best
of our knowledge and belief, have not been noted previously.[1]
For want of a simpler term I have chosen to refer to these
pseudo-derivatives as "anomalous expansions"---*anomalous*, be-
cause their formation deviates from systematic derivational
possibilities as understood so far; *expansions*, because all of
the forms in question are attributable to attested wordbases.

In order to describe this morphological class without undue
ambiguity it is necessary to explain four terms which the de-
scription entails and to say something of normal processes of
derivation.

The four terms in question are *primary wordbase, secondary
wordbase, primary derivative,* and *secondary derivative.*

Primary wordbases in Khmer are conterminous with the
minimal word and hence have the canonical form CV(F), in which
C represents any permitted simple consonant. Examples: rāṃna
/reəŋ/[2] 'to obstruct, strain out'; loḥ /lóh/[3] 'to separate';

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[1]But see Saveros Pou, "Notes de morphologie khmère," in
ASEMI, VI (1975).4: 63-9, especially section III, "Expansion
anormale de la présyllabe," 67-8, which treats four of the ano-
malous expansions reported here.

[2]Khmer forms are cited in a strict indianist transliteration
of the original orthography followed by a phonemic transcrip-
tion. Unless otherwise stated or shown, all phonemic forms rep-
resent the modern standard. In this case the acute (´) marks
the High Register and the grave (`) marks the Low Register of
fourteen otherwise ambivalent syllable nuclei.

[3][luəh].

kāca /kaac/ 'to be bad, wicked'.

By the incorporation of one affix primary wordbases yield *primary derivatives*. These show three canonical forms, depending upon the shape of the affix:

- CCV(F), in which CC represents any allowable binary consonant cluster. Example: srāṃ́a /sraŋ/ 'to sift, select', < rāṃ́a /reəŋ/, as above.
- Crv- + CV(F), in which the presyllable is one of the series of so-called rhotacized prefixes to be mentioned shortly. Example: praloḥ /prɑlaoh/[4] 'to be separated from one another', < loḥ /lóh/, as above.
- Cvm- + -nV(F), in which the presyllable is generated by the infixation of /-vmn-/ into a primary wordbase. Example: kamṇāca /kɑmnaac/ 'to be consistently wicked', < kāca /kaac/, as above.

Primary derivatives of the shape CCV(F) often function as *secondary wordbases*. That is to say, forms of this structure are at once the result of derivation from primary wordbases and are capable of serving as the point of departure for further derivation. Primary derivatives of the two other structures are not subject to affixation.

By the incorporation of one affix these secondary wordbases yield *secondary derivatives*. Depending on the shape of the affix, these show four canonical forms:

- C_1CCV(F), in which C_1 is morphologically /R-/, defined as reduplication of the secondary-wordbase initial. Example: kakhva'ka /kkwɑk/ 'to be dirty, unkempt', < *khva'ka /kwɑk/, same meaning, < va'ka /wuk/ 'to be mixed up, in disorder'.
- Crv- + CCV(F), in which the presyllable is again one of the rhotacized prefixes. Example: prajhloḥ /prɑclóh/ 'to quarrel with one another', < jhloḥ /clóh/ 'to differ, dispute', < loḥ /lóh/, as above.
- Cvn- + CV(F), in which the presyllable is generated by the infixation of /-vn-/[5] into a CCV(F) syllable. Example: tamkœ́ṅa /tɑmkaaəŋ/ 'to elevate, exalt', < thkœ́ṅa /tkaaəŋ/ 'to be lofty', < kœ́ṅa /kaaəŋ/ 'to be high'.

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[4][prə'lɑh].

[5]/N/ = assimilating nasal.

- CvN- + CCV(F), in which the presyllable is one of a secondary set of prefixes added to a CCV(F) syllable. Example: raṃbhāya /rumphíiəj/ '(*of wind*) to blow gently; to be cool', < bhāya /phíiəj/ 'to spring up, shoot forth; to breathe', < bāya /píiəj/ 'to be scattered, strewn'.

Tertiary derivatives, so infrequent as to be almost rare, also occur. These have the canonical form CvN- + CCV(F), precisely like the secondary derivatives just mentioned, but are the result of the infixation of /-vN-/ into a C_1CCV(F) syllable.[6] Example: jañjrāṃña /cuncreəŋ/ 'stubble', < *jajrāṃña /ccreəŋ/ 'to be all bristly', < jrāṃña /creəŋ/ 'to bristle', < -rāṃña /-reəŋ/ 'to rise up, be stiff'.[7]

Normal processes of derivation show four patterns:

wb. + pfx + pfx[8]	raña /rɔɔŋ/ 'to clarify (*liquid*)'
	traña /traaŋ/ 'to filter'
	kantraña /kɑntraaŋ/ 'bamboo strainer'
wb. + ifx + ifx	ṭuta /dot/ 'to grill'
	tputa /tbot/ 'to hold in cooking-sticks'
	ṭamputa /dɑmbot/ 'cooking-sticks'
wb. + pfx + ifx	paña /baaŋ/ 'older sibling'
	cpaña /cbaaŋ/ 'to be older, superior'
	campaña /cɑmbaaŋ/ 'to be oldest'
wb. + ifx + pfx	dula /tul/ 'to bulge'
	dhula /thul/ 'to be chubby'[9]
	kandhula /kɑnthul/ 'to be tubby'[10]

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[6]This interpretation is admittedly subject to debate. Secondary wordbases normally take only the syllabic infix /-vN-/ or one of the secondary set of CvN- prefixes just mentioned. As far as my experience enables me to say, however, tertiary derivatives always have a word-initial which duplicates that of the secondary wordbase. In order to account for this duplication it seems reasonable to pass through the C_1CCV(F) step, which is operative whether attested in a specific derivational chain or not.

[7]The hyphen indicates that -rāṃña /-reəŋ/ occurs only as a bound form. It is likely in this case, however, that the base is to be identified with rāṃña /reəŋ/ 'to obstruct', cited previously.

[8]*Wb. = wordbase; pfx = prefix; ifx = infix.*

[9]Not listed in the semi-official *Vacanānukrama khmēra / Dictionnaire cambodgien.* Cinquième édition (Phnom-Penh: Institut Bouddhique, 1967, 1968).

[10]The connotation is derogatory.

In considering the foregoing sets, note that the interme-
diate forms /traaŋ/, /tbot/, /cbaaŋ/ and /thul/ are primary de-
rivatives of the primary wordbases above them and at the same
time secondary wordbases of the secondary derivatives below
them. It should be clear that these intermediate forms are a
necessary step between the primary wordbase and the secondary
derivative.

In reality, however, the derivational chain is not seldom
broken. Interruptions arise from the absence of an existing or
recognizable primary wordbase, from the absence of a secondary
wordbase accounting for a secondary derivative, and from skewed
semantic development on any of the three levels. In order to
work out morphological relationships it is therefore often ne-
cessary to set up a hypothetical primary wordbase or primary
derivative or to postulate a mediating gloss for one form which
is in consonance with a deviant gloss and at the same time is
justifiable by the other two forms.

As long as these procedural requirements are understood it
will suffice to divide the anomalous expansions in question
here into three general groups.

Group I

Group I comprises twenty-six members and is divisible into
three subgroups.

Group I.A has only three members. One of these, the source
of which is still in doubt, is an expansion of a tertiary de-
rivative; the other two are expansions of secondary deriva-
tives.

The characteristic of this subgroup is the presence of a
short, nonneutral vowel in the presyllable, where a short neut-
ral vowel would be expected. Since the word-initial in all
three cases is /c-/, it is not surprising that the anomalous
vowel is /i > ə̀/.[11] The forms in question are:

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[11] None of the expansions reported here can be dated. Since

(1) ciñcœma /cincəəm > cèncaaəm/ 'eyebrows'. Expansion of
    *cañcœma /cɔncəəm > cɑncaaəm/; cf. Old Khmer caṃceṃ
    /cəncəəm/;

    < *cacœma /ccəəm > ccaaəm/ 'to surmount';

        < -cœma /-cəəm > -caaəm/, allomorph of cīma /cỳym/
        [čɤːm] 'to increase; to be over', attested in
        chnœma /cnaaəm/ 'to be superior'.

(2) ciñcēña /cincɛɛŋ > cèncaaɛŋ/ 'to be bright, luminous'.
    Expansion of *cañcēña /cɔncɛɛŋ > cɑncaaɛŋ/;

    < *cacēña /ccɛɛŋ > ccaaɛŋ/ 'to be all light';

        < cēña /cɛɛŋ > caaɛŋ/ 'to be clear, light, bright'.

(3) ciñcrāṃ /cincram > cèncram/ 'to chop, hash, mince'.[12] Ex-
    pansion of *cañcrāṃ /cɔncram > cɑncram/;

    < *cacrāṃ /ccram/ 'to cut into small bits';

        < *crāṃ /cram/ 'to be in small bits', presumably
        allomorph of srāṃ /sram/ 'to be cracked, crack-
        led'.

        < r̀āṃ /ram/ 'to be constant, repeated'.

Expansions of this particular kind are of scant linguistic
interest and need be regarded as no more than phonetic alter-
nants which penetrated the standard language by force of their
prevalence.

Group I.B comprises twenty members, all expansions of pri-
mary derivatives.

These are characterized by the intrusion between the ini-

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the development of the registers was a gradual process which,
to all appearances, culminated only within the last century and
a half, it is necessary to take into consideration the Middle
Khmer value of all vowels deemed anomalous. In transcriptions
such as /cincəəm > cèncaaəm/ the prior form represents Middle
Khmer while the latter form represents the modern standard form
developing out of it. In this first case, it is only in the
Middle Khmer form that expansion is seen at all, inasmuch as
the modern form of the presyllable is phonetically identical
with the Old Khmer presyllable: [čəŋ-].

[12]S. Pou and I have previously sought to explain this item
as a learned alteration of colloquial ciñjāṃ /cèncoəm/ 'to
chop, etc.', based on a late Middle Khmer *jāṃ /cam > coəm/
borrowed from Chinese. See Saveros Pou and Philip N. Jenner,
"Some Chinese Loanwords in Khmer," in *JOS*, VI (1973).1: 44,
item 145.

tial and postinitial of the latter of a nonneutral vowel, pho-
nemically long or short but short on the phonetic level.

These forms cannot be divided into meaningful sets either
on the basis of their intrusive vowel or on the basis of the
vowel of the primary derivative from which they develop. Hence
I list them all together in Khmer dictionary order.

(4) cēcūva /cɛɛcuuw > caaɛcòow/ 'to serve as go-between, ar-
range a marriage'. Cf. also Middle Khmer cicū /cicuu/,
same meaning;

    Expansion of *cacūva /ccuuw > ccòow/, same meaning;

        < -cūva /-cuuw > -còow/ 'to flatter, cajole', at-
tested also in chūva /chòow/ 'to pump, worm in-
formation out of'.

(5) dīdœra /tiitəər > tiitə́ər/[13] 'to waver, be indecisive';

    Expansion of *dadœra /ttəər > ttə́ər/, same meaning;

        < dœra /təər > tə́ər/ 'to go or come half-way; to
occur at mid-point'. Cf. Old Khmer der /dəər/,
same meaning.

(6) dīdai /tiitəj > tiitə́j/ 'to be different, distinct, sep-
arate'. Cf. Old Khmer didai /diidəj/, same meaning;

    Expansion of *dadai /ttəj > ttə́j/, same meaning;

        < -dai /-təj > -tə́j/ 'to be other, different', at-
tested in Old Khmer dai /dəj/, same meaning.

(7) dūlāya /tuulaaj > tuulíiəj/ 'to be open, broad, roomy,
spacious';

    Expansion of dhlāya /tlaaj > tlíiəj/ 'to be open';

        < lāya /laaj > líiəj/ 'to spread'.

(8) pārāsa /ɓaaraah > baaraah/ 'stray animal; outcast';

    Expansion of prāsa /praah/ 'to be parted, separated';

    Loan < Sanskrit *prāsa, prāsta*.

(9) p̣ai ḷām /pəj lam > paj lam/ 'to speak broken Khmer or
other language';

    Expansion of *phlām /plam/ [pʰlæm], reduction of praḷām
/prɑlam/ [pʳə'læm ~ pᵊlæm] 'to be muddled, mixed
up, confused';[14]

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[13][ti'tɤː].

[14]The simplification of the rhotacized prefixes is discussed
below under Group II.

< lām̐ /lam > loəm/ 'to be confused'.

(10) biṭora /pidɓor > pidaaor/ 'to be scented, fragrant';

Expansion of *btora /pdɓor > pdaaor/, by attraction to
Sanskrit and/or Pāli vi- 'out, apart, in different
directions',[15] for *ptora /pdɓor > pdaaor/ 'to per-
fume'

< ṭora /dɓor > daaor/ 'to spread, swell, overrun'.

(11) bīroḥ /piiroh > piiróh/ 'to resound; to be full, sono-
rous, sweet-sounding';

Expansion of *broḥ /proh > próh/, by attraction to San-
skrit and/or Pāli vi-, as in 10 above, for *proḥ
/proh > praoh/ 'to resound, reverberate' (cf. proḥ
/praoh/ 'to sprinkle (water) with the fingers') or
a special development of broḥ /proh > próh/ 'to sow
broadcast';

< -roḥ /-roh > -róh/ 'to throw off, emit', probably
to be identified with -roḥ /-róh/ 'to drain,
flow off', attested in jroḥ /croh/ 'gorge, ra-
vine; mountain torrent'.

(12) yopa'la /jooɓɔl > jóobɑl/ 'view, opinion';

Expansion of *yapa'la /jɓɔl > jbɑl/, same meaning;

< ya'la /jɔl > jul/ 'to see, perceive; to under-
stand'.

(13) yopaṃ /jooɓɔm > jóobɑm/ 'weeping, lamentation';

Expansion of *yapaṃ /jɓɔm > jbɑm/, same meaning;

< yaṃ /jɔm > jum/ 'to weep'.

(14) līlā'pa /liilap > liiloəp/ 'to retrace one's steps'. Cf.
also Middle Khmer lelāpa /leelap/, same meaning;

Expansion of *lalā'pa /llap > lloəp/, same meaning;

< lā'pa /lap > loəp/ 'to go back, repeat'.

(15) sāya yuta /saaj jut/ 'Desmos chinensis (Annonaceae), a
creeper with yellow flowers having long, drooping pet-
als'. Cf. Thai สายหยุด /săaj jùt/.[16]

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[15]Cf. Khmer bijāya /picéj/ 'to be triumphant', < Sanskrit
vijaya, Khmer bidhī /pithii/ 'ceremony', < Sanskrit vidhi, and
numerous other loans of the same formation.

[16]An alternant Khmer form for the same plant noted by S.
Pou, sāva yuta /saaw jut/, shows a further stage of development
away from the primary derivative but a development of a kind
with which we are not concerned here.

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Expansion of srayuta /srɔjut > srɑjot/, as Middle Khmer
[sˤə'jʊt], 'to be faint, feeble, limp';

< -yuta /-jut/ 'to fall in, slump', allomorph of
ruta /rut/ 'to lower, drop' and luta /lut/ 'to
fall away, dip, drop'.

(16) sārāya /saaraaj/ 'edible (*marine or freshwater*) algae';

Expansion of srāya /sraaj/ 'to loose; to be loose';

< rāya /raaj > ríiəj/ 'to break up, scatter'.

(17) sārāya /saaraaj/ 'decorated wooden valance under house
eaves';

Expansion of *srāya /sraaj/, same meaning;

< sāya /saaj/ 'to extend, run'.

(18) sāvā /saawaa/ 'to be restless, flighty, fickle';

Expansion of svā /swaa/ 'monkey, gibbon'; conjectural-
ly 'one who swings by the arms';

< -vā /-waa > -wíiə/ 'to rotate the arm', attested
in cravā /crɑwaa/ 'paddle, oar' and sravā /srɑ-
waa/ 'to sweep into the arms'.

(19) sāhāva /saahaaw/ 'to be fierce, savage';

Expansion of *srahāva /srɔhaaw > srɑhaaw/, as Middle
Khmer [sˤə'hæːu̯], same meaning;

< hāva /haaw/ 'to be wild, rabid'.

(20) suraṅa /surɔɔŋ > sorɑɑŋ/ '(*rājasabda*[17]) neck';

Expansion of sraṅa /srɔɔŋ > srɑɑŋ/ '(*of humans*) neck;
(*of upper garment*) collar, ruff; (*of cattle*) dew-
lap';

< raṅa /rɔɔŋ/ 'to hold up, support from below'.

(21) sūreca /suurac > sòorac/ 'to be at an end, all done';

Expansion of sreca /srac/ 'to be ended, done, ready';

< reca /rac > réec/ 'to be worn down', but conjec-
turally 'to come to an end or point', allomorph
of rwca /rúuəc/ 'to be done, over with'.

(22) 'āṇapa /qaanɔɔp > qaanɑɑp/ 'support; supporter, patron',
now replaced by even more anomalous raṇapa /rnɑɑp/;

Expansion of *'aṇapa /qɔɔnɔɔp > qaanɑɑp/, for *'napa
/qnɔɔp > qnɑɑp/, same meaning;

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[17]Term applicable to royalty; royal dialect.

< 'apa /qɔɔp > qaap/ 'to clasp; to hold up'.

(23) 'āṇāra /qaanaar/ '(*woodworker's*) saw', now replaced by
even more anomalous raṇāra /rnaar/;

Expansion of *'aṇāra /qɔɔnaar/ > qaanaar/, for *'nāra
/qnaar/, same meaning;

< 'āra /qaar/ 'to saw'.

To be grouped with the foregoing are older forms which have
since been regularized (e.g., Old Khmer cicāy /cicaaj/ 'to
scatter, squander, destroy', < cāy /caaj/ 'to spread, issue',
> Middle Khmer and modern cacāya /ccaaj/) and a good number of
still conjectural forms such as dīduya /tiituj/ 'owl', probab-
ly < -duya /-tuj/ 'to jut, protrude'.

Recognition of this type of expansion may serve to curb the
temptation so commonly felt to explain enigmatic Khmer forms on
the basis of borrowing, as from Thai for example. There is no
denying that a great amount of borrowing and back-borrowing has
gone on between Khmer and Thai; in some cases, however, facile
"explanations" of this kind merely carry the problem of morpho-
logical anomaly out of Khmer where they belong and are no ex-
planations at all. A possible case in point is modern Khmer
kāɬai /kaalaj/ 'to disguise; to a-loy (*metals*)', which the VK[18]
confidently credits to Thai กาไหล่ /kaalàj/ 'to plate (*with met-
al*); to be plated'.[19]

In this case the question of the direction of borrowing is
complex. On the one hand Khmer has kralai /kralaj/ as an alter-
nant of kāɬai /kaalaj/. On the other hand both of these Khmer
forms as well as Thai /kaalàj/ appear to be referable to Khmer
lai /ləj > lə́j/ 'to combine, put together', an allomorph of
lāya /laaj > lə́iəj/ 'to mix, scramble, blend'. From the latter
base, moreover, Khmer has klāya /klaaj/ 'to be mixed, adulter-
ated, not pure, hybrid, false; to be altered', whence Thai

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[18]*Vacanānukrama khmēra*, I (1967): 38a.

[19]Mary R. Haas, *Thai-English Student's Dictionary* (Stanford:
Stanford University Press, 1967), 33a.

กลาย /klaaj/ 'to change, be changed'.[20] As long as Khmer has
even extra-systematic means of forming kāɫai /kaalaj/ out of
kralai /krɑlaj/[21] there are no discernible morphological
grounds for assuming that it is a back-borrowing, though there
may well be convincing historical or technological grounds.

Group I.C comprises three members, all expansions of pri-
mary derivatives. These are characterized by an augmented in-
sertion of the shape VC which rhymes with the syllable out of
which they are formed.

(24) sāva dāva /saaw taaw > saaw tíiəw/ 'species of large lob-
      ster';

      Expansion of sdāva /staaw > stíiəw/ 'to be half-grown,
      immature', but conjecturally 'to be gangling';

      < dāva /taaw > tíiəw/ 'to be spindly, adolescent'.
      Cf. allomorph -tāva /-taaw/ in ratāva /rtaaw/
      'to be elongated; (of limbs, paws, etc.) to be
      big, outsized'.

(25) sāva m̄āva /saaw maaw/ 'name of several hairy plants such
      as the rambutan and passionflower';

      Expansion of *smāva /smaaw/, allomorph of smau /smaw/
      'grassy plants in general: grass, weed, herb';

      < -sāva /-saaw/ 'to be hairy', allomorph of -sūva
      /-sòow/ [-sɤːṵ] 'to be grassy, hairy', attested
      in spūva /sbòow/ 'thatch grass', srūva /sròow/
      'paddy', and sramūva /srɑmòow/ 'to be hairy,
      unkempt'.

(26) sau ṭau /səw ɗəw > saw daw/ 'to be random, haphazard';

      Expansion of stau /sɗəw > sdaw/ 'to stitch (edges of a
      basket) temporarily', but conjecturally 'to mark
      off at intervals, make a broken line';

      < ṭau /ɗəw > daw/ 'to mark, brand'.

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[20]Ibid., 18b.

[21]For all we know at the moment, kralai /krɑlaj/ could be a
regularization of kāɫai /kaalaj/.

Group II

Group II comprises fourteen members, all expansions of primary derivatives.

The characteristic of this group is the presence, between the initial and postinitial consonants of the primary derivative, of /-rɔ- ~ -rɑ-/, normally [-rə-].

It is not without significance that expansions incorporating this pseudo-infix thereby assume the same syllable structure as true primary derivatives containing the rhotacized prefixes /prɔ- ~ prɑ-; trɔ- ~ trɑ-; crɔ- ~ crɑ-; krɔ- ~ krɑ-; srɑ-/, with which they are liable to be confused. True derivatives of this type are exemplified by praka'la /prɑkɑl/ 'to stack one on top of the other', < ka'la /kɑl/ 'to raise'; dravēn̄a /trɔwɛɛŋ/ 'to be oval, oblong', < vēn̄a /wɛɛŋ/ 'to be long'; cramūla /cramòol/ 'to be all tangled up', < mūla /muul/ 'to be round, compact'; grajūra /krɔcuur/ 'to be dour, crabbed', < jūra /cuur/ 'to be tart, sour'; and sradāpa /srɑtíiəp/ 'to prostrate oneself', < dāpa /tíiəp/ 'to be low'. It is presumably only by chance that presyllable /srɑ-/ is not found among the anomalous expansions listed hereafter.

(27) krañām̥ /krɑɲam/ 'claws, talons';

　　　　Expansion of khñām̥ /kɲam/ 'to clutch, swipe at';

　　　　　　< ñām̥ /ɲam > ɲoəm/ 'to take up by the handful'.

(28) krapwca /krɑbùuəc/ 'to bring the four corners of (piece of cloth) together and knot them';

　　　　Expansion of *kpwca /kbùuəc/ 'knot';

　　　　　　< kwca /kùuəc/ 'to twist, twirl; to knot'.

(29) krapēla /krɑbaaɛl/ 'to cut off at the base or root';

　　　　Expansion of *kpēla /kbaaɛl/, allomorph of kpila /kbə̀l/ 'to cut down to the root';

　　　　　　< -kēla /-kaaɛl/, allomorph of -kila /-kə̀l/ and kā'la /kal/ 'to cut close to the root, flush with the ground'.

(30) kramau /krɑmaw/ '(of red and blue/green) to be dark';

Expansion of khmau /kmaw/ 'to be black';

< -mau /-məw/, < Old Khmer mau /məw/ 'to be black'.

(31) krayau /krɑjaw/ 'whorl (*in head hair, skin of finger-tips*)';

Expansion of *khyau /kjaw/, allomorph of khcau /kcaw/ 'snail; spiral, helix';

The CCV(F) form is irreducible.[22]

(32) krasānta /krɑsaan/ 'to be at peace, prosperous';

Expansion of ksānta /ksaan/ 'to be calm, happy';

Loan < Sanskrit kṣānta.

(33) krahwca /krɑhùuəc/ 'to be funnel-shaped, funnelform';

Expansion of khwca /khùuəc/ '(*archaic*) small vial for cosmetics (*so called because of its shape*); dimple';

< kwca /kùuəc/ 'to twist, twirl; to knot'.

(34) grahara /krɔhɔɔr/ 'rogue, rascal, scamp';

Expansion of -ghara /-khɔɔr/ 'to be bold', attested in gaghara /kkhɔɔr/ 'to be cheeky, impudent';

The CCV(F) form is irreducible.[22]

(35) grahupa /krɔhup/ '(*of face, cheeks*) to be hollow, sunken';

Expansion of -ghupa /-khup/, allomorph of khupa /khop/ 'to be hollow, concave';

The CCV(F) form is irreducible.[22]

(36) crapā'pa /crɑbap/ 'to grapple, come to grips, with';

Expansion of cpā'pa /cbap/ 'norm, precept; literary composition', but conjecturally 'hold, restraint';

< cā'pa /cap/ 'to lay hold of, grasp, grip'.

(37) crapuca /crɑboc/ 'silk veil-scarf (*worn originally by Muslim Cham women, made by gathering up warp and weft threads into small buttons and dyeing them individually*)';

Expansion of cpuca /cboc/ 'to gather with the fingertips'.

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[22]Our working hypothesis has been that all native CCV(F) forms can be broken down into a nonsyllabic affix + a primary wordbase. Thus "irreducible" here means only that we have not yet succeeded in analyzing khcau /kcaw/, -ghara /-khɔɔr/, and khupa /khop/.

< cuca /coc/ 'to press with the finger'.

(38) trapā'ka /trɑbak/ '(of animals) to snap at, snap up';

Expansion of *tpā'ka /tbak/ 'to strike at';

< ṭā'ka /dak/ 'to strike, deal a blow'.

(39) trapā'ña /trɑbaɲ/ 'to twist or plait tightly';

Expansion of *tpā'ña /tbaɲ/, allomorph of tpāña /tbaaɲ/ 'to weave, plait';

< -tā'ña /-taɲ/, attested in kaṇtā'ña /kɑndaɲ/ 'to be all tangled up', allomorph of -tāña /-taaɲ/ 'to weave, interlace', attested in paṇtāña /bɑndaaɲ/ 'woven material, tomentum'.

(40) prahuka /prɑhok/ ~ braha'ka /prɔhuk/ 'fermented fish paste';

Expansion of phuka /phok/ 'viscous mixture' and bha'ka /phuk/ 'mud, ooze', respectively;

< -puka /-bok/ ~ -ba'ka /-puk/, allomorphs of buka /puk/ 'to decompose, putrefy, be putrid'.

It will not have gone unnoticed that four of the above ex-
pansions (items 31, 32, 34, 35) are not reducible to primary
wordbases and that only two items, 27 and 30, are reducible to
derivatives by prefixation. The remaining eight are reducible
to derivatives by infixation. Despite the small number of forms
involved, we are struck by the fact that six of these (items
28, 29, 36, 37, 38, 39) contain infix /-b-/ while the other two
(items 33, 40) contain infix /-h-/. Until we are able to probe
deeper into Khmer morphology, we must be content to recognize
an unexplained "attraction" to this type of expansion on the
part of forms with postinitial /b/ and /h/.

Expansions of this type may help explain the cryptic rela-
tionship between cnai /cnaj/ 'to cut or polish (gems)' and
caraṇai /cɑɑranaj/ 'worked gems; crystal, glass'. The first of
these is attested in Old Khmer as cnai /cnəj/, of the same
meaning, while the second appears in modern Thai as เจียระไน
/ciaranaj/, with the same meaning as Khmer cnai /cnaj/.[23]

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[23]George Bradley McFarland, *Thai-English Dictionary* (Stan-
ford: Stanford University Press, 1956), 260a: "to cut; to bur-

Khmer cnai /cnəj > cnaj/, unknown to S. Pou and myself in
any stage of Thai, has the CCV(F) structure normal for one type
of primary derivative---even if, as seems likely, fuller know-
ledge shows it to be a loanword.[24] Stated as briefly as possi-
ble, the problem is how to account for the /-aara-/ insert in
Khmer caraṇai /caaranaj/ and the /-iara-/ insert in modern Thai
/ciaranaj/.

In the light of the anomalous expansions we have been exam-
ining in the present group, it seems reasonable to postulate a
Middle Khmer *cranai /crɔnəj > cranaj/ as the immediate source
of the longer Khmer and Thai forms, that is to say, as an
extra-systematic expansion of Old Khmer cnai /cnəj/. Moreover,
in the light of the anomalous expansions we have already con-
sidered under Group I, we have grounds for supposing that this
*cranai /crɔnəj > cranaj/ subsequently underwent vocalic expan-
sion of two kinds, one of which came to be established in mod-
ern Khmer, the other of which came to be established in Thai.
Such a supposition is admittedly risky, but we have already
seen that there is no discernible correlation between the vowel
insert and phonological features of the wordbase; on the con-
trary, in a number of cases (items 1, 4, 14, 15, 22, 23) we
have documentary evidence that the insert has been variable.
Nor should it be forgotten that, as long as we do not under-
stand the motives of even single expansions it would be prema-
ture to argue that double expansions are out of the question.

However, the chief linguistic interest of these anomalous
expansions with /-rɔ- ~ -ra-/ resides not in the specific der-
ivational problems they may clarify but in the light they may
be able to throw on the development of the rhotacized series

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nish diamonds or precious stones"; So Sethaputra, *New Model
Thai-English Dictionary.* Library Edition (Samrong, Samud Pra-
kan: So Sethaputra's Press, 1965), I: 322a: "to cut *(gems)*";
Haas, op.cit., 125a: "1. to cut diamonds, jewels, crystal. 2.
(diamonds, etc.) to be fashioned, cut."

[24]Cf. items 8 and 32 above.

of true prefixes[25] and hence on the structure of the Khmer word in general.

The distinction between the rhotacized prefixes and the series of corresponding simple consonantal prefixes[26] is a subtle one. Semantically as well as stylistically there is no firm footing on which to define the functional differences between them in systematic terms. Morphologically, in an earlier paper S. Pou and I saw the proto-Khmer form of the rhotacized prefixes as having the canonical form CəR-, in which C stands for any stop or /s-/ while R stands for /r ~ l/.[27] Certainly derivatives formed with prefixes of this shape are found in Old Khmer, Old Mon, and in later stages of other languages of the Mon-Khmer group. In Old Khmer they begin to give way, from the time of the earliest inscriptions, to prefixes of the shape Crə-, the older /-l/ dropping out entirely. In Old and Middle Mon what appear to be presyllables of this same shape (Crə-) are almost all orthographic alternants of Cə- or Cər- syllables.[28]

As far as Khmer is concerned, it is worth remembering that Martini observed long ago that the members of initial clusters

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[25]For details regarding these see my *Affixation in Modern Khmer*, unpublished doctoral dissertation (University of Hawaii, 1969), 121-39.

[26]Ibid., 63-120.

[27]Saveros Pou and Philip N. Jenner, "Proto-Indonesian and Mon-Khmer," in *Asian Perspectives*, XVII (1974).2: 115.

[28]H.L. Shorto, *A Dictionary of the Mon Inscriptions from the Sixth to the Sixteenth Centuries* (London: Oxford University Press, 1971) lists only thirty-eight dissyllabic forms with orthographic *kra-*, *gra-*, *cra-*, *jra-*, *tra-*, *dra-*, *pra-*, *bra-*, *mra-* and *sra-*. In twenty-four of these cases (63%) the written postinitial *r* is simply not realized in the phonological form, as *brakuih* /bəkøh/ 'steatite pencil'. In eight cases the phonological form, despite the orthography, has the shape Cər-, as *graloñ* /gərluŋ/ 'quantity'. In only two cases, in fact, does the orthography appear to reflect postinitial /r/, namely *jrahān* /jra?han/ 'love' and *drahat* /dra?hɔt/ 'strength', and in both of these cases Shorto is careful to add a query-mark after the phonological form.

are not closely fused.[29] Indeed, the transition from the ini-
tial to the postinitial consonant is accomplished by a variety
of purely phonetic bridge-sounds. These range from zero,
through "aspiration," to a neutral vowel, and on to vowels of
several colors. Examples: skuna /skon/ [skoˇn] 'evil omen';
phdera /ptéer/ [pʰteː] 'to empty'; ktā'pa /kdap/ [kᵊdæp] 'to
clench the fist'; m̓yāñ a /mjaaŋ/ [mᵓjæːŋ] '(in) one way', crūta
/crȯot/ [čᶫȓoːt] 'to reap'.[30]

In this same connection, it must be said that the postini-
tial allomorphs of /r/ are typically very weakly articulated in
the rhotacized prefixes. Even in standard speech a clearly
flapped or trilled [ȓ] is heard only in maximal pronunciations
in this position, while the following vowel element is more
often than not a short neutral vowel carrying no registral dis-
tinction. Compare, for example, prāṁña /praŋ/ [pȓæŋ] 'to be
rainless' with prakēka /prɑkaaɛk/ [pᶠə'kæːek ~ pə'kæːek]. In
the same way, the common pronunciation of our anomalous expan-
sions is [kə'ɲæm] 'claws' (item 27), [kə'ɓuˑəʸč] 'to knot the
corners of' (item 28), [kə'ɓæːel] 'to cut off at the base'
(item 29), [kə'mæˑṳ] 'to be dark' (item 30), and so on. In this
sense the postinitial /r/ of the prefixes need not be regarded
as an essential element.[31]

What does appear to be an essential element of the rhota-
cized prefixes is their syllabicity, though even this is some-
times in doubt. By considering the question in the light of the
loose juncture of consonant clusters and the weak articulation
of postinitial /r/, we begin to see that the insertion of /-rɔ-

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[29]F. Martini, "Aperçu phonologique du cambodgien," in *BSLP*,
42 (1942-45).1: 125.

[30]The bridge-sounds given here are typical of citation forms
and are neither invariable nor obligatory.

[31]Deference to my colleague obliges me to note that S. Pou,
far from agreeing with this interpretation, believes that the
postinitial /r/ in question here is a literary feature which
corresponds to no reality in the historical development of the
language.

~ -rɑ-/ into the fourteen items of this group may have no other effect than that of opening the juncture between the original word-initial and the postinitial. This much comes uncomfortably close to a truism, but the intent of the insertion is far from being self-evident. It is only when we go back and re-examine our fourteen expansions that it dawns upon us that the essential purpose of the insertion is to set up a new contrast by keeping the initial and postinitial of the primary derivative from reuniting. A purely phonetic characteristic is brought up to the phonemic level and, at least in the case of these present forms, a distinction is signaled between /tbɑɲ/ 'to weave, plait' and /təbɑɲ/ 'to plait tightly' (item 39), /kmaw/ 'to be black' and /kəmaw/ 'to be dark' (item 30), /cbap/ 'hold, grip' and /cəbap/ 'to grapple' (item 36), and so forth.

I should mention, finally, that I am not ignoring the possibility that all of the anomalous expansions in this group are formations on the analogy of derivatives with the true rhotacized prefixes. Indeed, it seems most likely that the latter provided both the model and the inspiration for their creation. What is more, these /-rɔ- ~ -rɑ-/ expansions are only of minor interest for their own sake. The chief benefit to be gained from their examination is the fresh perspective they provide for our understanding of the rhotacized prefixes.

Group III

Group III comprises five members. These are characterized by the obligatory syllable 'ā /qaa/ followed by a primary word-base or a primary derivative.

For the time being at least I term this obligatory syllable a headword rather than a prefix because, in the first place, no Khmer prefix of this shape has been demonstrated thus far and, in the second place, I suspect that the syllable in question is a species of antonym to braḥ /prah > preəh/, the headword for divine or royal beings and objects (Old Khmer vraḥ /βrah/), on

which so many otherwise cautious scholars have stumbled.[32]

In the first three items listed below the headword appears
to have an intensive function with an unmistakably pejorative
connotation.[33] In the last two items an original syllable of
roughly similar shape appears to have undergone morphological,
and at least partially semantic, assimilation to the same pejo-
rative headword, possibly through the kind of vocalic expansion
already described under Group I.

(41) ʾā kraꞌka /qaa krɔk/ > qaa krɑk/ 'to be low or base in
      quality or character; to be poor, paltry, bad, ugly';

      Expansion of *kraꞌka /krɔk/ > krɑk/, allomorph of graꞌka
      /krɔk/ > kruk/ 'to be low, base, mean, worthless; to
      be unclean, offensive';

      < -raꞌka /-rɔk/ > -ruk/ 'to fall, be low', allomorph
      of ruka /ruk/ 'to cram into', but conjecturally
      'to go down into'.

(42) ʾā krāta /qaa kraat/ 'to be stripped, bare, unclothed';

      Expansion of krāta /kraat/ '(of garment) to slip down
      or off';

      < -rāta /-raat > ríiət/ 'to turn or peel back', at-
      tested in srāta /sraat/ 'to undress oneself, be
      bare', allomorph of lāꞌta /lat > loət/ 'to
      peel, skin'.

(43) ʾā m̐āꞌsa /qaa mah/ 'to be shameful, disgraceful';

      Expansion of -m̐āꞌsa /-mah/ 'to shame', allomorph of
      -māsa /-maah > -míiəh/, attested in khmāsa /kmaah/
      'to be ashamed', and of -mah /-mah > -meəh/, attes-
      ted in tmah /tmah/ 'to shame'.

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[32]The question is complicated by the fact that prefixed syl-
lables of this or similar shape are found in other Mon-Khmer
languages and, in fact, seem to have an areal distribution. My
colleague has called my attention to an a-type "prefix" to pro-
per names in pre-Angkorian Khmer. I believe this is simply an
early form of the modern familiar/pejorative headword ʾā /qaa/
commonly used with the names of boys, brigands, and others of
humble station. Indeed, this "personal article," as it has been
called, and the headword in question here may be one and the
same.

[33]Despite the formal and semantic overlap, the syllable we
are concerned with here is probably to be kept separate from
the one S. Pou and I have ascribed to Chinese. See our "Some
Chinese Loanwords," 65, item 220.

(44) 'ā r̀aña /qaa rɑɑŋ/ 'alembic';

> Expansion of -r̀aña /-rɑɑŋ/, registral allomorph (in-
> duced by the headword) of raña /rɔɔŋ/ 'to be clear,
> bright; to clarify (*liquid*) by filtration'. The
> headword may reflect a former affix (e.g., tamraña
> /tɑmrɑɑŋ/ 'filter') or may be a nonce device for
> nominalizing the wordbase and marking a common ar-
> ticle of distiller's apparatus. Any connection with
> the presyllable of Old Mon 'arañ /ərɔŋ/ 'to glit-
> ter'[34] is doubtful.

(45) 'ā srūva /qaa srŏow > qaa srŏow/ 'to be bad, evil; to be
unclean, foul';

> Expansion of Old Khmer 'asarū /qəsruu/, same meaning;
> learned formation < Sanskrit *a-* 'alpha privative' +
> *sarū /sruu/ 'to be good, right, pure', < rū /ruu/
> 'to be good, right', > modern -rūva /-ruuw/, attes-
> ted in trūva /trŏow/ 'to be right, accurate'.[35]

Residue

There remains a handful of forms which are worth mentioning
despite the uncertainties surrounding them.

One of these is cranwca /crɑnùuəc/ 'spit, skewer'. At first
glance one would suppose it were either a derivative of prefix
/crɔ- ~ crɑ-/ + a base nwca /nùuəc/ or a derivative òf infix
/-rɔn- ~ -rɑn-/ (a common allomorph of instrumental /-n-/) + a
base cwca /cùuəc/. However, neither nwca /nùuəc/ nor cwca
/cùuəc/ is known to exist. In casting about for alternative
sources, one is tempted to settle upon crwca /crùuəc/ '(*ar-
chaic*) to be sharp, pointed',[36] a primary derivative of rwca

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[34]Shorto, op.cit., 11.

[35]Full credit for the working out of this derivation goes to
my colleague. See Saveros Pou, "L'inscription de Phimeanakas
(K.484) (Etude linguistique)," in *BEFEO*, LVIII (1971): 95-6,
and especially "Inscriptions modernes d'Angkor 34 et 38," in
BEFEO, LXII (1975): 318, note 34. My sole concern here is to
have the item on record as belonging to a morphological set.

[36]In modern usage, 'to be high, keen, shrill'. Cf. from the
same wordbase srwca /srùuəc/ 'to be sharp-pointed; (*military*)
point, vanguard'.

/rúuəc/ 'to come to an end or point'. But, being a primary de-
rivative of CCV(F) shape, crwca /crùuəc/ cannot, at least inso-
far as our experience shows, take the instrumental /-n-/ infix.
Since this is nonsyllabic, it would yield a ternary cluster,
*/crnùuəc/, not tolerated except in the case of reduplications.
The /-ran-/ allomorph of /-n-/, moreover, is restricted to pri-
mary wordbases. In order to relate cranwca /cranùuəc/ to rwca
/rúuəc/ we must posit an anomalous /-vn-/ allomorph of /-n-/,
for which there is no evidence known to us, and assume further-
more that the relationship of crwca /crùuəc/ to rwca /rúuəc/
had been forgotten by the time cranwca /cranùuəc/ was formed.
The contingencies are so many in this case that it is only pru-
dent to withhold judgment.

The above case, if ever resolved, may show us how to treat
a set of four derivatives which have so far defied analysis:

> naniəla /nníiəl/ 'to sprawl (*on the ground, etc.*)';
>
> praniəla /pranìiəl/ 'to hang onto (*someone*), drape one-
> self around or "fall all over" (*someone*)';
>
> pramiəla /pramìiəl/ '(*of a cylindrical or globular ob-
> ject*) to roll down; to snuggle up to (*someone*)';
>
> ramiəla /rmíiəl/ '(*of a cylindrical or globular object*)
> to roll down'.

The first two forms look as if they should be assigned to a
base niəla /níiəl/ while the last two forms look as if they
should be assigned to a base miəla /míiəl/; in addition, the
second and third forms look as if they might be assigned to a
base piəla /bìiəl/. So far as I am aware, none of these bases
exists. We are still warranted, nonetheless, in seeing a possi-
ble semantic connection between naniəla /nníiəl/ 'to sprawl'
and praniəla /pranìiəl/ 'to drape oneself' as well as between
pramiəla /pramìiəl/ and ramiəla /rmíiəl/, both 'to roll down'.
Whether there is a semantic link between 'to sprawl' and 'to
roll down' is a question which can be answered in the affirma-
tive only if a plausible transitional idea can be proposed.
All that I can suggest at the moment is that praniəla /pra-

nìiəl/, which seems to show the most specialized semantic de-
velopment, could have arisen from the notion of 'to roll or
barge into (someone)' and later have been limited for a time to
the notion of 'to sprawl on (someone) in the manner of a child
or drunkard'. This would account for its present meaning as
well as that of naniəla /nníiəl/ and at the same time would be
in consonance with the meaning of pramiəla /pramìiəl/ and ra-
miəla /rmíiəl/. This in turn suggests a -riəla /-ríiəl/ allo-
morph of rāla /ríiəl/ 'to spread, develop, incline toward' as
the base of all four derivatives. To accept this, however,
would necessitate a number of assumptions difficult of diges-
tion. For one thing, naniəla /nníiəl/ would have to be ex-
plained as an assimilated form of *raniəla /rníiəl/. For an-
other, praniəla /pranìiəl/ and pramiəla /pramìiəl/ could only
be explained as prefix /p-/ + *raniəla /rníiəl/ and ramiəla
/rmíiəl/ respectively, these two consisting of infixes /-n-/
and /-m-/ + the aforesaid -riəla /-ríiəl/. To the best of my
knowledge, this type of formation is completely unknown. The
liabilities of the assumptions are greater than the solution
is worth, and it seems best to leave the whole problem in abey-
ance in the hope that a simpler solution will present itself
eventually.

Some of the expansions in Groups I and III, finally, put
us in mind of yet another type of anomalous formation encoun-
tered occasionally in the older literature. For example, I well
remember my perplexity years ago when I first came upon the
form hempūbānta /hɛɛmɓuupaan > haaɛmɓòopíiən/ 'Himālaya'[37] for
the modern and more expected himabānta /həmapíiən/ (< Sanskrit
himavant). It was not until long afterwards that S. Pou ex-
plained to me that the /-ɓuu- > -ɓòo-/ expansion is distinctive
of the stage dialect. This type of formation is clearly one
which should be described only by someone intimately acquainted
with the theater.

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[37]*Vacanānukrama khmēra*, II (1962): 1528a. The *Lpœka 'aṅgara-
vatta*, for example, has hemapūbā'nda at 213b, hemapūrabāna at
436e.