A Katuic cultural reconstruction

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By analysing a proto-language it is possible for linguists to compile a so-called 'linguistic account' of the life of its speakers. Such an account based solely on linguistic data is by no means a complete description of prehistoric life, but only its reflection in the language. To obtain a comprehensive picture we need to bring together archaeological, linguistic, anthropological and other accounts, in order to identify their similarities and explain their discrepancies. In this paper we discuss part of the linguistic account of Katuic prehistory. This means that we are dealing here only with linguistic reconstructions and thus do not attempt to compare them with any extralinguistic facts.

A linguistic account of prehistory is based on extensive comparative research in the history of the chosen language family. The obligatory conditions required for completion of a linguistic account include:

- a detailed etymological dictionary of the family based on thorough comparison of each pair of languages studied;
- a precise comparative phonology of the family;
- a well-proven genetic classification of the family;
- a cultural-contact classification of the family which identifies cultural zones among related languages and thus predicts the possibility of borrowings within the family;
- a technique for identifying borrowings from unrelated languages.

The Katuic Etymological Dictionary (Pejros 1996) is based on a comparison of four main Katuic languages (Bru, Kui, Pakoh and Katu) with at least 1,000 roots known for each of them. The etymological dictionary was compiled through direct comparison of each pair of these languages (Bru and Kui, Bru and Pakoh, Bru and Katu, Kui and Pakoh, Kui and Katu, and Pakoh and
Katu) and is based on forms found in any two, three or in all the languages. Such a process allows us to believe that the majority of reliable etymologies has been discovered.

Pejros (1996) has established a set of systematic phonological correspondences between the four languages and has suggested a new Proto Katuic reconstruction which differs considerably from those previously proposed (Thomas 1967; Diffloth 1982; Efimov 1983).

The phonological correspondences do not provide any information that helps in classifying the languages, so, on the basis of phonological correspondences, we can treat the languages as four independent branches of the family. A lexicostatistical analysis\(^1\) gives the following matrix:

<table>
<thead>
<tr>
<th></th>
<th>Katu(^2)</th>
<th>Bru</th>
<th>Kui</th>
<th>Pakoh</th>
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<tr>
<td>Katu</td>
<td>-</td>
<td>45%</td>
<td>39%</td>
<td>46%</td>
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<tr>
<td>Bru</td>
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<td>Kui</td>
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<td>Pakoh</td>
<td>46%</td>
<td>56%</td>
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</tr>
</tbody>
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The best interpretation of the matrix is the following tree:

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  Katu
 /     \\     \\
Proto Katuic Pakoh Bru Kui
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The classification shown in this tree is based on the assumption that there has been borrowing between Bru and Pakoh since the break up of their mother language while Kui speakers have had little contact with speakers of their sister languages.

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1 It is important to mention that the procedure of this lexicostatistical analysis is rather different from the standard one (see Pejros, to appear).

2 Note that figures given for the Katu language in this table are for the An Diem dialect.
This lexicostatistical classification correlates well with a lexical classification, which separates Katu from the other three languages. Cultural-contact considerations bring together the pairs Bru / Kui and Pakoh / Katu, suggesting that they belong to two different contact zones.

The Katuic languages were, and still are subject to intensive influences from Thai, Vietnamese, and perhaps also Khmer. Some borrowings came into Proto Katuic, but the majority have been adopted independently by the daughter languages.

The Katuic languages form a branch of the larger Mon-Khmer family, which in turn can be regarded as a branch of the Austroasiatic language family. Another branch of Austroasiatic is formed by Munda languages. This binary split is not, however, supported by sufficient comparative evidence. No reliable information is available about Proto Mon-Khmer: there is no detailed reconstruction of its phonology or morphology and its lexicon remains mostly unknown. As a result the genetic classification of the family remains obscure. It is possible, however, that Katuic languages are closer to Khmer and Vietic than for example Monic or Palaungic.

Given our present understanding of Katuic linguistic history it is often impossible to determine at what stage a word has been borrowed. Even if there is a similar word in Vietnamese or Khmer we cannot prove that it has been borrowed: the word could simply be of Proto Mon-Khmer origin and have been retained in the Katuic languages. At this stage of investigation the Katuic etymological dictionary includes both words of common origin which can be traced back to Proto Mon-Khmer, and ancient borrowings into Proto Katuic. To separate these two types of comparisons we need a detailed Mon-Khmer phonological reconstruction, which is not yet available.

One of the major sources of information for a linguistic account of prehistory is the lexicon of the proto-language. In it one can find words whose meanings are related to:

• various features of environment, like names of plants, animals, natural phenomena, etc.;
• various aspects of material culture;
• various aspects of social organisation and traditional beliefs.

In this paper we discuss only the information on the material culture which can be found in the reconstructed Proto Katsuic lexicon. It is worthwhile to mention, however, that the dictionary is practically without the 'environmental' lexica; this phenomenon requires additional discussion (Pejros 1994).

The quality of data used in cultural reconstructions depends on two factors:
(i) the reliability of reconstructed meanings. With a meaning reconstructed too broad or too narrow our conclusions can be jeopardised. If, for example, we have a word which means 'duck' it is very important to know whether its real meaning is 'domesticated duck' or 'wild duck', without this information a precisesemantic reconstruction cannot be made.
(ii) the reliability of stratification of reconstructions. In each case we need to know whether a form can be attributed to the Proto language level or to more recent levels of the family's classification. In theory two types of words can be included in a proto-language lexicon:
– words whose reflexes are found in main branches of the family. In the Katsuic case we can be sure that a form belongs to the proto-language if it is represented in all four languages or in Katu and any other two and it is not a loan;
– words represented in one or two languages of the family, but also found in languages and branches related to the family under investigation. If a word is found (for example) only in Katu, but it is also known in other Mon-Khmer branches, we can attribute it to the Proto-Katsuic level provided that it was not a loan in Katu.

As Proto-Mon-Khmer comparative phonology and lexicon are not yet known in detail, in this paper we will limit ourselves only with the forms whose proto-language stratification is supported primary by inner Katsuic sources. External Mon-Khmer evidence will be added at the next stage of the investigation.

Cultural reconstructions are based on two interrelated postulates:
(1) the fact that a word is known indicates that the speakers are familiar with the corresponding cultural idea. An absence of a word does not necessarily indicate the lack of associated knowledge;

(2) a dictionary of any language contains information sufficient for an identification of the main characteristics of the culture of the community under investigation.

These two postulates have never been discussed and evaluated properly (see discussion in Pejros 1994), but no contradictory evidence is known as yet.

In cultural reconstruction it is important, however, to obtain not just a simple list of relevant words, but to establish a certain pattern represented by them. Words of a language often form a so-called 'semantic clip' - groups of words whose meanings are related to a particular type of cultural activity. Accepting these postulates, we can say that any important feature of cultural activity is normally associated with its own semantic clip. It is also possible that the relative value of different activities is represented in the clips: the greater the value - the larger the clip. For a farming community, for example, we would expect to find several rather large semantic clips indicating various features of agriculture: names of cultivated plants and domesticated animals, names of agricultural technologies and so on. If rice-cultivation is the main occupation of the community, the words associated with rice would create a significant semantic clip, and would be also present in other clips as well (see below). Quite often a reconstructed word does not fit into any particular semantic clip and remains isolated. This usually indicates that the corresponding activity was not well known in the community. Alternatively, another possible explanation of this isolation would be that the meaning of the word has been reconstructed incorrectly. In any case, it seems that the identification and interpretation of semantic clips is the main task of cultural reconstructions based on the lexicon of the proto-language.

Let us examine now the evidence from the Katuic etymological dictionary.

**AGRICULTURE**

It is absolutely clear that the most significant semantic clips are associated with agriculture.

**Rice-cultivation.** The knowledge of this is supported by following etymologies:
1. *ʔdoːj ~ *ʔdoːj 'rice':
Bru ʔdoːj.L 'rice'
Kui ʔdoːj.L 'rice'
Pakoh ʔdoːj.T 'cook rice'

2. *tərhaː ~ *hərhaː 'paddy':
Bru tʰraː.L 'paddy, unhusked rice'
Pakoh tɾoː 'unhusked rice, grain',
Katu AD, HK ro 'popped rice', 'corn'.
The word is probably related to Monic *səroːʔ 'rice' (Di Diffloth 1984 N 86) and
Khmer sruːw 'paddy'.

3. *ʔdiːp 'sticky rice':
Bru (ʔdoːj.L) diːp.L 'sticky rice'.
Pakoh deːp.T 'glutinous rice'
The word is known in other Mon-Khmer languages (Vietnamese nhapus 'sticky rice'; Khmer t<oam>əap 'sticky rice') which suggests its Mon-Khmer origin.

The next word is probably also indicates rice cultivation:

4. *ʔəliʔ ~ *ʔəlaʔ ~ *pəliʔ 'bran', 'husk'
Bru ʔəliʔ.B 'rice bran'
Kui liʔ.B-ʔa:liʔ.B 'bran, husks (of rice)'
Pakoh ʔəlaːk bran, 'cracked grain (rice) fed to pigs', 'rice flour'
Katu HK plɔʔ, laʔʔ 'peel', 'husk'.

Cf. also:

5. *ʔərhuaːj 'kind of rice':
Bru ʔəruaːj.L 'rice - variety of',
Katu AD ʔəruːjʔ 'field and unhusked rice'.
An attribution of this form to the Proto Kautoic level is not quite certain.

**Millet.** There is no convincing data for reconstructing millet. The form is known only in one branch of Kautoic:

6. *tʰəriem ~ *kəriem 'millet':
Bru triam.B 'sorghum', 'millet'
Kui kri:m.L-ʔa:kri:m.L 'millet'.
An etymology of this form is not known.

Root crops. The presence of names for cultivated roots is not obvious. Here we have:

7. *ʔəpɔŋ ~ *həpɔŋ 'yam', 'taro';
Kui pɔŋ.L-ʔa:pɔŋ.L 'potato', 'yam'
Pakoh pɔŋ.ʔa 'a vegetable', 'taro (leaves and root eaten)'
It is not clear whether the word can be attributed to the proto-language level: limited distribution and the existence of Vietnamese bâng 'edible root' indicate other possibilities.

8. *ʔəraw ~ *ʔəra:w 'taro';
Bru ʔəraw.B a family of small tuberous plants with large, ornamental, hastate-peltate leaves (Caladium)'
Possibly from Khmer tra:w 'taro'.

Banana

9. *ʔəriet ~ *ʔəriet 'banana';
Bru priat.B 'banana'
Kui priːt.L 'banana'
Katu AD, HK ʔəriet 'banana with short fruit, long stalk'.

10. *dəlahh ~ *yəlahh 'hand of bananas';
Bru talah.L 'hand (of bananas)',
Kui lah.L 'hand (of bananas)', 'to pull or break (bananas) off in bunches'
Pakoh təlahh 'hand of bananas'.

Other cultivated plants include:

Bean

11. *cətaːŋ ~ *ʔətaːŋ 'bean';
Bru sətaːŋ.L 'bean'
Kui cətaːŋ.L-tə:ŋ.L 'peas', 'beans (in general)'
Pakoh ?atw:q 'beans'
Katu AD, HK ?atw:q 'bean'.

Gourds
Bru ŋkə:l.L 'melon', 'cucumber'
Kui ŋkə:l.L-ŋkə:l.L the class term for cucumbers and melons'
Pakoh ?əki:l.T 'cucumber'
Katu AD ?əki:l 'cucumber'.

13. *həŋgiŋ ~ *səkiŋ 'eggplant':
Bru səkiŋ.B an eggplant, aubergine
Kuiŋkəŋ.L egg plant (Solanaceae)
Pakoh səkiŋ eggplant

14. *kə?diʔ 'squash (plant)':
Bru kədiʔ.L 'squash'
Kui kədiʔ.L-diʔ.L 'ash-pumpkin or white gourd (Cucurbitaceae)'
Pakoh kədi:k red 'squash (pumpkin)'
Katu AD, HK kəda:k 'squash'; AD kəda:j? 'squash plant'.

Cf also two words of unclear stratification:
15. *pəka:j or *pəga:j 'watermelon':
Pakoh pəka:j 'watermelon'
Katu HK pəka:j 'watermelon'.

16. *puŋ 'watermelon':
Bru (ŋkə:l) puŋ.L a watermelon
Kuiŋkə:l.L poŋ.L watermelon

Sugar cane
17. *kəta:w ~ *?əta:w 'sugar cane':
Bru kəta:w.L 'sugar cane'
Pakoh ?əta:w 'sugar cane'
Katu AD ?əta:w 'sugarcane'
Coconut
18. *tuap 'coconut'
Bru tuap.L 'coconut'
Kui toːŋ.L 'coconut'
Pakoh tuap 'coconut'

Khmer tuːŋ 'coconut' indicates that the word can be a recent borrowing.

Ginger
19. *ʔəsaːj ~ *kəsaːj ~ *ʔəsajh 'ginger':
Bru ʔəsaːj.L 'ginger (Zingiber officinale)'
Kui kəsaːj.L-ʔəsaːj.L 'ginger'
Pakoh ʔəsaːj 'ginger'
Katu AD ʔəsajh 'ginger'

Pepper
20. *ɡətiːw ~ *ɡətiːw 'pepper':
Bru tiːw.L 'chilli pepper'
Pakoh tiːw.L 'red pepper'

The word does not necessarily belong to the proto-language.

Agricultural technologies. There are several words related to agricultural technologies and preparation of cereals, but the specific activities represented by those words cannot be identified:

21. *sʊːt 'harvest rice':
Bru sʊːt.L 'harvest rice'
Pakoh sʊːt 'pick rice by stripping head into basket'
Katu AD sʊːt 'harvest rice'.

22. *ʔoːm ~ *ʔom 'winnow':
Bru ʔoːm.L 'to winnow'
Kui ʔom.L to 'winnow (grain, etc.)'
Pakoh ʔoːm.T 'to winnow grain'
Katu AD ʔom 'winnow'
Cf. Khmer ʔum 'winnow'.

23. *təruah ~ *səruah 'pound':
Bru *truah.*B 'to pound (rice paddy)', *ntrah.*B 'the remainder after rice is husked'
Kui *tru:h.*L 'to pound rice a second time to remove the remaining husks'
Pakoh *truah.*L 'to pound rice again so well hulled'
Katu AD *cuoh* 'pound 2nd time'.

24. *ca-ca:j ~ *ca:j 'cover seed over':
Bru *ca-ca:j.*L 'to drop the grain in the hole with one hand and cover the hole with another (a way of planting dry rice)'
Pakoh *ca:j 'to cover seed over'
Katu AD, HK *ca:j 'to plant rice'

Cf. also:
25. *parih ~ *tarih 'sow':
Bru *prih.*B 'to sow'
Pakoh *trih 'to sow seed'
The form is related to Vn *tîa 'sow seed' and Khmer *braoh 'to sow'.

It is interesting that the data does not allow us to reconstruct a Proto Katuic word with the meaning 'field'. Instead we have two proto-forms of limited distribution:
26. *turu:h ~ *turiuh 'field':
Pakoh *tro:h.*L 'small field for early crop'
Katu AD *truoh, PH ?acuoh 'field'.

27. *liag 'field':
Bru *lia:y.*B 'cl. for fields, cl. for leaves (except banana leaves)'
Pakoh *la:y* 'an entire field'

DOMESTICATED ANIMALS

The reconstructed list of of domesticated animals as it is reflected in Proto Katuic names is quite typical for Mon-Khmer languages. It includes:

Bovines
28. *tərhie? 'buffalo':
Bru *tia?.*L 'a buffalo'
Kui *tri?:.*L 'a water buffalo'
Pakoh *tiria? 'buffalo'
Katu AD *tri?:? 'buffalo', *chəri 'mother buffalo'.
Bru ntra?L 'cow'
Pakoh karro? 'cow'
Katu HK karak 'cow'.

Pig
30. *?ali:? ~ *[b/?b]alij? 'pig'
Bru ?ali:?B 'a pig'
Kui li:?B-?a:li:?B 'a pig'
Pakoh ?ali:k 'pig'
Katu AD blac large male pig'

Dog
31. *?oca: 'dog':
Bru ?oca:L 'a dog'
Kui ca:L-?a:ca:L 'a dog'
Pakoh ?oca: 'dog'
Katu HK ?oca 'dog'
<> Cf. Vn chó 'dog' < VM *co?.

Horse
32. *?œch 'horse':
Bru ?œch.L 'a horse'
Kui œch.L-?a:œch.L 'a horse'
Pakoh ?œch 'horse'
Katu AD, HK ?œch 'horse'
<> Cf. Khmer sœ:H 'horse'.

Duck
33. *yœdia ~ *?œdia 'duck':
Bru tia:B 'a duck'
Kui thia:B 'a duck'
Pakoh ?œta: 'duck'
Katu AD, HK, PH ?œda 'duck'
<> Cf. Khmer da: 'duck'.
Chicken. There are two words which can probably indicate the knowledge of domesticated chickens, but their stratification is not absolutely reliable.

34. *daruaj 'chicken':
Bru ntruaj.B 'a chicken'
Kui nthur:j.B 'a chicken'
Pakoh ntruaj.L 'Red jungle fowl (Gallus Gallus)',
   parru:j 'Classifier for flock - chickens, ducks'.

35. *?a[t/d]ij? 'chicken':
Pakoh ?atij? 'poultry (general)'
Katu AD, HK, PH ?ati: 'chicken'.

HUNTING AND FISHING

Bru təbəj[h].L 'to angle for fish'
Kui bəl[h].L 'a fishing rod complete with hook and line'
Pakoh ?abeh.T 'to fish'
Katu AD mbe[h] 'to fish with line'.

Traps

37. *?əruaj ~ *garuag 'k. of trap'
Bru ?əruaj.B 'fishtrap'
Pakoh ?əruaj 'fish trap - woven, narrow, long'
Katu AD, HK groŋ 'bird trap'
<< Cf. Vn rưng 'fish trap', Khmer traŋ 'bamboo fish trap'.

38. *həziŋ ~ *sìŋ ~ *həziŋ 'trap':
Bru ciŋ.B 'a net'
Pakoh sìŋ 'deadfall trap for small animals'
Katu HK ciŋ rat 'trap'.

39. *həgip ~ *həgiŋp 'trap':
Bru ñkip.B 'a mousetrap which looks like a cage and is made of wood'
Pakoh kiap.L 'a trap that snaps shut'
Katu HK kiep 'bird trap'
<> Khmer េះេះេះ េះេះ េះ េះ េះ 'mousetrap'.

The stratification of the following proto-forms is unclear:

40. *ha[p/b]:o:ŋ ~ *so[p/b]:o:ŋ 'k. of trap':
Kui po:ŋ L 'a kind of long cylindrical fish trap woven from certain types of vines'
Katu HK cəpəŋ 'tiger trap'.

41. *ʔərΛ:jh ~ *pərΛ:jh 'trap':
Bru ʔərΛ:jh.B 'a kind of fish trap'
Katu HK pra:jh 'bird trap'.

42. *to:ŋ 'fish trap or net':
Bru to:ŋ.L 'kind of fish trap looking like a fishing net'
Kui to:ŋ.L, to:ŋ.L 'long fish net stretched in a cone shape.'

43. *ta: 'set trap':
Bru to:L 'set trap'
Kui ta:.L 'to trap (animals by various means), 'to fish'
Pakoh to: 'to set trap'.

44. *caʔda:ŋ 'k. of trap':
Bru sæda:ŋ.L 'a kind of trap (usually used for rabbits)'
Katu AD do:ŋ 'bait trap'
<> Cf. Khmer pəntiŋ 'kind of trap for rabbits'.

A notable feature of many of these words is the fact that a corresponding form is often found in Khmer.

Several terms for weapons has been reconstructed, but none of them can be definitely attributed to the proto-language level.

45. *pəluh ~ *[b]alah 'blowgun':
Bru phluh.B 'a long, jointless, straight stem of the pampas grass, used as a blow pipe'
Kui mphlah.L 'a blowgun'
Pakoh pəlloh.T 'blow gun - uses arrows furled on end instead of feathered'.
46. *[s/c]ərhah ~ *tərhah 'arrow':
Bru sərh.L 'arrow'
Pakoh trəh 'arrow'
Katu AD, PH crah 'arrow'.

47. *k[ə/a]m 'arrow':
Bru kam.L 'an arrow'
Kui kam.L 'arrow', 'dart'
<> Cf. Khmer kam 'arrow'.

48. *sərka:p ~ *tərka:p 'arrowhead':
Bru sərka:p.L 'arrowhead'
Pakoh tərka:p 'arrowhead (made from iron or bamboo and used with poison)'.

49. *təmpa:~ *həpa:~ *həʔə(a)ʔ 'feather of an arrow':
Bru təmpa?:L 'the rear of an arrow (with a leaf used as the flight)'
Kui pa?:L the "feather" of an arrow, made of sugar palm leaf'
Pakoh bək.T 'to cut arrow for feather'.

50. *təmiəŋ 'crossbow':
Bru təmiəŋ.B 'crossbow'
Pakoh tumiəŋ.L 'crossbow'.

METALS

Only three words can be associated with metals:
52. *[p/b]ərhə 'silver', 'money':
Bru pra?:L 'silver', 'money'
Kui pra?:L 'money'
Pakoh pra? 'silver'

53. *taʔ 'iron':
Bru taʔ?:L 'iron'
Kui taʔ?:L 'iron (the metal)'
Pakoh taʔ 'iron'

54. *ʔjuʔ 'temper iron':


Bru *jŭ?L* to gild’, to plate (to make steel by heating the iron till it is red hot, an
immersing it in water’
Pakoh ʔjuk to ‘temper iron with fire and water’.

Two of these words are borrowings. The word ‘silver’, ‘money’ is a borrowing
from Old Chinese (*bra:kh ‘white’), but its immediate source was possibly Khmer
(*prak ‘silver’, ‘money’). The word ‘iron’ seems to be another Khmer loan: *te:k
‘iron’. Eliminating these words does not leave us with sufficient evidence to claim
that metals were known to the Proto Kattic speakers.

TEXTILES

Sew
55. *ʔjih ~ *ʔeh ‘sew’
Bru jih.L to sew’
Kui d̪jih.L to sew’
Pakoh ʔe:h.T to sew’
Katu AD ʔih, HK ʔi:h, PH ʔih ‘to sew’.

Weave
56. *taːn ‘weave’
Bru taːn.L ‘to weave (mats, containers)’
Kui taːn.L ‘to weave (cloth, mats, baskets, etc.)’
Pakoh taːn ‘to weave’
Katu AD, HK taːn ‘weave’
< > Vietnamese dán ‘to weave’ < Vietic *tan, Khmer taːn ‘to baste’.

57. *k̪alhaːn ~ *p̪alhaːn ‘braid’:
Bru k̪laːn.L ‘to braid’
Pakoh k̪laːn ‘to braid’
Katu AD plaŋ ‘braid rope’

These words, however, do not necessarily indicate the knowledge of textiles, as the
corresponding activities can be associated with rope making, mat weaving, etc.
The words for fabrics, types of clothing, etc. are not found.

HOUSING
House
58. *?dɔŋ ~ *?dɔŋ 'house':
Bru dɔŋ.L 'a house'
Kui dɔŋ.L 'house'
Pakoh dɔŋ 'house'
Katu AD ?dɔŋ 'house'

Roof
59. *pəlhaŋ 'thatch':
Bru plaŋ.L 'thatch grass'
Kui plaŋ.L 'cogon, a tall, coarse grass used for thatching (Imperata cylindrica)'
Pakoh plaŋ 'roofing grass'
Katu AD plaŋ 'thatch'

60. *səmpaː ~ *həpaː 'roof (v.)':
Bru səpaː.L 'to roof', 'to thatch'
Kui mpaː.L 'to roof'
Pakoh poː 'roofing leaves of rattan'
Katu AD mpa 'roof'.

Loft
61. *[s/c]əriːŋ ~ *[d]əriːŋ 'loft':
Bru səriːŋ.B 'loft'
Kui thrəːŋ.B 'an uncovered verandah', 'a balcony'
Pakoh tərriːŋ 'attic', 'loft'
Kui register is irregular, which can suggest that the word of unclear stratification can be a borrowing from an unknown source.

Post
62. *tənhoːl 'post':
Bru tənɔː.L 'a post'
Kui tənɔː.L-nəːl.L 'a post, large diameter pole'
Pakoh tinoː.T 'posts (house)'
Katu AD tənal 'house post'
Khmer thənəol 'post' can be the source of some or all Katuic forms.
Ladder
63. *dərawag ~ *dəruag 'ladder', 'stairs':
Bru ntruaŋ.B 'a ladder', 'stairs', 'stairway', 'step'
Kui ntruaŋ.B 'stairs'
Katu AD praŋ 'steps', 'ladder', 'shelf'

Linguistic evidence shows thatched houses, possibly raised on posts, or in any case, with raised levels (such as lofts) requiring ladders or stairs for access. There is no direct information about primary building materials, but stone was probably not among them.

The word for fireplace seems to be a borrowing:
64. *topeh 'fireplace':
Bru topēh.L 'fireplace'
Pakoh tupeh 'stove', 'fireplace'
Katu AD, HK topēh kitchen (iron stand over fire)
<> Cf. AN *dapuy fire place.

HOUSHold ARTICLES

Mortar
65. *topal 'mortar':
Bru topal.L 'large mortar for pounding rice'
Kui topal.L-pal.L 'mortar (of certain types)'
Katu AD, HK topal 'mortar'.
Khmer topal 'mortar' can be a possible source of Katuic forms.

66. *səʔL:j ~ *səʔL:j 'mortar':
Bru səʔL:j'L 'a mortar (a cooking utensil)
Kui səʔL:j'L 'a stone or clay mortar'.

Pestle
67. *dare: ~ *dəra:j 'pestle':
Bru ntri:.B 'pestle'
Kui ntræ:j.B 'pestle (of various shapes for pounding rice, chilis, etc.)'
Pakoh ntra:j 'pestle'
Katu AD, HK ndræ 'pestle'
Cf. Khmer ḫhr̥ːː 'pestle'.

**Pots**

68. *ʔaʔdɛːh ~ *ʔaʔdaʔh 'pot':
Bru ʔadɛːh.L 'pot'
Kui dɛːh.L-ʔaːdɛːh.L 'pot (earthenware, metal)'
Pakoh ʔadɛːh 'cooking pot'
Katu AD ʔaʔdaʔh 'steamer'
Cf. Khmer khədoːH 'frying-pan;'

69. *cɛh ~ *cɛʔ 'jar':
Bru cɛːh.L 'a jar'
Pakoh cɛːh 'large jar'
Katu AD cɛʔ 'jar'

**Baskets**

70. *ʔəcuɔj ~ *ʔəcuɔj 'basket':
Bru ʔəcoːj.L 'basket'
Pakoh ʔəcuːj 'basket'
Katu AD ʔəciːj 'basket, small, square for sowing seeds'

71. *kəndɔːŋ ~ *kəduŋ ~ *ʔəduŋ 'basket, 'bowl':
Bru kantoːŋ.B 'a small bowl made of leaves'
Kui nθ̣oːŋ.B 'a bag made of big leaves sewn together'
Pakoh kətuŋ 'carrying sack'
Katu HK ʔəduŋ 'men's basket worn around waist'
Cf. Vietnamese doạng 'bowl' and Khmer kəndaoŋ 'basket made of leaves' which can be the source for some Katuic forms

Words of unclear stratification:

72. *ʔəphaːn ~ *ʔəphaːn 'bowl':
Bru təgaːn.L 'a cup', 'a plate', 'a bowl'
Pakoh tɨgaːn 'bowl'
Katu HK ʔəgaːn 'bowl', 'small cup'.

73. *ʔərhoːm ~ *ʔərhoːm 'basket':
Brû ?eroːm.L 'a kind of cylindrical-shaped bamboo basket with a small opening, it is usually worn suspended from the shoulder'
Katu AD, HK proːm 'small back basket with lid'
Cf. Khmer kantrom a 'big basket'.

74. *[h/y]eroːŋ ~ *keroːŋ 'container', 'basket':
Brû roːŋ.B 'a container for sth. which is in the form of dust or small particles'
Katu AD keroːŋ 'large basket'
Cf. Vn rương 'trunk', 'box' and Khmer croːŋ a 'big container'.

Knives, axes, etc.
75. *cuːəːŋ 'axe', 'shovel':
Brû cuːp.L 'an axe'
Kui cuːŋ.L 'an axe'
Katu AD cuːŋ 'shovel'.

76. *hampiat ~ *hə?biɛt 'knife':
Brû mpiat.L 'a knife'
Kui mpeːt.L 'a knife'
Katu AD biɛt , PH biɛt 'long dagger'
A local word?

77. *koːjh 'spear':
Brû koːjh.L 'spear'
Pakoh koːjh' spear'
Katu AD, HK koːjh 'spear'.

MUSICAL INSTRUMENTS.
Aside from several roots related to singing, the existence of music in the Proto-Katuic culture can be shown by the following.

Drum
78. *səŋkəːr ~ *səɡir 'drum':
Brû səŋkəːr.L 'drum'
Pakoh ?əkɪr'drum'
Katu AD cagar, HK cagar, PH tagi:r 'drum'.
Cf. Khmer sago:r 'drum'. A word with complex history in the region

Flute
79. *tørhe:l 'k. of flute':
Bru triː:L 'a kind of bamboo flute'
Pakoh tireː:L 'a flute - very small about one span long'
Katu AD tarqːL 'reed pipe (rice)'.

80. *tuat 'flute':
Kui luː:t.L twː.t.L 'a kind of bamboo flute'
Pakoh tuat.T 'flute', 'oboe - -blown into side'.
The stratification of this form is unclear.

Wind instrument
81. *pølhoŋ 'blow (wind instrument)':
Bru ploŋ.L 'blow (instrument)'  
Kui ploŋ.L 'to blow, to play a wind instrument'
Pakoh ploŋ 'to play'
Katu AD, HK ploŋ 'blow instrument'

Stringed instrument
82. *ʔoʔaːt ~ *ʔəʔaːt 'play (a stringed instrument)':
Bru baːt.L 'to play (a stringed instrument)
Pakoh ʔoːt 'to play one-stringed instrument'
Katu AD, HK ʔaːt 'play violin'
Cf. also:
83. *tam-børəh 'k. of stringed instrument':
Pakoh tampreh.T 'two-stringed instrument'
Katu AD, HK tambreh 'stringed instrument', AD dra 'stringed violin'
Kui thrau.B 'fiddle-like instrument' is perhaps a Khmer loan: dro: 'violin'. The relation of this Khmer word to the Katuic reconstruction remains obscure.

Bells
84. *ʔəɾəːw ~ *ʔəɾəːw 'bells':
Bru ʔariːw.B 'bell'
Pakoh \textit{re:w.T} 'castinets, 'small bells'
Katu AD \textit{riw} 'bell'.

The list given above includes reconstructions which are related to different aspects of the material culture and which probably belong to the Proto Katuic lexicon. One can distinguish two groups of words:
(i) those which are associated with agriculture, animal breeding, fishing and hunting. Most of these reconstructions are well-proved with only a few potential loans. Often the reconstructions have reliable Mon-Khmer etymologies.
(ii) those associated with implements, housing, household articles, etc. This group includes less reliable reconstructions, often with no direct evidence of their Proto Katuic origin. Many of them could in fact be Khmer loans.
It remains unclear how to best interpret these groups.

It looks like that in general we can describe the community of Proto Katuic speakers as an agricultural society with obvious orientation towards rice cultivation, supported by extensive fishing and possibly hunting. Domesticated animals included bovines, dogs, pigs and horses, and possibly also ducks and chickens. There is no convincing linguistic evidence of metallurgy, pottery or weaving.

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