

## CUA CONSONANTS

Cua is a Mon-Khmer language spoken in Vietnam by 27,766 people according to the 1999 census. My source of information is Maier, Jacqueline G. 1969, "Cua Phonemes," Publication No. 4 of the Linguistic Circle of Saigon, in Mon-Khmer Studies III, published jointly by The Linguistic Circle of Saigon and The Summer Institute of Linguistics. This is a very obscure journal – I happen to have three issues of Mon-Khmer Studies, and I don't know if more exist; the ones I have are printed on cheap paper and they're crumbling. If you're interested, you might Google some of these references – it's interesting from a historical point of view.

The authors of these studies worried about whether or not to consider aspirated and/or (pre)glottalized stops to be single consonants or clusters. I will quote some of Maier's discussion and you can determine the validity of her arguments. This will obviously be important to determining the inventory of consonants.

BY THE WAY – SINCE WRITING THIS I HAVE SCANNED HER ARTICLE AND PUT IT ON THE WEB. THERE'RE IN THIS FOLDER:

<http://www.cunyphonologyforum.net/papers/Cua>

I SCANNED IT BY INDIVIDUAL PAGES, SO THERE ARE SEVERAL FILES.

A word of explanation – Language of this family frequently show a "presyllable," which is an unstressed syllable that may precede the main syllable of the word. The word may consist of one or two syllables; if it's bisyllabic, the first syllable is the so-called presyllable and the second one has the main stress. The presyllable is frequently, but not always, an affix. The presyllable in this language has the shape CV, and only a reduced vowel may appear in the presyllable.

Maier says: "Whether to consider the aspirated stops *ph*, *th*, and *kh* as clusters or units has been determined by the non-suspect pattern established in the presyllable and the main syllable. A simple CV comprises the non-suspect presyllable, thus pressuring the aspirated stops to function as a unit phoneme, as all three aspirates occur in the presyllable consonant position. The main syllable non-suspect maximum CCVC pattern only permits these aspirated stops to be interpreted as units (*khwal* 'curly'). Also, *h* does not occur as the 2<sup>nd</sup> consonant in a cluster after the voiceless stops." P. 10.

Next, she worries whether or not voiceless nasals (which are contrastive in this language), as well as preglottalized consonants, are units or sequences: "The absence of well-established stop plus stop and stop plus nasal patterns could influence towards a unit interpretation of voiceless nasals and preglottalized nasals and stops. But the existing stop plus liquid pattern (*tr*, *dr*, *pl*, *vl*, *kl*, *gl*) [N.B. *v* is a IPA [b]! – CC] would permit the cluster interpretation of *hr*, *hl*, *hw*, and *hy*, and also ... [ʔw] and [ʔy], considerably reducing the phoneme inventory. Because of this interpretation, and the fact that *h* and ... ʔ function somewhat differently than the other phonemes, it is also reasonable to interpret voiceless nasals (*hm*, *hn*, *hŋ*, and *hŋ*) and preglottalized nasals (*ʔn*, *ʔŋ*, *ʔŋ*) as clusters rather than units.

Preglottalized stops  $?b$  and  $?d$  fill the slot which, in the predominant syllable pattern, is filled by one consonant phoneme. So  $?b$  and  $?d$  have been interpreted as complex unit phonemes.” (p. 10/11) She then explains this last remark with examples that appear to show the preglottalized stops in onset clusters preceding a liquid or glide; three member onsets do not occur in this language. (Bear in mind also that in word-final position, the glottalization appears after the consonant, whereas it precedes it in word-initial position.)

Below I present the consonant inventory she presents; since she did not have typewriters with the IPA symbols in war-time Viet Nam, she had to improvise. I have rendered her symbols into IPA below, as I have above.

Your tasks are to explain the gaps in the table below, as well as to evaluate Maier’s arguments for phonemehood. What would be the implications were she to have made different choices regarding unit phonemes vs. sequences?

	Bilabial	Alveolar	Alveopalatal	Velar	Glottal
Voiceless Stop	p	t	tʃ	k	
Aspirated Stop	p <sup>h</sup>	t <sup>h</sup>		k <sup>h</sup>	
Voiced Stop	b	d	dʒ	g	
Preglottalized Stop	?b	?d			
Fricative		s			
Nasal	m	n	ɲ	ŋ	
Voiced Liquid		l			
Voiceless Liquid		ʎ			
Tap		r			
Glide	w		y		? h