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able firmly to establish the status of Palaic on the basis of further documentation. Important further contributions to understanding the language were made by Kammenhuber (1959) and Carruba (1970). There have been no new textual finds since Carruba's work.

## 3. PHONOLOGY

#### 3.1 Consonants

The phonemic inventory includes at least the following consonants:

### (1) Palaic consonantal phonemes

The absence of positive evidence, as in Hittite, for unitary labiovelars may easily be accidental, and there is a good chance that we should also assume a voiceless labiovelar stop  $/k^w/$  in words such as kui- "who, which." Owing to a prehistoric change, there likely is no corresponding voiced stop, but there may be a labialized  $/\Gamma^w/$  in cases like ahu- "drink."

### 3.1.1 **Stops**

Characterization of the Palaic stop series as voiceless versus voiced is based on their etymological value. The synchronic phonetic status of the stops in the three cuneiform languages Hittite, Palaic, and Cuneiform Luvian is a vexing and controversial problem: see Melchert 1994:13–21 for an extensive discussion with references. What is clear is that etymological voiceless stops appear as graphic and probably linguistically real geminates in intervocalic position, while inherited voiced stops appear as single stops (so-called *Sturtevant's Law*): in Palaic contrast particle -ppa < \*-pe (cf. Latin nem-pe "surely") with  $ap\bar{a}$ —"that"  $< *ob(^h)\acute{o}$ —. It is tolerably certain that voiced stops have been generalized in word-final position ( $\check{s}arkut=at$  "—ed them," with preterite third singular -t [d] < \*-t), while it is likely but not assured that voiceless stops and fricatives have been generalized word-initially (see Melchert 1994:18–20, et~al.). This partial neutralization of the voicing distinction may have contributed to a reanalysis of the stop contrast as one of fortis versus lenis, but this analysis cannot be regarded as proven.

#### 3.1.2 Fricatives

The phoneme /f/ appears in Hattic loanwords into Palaic such as  $wu_{ii}/pu-la-a-\check{si}-na-$  (a kind of bread). As the cited example shows, the fricative /f/ is indicated by a special series of cuneiform signs, consisting of wa plus a  $mater\ lectionis$  marking vowel quality, transliterated  $wV_V$  (sometimes alternately with graphic p). It cannot be excluded that in some or all cases the fricative is a voiced /v/ rather than /f/.

The voiceless coronal fricative is spelled with the cuneiform series which indicates a palatal sibilant in Akkadian, whence the conventional transliteration as š, as in Hittite. There is no reason, however, to think that the sound represented is anything other than a dental/alveolar /s/. The sound transliterated as z is in most cases a voiceless affricate /ts/, but it cannot be ruled out that in some instances it indicates a voiced sibilant /z/ instead.

The phoneme rendered above as /3/ represents a weak palatal fricative, the result of a prehistoric sequence of  $^*h_2y$  (the Proto-Indo-European "second laryngeal" plus  $^*y$ ), spelled alternately with -g- and zero (see Watkins 1975:373 for the derivation and Carruba 1970:39 for the spelling). The phonetic definition of this sound obviously is merely an approximation, and one may entertain other possibilities.

Palaic shows both the regular and "lenited" reflexes of the Proto-Indo-European "second laryngeal" \* $h_2$ , spelled intervocalically with geminate - $h_2$ - and simple -h- respectively (for Proto-Anatolian "lenition" see Eichner 1973:79ff.). The characterization above as pharyngeals is nonbinding, and a pair of velar fricatives /x/ and /y/ is equally possible.

### 3.2 Vowels

There are at least three vowel phonemes /a/, /i/, and /u/ and contrasting long /a:/, /i:/, and /u:/. It is very likely that there are also /e/ and /e:/, but the phonemic status of the latter is controversial (see Melchert 1994:198f., but also Carruba 1970:9, and Wallace 1983). While there are a few nonpredictable and thus contrastive long vowels, most surface vowel length is allophonic, due to synchronic rules of lengthening under the accent: for examples see the next paragraph. The vowel /a(:)/ combines with /y/ to form a falling diphthong /a(:)i/. The absence in our data of a corresponding /a(:)u/ is probably accidental.

## 3.3 Synchronic variation

There is limited but solid evidence for a synchronic rule in Palaic whereby the word accent shifts one syllable to the right with the addition of an enclitic (cf. the similar rule in Latin): underlying /ħáran-/ "eagle" appears as regular [ħá:ranas] in the genitive singular  $h\bar{a}$ ranas, but compare nominative singular [ħará:s] in the phrase haras = kuwar. The fact that the length of the a in both syllables of "eagle" depends on the accent argues that the vowel in each case is underlyingly short, with the long [a:] a conditioned allophone. There are actually two such synchronic lengthening rules, one applying to all accented vowels in open syllables, the other to haras = kuwar (in accented closed syllables (see Melchert 1994:204f. for further discussion).

Word-final -n is sporadically assimilated to an initial labial of a following clitic: =am=pi beside =an=pa=ti. The sibilant /s/ appears occasionally as z next to a sonorant (=kuwar=zi for =kuwar=ši) and rarely other consonants. This may or may not represent voicing to [z].

#### 3.4 Phonotaxis

Phonotactic restrictions are unremarkable, so far as the extremely limited evidence permits a judgment. Final consonants are highly restricted: voiced stops (only /d/ is actually attested), /s/, /s/, /n/, /r/, and /l/. The only attested final cluster is /-(n)ts/. As indicated above, probably only voiceless obstruents are permitted word-initially, along with /m/, /n/, /l/, and /w/. The absence of examples of initial /y/ is surely accidental, but the lack of initial /r/ is systematic, as elsewhere in the ancient Anatolian languages. Initial clusters are mostly limited to biconsonantal sequences of rising sonority, but there may be some cases of fricative plus stop. Medial clusters are predictably more varied and complex: for an exhaustive list of examples, see Melchert 1994:206f. All vowels occur freely in initial, medial, and final

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position. Sequences with hiatus are rare, but *iu* "come!" (cf. Hittite *ehu*) certainly represents [í\_u] historically and probably also synchronically.

## 4. MORPHOLOGY

Palaic is a typical ancient Indo-European language in its morphological typology: that is, fusional, with a well-developed system of derivation and inflection, the latter exclusively suffixing, the former nearly so. However, it is also characteristically Anatolian in having a relatively limited set of inflectional categories in the nominal and verbal systems in comparison to Sanskrit or Ancient Greek.

## 4.1 Nominal morphology

The noun distinguishes two numbers, singular and plural, and two genders, animate and inanimate. There is no evidence for a separate dual or a feminine gender. There are at least six cases in the singular: nominative, vocative, accusative, genitive, dative, and locative. The last two cases are not distinguished in the plural, and as expected the nominative plural serves also for the vocative. It seems extremely likely that Palaic also has an ablative-instrumental corresponding to that of the other Anatolian languages, but no examples have yet been found. As usual in Indo-European, the nominative and accusative are not distinguished in the inanimate gender. In addition to the genitive case, Palaic also expresses possession by means of a relational adjective ("paternal house" for "father's house"), but this usage does not seem to be as widely developed as in the western Anatolian languages. It is impossible to tell whether there is any functional distinction between the two constructions.

The case endings are mostly recognizable as Indo-European: animate nominative singular /-s/, vocative singular zero, animate accusative singular /-n/, inanimate nominative-accusative singular zero or /-an/, genitive singular /-as/, dative singular /-i/ or /-ai/, animate nominative plural /-es/ (or /-as/ < \*- $\bar{o}$ s), inanimate nominative-accusative plural /-a/. The animate accusative plural is not securely attested. The locative ending /-a/ is cognate with the allative of Hittite continuing Proto-Indo-European \*- $h_2e$  and \*- $oh_2$  (cf. for the latter Latin  $qu\bar{o}$  "whither"). The dative-locative plural /-as/ matches the endings of Hittite and Lycian, reflecting Proto-Indo-European \*-os (cf. Latin -bus, etc. minus the initial labial).

#### 4.2 Pronouns

The only reasonably well-attested pronominal stem is the relative-interrogative kui-, but the existence of the characteristic Anatolian demonstratives  $k\bar{a}$ - "this" and  $ap\bar{a}$ - "that" is at least assured. For the few other extant pronominal forms see Carruba 1970:44.

# 4.3 Verbal morphology

The verb is inflected for singular and plural and the expected three persons. There are two moods, indicative and imperative, and two tenses, present (also used for the future) and preterite. Beside the active voice there is a medio-passive, surely with the usual range of functions, although the few attested examples happen to be *media tantum* with intransitive meaning ("lie" and "be warm"). The basic verbal stem may express various aspectual nuances according to context, but imperfective aspect may also be overtly marked by suffixes cognate with those which serve the same function in Hittite:  $p\bar{\imath}$ -ša "give!" (distributive, with multiple objects) or i-šk $\bar{a}$  "be!" (durative, in a construction indicating possession). The verbal endings formally are cognate with those of the other Anatolian languages, but the limited evidence suggests that the distribution in Palaic does not quite match that of Hittite or Luvian.