LINGUISTICS IN CAMBODIA AND ON CAMBODIAN

This article is concerned with linguistic work done since the early 1940's either in Cambodia or on Cambodian. The former comprises almost exclusively work done by Cambodians on their own language. Outside work on Cambodian includes publications from various parts of the world, chiefly from Europe and Russia, and shows wider scope and greater diversity of approach. In the introductory sections, 1 and 2, these two groups of publications are treated separately. In the following six sections, however, works published both in Cambodia and elsewhere are discussed together under subject headings. Short bibliographic references are given sometimes in footnotes as the books or articles arise in the course of discussion. A full bibliography will be found at the end of the article.

1. THE WORK OF CAMBODIAN LINGUISTS

The most distinguished philological and literary work of Cambodia in this century has been associated in some way with the Buddhist Institute of Phnom Penh and the adjacent Pali School, which is now part of the Royal University of Cambodia. Publications have been under the auspices of either the Bibliothèque Royale or the Buddhist Institute, whose journal, Kambūjasuriyā, has been the vehicle of publication for many new poetic compositions since its inception in 1927. The energies of highly educated Cambodians whose interests lie in the literary and linguistic heritage of Cambodia have been turned to the task of making Cambodian literature and religious works written in Pali available to the public, rather than of producing strictly linguistic work. Thus publications include many religious texts in Pali or translated from Pali, which have sometimes been annotated or accompanied by a commentary. Texts of literary works of Cambodian origin have been published direct from collections of manuscripts and have also in some cases been edited with notes. Such work was not thought to come within the scope of this article. The seventeenth century inscriptions of Cambodia have been published with linguistic notes; these will be discussed below in the section on Old Khmer. Purely linguistic work, not related to specific texts, has been produced by individual authors, unconnected with the Buddhist Institute, as well as by the Buddhist Institute. Several bilingual dictionaries have appeared in the period with which we are concerned, designed to meet the growing needs of foreigners learning Cambodian or of Cambodians learning foreign languages.

Manuals on the Khmer orthography or grammar, written entirely in

Cambodian, are chiefly intended for use in schools. A grammar of Sanskrit is an isolated example of a Cambodian work not concerned with the Cambodian language. Publications of this kind will be cited and discussed in the appropriate section below.

2. THE WORK OF LINGUISTS OF OTHER COUNTRIES

Outsiders were faced with certain problems which did not concern the Cambodian linguist. Thus, from the point of view of phonetics, imploded /b/ and /d/ were not always heard accurately and consequently provoked discussion; the complex vowel system was described by many people but without unanimity and the two vowel-series or voice-registers, which are not easily distinguishable in colloquial speech, have been ignored by some. The first linguists to describe Khmer, having settled the difficult question of what they heard, had the further problem of how to record the sounds in a transcription with the limited number of vowel symbols available to them in print. In Indo-China the diacritics used for Vietnamese were familiar to printing houses and began to be adopted for Cambodian. In the last two decades, as the IPA symbols became more widely used and available in print, the difficulties of Khmer linguists have been in wrestling with the variety of symbols which others choose to use. At least one misunderstanding of another's interpretation has appeared in print owing to a misconception of the use of a diacritic! From the phonological angle, the complex vowel system is such as to defy efforts at neat simplification. The voice-registers may be viewed very differently by different linguists and may be treated as phonemic or merely phonetic since only three vowelnuclei, the diphthongs /ia/, /ua/, and /ua/² occur on both registers and this alternative occurrence seems to be only theoretical. The Cambodian pronunciation and spelling of common words such as /cuən/ 'to occur', /cuap/ 'to meet' may be on either register. On the other hand the articulatory distinctions between first register /e:/ and the closer second register /è:/ are so small that register may be called in as a corroborating feature and treated as potentially operative in the cases of the three diphthongs.

The Indian-derived script has caused difficulty in more than one way. It had too few vowel signs for Cambodian but had symbols for cerebral consonants and voiced plosives which are not required for Cambodian. The general principle employed in the use of the script for Cambodian is that the unwanted voiced plosive symbols are used to convey to the vowel symbols 'second series' or 'second register' pronunciation. Thus the symbols k + a give /ka:/ while the symbols g + a give /ki:/. Consonants

¹ See below p. 48 re Pinnow's interpretation of Henderson.

² The same phonetic ~ phonemic transcription is used throughout for all citations of Modern Khmer material (i.e even where the work of others is quoted) in order to avoid for the reader the confusion of interpreting first one system and then another. The transcription used is that of Henderson: 'The main features of Cambodian pronunciation'.

other than plosives acquire by means of diacritics the possibility of being 'first register consonants' or 'second register consonants'. Difficulties have arisen from the script in connection with historical studies. Additional vowel symbols were introduced from the fifteenth century onwards. This suggests that the vowel system was less complicated at the time of the old inscriptions (seventh to thirteenth centuries) and that probably the sonant symbols represented sonant consonants at that time. Along with this theory, which sounds reasonable in itself, the fallacy has sometimes arisen that, apart from the 'new' vowel symbols, Modern Khmer spelling is direct evidence for Old Khmer forms. This is not the case. The word /ko:n/ 'child', for example, was spelt kon in the seventh to eighth centuries, kvan in the ninth to twelfth centuries and is now spelt $k\bar{u}n$.³ Another way in which the orthography has proved to be a problem has been that inventors of transcriptions have hesitated between a transcription which represented the orthography and one which represented the pronunciation. Some have tried to combine both as did Louis Finot⁴ in the transcription adopted officially by the Ecole Française d'Extrême-Orient.

Two more auditory characteristics of the language, which, however, are characteristic of languages in general, have proved difficult to linguists concerned with Khmer. First, there is a great difference between colloquial pronunciation and the formal pronunciation of an educated person.⁵ Second, there are minor dialectal differences. One is not here referring to major differences such as the pronunciation of final written r (as a uvular r) in the Battambang area (while elsewhere it is not pronounced at all). The difficulties arise from the slighter differences such as variations of pronunciation with or without aspiration in initial sequences. Should the word for sugar-palm in 'received' Cambodian speech be pronounced /tnaot/ or /thnaot/, and should the orthography mark the aspiration or not? Possibly phonetic variations of this kind were once dialectal and have now overstepped their geographical boundaries. François Martini and Eugenie Henderson were both describing 'received' Cambodian from work with native speakers. In spite in this their work shows a lack of unanimity in the phonetic description of, for example, the short diphthongs on the second register.

Grammatically, Khmer raises the problem for the Western linguist of: a) finding formal criteria, chiefly syntactical, for setting up word categories and sentence patterns while b) refraining from reading into the language the categories and sentence patterns he would like to find there and which he feels should be there from the prejudices arising from knowledge of his own native tongue.

³ The transliterations are made, as for Old Khmer in section 7, according to the system and by Cœdès, *Inscriptions du Cambodge*.

⁴ Finot, 'Notre transcription du cambodgien'.

⁵ Thus, Martini, in 'De la réduction des mots sanskrits passés em cambodgien', criticises the *Dictionnaire cambodgien* for the unnatural pronunciation indicated for Indian loanwords and corrects some of them. Henderson, in 'The main features of Cambodian pronunciation, pp. 168 and 172, gives both colloquial and formal pronunciation for certain types of word-form.

The first non-Cambodian linguists to publish work on the language in the nineteenth and early twentieth centuries were primarily explorers, missionaries, or colonialists, and secondarily linguists. Short vocabularies and brief grammatical descriptions came first, to be followed by a number of manuals, some substantial dictionaries, Cambodian-French and French-Cambodian, and a grammar written in French. Most of the latter were the product of a life-time of work in the country and a profound knowledge of the language. The relationship of Khmer to other South East Asian languages was discussed in many works of comparison. Later linguistic work included the discussion of loanwords introduced into Cambodian from Sanskrit, Pali, and Portuguese.

The period with which we are concerned here is marked by the greater detail and more technical approach with which studies of grammar or comparison have been tackled and by the appearance of the first strictly phonological studies of the language. Cambodian has now become a subject of study for the professional linguist.

3. WORKS ON THE ORTHOGRAPHY

Various authors have been concerned with the orthography, without making a phonological statement. In a work edited by Charles Fossey, ⁶ Au Chhieng describes the emergence from the Sanskrit script, which the Khmers adapted for their language, of the various styles of writing used in Cambodian in modern times. The presentation of the Cambodian characters is clear and pleasant. An historical survey of the introduction of Indian writing systems into South East Asia by Damais⁷ goes into greater detail about the actual Indian script borrowed, but the orthography examples given for each language are in this case slighter and less well produced. A teaching manual⁸ written entirely in Cambodian serves as a complete work of reference for the student of Khmer with regard to the calligraphic form of the various scripts now in use. It is interesting that this work gives precise instructions as to how the student should sit and hold his pen but does not tell him where to start in drawing each character. This probably seems obvious to the Cambodian teachers and students for whom the work was written, though it is not always clear to the foreigner. A 62page booklet by Derek Tonkin describes the modern orthography for the English-speaking student and was produced with particular reference to the needs of people with little time to study phonetic transcriptions. Tonkin uses a transcription based on English spelling to represent the sounds for each Cambodian symbol. He states the full orthographic rules, as given in Cambodian grammars, with numerals and punctuation marks, and adds a list of abbreviations current in Cambodian books and newspapers,

⁶ Fossey, Notices sur les caractères étrangers anciens et modernes rédigées par un groupe de savants et réunies par Charles Fossey.

Damais, Les écritures d'origine indienne...
 Méthode pratique de l'écriture khmère.

⁹ Tonkin, Modern Cambodian writing.

specimens of typewritten, handwritten, and printed styles, and a bibliography of works on the Cambodian language.

4. WORK ON PHONOLOGY AND THE STRUCTURE OF SYLLABLES AND WORDS

Martini was the first to offer a phonemic transcription. This was presented throughout the article with a transliteration preceding it and a phonetic transcription following it in slant lines, e.g. dik tik [tuk]. For the transliteration he followed the Indianists' procedure, using in addition \hat{e}_i

 α , w and i to represent the Cambodian 'new' vowel signs.

Martini followed Georges Maspero 11 in suggesting that Khmer vowels are 'normally' long, but may be short. This is perhaps because of the nonoccurrence of short vowels in open syllables. He established certain points of phonology which have been followed by others since. Thus he analysed the aspirated occlusives as two phonemes because of the possibility of their being separated by an infix (as in /thùm/ 'big', /t-ùmhùm/ 'size'). He recognized as consonantal the final sounds of the diphthongs written with the Sanskrit vowel signs ai and au because no final consonant may follow them. He regarded /iə/, /wə/, and /uə/ as single phonemes and accepted the operation of length-oppositions between vowels on the one hand and either vowels or diphthongs of very different articulation, on the other. Martini observes that the two series of vowels distinguished in the Khmer orthography by their association with the surd or sonant symbols differ in that the second are generally closer in articulation than the first.

In one point Martini was to be followed by Pinnow but not by Henderson, that is, in his opinion /i> ~ i>/ should be regarded as the short vowel of /i:a/. Here the speech of the capital city is disregarded since the two diphthongs are pronounced the same there. Moreover the pair of long and short vowels belong to two different registers: this would not apply to Martini's analysis, however, since he does not discuss register at all. First, he held that there is a phonetic and phonemic distinction between different realisations of written i with the first series or register initial in different words, e.g. written tik and khin were for him phonemically /děk/ and khěn/. Second, he suggests that /i:/ and /è:/ are not distinct in closed syllables. One cannot cite exact oppositions for these two defective vowels but one can offer the contrasting pronunciations of /rəli:n/ 'polished', /mi:n/ 'aunt', /cùəncì:n/ 'scales' on the one hand and /lè:n/ 'to play', /phlè:n/ 'music' on the other and the written and spoken contrasts rīn /rì:p/ 'reduced by cooking' as against ben /pè:p/ (pronounced short) 'to be full.'

The nature of the voice-registers associated with the two series of vowels was first closely examined by Henderson¹² who gave them as it were, the possibility of entrance to phonemic status as characteristic of the whole

¹² Henderson, op. cit.

¹⁰ Martini, 'Aperçu phonologique du cambodgien'.

¹¹ Maspero, Grammaire de la langue khmère (cambodgien), p. 32.

syllable. The term 'register' was adopted by Henderson and has been followed since. This distinction, which is not tonal, had been heard by Maspero, who cited James Haswell and Charles Otto Blagden for their descriptions of 'the softer, more guttural pronunciation' which affects the second series of vowels in Mon. Maspero mentioned 'the sort of aspiration' which accompanied, for example, /30/. The second register was described by Henderson as 'a deep, rather breathy or sepulchral voice', while the first register vowels were accompanied by 'a normal head voice'.

The description given by Henderson of the Khmer vowels and consonants was the fullest yet and was accompanied by palatograms and kymograms. The Khmer orthography was given alongside the phonological transcription. André-Georges Haudricourt¹⁶ had recognized the existence of preglottalised consonants in Indo-China. Henderson was the first to establish the implosive nature of the consonants |d| and |b| in Khmer. Henderson further saw that written i on the first register, pronounced |vy|, is phonologically vowel |v| and final |v| and that the short second register diphthongs, written by means of the shortened |v| are in complementary distribution.

Pinnow¹⁷ evaluated the various systems of transcription which had been put forward, concentrating however on Martini and Henderson. He took over from Henderson the assessment of the phonemic value of register as belonging to the syllable and not just the vowel. He suggests that the written sonants were once voiced and that it was when they lost their voicing that register became phonemic; as a next stage, the distinction between the vowel-nuclei of the first and second registers developed.

In the less important sphere of the actual use of symbols Pinnow makes choices between the two preceding authors. He clearly prefers not to have one symbol used for two different phonemes, with a diacritic to mark the different articulatory interpretations required for the two vowel-nuclei. He thus apparently misunderstands Henderson's use of |o|, |e|, |o| with and without |a|, which represents six different articulations, three with first register and three with second.

In the system which he postulates, Pinnow prefers some symbols from Martini e.g. /1/ and / instead of Henderson's /e/ and /o/ (differentiated by the register mark and by the convention that they are closer than first register /e/ and /o/) and some from Henderson, e.g. the representation of /av/, /ae/ and /ao/ as phonemic diphthongs, not phonemic monophthongs with diphthongized pronunciation. His synthesis of the two systems looks neat but requires a length opposition between two pairs of vowel-nuclei which are always on different registers, /ê:/ and /ô:/ being the long vowels of /v/ and /o/ respectively, and also between a pair of vowel-nuclei which

¹³ Maspero, op. cit. p. 91.

¹⁴ Haswell, Grammatical notes and vocabulary of the Peguan language, p.5.

¹⁵ Blagden, 'Quelques notions sur la phonétique du talain et son évolution historique', p. 479.

¹⁶ Haudricourt, 'Les consonnes préglottalisés en Indochine'.

¹⁷ Pinnow, 'Sprachgeschichtliche Erwägungen zum Phonemsystem des Khmer'.

have the possibility of being on different registers, /iə \sim iə/ as against /i:ə/.

Yu. A. Gorgoniev¹⁸ depends very greatly on the work of his predecessors, quoting them extensively. Here one need note only that his transcription, as compared with Hunderson's, leaves confusion between $\frac{1}{2}$ (for $\frac{1}{2}$), $\frac{1}{2}$ (for $\frac{1}{2}$), $\frac{1}{2}$ (for $\frac{1}{2}$), and $\frac{1}{2}$ (for $\frac{1}{2}$) or $\frac{1}{2}$).

All writers are agreed on the extreme defectiveness of /x:/, which they either omit or place in parentheses.

The question of the structure of the syllable was treated by Martini in relation to final syllables only. According to his definition this embraced syllables of the pattern CVC or CCVC, coinciding with the written monosyllable.¹⁹ Henderson went further than this by recognizing as monosyllabic the kind of CCVC and CCCVC syllables which are written as disyllables, 20 but which have in colloquial pronunciation 21 a short neutral vowel (and not the long inherent vowel, as the orthography would suggest) between two of the consonants of the initial sequence, e.g. /rəlwət/ 'extinguished', /trəlop/ 'return'. Henderson further suggested the term 'minor disyllable' for the very characteristic Khmer word-form, which is written as a disyllable but which has a restricted first syllable, having always the short inherent vowel and a final nasal consonant, e.g. /bɔnkɔəp/ 'to order'. The register of the two syllables may be different except in certain cases where an infix is present and the registers must be the same, e.g. /b-omn-o:n/ 'a wish', /s-om-'a:t/ 'to clean'. The 'major disyllable' is then characterised by the occurrence of full vowel alternances in the first syllable. They are chiefly compound words, e.g. /ko:nsrvy/ 'daughter'. Henderson's analysis of the syllable structure was followed by Pinnow, who hesitates only to the extent of saying that the written disyllables 'are really disyllables' but may be called monosyllables on the ground that the short intercalic vowel has no register and that a syllable must have register.

Martini examined the adaptation of Sanskrit and Pali loanwords to fit the Khmer syllable and word patterns. Disyllable loanwords are discussed from the point of view of their Sanskrit syllable patterns; 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0, 0 - 0,

¹⁸ Gorgoniev, The Khmer language.

¹⁹ It is possible in the Khmer orthography, in the case of many of the consonants, to write one subscript to another, when they occur as complex initials, thus forming one written syllable.

 $^{^{20}}$ i.e. words in which the consonants of the initial sequence are written side by side, not with one subscript to the other. Sometimes this is because they are not acceptable orthographically as a conjunct sequence, e.g. no consonant is written subscript to an r.

²¹ Though not in very formal reading style and not in poetry when a disyllable is needed for metric purposes.

²² Pinnow, 'Bemerkungen zur Silben- und Wortstruktur des Khmer'.

²³ Martini, 'De la réduction des mots sanskrits passés en cambodgien'.

initial consonant in the Indian word for the first syllable the first vowel is lengthened. Similar features of change result in the reduction to one or two syllables of five types of Sanskrit trisyllable. Words with three long syllables,—— have not changed. The application of these principles was used by Martini to throw light on some puzzling forms.

5. LEXICOGRAPHICAL WORK

The entirely Cambodian dictionary, Dictionnaire cambodgien, produced by a committee of learned monks and eminent persons, was a tremendous undertaking, being started as it were from scratch, with no previous work to form a model. It has been the means of establishing Cambodian spelling and is still the only strictly Cambodian-Cambodian dictionary for the use of native speakers. It has many defects and may be criticized on many points. Martini has, for example, mentioned²⁴ the arbitrary choice of spelling of words with initial consonant sequence which may be heard with or without aspiration and the 'learned' spellings of Indian loanwords which do not represent the normal pronunciation.²⁵ Nevertheless, it is of great value to the more advanced student and contains words - e.g. reduplicative compounds of specialized and vivid meaning – which never appear in bilingual dictionaries. To the Cambodians it is the absolute authority on the form and spelling of words and should be consulted frequently. Ieu-Kœus urges, in the introduction to La Langue Cambodgienne, that even when the dictionary has mistaken spellings these should be used in order to obtain uniformity. This author was the inspiring mind behind the production of a French-Cambodian lexicon²⁶ by a committee of learned persons. It was the first of a number of lexicographical works concerned with the new vocabulary introduced into the language in recent years.

The first English-Cambodian dictionary appeared in 1957.²⁷ Written by a Buddhist monk, to help the Cambodian to know the meaning of English words, it gives the pronunciation of (American) English words as nearly as possible in Cambodian spelling. One wonders where the English word list came from – it includes, for example, 'mutely' but not 'silently', 'natality' but not 'birthrate', 'museless' but not 'uneducated' or 'uncultured'! – though it certainly also contains a reasonably large vocabulary for the Cambodian student of English and prepares the way for further work of the same kind.

The Lexique franco-khmère²⁸ is a much improved second edition, incorporating new words, corrections of previous entries, and fuller explanations of meanings. It interprets French words for the use of the Cambodian and is thus in effect complementary to a fuller, longer work, Dictionnaire Français-Khmère of Tep-Yok and Thao-Kun. The latter is

²⁴ Martini, 'Aperçu phonologique...', p. 128.

²⁵ Martini, 'De la réduction es mots sanskrits...', p. 245.

²⁶ Lexique franco-khmère.

²⁷ Preap-Sokh, Dictionary, English-Cambodian.

²⁸ Sam-Thang, Lexique franco-khmère.

useful to the foreigner who needs to know, e.g. which of the numerous Khmer translated words as 'to carry' should be used to express a particular method of 'carrying'. It thus answers a need since the only large-scale predecessor, Tandart's Dictionnaire Français-cambodgien, is no longer obtainable.

Lexique khmèr-français, 29 which is not the other 'half' of Sam-Thang's Lexique -franco-khmère, was designed to give the meaning and usage of the 2.000 'new' words which have in the last few years been borrowed from Sanskrit or Pali, and to a lesser extent from French, and was officially introduced in order to keep the language up to date and make it the equal of other languages. This dictionary does not deal with other words. While much of this new vocabulary is scientific terminology, which is new all over the world, much is simply required to translate Western terminology in the spheres of politics, literature, philosophy, etc. for which educated Cambodians have been content hitherto to use French words almost exclusively. A slightly unusual method is used, very useful to the foreign student of Cambodian: for each Cambodian word a one- or at most twoword French translation is given first; then follows the full definition in Cambodian, which is in many cases accompanied by citations. The pronunciation of a word is indicated where it is expected to give difficulty. This work may be compared with Mots culturels khméro-français expliqués³⁰ which was written with the same aim in view. In the latter every entry has as indication of the pronunciation, a citation, and a French translation. The total number of entries is not so great, however, and the articles are generally shorter.

6. GRAMMATICAL WORK

Modern Cambodian linguists are alike in the pride they feel in their language and in their desire to encourage the proper use of the orthography, new vocabulary, and styles of composition. Much attention is paid to the need for a correct use, in accordance with the Dictionnaire cambodgien, of the orthographic rules for Khmer words and the proper form and spelling of Sanskrit and Pali loanwords. The message is put over in various ways. A spelling book by Chea-Tun³¹ illustrates the spelling principles in long lists of words spelt with a particular vowel or diacritic. In a work by Song-Siv³² the material is presented in the opposite way as a series of pairs or groups of homonyms given with their different spellings and meanings. Ieu-Kœus³³ discusses general features of language, the difference between written and spoken language, the characteristics of Sanskrit and Pali, and the proper pronunciation of the latter. The rest of his book is concerned with traditional Cambodian grammar and

²⁹ Sam-Thang, Lexique khmèr-français

³⁰ Kovid, Mots culturels khméro-français expliqués

³¹ Chea-Tun, Akkharāviruddhividhāna.

³² Song-Siv, Du vocabulaire à la composition des phrases khmères.
33 Ieu-Kœus, La langue cambodgienne.

resembles other grammatical works intended for school-children. The aspects treated in such grammars³⁴ are as follows. The Khmer characters are arranged in the Indian order and described as surds or sonants in accordance with the Indian realization of them. The rules associated with conjunct consonants and the use of diacritics are explained. Then grammatical systems which have formal exponents in Sanskrit and Pali - number, gender, comparative and superlative forms of adjectives, past, present, and future tenses of verbs, etc. - are adduced from Khmer with examples which in fact illustrate lexical or syntactical rather than morphological phenomena. A little is said about Khmer derivatives, that is, of prefixed and infixed forms, but usually nothing of reduplicative forms. Special styles of speech of writing closely connected with etiquette are treated in two handbooks, one on the royal vocabulary³⁵ and one on letter writing.³⁶ La dissertation khmère³⁷ is a series of exercises in literary criticism of modern Khmer novels and in the composition of essays and letters. Exemplary 'answers' are given. A Sanskrit grammar was produced in 1956.³⁸ Terminology required for Sanskrit systems is ready at hand since there is a traditional familiarity with Sanskrit forms in Cambodia.

Among the work of non-Cambodian linguists of the period may be mentioned first two short descriptions of the general character of the language. P. Thott-Hanssen³⁹ in the course of providing a general introduction to Siamese, gives a series of lengthy footnotes on Cambodian orthography and general grammatical characteristics. He discusses Khmer affixation, pronouns, demonstratives, numeral coefficients, verbs, and the auxiliary words used with them in the expression of aspects of time.

A comparable short introduction to the Khmer language was written by Martini. 40 It was intended for the layman and usefully corrected the widespread idea that Cambodian was a language of Indian origin, a misunderstanding arising from the use of an Indian script, one assumes. Gaston Cambefort's Cambodian course 41 met a need, especially as

Gaston Cambefort's Cambodian course⁴¹ met a need, especially as earlier courses either were out of print of contained completely out-of-date spelling. Sentences are introduced at an early stage, while the orthographic rules are still being presented. A transcription is used in the early part of the book. Exercises and passages are given with adjoining French translation and brief comments on grammatical points. No advice is given about the exact method of using the book though it was clearly intended as a class-book for students with a teacher.

Next comes the more detailed work of Martini. Like Gorgoniev, whose work comes later, Martini treats subject, verb, predicate, and complement

35 Varacakra Ranariddhi, Tumniem kar phtâl khluon.

36 Nhik-Nuv, Prachum likhet.

³⁸ H. Tat, Grammaire sanskrite 1.

³⁴ e.g. La grammaire et la languge cambodgienne au cycle élémentaire; Puv-Um, Grammaire khmère. Cours moven et supérieur.

³⁷ Kim-Set and Sahakāri, La dissertation khmère.

³⁹ Thott-Hansen, Dansk haandbog i Østens sprog, 12.278-321.

⁴⁰ Martini, La langue cambodgienne.

⁴¹ Cambefort, Introduction au cambodgien.

as universals and assumes that one may use lexical meaning at least as an aid to catalysis. Thus he states in "Tournures impersonnelles en cambodgien et en vietnamien" that words with the meaning of objects and beings, which fill the rôle of subject, may be called nouns, while words with the meaning of action and which, with the help of particles, acquire the meanings of tense and person are verbs. Martini shows, however, by considering one-word sentences and expressions of an impersonal nature, in neither of which the sequence noun-verb operates, that there is a point at which Western and Far Eastern languages do not coincide with regard to the noun and verb. Thus in a one word sentence, e.g. /l'o:/ 'good' he states that one cannot know whether a word is noun or verb. In two-word sentences he discusses the kind of context in which there is no noun preceding the verb but a noun following it, e.g. /cheh phtèph/ (there-is-aburning a house) 'there's a house on fire'. Some such sequences have been regarded as verb + inverted subject but Martini cites /khvah 5 riəl/ '5 piastres short', to be compared with /khnom khvah 5 riəl/ 'I am 5 piastres short', in which /khnom/ is the subject. It seems from Martini's work that the translation of the verb is the clue here; one must not demand of the Far Eastern language the precision implied by word order in the West. The Cambodian is content to hear 'there-is-a conflagration (in respect of) a house' and is happy enough to have no subject here, just as he is content to have no subject when the context has mooted one, e.g. /túxy phtèəh/ 'he's gone home', where the hearer knows who has gone home.

Martini concludes that the subject-predictate sequence is valid for Cambodian as for Vietnamese. Here one might perhaps make a plea for some other term than 'subject', e.g. 'sentence-topic'. This may be translated as the grammatical subject or object or neither e.g. /bompùəŋ nùh cen tùik (that pipe, there-comes-out water) 'water is dripping from that pipe'.

In "Les expressions de 'être' en siamois et en cambodgien" Martini considers whether languages with no morphemic distinction between noun and verb make a difference between 'existence' and 'essence'. He shows that both Siamese and Cambodian, languages so different in many ways, distinguish between a verb 'to be in essence' and 'to exist as' (in Cambodian /kŵ:/ and cì:ə/).

Martini is aware of the pitfalls offered by translation; /kw/, for example, in mid-sentence translated by 'c'est-à-dire' tends to be called a conjunction. He is at pains to suppress the idea that the verb 'to be' is 'omitted' when an adjective is used and is thus the first to recognize in print the verbal character of words which are translated as adjectives.

In "La distinction du prédicat de qualité et de l'épithète en cambodgien et en siamois", Martini is looking for a formal distinction between the attributive verb used attributively and the same used as a main verb. Such a distinction might have been sought via other external criteria (consideration of the rôle played by pause, intonation, or the potential use of verbal particles such as the negative particle). Martini recognizes that other means might have been used and chooses here to look at, and

usefully establish the meaning of, a particle /dɔ/, which goes back to Old Khmer and of which the usage was misunderstood in early work on Old Khmer. He shows that the function of /dɔ/ is, in Old Khmer and in literary Modern Khmer, to attach an adjective to a noun, just as in the colloquial speech /ya:ŋ/ may connect the two. In the literary language, /dɔ/ may connect a noun-attribute to a noun as well as a verbal attribute.

Gorgoniev's publications follow Martini's chronologically and to a certain extent in spirit. His works form a substantial contribution to the study of Khmer grammar. In 1961 a 128-page descriptive grammatical work, *The Khmer language*, was published. Then, in 1963, came four works. One, an article of comparison of Thai and Khmer grammatical processes, ⁴² will be discussed in section 8. Another was a 2-page note on modern Khmer compound loanwords. ⁴³ The 1963 publications treated in this section are an article, 'The problem of the parts of speech in Khmer' and a 129-page book, *The category of the verb in Modern Khmer*. These, with the *The Khmer language*, will be discussed rather fully since, being written in Russian, they are not so easily accessible to English-speaking readers.

The Khmer language begins with an introduction to the language and its classification, summarizing the work of Gorgoniev's Western predecessors. There is then a careful account of the orthography and its rules and a description of each sound. A transcription is used which in later works is dropped in favour of an ambiguous one based on Russian spelling. There follows a résumé of Martini's work on the adaptation of Sanskrit loanwords⁴⁴ and a survey of the prefixes and infixes. From here Gorgoniev breaks new ground in presenting the grammatical analysis of compound words according to the grammatical nature of the components and the grammatical relationship between them. In a compound consisting of two nouns, for example, the relationship may be attributive or copulative. Gorgoniev postulates the occurrence of 'semiaffixes' (semiprefixes and semisuffixes) which are noun-forming agents. The semiprefixes might equally be treated as noun-components used with high frequency in the first position in a compound, e.g. Gorgoniev's semi-prefix /nèak/ in the word /nèək-lwak-phlae-chy/ (person sell fruit tree), 'greengrocer' or /ci:an/ in cì:ən-kat-de:(r)-khao-'a:v/ (artisan cut sew lower garment uppergarment) 'tailor'. The semisuffixes, all of Indian origin, seem only to occur in combination with other loanwords and, like the semiprefixes, look more like components of compound words. Gorgoniev treats /phi:ap/ , /tha:n/ and /cwon/, (Pali bhava, thana, and jana) as semisuffixes in the words /meerenaphi:ep/ 'death', /pama:natha:n/ 'standard', and prəvattesa:s/ 'history'. One is in general agreement, however, with the statement that these components function as formal indicators of the class

Gorgoniev, 'Certain special features of the development of the lexicon in Modern Khmer'

⁴⁴ Martini, 'De la réduction des mots sanskrits...'

 $^{^{42}}$ Gorgoniev, 'Similarities of the grammatical systems of the Khmer and Thai languages.'

of the words in which they occur.

Gorgoniev then states that a word may be assigned to a word-class by using the following criteria: 1) its meaning, 2) its internal structure (i.e. affixation), 3) the way in which it is used in forming compounds, 4) its syntactical occurrence with other morphemes, 5) its use in sentence functions (i.e as subject, predicate, or complement, 6) its use with certain particles. The word-classes are described in the light of these criteria. In the course of presenting the word-classes, Gorgoniev treats the expression of ideas of number, gender, comparison, tense, voice, transitive and intransitive action, statement, and negation. The pronouns and numerals are described under nouns, of which, for Gorgoniev, they form a subclass.

Gorgoniev assumes the validity for Khmer of the grammatical features of subject, predicate, tense, and voice, and the general validity of lexical meaning in the setting up of word-classes. He never completely frees himself from the notional approach. For him /lì:əŋ day/ 'to wash the hands' is 'more transitive' than /ŋù:t tùik/ 'to douse (oneself) with water, have a shower' (literally 'go-under-water water'). Nevertheless he does find formal syntactical criteria, having shown that the affixed morphological elements are not sufficient for the purpose, to establish his main classes of noun and 'predicative' (verb). He mentions, in addition, the classes of adverb, preposition, conjunction and interjection, but with no formal justification. A more detailed account of his nominal and verbal categories and subcategories is given below in connection with the article, 'The problem of the parts of speech in Khmer', where the classes are worked out more fully.

Simple sentences are analysed as consisting of either or both of the elements: subject and predicate. The predicate may be verbal or verbless. A verbless predicate occurs, for Gorgoniev, in colloquial sentences consisting of two nominals, translated as 'A is B'. The formation of questions and commands is described here. Complex sentences are treated as consisting of subordinate and coordinate clauses of time, condition, etc. Finally, Gorgoniev touches on the use of complete sentences as attribute, subject, or object.

In 'The problem of the parts of speech in Khmer', Gorgoniev takes a random list of twenty signifying words and examines their capacity to be used as subject or predicate; in negation; as the complement or taking a complement; as the attribute of a noun; and in combination with certain words (/ya:ŋ/ 'way, in the matter', /aoy/ 'give, so that, for, as', /dael/ 'who, which'). By this approach Gorgoniev demonstrates certain formal usages which distinguish two main groups of words, each of which may be subdivided into two subcategories. The four classes thus arrived at, coinciding with those suggested in *The Khmer language*, are later stated as: Group 1 a) nouns, b) numerals; Group 2 c) adjectives, d) verbs. Group 1 as a whole are 'nouns' and Group 2 'predicatives'.

The examination of the use of the twenty words which precede the final statement on the classes reveals the following points. A word of Group 1 occurring as the predicate must be preceded by /cì:ə/ 'to be', whereas with

a Group 2 word /cì:ə/ is not used. The process of negation distinguishes Group 1 words, which need the form /mùn mè:n/ in colloquial speech and mùn mè:n cì:ə/ in the written language, whereas a Group 2 word may be preceded by /mùn/ only. Gorgoniev says that Group 2 d) words (verbs) occur directly with the negative particle, while 2 c) words (adjectives) need /cì:ə/ when negatived. Group 1 a), and rarely b), occur as the complement of verbs but Group 2 words occur as complement, only after other verbs expressing the idea of possibility, duty, etc. The function of taking a complement applies only to Group 2. The function of being an attribute does not differentiate the classes except when auxiliary means are used to introduce the attribute. Thus 1 a) words are used with /rəbəs/ 'thing, of', nmv' 'at', etc.; while 2 c) words are used with /aoy/ /ya:ŋ/ 'as, in the manner of' and 2 d) words combine with /dael/ 'who, which' and not with the others.

Gorgoniev then considers the four classes of words in their capacity for syntactical juxtaposition with words of the same group, words of the other groups, and special words such as /ba:n/ 'have', /nŵv/ 'remain, at', /nŵŋ/ 'will, shall; with'. A coordinate sequence may consist only of members of the same group. Members of the class a) may have a member of any class as an attribute, but other words, when followed by members of other classes, produce not an attributive sequence but a sequence of verb + object or numeral + coefficient. Occurrence after /ba:n/ and /nŵv/ produces for nouns a verb-object sequence but for verbs it expresses aspects of verbal statement. /nŵŋ/ gives an instrumental meaning with a) but future tense with c) or d).

Gorgoniev considers whether the four groups are genuine parts of speech or not. Concluding that the most important criteria are use with /ci:ə/ to form a predicate, direct use with mùn/ to form the negative, and certain uses with auxiliary words, he posits two genuine classes: noun and predicative, of which the subdivisions into noun, numeral, adjective and verb are merely subcategories. A final statement, which follows from what was said in *The Khmer language*, sets out other formal characteristics which may or may not be present, such as affixation, semiaffixes, and features of compound-formation; these help to distinguish nouns from predicatives.

In the book on the Cambodian verb, Gorgoniev summarizes his findings in the two preceding works with regard to word-classes and develops his statements on affixation, reduplication, and the structure of

⁴⁵ In *The Khmer language*, Gorgoniev distinguished adjectives from verbs by reference to the formations required to give causative meaning. He said that, whereas verbs take the causative prefix /p/, adjectives are preceded by /aoy/. This method of distinction is not satisfactory. The prefix /p/ is not freely used with any verb, giving causative meaning (see lack of such meaning in /kap/ 'to stab at/ and /phkap/, 'to turn over', tr.) /aoy/ would precede a verb such as /kap/ and the prefix may be used with words which Gorgoniev would probably class as adjectives, e.g. /tiəŋ/ 'precise' /phtiəŋ/ 'to make precise'. In the work now under discussion, he adduces instead the need for /ci:ə/ when an adjective is negatived. This is not, however, a valid statement. Verbal forms with attributive meaning may be immediately preceded by /mtin/, as in /mtin mê:n tè:/ 'It isn't true', /mtin khos tè:/ 'It isn't wrong'.

compounds in so far as these phenomena apply to verbs. Gorgoniev seems to suggest readily that a form is a compound word. This may well be due to the nature of his own language. For him /de:k lwək/ 'lie down and sleep' is a compound and in /de:k pwm lwək/ 'lie down but not fall asleep' the negative (here the literary particle, /pwm,/) is 'infixed'.

A number of words which regularly occur either immediately before the verb or at the end of the sentence are then discussed in great detail and with many examples (from books and manuals) of their usage. These are: /ba:n/ 'have', /n\u00fcvv/ 'remain', /komp\u00fcn/ 'in the middle of -ing', /thl\u00f6pp/ 'to be accustomed', occurring before the verb, and /lavn/ 'to go up', /havy/ 'already', /rùdc/ 'finished', /lavy/ (particle), /n\u00fcv-lavy/ 'still', occuring at the end of the sentence. Such words are called by Gorgoniev 'syntactical serving words' because they 'serve' a 'member of the sentence', (i.e. as the subject, predicate, or complement). They are distinct from the words used in an auxiliary way in conjunction with single words, which Gorgoniev calls 'auxiliary elements of an analytical form' and which were chiefly discussed in the earlier works as indicators of word-class membership. From the use of syntactical serving words, Gorgoniev illustrates the expression of the ideas of time (past, present-continuous, and future) and of aspect (resultative, completive, inceptive, and frequentative). He treats with philosophical precision the use of words connected with aspects of completion in relation to words expressing aspects of time. Finally, he turns to the expression through verbs and the syntactical serving words of the ideas of voice, of transitive, reflexive, and exhortative action, of orientation and direction. Others may not agree with some of Gorgoniev's statements, in which he suggests that for the expression of such ideas the Khmer verb has 'grammatical categories'. A great deal of thought and analysis of texts had been done, however, before these conclusions were reached. The uses of /ba:n/, /havy/ etc which are not easy for the foreigner, are most carefully analysed.

7. WORK ON OLD KHMER

During the period of work which is under review here, there appeared five of the six volumes of *Inscriptions du Cambodge* by Georges Cædès. Together with some articles by Cædès and earlier authors in such journals as *BEFEO* and *JA*, these six volumes, the outcome of many years of study of Old Khmer, provide texts for all of the old language that is ever likely to be available. The translations which accompany the texts, and more specifically the linguistic footnotes to them, give a great deal of information about the language.

Cædès' wide knowledge of the area is seen in his interpretation of an illusive word $pt\bar{a}$, which occurs on an inscription and is a key-word to the understanding of it. A cognate word in Bahnar gives the required clue.⁴⁶

Studies carried out specifically on the Old Khmer language are

⁴⁶ Cœdès, 'La stèle de Tûol Rolom Tim. Un essai d'interprétation'.

comparatively few. Pinnow⁴⁷ creates a neat picture of the relationship between Old Khmer and Modern Khmer vowels and consonants. He sets out to answer among other questions, 'What was the Old Khmer vowel system like at the time when the script was taken over?' He argues that the script could not have been adequate for the Khmer vowel-system, since different spellings of the same word occur even in one sentence. The additional vowel symbols were not adopted until several centuries later; Pinnow suggests that Old Khmer nevertheless had vowels for all the present vowel symbols without, however, having the two separate sets of pronunciations of the symbols according to register. With regard to the consonants, Pinnow notes that the second register nasals and liquids, which normally convey second register to the following vowel, do in fact often behave in Modern Khmer as initials of first register syllables, when they occur in a derivative and are influenced by a preceding first register occlusive, e.g. the syllable /va:y/ in /dɔnva:y/ from /thva:y/. He suggests that other first register liquid or nasal initials in Modern Khmer may go back to preglottalized initials and that it is even possible that all nasals and liquids may have been preglottalized consonants in addition to /b/ and /d/, which are now the only imploded consonants.

Pinnow's theory about the occlusives is that in the Old Khmer period the sonant symbols were pronounced as sonants and the vowels following sonant initials were accompanied by a nondistinctive deep voice quality. Then the voicing of the initials was lost and the voice quality became a distinctive feature. Finally the vowels began to diverge and once again the register was not functional.

A much more conservative estimate of the Old Khmer phonemic system was suggested by Judith Jacob, ⁴⁸ who even when quoting *gui* (modern /kŵ/ whose vowel is written with a digraph which might suggest an /w/ as it does in Mon, does not indicate that /w/ should be regarded as a phoneme since its occurrence is very restricted. The structure of Old Khmer word-forms is reconstructed by Jacob from the writing system of Old Khmer. The attempt was made to discover, from a not entirely clear spelling system, using words of which the meaning and modern form are known, the number of operative phonemes.

In another article⁴⁹ Jacob's aim was to use the graphic material of Old Mon and Old Khmer inscriptions and the phonetic material of Modern Khmer to compare infixes and prefixes in the three languages from the point of view of the actual graphic/phonetic or phonemic elements used as prefixes and infixes, the context in which they occur, and the grammatical functions which they perform. The result of the enquiry showed many striking resemblances between Mon and Khmer in the general use of affixation and even in precise detail, e.g. the occurrence in all three languages of the infix /-mn-/ used with single consonant root and having

⁴⁷ Pinnow, 'Sprachgeschichtliche Erwägungen zum Phonemsystem des Khmer'.

⁴⁸ Jacob, 'The structure of the word in Old Khmer'.
⁴⁹ Jacob, 'Prefixation and infixation in Old Mon, Old Khmer, and Modern Khmer'.

the grammatical significance of general nominalizer. There are some differences too; Mon for example has a vowel infix while all Khmer infixes are phonologically consonantal.

The Cambodians themselves, although proud of their past history, have not paid very much attention to Old Khmer. Middle Khmer inscriptions of the seventeenth century have, however, been edited with linguistic notes in the period under review here.⁵⁰ The notes explain both unfamiliar spellings and unknown vocabulary in sufficient detail to make the inscriptions legible to the ordinary Cambodian reader.

8. WORKS OF COMPARISON

This section is restricted to comparative works which have been directly concerned, and to some considerable degree, with the Cambodian language. It comprises phonetic, phonological, and grammatical comparison of Khmer with Thai, Chinese, Vietnamese, or Bru.

Martini demonstrated the close resemblance of some constructions in Thai in which the words /pen/ and /khu'/ occur and constructions in Khmer in which the words /ci:ə/ and /kur/ occur. 51 He is much occupied with the exact semantic meaning of these words in the two languages and shows that in both a distinction is made between 'being by nature, or essentially' and 'existing'. In his article on the predicative and attributive uses of verbs with qualititative meaning, 52 Martini shows that a formal distinction may occur between the two uses. In Khmer the particle /do/, or in colloquial speech the word /ya:n/, may be used to link the attribute to the noun and in Thai the word /an/ is used in a comparable way. Martini points out that /yang/ is used in Malay with the same effect of joining an attributive verb to a noun. Impersonal verbs are discussed in a comparison of Khmer and Vietnamese. 53 Again, very similar usages are illustrated in relation to very similar semantic material, for example, in expressions relating to the weather, health, necessity, and duty. Martini concludes that both languages use the grammatical structure subject-predicate. In impersonal constructions there is no subject; the noun which follows the verb is more in the nature of a complement.

An article by Gorgoniev⁵⁴ also demonstrates a considerable number of usages which are parallel in Thai and Khmer, including word order and the uses of many 'auxiliary' words. To both Martini and Gorgoniev the use of certain auxiliary words seems to be a matter of grammatical system when it might perhaps be argued that the similarity is semilexical or a question of idiom. Is the use in Khmer and Thai of the word for 'side' to form expressions of location such as /kha:n kraom/ (side under)

⁵⁰ Inscriptions modernes d'Angkor.

Martini, 'Les expressions de 'etre' en siamois et en cambodgien'.

Martini, 'La distinction du prédicat de qualité et de l'épithète en cambodgien et en

⁵³ Martini, 'Tournures impersonelles en cambodgien et en vietnamien'.

Gorgoniev, 'Similarities of the grammatical systems of the Khmer and Thai languages'.

'underneath', or of the word for 'thing' to express possession, a similarity of grammatical construction or a kind of lexical imitation, resulting perhaps from the close connection which existed between the two countries?

Cambodian loanwords in Thai are the subject of a thesis by Karnchana Nacaskul. 55 The phonology and the syllable and word structure of the two languages are set out side by side, with reference to their orthography. The cognate words are then discussed with regard to the direction of borrowing. Cambodian has a richer system of complex initials and of final consonants. Many loanwards which have gone into Thai from Cambodian may be recognized as a result of this. Some have initial clusters uncharacteristic of Thai. In other cases the Khmer form is clearly of Cambodian origin since its final consonant could not occur in Thai. Thai has phonemic aspiration between initial clusters, so that words which have gone from Thai into Cambodian may have acquired aspiration; if the borrowing had been in the opposite direction the Thai form would have been aspirated like the Khmer. The morphology of prefixes and infixes is useful in marking loanwords from Cambodia. Words having prefixes not found in Thai or derivatives for which Thai has no base-word are of Khmer origin. In some cases a Cambodian borrowing from Thai is marked by having a Thai prefix.

Martine Piat compares about 160 words of Bru, a tenth of the total word list, with transliterated Old Khmer and/or Modern Khmer cognates. ⁵⁶ There are many very similar forms of similar meaning. The closeness is seen particularly in relation to the consonants, which are compared in three lists according to their position as initial, medial, or final consonants.

In his first comparative article on Khmer and Chinese,⁵⁷ Gorgoniev compares a phonetically restricted set of Khmer words with archaic Chinese words having similar initials. The Khmer words all have complex initial sequences with *l* as second consonant. This particular phonetic group was chosen because such sequences, though no longer found in Modern Chinese, have been established for Old Chinese. Lists of words are given where corresponding meaning is found with comparable phonetic form. The modern Peking and Canton forms are given too and may have different initial consonants owing to sound changes which are known to have taken place. For Khmer transliteration is given instead of transcription if the form is closer. Of the five groups of Khmer words, arranged according to initial complex, an encouraging number of correspondences was found for four.

The second article⁵⁸ is chiefly devoted to summarizing earlier work on the genealogical position of Khmer in respect of its immediate relatives in

⁵⁵ Nacaskul, Cognate words in Thai and Cambodian.

⁵⁶ Piat, 'Quelques correspondances entre le khmer et le bru, langue montagnarde de centre vietnam'.

⁵⁷ Gorgoniev, 'One of the Khmer-Chinese parallels'.

⁵⁸ Gorgoniev, 'On the question of the place the Khmer the language occupies among the languages of South East Asia'.

the Mon-Khmer family and its more distant ones in the Austro-Asiatic family. Geographical locations and numbers of speakers are indicated for each language mentioned; some short comparative vocabularies are included. The latter part of the article is concerned with the comparison of Khmer with Chinese. Gorgoniev's chief point here is the phonetic similarity between Khmer and Chinese. The Khmer system of final consonants is more complex but a table of finals is used to show that Vietnamese could be intermediate between Chinese and Khmer in this respect. While there are fundamental differences between Chinese and Khmer, such as the use of affixes in the latter, there are also grammatical similarities. Gorgoniev concludes that further work on these points is needed which might in fact show that the similarities are due to reasons other than that of genetic relationship.

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