

An Outline of the Structure of the Akha Language¹⁾

(Part 1)

—Introduction and Phonemics—

by

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Introduction : Akhas and their Language

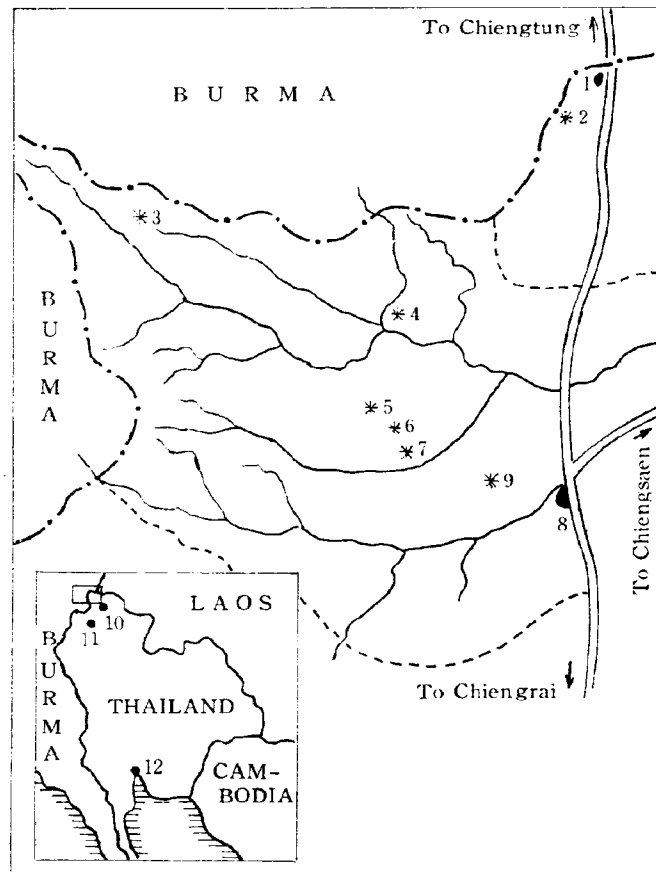
The Akhas call themselves “Akha” (/ʔăkă/), while other ethnic groups call them by different names. Generally the Shans both in Burma and in Thailand use the name “Kaw” (/kó/), and the Northern Thais, “E-kaw” (/ʔiikó/). The prefix /ʔii-/ in /ʔiikó/ might be the same as /ʔii-/ which is often prefixed to nouns and denotes “female,” such as /ʔiinî/, /ʔiinân/, /ʔiimêew/, etc. This is perhaps because of the eye-striking appearance of the Akha women. “Kha Kaw” (/khàa kó/) is mostly used by the Laotians or the inhabitants of Laos, but the /khàa-/ is very often prefixed to the names of the minority peoples regardless of their genealogical relations. The Thai Lus often call the Akhas “Kaw Ho Laem” (/kó hõ lěem/), which means “Akhas with pointed head,” due to the shape of the head-dress of the Akha women. The name “O-ni” or “Wo-ni” used by the Chinese includes not only the Akhas but also many peoples belonging to the Burmese-Loloish Group.²⁾ These names used by other peoples

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1) This is a part of the report of the author's field work on the Akha language conducted in Northern Thailand in 1964–1965 under the sponsorship of the National Research Council of Thailand and the Center for Southeast Asian Studies of Kyoto University. The materials were collected during the author's stay at Alu and Saenchai Villages, Amphoe Mae Chan, Changwat Chiang Rai. Throughout his field work, the author was assisted by Mr. Apha (Akha), Mr. Amya (Akha), Mr. Pio Sam (Shan) and Mr. Paul Ca Htaw (Lahu-na). In the later stage of the project, the author tried as much as possible to interview Akhas monolingually.

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2) Classification by Shaffer. See Shaffer, Robert. “Classification of Sino-Tibetan Languages,” *Word*, Vol. 4, 1945.



- | | |
|---------------------|---|
| 1. Mae Sai | 7. Chiang Rai Hill Tribe Welfare Settlement |
| 2. Phami Village | 8. Mae Chan |
| 3. Phannung Village | 9. Mae Salong |
| 4. Samaki Village | 10. Chiang Rai |
| 5. Alu Village | 11. Chiang Mai |
| 6. Saenchai Village | 12. Bangkok |

This map is borrowed from Hanks, Lucien M. *et al.* *The Report of the Tribal Peoples in Chiengrai Province North of the Mae Kok River, Bennington-Cornell Anthropological Survey of Hill Tribes in Thailand*. The Siam Society, Bangkok, 1964.

are rather disliked by the Akhas themselves, because they carry, more or less, a tinge of disrespect or mockery when used by the low-landers. The meaning of the word "Akha" could not be made clear during the author's field work. Any way, with the exception of those sophisticated Akhas who call themselves "E-kaw" when talking with Northern Thais on the plain, the Akhas never refer to themselves by any other names than "Akha."

Akha is one of the languages belonging to the Burmese-Loloish Group of the Tibeto-Burmic Family. Though material is scanty, it is certain that Akha, Lahu, Lisu, Bisu, Lolo and Burmese are closely related to each other.³⁾ These languages, except

3) For comparative studies, see the following: Shaffer, Robert. "The Link between Burmese and Lolo," *Sino-Tibetica*, No. 2, Berkeley, 1938.

———. "Phunoi and Akha Tones," *Sino-Tibetica*, No. 4, Berkeley, 1938.

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Lolo, can be found in Northern Thailand. Though it is commonly said that Akha is a homogeneous language among these, there is considerable difference between Akha dialects spoken in various places ranging from Yunnan, China, down to Northern Thailand. To clarify relationships between these languages, however, we will have to wait for more data to be presented.

The entire area inhabited by the Akhas ranges from Yunnan, through Northern Laos and Eastern Shan States of Burma, down to the northern extremity of Thailand. The exact population is yet to be known, but roughly, it is estimated at a little over a hundred thousand.⁴⁾ The approximate population is shown below in respect to the main locations. When those villages yet to be censused are included, the total population will be well over the number mentioned here. According to Mr. Saenchai (/sɛ̃ŋtsaŋ/),

Locations	Population ⁵⁾	
China (Southern Yunnan)	Approximately	48,700
Laos (Phongsaly, etc.)		4,500
Burma (Eastern Shan States)		40,000
Thailand (Chiang Rai)		25,000
Total		118,200

the head-man of the Saenchai Village (/sɛ̃ŋtsanpu/), there are about 60,000 Akhas in Burma and about 30,000 in Thailand.

The Akha villages in Thailand are confined to the Mae Sai, Mae Chan, Chiang Saen and Mae Suai Districts. Except for the small number in Chiang Saen, most of the Akhas in this country are concentrated along the Doi Tung and Mae Salong Ranges in the Mae Sai and Mae Chan Districts. It can be safely said that no Akhas have ever migrated to the south of the Mae Kok River, and that at present there is no tendency among them towards further southward movement. Those in the Mae Suai District, who have recently migrated from the Mae Sai District, will be the southern extremity of the entire distribution of the Akhas. It is said that the present Akhas in Thailand

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———. "Phonétique historique des langues Lolo," *TP* 41, 1952.

Tatsuo, Nishida. "Bisugo No Keito (A Comparative Study of the Bisu, Akha and Burmese Languages)," *the Southeast Asian Studies*, Vol. 4, No. 3, Kyoto, 1966.

———. "Bisugo No Keito (A Comparative Study of the Akha Bisu and Burmese Languages) II," *the Southeast Asian Studies*, Vol. 4, No. 5, Kyoto, 1967.

———. "Lisugo No Hikaku Kenkyu (A Comparative Study of the Lisu Language-Tak Dialect)," *the Southeast Asian Studies*, Vol. 6, No. 1, Kyoto, 1968.

———. "Lisugo No Hikaku Kenkyu Zoku (A Comparative Study of the Lisu Language-Tak Dialect II)," *the Southeast Asian Studies*, Vol. 6, No. 2, Kyoto, 1968.

Burling, Robbins. "Proto-Lolo Burmese," *International Journal of American Linguistics*, vol. 33, No. 1, 1967.

4) Young, Gordon. *The Hill Tribes of Northern Thailand*. 2nd edition, Bangkok, 1962.

5) Lebar, Frank M., Gerald C. Hickey, John K. Musgrave. *Ethnic Groups of Main Land South-east Asia*, New Haven, 1964; Also, Young, *op. cit.*

migrated from Eastern Kengtung fairly recently. Gordon Young estimates this event at about 20 years ago⁶⁾, while Bunchuai Sisawat, at about 60 years ago.⁷⁾ It is certain that the history of the Akhas in Thailand does not go back more than 60 years.⁸⁾

Though the Akhas speak at least two or three languages very fluently, they are rather poor in Northern Thai, nothing to say about Central Thai, probably because they are comparatively newcomers in the country. Even in Saenchai Village, the only village that has a primary school managed by the Border Patrol Police of the Thai Government, it is hard to find people who can use Thai satisfactorily.⁹⁾ However, owing to the effort now being made by the Government, they will doubtlessly speak Thai fluently in the very near future. Most of the Alu and the Saenchai villagers speak Lahu-na quite well, and the same can be said about other villagers. Generally speaking they use Lahu-na for communication with other hill tribe peoples such as Lahus, Lisus and so forth. When dealing with the low-landers, mainly the Shans and Northern Thais, they speak Shan, or Northern Thai accented in the Shan way. They speak Shan much better than Northern Thai, and the author's casual observation has revealed that they often switch to Shan, perhaps unconsciously, when conversation becomes animated. On the whole the author was impressed that, in this border area where such diversified ethnic groups from Burma, Laos, Thailand and even Yunnan are living intermingled, it is often difficult to draw a clearcut border line between Northern Thai, Shan, Thai Lu and Thai Khoen. Roughly the Akhas in this region speak Lahu-na and/or Shan quite well and, to a lesser degree, Northern Thai or Yunnanese. Among those Akhas who have recently migrated from Burma, there are some who speak Burmese; however, not very skillfully. Besides the Burmese that they speak is rather rude and rough. It will be justifiable to say that Lahu-na is a kind of common language among hill tribe peoples, whilst Shan is used for communication between hill peoples and low-landers. In Northern Thailand, however, the expansion of Central Thai is so pronounced that the day may come soon when most of the hill tribe children speak Central Thai without passing through Northern Thai.

In Alu and Saenchai Villages, the author noticed that some young people, mostly males, often like to mix Thai words in their conversation in order to appear sophisticated or "modern." This is interesting because it shows their similarity to some of the Japanese or Thai young people who are fond of mixing English or other European words

6) Young, *op. cit.*

7) Sisawat, Bunchuai. *Chaw Khaw Nai Thai*, Bangkok, B. E. 2506.

8) Wyss is said to have computed that one of the oldest Akha groups moved into Thailand about 1915. See *Tribesmen and Peasants in Northern Thailand*, proceedings of the first symposium of the Tribal Research Center, Chiang Mai, 1969.

9) The situation has changed since the time of the author's field work. Owing to the endeavor of the Thai Government toward the education and general uplifting of the hill tribe peoples, it is now no more difficult to find people who speak excellent Central Thai not only among the Akhas but also among other ethnic groups.

in their dialogues in order to appear “up-to-date” or “modern.” It is said that there are seven to nine ancestry groups of Akhas¹⁰⁾, and that these groups speak somewhat different but mutually intelligible dialects. It is unknown, however, which villages in Thailand belong to which groups. A more extensive field work is needed in order to discover the relationships between the groups and the languages they speak. When we consider that the Akha villages are situated where communication with each other is of extreme difficulty, it is quite natural that there are as many dialects as there are villages. Even in Alu and Saenchai Villages, which are separated from each other by only 1.5 kilometers, they speak somewhat different dialects;¹¹⁾ and it is highly probable that in Yunnan, Laos and Burma there are a number of Akha dialects which are more or less different from each other. Much more extensive field works will be required before questions of this type could be made clear.

Though in the Kengtung area there are Akhas who have learned the orthography in the Roman characters developed by the American Baptist Mission, only a limited number of people in a limited area can handle this orthography.¹²⁾ The Akhas have no script for their language. It is probably because of this lack of writing system that their language is rather unfixed. When, for instance, small children or even adults have moved from one village to another which is not so far off, they will soon speak the dialect of the new village, easily forgetting the dialect that they used to speak in the old village. Alu Village consists not only of the people born there but also of people from neighboring villages and from Burma, but those newcomers have easily switched to the Alu Dialect forgetting the old ones that they used to speak. An Akha boy with whom the author had associated in Saenchai Village spoke perfect Alu Dialect when the author talked to him about two months after he moved to Alu Village. However, the difference between the two dialects is slight.¹³⁾

10) Sisawat, Bunchuai. *Samsip Chat Nai Chiang Rai*, Bangkok, B. E. 2504; Also, *op. cit.*; Scott, James, George. *Gazetteer of Upper Burma and Shan States*, Pt. 1, Vol. 1, Rangoon, 1900.

11) The author discovered through his following-up survey in April 1968 that there are different dialects being spoken in the same village, and that these dialects cannot be geographically defined. This is probably because Akhas of various groups migrated into Thailand and founded villages regardless of their geneological relationships. The data collected by the author show that there are at least three types of Akha dialects in Thailand. The author cannot make any geographical definition of the dialect presented in this paper. At best, it should be defined as the dialect of such a phonemic structure as described here. For different types of Akha dialects, see the author's “Futatabi Kitatai Yori—Lahu-nago No Genchi Chosa— (Notes on a Field Survey of the Lahu-na Language in Northern Thailand),” *the Southeast Asian Studies*, Vol. 6, No. 2, Kyoto, 1968.

12) Among the Akhas who had recently migrated from Burma, the author could not find a person who could handle this orthography effectively. However, in late years, the author found that there were some who were well educated and well versed in the orthography.

13) This statement should better be altered as “He easily acquired facility in a dialect spoken by most of the Alu villagers easily forgetting the dialect which he had shared with most of the Saenchai villagers.

So far, data of the Akha language are very scanty. Descriptive studies, which provide the basis for other branches such as historical comparative studies, are limited. The oldest description is the vocabulary and sentences contained in Scott's *Gazetteer of Upper Burma and Shan States* published in 1900.¹⁴⁾ This Gazetteer was followed by Antisdell's *Elementary Studies in Lahoo, Akha (Kaw) and Wa Languages* of 1911¹⁵⁾, and Roux's *Deux Tribus de la Region de Phonsally*, 1924.¹⁶⁾ The former is not so scientific. The first two of the above works deal with the Akhas in Eastern Shan States, while the last treats those in Northern Laos. Besides these, some words and sentences can be found scattered in various anthropological or ethnographical works such as those by Dauffes, Madrolle and Bernazik.¹⁷⁾ All these data are not sufficient to give an understanding of the structure of the language, though some of them display considerable accuracy. *The Gospel According to St. Mark in Akha*¹⁸⁾ is an exact romanization of Kengtung Akha, but it does not tell what the structure of the language is like, for it was written for different purposes. Akha dialects in Thailand have so far been untouched except for a handful of vocabulary items in Bernazik's works.¹⁹⁾ When descriptive studies are as unadvanced as this, one cannot expect so much from historical comparative studies. In the field of comparative studies with Akha as the main language, there are the works of Shaffer and Nishida.²⁰⁾ These works, however, are based upon the afore-mentioned works by Scott, Antisdell, Roux and Bernazik. As for the Akha dialects in Thailand, the vocabulary reported by Bernazik will be the only data. It can be safely said that linguistic findings based upon the Akha language are underdeveloped at present. Recently there have been some reports of field works published in Thailand, but they are not linguistic but anthropological or sociological reports.²¹⁾ We can, in addition, find ethnographical descriptions written in Thai²²⁾, but they are scarcely useful for linguistic studies. The importance of studies concerning

14) Scott, *op. cit.*

15) Antisdell, C. B. "Elementary Studies in Lahoo, Akha (Kaw) and Wa Languages," *JBR* 1, Rangoon, 1911.

16) Roux, Henri. "Deux tribus de la region de Phonsally," *BEFEO* 24, 1924.

17) Dauffes, M. "Notes ethnographiques sur les Kos," *BEFEO* 6, 1906; Madrolle, C. L. "Quelques peuplades Lo-lo," *TP*, ser 2, vol. ix, 1908; Bernazik, Hugo Adolf. *Akha und Meau*, 2 vols., Innsbruck, 1947.

18) British Foreign Bible Society. *The Gospel According to St. Mark in Akha*. Rangoon, 1955.

19) Bernazik, *op. cit.*

20) Shaffer, *op. cit.*; Nishida. *op. cit.*; Burling, *op. cit.*

21) Hanks, Lucien, et al. *A Report on Tribal Peoples in Chiang-Rai Province, North of the Mae Kok River*, Benington-Cornell Anthropological Survey of Hill Tribes in Thailand, Bangkok, 1964; Young, *op. cit.*

22) Sisawat, *op. cit.*; Atsari, Seri. *Sip Haa Phaw Nai Thai*, Bangkok, B. E. 2506; Bunnak, Suraphong. *Chaw Khaw*, Bangkok, B. E. 2506; Phanphayap, Nopphaburi. *Chaw Khaw*, vol. i, Chiang Mai, B. E. 2510; Mongkhonrat, Lamcuan. *Chaw Khaw*, Bangkok, B. E. 2512; Ngoenyuang, Sanit, Wichit Khumsap. *Yaw-Iko-Musoe*, Bangkok, B. E. 2512.

hill tribe peoples is being recognized in Thailand.²³⁾ For the time being, however, the author's paper is solely based upon the data obtained through his field work. Linguistically, the author have drawn upon no previous report at all.²⁴⁾

The present paper is to be followed by Part 2, which describes the morphological structure. Though there are many diversified methods to describe a language, the best would be such that will envisage the characteristics of the language with the maximum clarity and conspicuousity. The methodology employed here is that of the conventional structural linguistics, but with the above fact in mind, particular emphasis will be put on the manners in which various linguistic elements are connected with each other. For instance, the phonemes /p, b, m/ will be defined as being different from all the other phonemes in that they can form consonant clusters /py, by, my/ by entering into connection with /y/. This can be applied to all the linguistic levels from the phonological level, the lowest, up to the syntactic level, the highest. The author believes, however, that the level to which the application of this technique is most effective is the morphological level. This can be said not only about Akha but also about many other languages such as Lahu, Lisu, Bisu, Burmese, and so on. The interested will be able to trace the development of the author's interpretation of the Akha structure by reading *Interim Report of Field Research on the Akha Language*, No. 1²⁵⁾, *Interim Report of Field Research on the Akha Language*, No. 2²⁶⁾, *Notes on a Survey of the Akha Language in Thailand*²⁷⁾, *The Phonemes of the Alu Dialect of Akha*²⁸⁾, *An Outline of the Phonological and Morphological Structure of the Akha Language in Northern Thailand*²⁹⁾, and for Lahu, see *A Survey of the Lahu-na Language in Northern Thailand*³⁰⁾, and *Lahu-na Phonemics—a descriptive study of the Lahu-na language in Northern Thailand—*.³¹⁾ For the author's field work in general, see *Notes on a Survey of the Akha Language in Thailand*.³²⁾

23) Norachat. "Sun Phatthana Chaw Khaw," *the Phim Thai*, 4, May B. E. 2509; Mongkhonrat, *op. cit.*

24) However, the author owes much to private discussions with Mr. Paul Lewis of the American Baptist Mission, Chiang Mai.

25) Katsura, Makio, *Interim Report of Field Research on the Akha Language*, No. 1, presented to the National Research Council of Thailand, Bangkok, April, 1965.

26) Katsura, Makio. *Interim Report of Field Research on the Akha Language*, No. 2, presented to the National Research Council of Thailand, Bangkok, June, 1965.

27) Katsura, Makio. "Notes on a Survey of the Akha Language in Thailand," *the Southeast Asian Studies*, Vol. 3, No. 4, Kyoto, 1966.

28) Katsura, Makio. "The Phonemes of the Alu Dialect of Akha," *the Southeast Asian Studies*, Vol. 4, No. 1, Kyoto, 1966.

29) Katsura, Makio. "An Outline of the Phonological and Morphological Structure of the Akha Language in Northern Thailand," *the Southeast Asian Studies*, Vol. 6, No. 4, Kyoto, 1969.

30) Katsura, Makio. "A Survey of the Lahu-na Language in Northern Thailand," *the Southeast Asian Studies*, Vol. 6, No. 2, Kyoto, 1968.

31) Katsura, Makio. "Lahu-na Phonemics—a descriptive study of the Lahu-na language in Northern Thailand—," *the Southeast Asian Studies*, Vol. 6, No. 3, Kyoto, 1968.

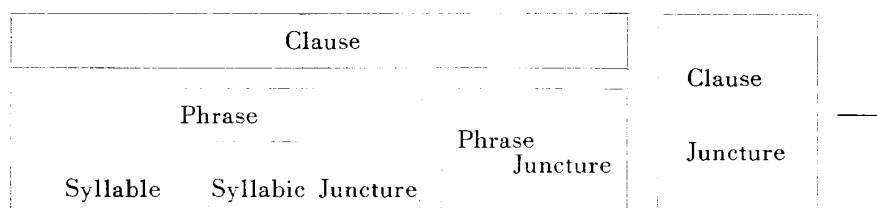
32) Katsura, Makio. "Notes on a Survey of the Akha Language in Thailand," *op. cit.*

I. Phonemics

Outline

The smallest unit on the phonemic level is a phoneme, and sequence of phonemes constitutes a syllable. An utterance consists of one or more clauses, and a clause is made up by one or more phrases. A phrase, in turn, consists of one or more syllables. These clauses, phrases and syllables are joint together by specific types of junctures thus constituting utterances. One utterance contains at least one clause, and a clause contains at least one phrase, which contains at least one word. A word contains at least one morpheme, and a morpheme contains at least one syllable. Morphemes and words will be discussed in Part II.³³⁾ The above relations between the units can be figured as below.

In this language the syllable constitutes a very solid unit as it does in most of the other related languages, and one syllable is in most cases one morpheme. With this it



is convenient and justifiable to describe the phonemes and their distribution in terms of the syllable. The phonemes are classified into the syllabic and the suprasegmental phonemes. The former are further classified into the consonants, the vowels and the tones; and the latter are junctures.³⁴⁾ Each of them are subdivided into subclasses according to its distribution. The syllabic phonemes are those which can be postulated by the analysis of the syllable, and can be described in terms of the syllable. On the other hand, the suprasegmental phonemes cannot be described within the syllable unit since they concern the relationships between syllables. These can be postulated by the analysis of the intersyllabic relationships, and have to be described intersyllabically.

1. Syllabic Types

The maximum structure of the syllable can be represented by the following canonical formula:

$$\text{Syllable} = A(B) \left\{ \begin{array}{l} C(E) \\ D \end{array} \right\} F$$

The above formula also summarizes the positions in which the phonemes occur in the syllable. Those symbols in the parentheses represent elements which are not indis-

33) A sentence can be defined as a clause characterized by a particular type of suprasegmental phoneme. A word is not a phonological unit, but a morphological unit, hence omitted here.

34) Suprasegmental phonemes other than the junctures, such as stress, rhythm, intonation, etc., will not be treated here, because the data is not sufficient for the analysis of such.

pensable, whilst those without parentheses represent the indispensable obligatory elements. The Akha syllables can be obtained by substituting these symbols with the elements that they represent. For example, if A=/m/, B=/y/, C=/o/ and F=/low laryngeal tone/, then the syllable will be /myo low laryngeal tone/ [m^jo' 21] "monkey." However, not all syllables theoretically obtainable from the formula occur in the actual utterances of the language. The types that actually occur are presented below with one example for each. In the above formula, A, B, D and E are consonants; C is a vowel; and F is a tone.

- (1) A C F /ŋā/ [ŋa : 55] “(a first person singular pronoun)”
 (2) A B C F /byǎ/ [b^ha : 21] “bee”
 (3) A C E F /mǒŋ/ [mō : 21] “horse”
 (4) A B C E F /ʔāmyɔŋ/ [ʔa 55 m^hō : 33] “when?”
 (5) A D F /ñm̄/ [ɲm̄ : 55] “house”
 (6) A B D F /lǎbym̄/ [lɲ 11 b^hm̄ : 55] “grave”

Loan words are usually molded into these types. For example, Northern Thai /bàat/ ‘Baht’ is changed to /bǎ/ [ba : 21] ‘Baht’ in Akha.

2. Junctures

The junctures are postulated from the analysis of the tone contours, syllable durations and pause durations. The following seven types are postulated.³⁵⁾

- (1) Syllable Junction :- Represented by /—̣/. This precedes only those bound morphemes or bound words which have /ʔ-/ as the initial consonants. The syllables succeeding this type of juncture are weakened, and a sequence of syllables with it is phonetically one diphtongal or triphtongal syllable. /byạ̌ʔə/ [bʲaə 13] “to be striped,” /nǒʔiʔə/ [nɔiə 153] “to whither,” but /byạ̌ʔw̄/ [bʲa 11 ’w̄: 55] “honey.”

- (2) Syllable Juncture: - Represented by /—(no symbol)—/. The syllable preceding this has the duration of [1]. /kũššē [k'ʷ 11 ʃɛ : 55] “flea.”

- (3) **Word Juncture** : - Represented by /— — —/. The syllable preceding this has the duration of [2]. /ʔākũ-šǎjĩ/ [ʔa ll k'w'll ʃa ll dʒi: 55] “dog meat.”

- (4) **Phrase Juncture** :— Represented by /—(space)—/. The syllable preceding this has the duration of 3 or 4. /ʔǎkũ/ [ʔa ll k'uu: 2l] “a dog...”

- (5) **Clause Juncture**:- Represented by /—./. The syllable preceding this has the duration of [3] or [4], but gradually fades away with a slightly falling contour. /ʔǎkũ./ [ʔa 11 kʷu: 21] “(It is) a dog.”

- (6) **Clause Juncture**:- Represented by /—;/. The syllable Preceding this has the duration of [2] or [3] with a sustained contour but no weakening or falling contour. /ʔəsūyǎlē; mējəŋ ʔiʔə./ [ʔa 11 su 55 ya 11 lē: 21—mē 11 dʒǎ· 33 ʔiə. 53] ‘Who is it, going to Mae Chan?’

35) Postulation of the junctures here is still tentative, and will need further elaboration.

(7) Clause Juncture: - Represented by /—,/. The syllable preceding this has the duration of [3] or [4], and is followed by a pause longer than when followed by the other junctures. /ʔăda, mǝjaŋ ʔilelə./ [ʔa 11 da: 33.....mɛ 11 dʒă· 33 'i 55 le 33 la: 21] "Father, are you going to Mae Chan?" but /ʔăda mǝjaŋ 'ilelə./ [ʔa 11 da: 33 mɛ 11 dʒă· 33 'i 55 le 33 la: 21] "Is father going to Mae Chan?"

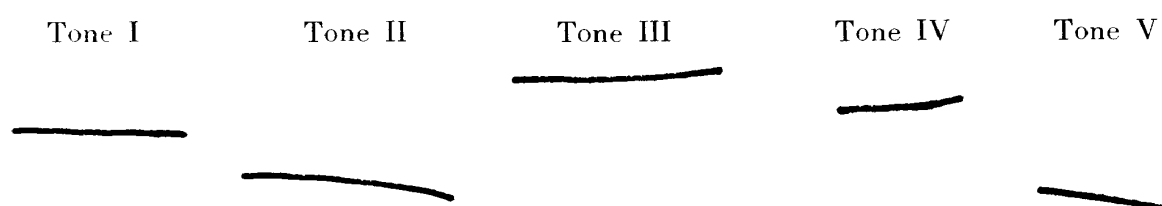
The syllable junctures occur only between syllables; the word juncture, between morphological words; the phrase juncture, between phrases; and the clause junctures, between clauses. To put it in another way, the maximum unit separated by /◡/ or /(no symbol)/ is a syllable; the maximum unit separated by /- / is a word; the maximum unit separated by /(space)/ is a phrase; and the maximum unit separated by /./, /,/ and /;/ is a clause. Each of the maximum units includes any other units smaller than itself.

3. Tones

The tones are different from the other syllabic phonemes in that they concern the whole syllable whilst the other phonemes stand in time relation with each other. For example, in the syllable /mǝŋ/ "horse," /m/ stands *before* /ɔ/, and /ɔ/ stands *before* /ŋ/, thus being in the before-after time relation. However, the tone (in this case /low/) is over the whole syllable /mǝŋ/, but it is not in time relation with any of /m/, /ɔ/ or /ŋ/. The language is of a level tone register system with the following five level tones being in contrast with each other.

- (1) Tone I ...Mid / (no symbol) /, /hə/ [hə: 33] "this."
- (2) Tone II ...Low / ◡ /, /sǝ/ [sə: 21] "tooth."
- (3) Tone III...High / — /, /tsē/ [ts'e: 55] "ten."
- (4) Tone IV...Mid Laryngeal / ◡ /, /lé/ [lɛ' 44] "market."³⁶⁾
- (5) Tone V ...Low Laryngeal / ◡ /, /nè/ [nɛ' 11] "spirit."

These tone can be figurized as below. The Tone II is phontically a low fall, but phonemically, is regarded as a low level. The Tone IV is slightly higher than the Tone



I, and is accompanied by a glottal constriction towards the end of the syllable. The Tone V is slightly higher than the Tone II, and is accompanied by a glottal constriction towards the end of the syllable. The Tones II and III are both accompanied by the

36) The quality of vowels in the syllables with the Tones IV and V will be discussed later.

lengthening of the syllable durations. If the duration of a syllable with the Tone II or III is represented by [5], then the durations in the Tone I, IV and V will be [3], [2] and [2] respectively. The Tones I, II and III occur with all of the afore-mentioned six syllable types, but the Tones IV and V occur only with the types (1), (2), (5) and (6). Furthermore, examples of the syllable type (6) with the Tone IV or V are extremely few. When these tones occur in sequence, they undergo various changes. The tonal changes taking place in actual utterances can most economically be described in relation to the junctures. Let "M," "L" and "H" represent "Mid, Low and High" respectively, and "l," "r," "f" and "q," "low, rise, fall and laryngeal" respectively.

(1) A sequence of two or more syllables with the syllable juncture / / is phonetically one syllable, and the tones in such environment undergo changes as described below. However, the vowel quality in the Tones IV and V are fully retained throughout. Only the pitches are referred to here.

- i) /M M/ becomes /M/ [33]. /hɔʔə/ [hɔə 33] "to look."
- ii) /L L/ and /Lq L/ become /L/ and /LqL/ respectively. /dʒ ɲɛʔʒ/ [dɔ : 11 ɲɛɔ 11] "Speak!" /sɛʔʒ/ [sɛɔ 11] "Kill!"
- iii) /H H/ becomes /H/ [55]. /lāʔʒ/ [lao 55...] "Come, and..."
- iv) /H L/ and /Mq L/ become /f/ [51], and /fq/ respectively. /lāʔʒ/ [lao 51] "Come!" /tsɔʔʒ/ [tsɔɔ 51] "Build!"
- v) /M L/ becomes /Lf/ [31]. /hɔʔʒ/ [hɔ : 31] "Look!"
- vi) /H M/ and /Mq M/ become /Hf/ [53] and /HqM/ [53] respectively. /mɔʔə/ [mɔə 53] "to see" /tsɔʔə/ [tsɔə 53] "to build."
- vii) /Lq H/ and /L H/ become /LqH/ [15] and /r/ [15] respectively. /dzāʔʒ/ [dzaɔ 15] "Eat and..." /sɛʔʒ/ [sɛɔ 15] "Kill and..."
- viii) /Lq M/ and /L M/ become /LqM/ [13] and /Lr/ [13] respectively. /dzāʔə/ [dzaə 13] "to eat," /bāʔə/ [baə 13] "to carry."
- ix) /Mq H/ and /M H/ become /MqH/ [35] and /Hr/ [35] respectively. /hɔʔʒ/ [hɔ : 35] "Look and..." /kɔʔʒ/ [kɔɔ 35] "Come back and..."

(2) In a sequence of syllables with the syllable juncture /(no symbol)/, some of the tones lose their contrasts. Here also, the vowel quality in the Tones IV and V are retained.

- i) /M M/ } /M M/ /ʔinɔŋ/ [ʔi 33 nɔ : 33] "today," /ʔāmyanɔŋ/ [ʔa 33
/Mq M/ } mʲa 33 nɔ : 33] "How many days?" /myánú/ [mʲa 33
/Mq Mq/ } nu 44] "eye."
- ii) /L L/ } /L L/ /sālǎ/ [sa 11 la : 21] "teacher," /ʔǎyðmàɛ/ [ʔa 11
/Lq Lq/ } jɔ 11 mǎ 11 nɛ 33] "with them," /ʔǎyðmàʔʒ/ [ʔa
/Lq L/ } 11 jɔ 11 mǎɔ : 15] "to them," /ʔǎyðmàʔǎ/ [ʔa 11
/L Lq/ } jɔ 11 mǎa 21] "They..."

- iii) /H H/ /H H/ /tēsā/ [t'e 55 sa: 55] "sound," /ʔidó=/ [ʔi 55 dɔ
/H Mq/ 55] "to go out,"³⁷⁾ /dólā=/ [dɔ 55 la 55] "to come
/Mq H/ out."
- iv) /H M/ /H L/ /mējəŋməʔəŋne ʔólātejē./ [mɛ 11 dʒā 33 mə 'ɔ 15
/H L/ nɛ' 33 'ɔ 11 la 55 t'e 33 dʒe: 55] "(It is said that
/M Lq/ he) comes back from Mae Chan."
/M L/
/Mq L/
/H Lq/
- v) /L M/ /L H/ /ʔäyðmə̀ d̀tɔʔù ho dzădémajēlă./ [ʔ'a 11 jɔ 11 mə
/L H/ 11 dɔ 11 tɔu 51 ho: 11 dza 11 dɛ 55 ma 33 dʒe 55
/M H/ la: 21] "Have all of them finished eating?"
/Mq H/
/Lq H/
/Lq Mq/
/M Mq/

In the above examples the actual pitches represented by numbers are not relevant, but they are neutralized into the simple high-low contrasts. Thus the last example can be represented as [ʔ'a L jɔ L mə L dɔ L tɔu HL ho: 11 dza L dɛ H ma L dʒe H la: 21]. In all of the foregoing situations, the vowel quality in the tones /' / and /` / is fully retained regardless of the pitches of the syllables.

(3) Before the word juncture /-/, the phrase juncture /(space)/ and the clause junctures /./, /,/ and /;/, all the tones occur in mutual contrast. The Tones IV and V are accompanied by glottal constriction, and are different from the other tones in pitch and duration. /myánú-myáxó./ [mʲa 33 nu' 44 mʲa 33 xɔ' 44] "eyelid," /ʔäyð myánú yomũŋa./ [ʔ'a 11 jɔ' 11 mʲa 33 nu' 44 jɔ 33 mu 11 ŋa: 33] "She has beautiful eyes," /ʔăkü-šăjī kũmĩʔală./ [ʔ'a 11 k'w' 11 ʃa 11 dʒi: 55 k'w miʲa 53 la: 21] "Is dog meat delicious?" /d̄m̄ma ʔīma; ʔēŋa, ʔēxð ŋā mǎʔīmðña./ [d̄m̄ 55 ma' 33 'i 55 ma: 33 'ɛŋa: 33 'ɛ 55 xɔ' 11 ŋa: 55 ma 11 'i 55 mɔ 11 ɲa:] "My sister said she would go, but I do not want to go."

The above-mentioned changes in tones and tonal contrasts are all phonetic changes in pitches, contours, durations and so forth. In addition to these, there can be observed replacement of a tone by another.³⁸⁾ The author has been unable to detect any general rule in the observed tone replacements, and accordingly, will present those examples that have been recorded in his field note.

(4) In /^{vvvv}/, the tone either of the second or of the third syllable is replaced

37) "=" denotes that an element must be preceded or succeeded by another element.

38) This is Pike's "change from one tone to another." See Pike, Kenneth L. *Tone Language*. Ann Arbor, 1948.

by /-/. /t̥iŷǎ./ [t'i 11 ɣa : 21] "one person," /t̥iŷā-t̥iŷǎ./ [t'i 11 ɣa' 55 t'i 11 ɣa : 21] "one by one"; /t̥ij̃ə./ [t'i 11 d̥ʒə : 21] "one kind," /t̥ij̃ə-t̥ij̃ə./ [t'i 11 d̥ʒə' 11 t'i 55 d̥ʒə : 21] "each kind, respectively."

(5) In /^{vv}/, the tone of the second syllable is replaced with the Tone I. /ʔǎkǎ./ [ʔ'a 11 k'a : 21] "Akha," /d̥ʒ./ [dɔ : 21] "language," /ʔǎkad̥ʒ./ [ʔ'a 11 k'a 33 dɔ : 21] "the Akha language"; /xǎpǎ./ [xa 11 p'a : 21] "frog," /zǎ./ [za : 21] "child," /xǎpazǎ./ [xa 11 p'a 33 za : 21] "tadpole"; /zǎ./ [za : 21] "child, person," /m̥i= / [mi 11] "woman," /zǎmizǎ./ [za 11 mi 33 za : 21] "wife."

(6) Certain syllables which are free morphemes or words take different tones depending upon the environment in which they occur, for example, /s̥m̥./ [sm : 55] "three," but /s̥m̥ts̥ẽ./ [sm̥ 11 ts'e : 55] "thirty," and /s̥m̥ ts̥ẽ./ [sm̥' 55 ts'e : 55] "three, five." The examples found in the author's field note are set out below, but there may be more examples which are yet to be recorded.

/ŋā./ "I"	{	/ŋa/ in /-mā./	/ŋamā./ "we"
		/ŋǎ/ in /-ʔə./	/ŋǎʔə./ "my"
/n̥ɔ̃./ "thou"	{	/n̥ɔ/ in /-ñā./	/n̥ɔñā./ "you"
		/n̥ɔ̃/ in /-ʔə./	/n̥ɔ̃ʔə./ "thy"
/t̥i./ "one"	/t̥i/ in /-=. /	/t̥im̥ɔ̃./	"one animal,"
		/t̥iŷǎ./	"one person"

(7) Many of the syllables which are bound morphemes or words take different tones depending upon the environment in which they occur. Morphologically these syllables are mostly particles. Since no fixed rule has been found, only the syllables which go through tone replacement are set out below.

/=yɔ/	/=yɔ̃/	"(Imperative Particle)" ³⁹⁾
/=lɔ/	/=lɔ̃/	"(Imperative Particle)"
/=ʔɔ/	/=ʔɔ̃/	/=ʔɔ̃/ " (Imperative Particle)"
/=te/	/=t̥ẽ/	"(Final Particle)"
/=le/	/=l̥ẽ/	/=l̥ẽ/ " (Final Particle)"
/=mɛ/	/=m̥ẽ/	"(Final Particle)"
/=ma/	/=m̥ǎ/	"(Final Particle)"
/=ŋa/	/=ŋǎ/	/=ŋā/ " (Final Particle)"
/=ʔə/	/=ʔ̥ə̃/	"(Verb Particle)"
/=nɛ/	/=n̥ẽ/	"(Directive Particle)"
/=na/	/=n̥ā/	"(Conjunctive Particle)"

In the foregoing seven types of tonal changes and/or replacements, the Tones I, II and III can replace each other, but not the Tone IV or V. However, the Tones IV and V are mutually replaceable. For instance, /x̥ɛl̥ãʔə./ [xɛ 55 l̥ã 13] "to command,"

39) The particles will be described and defined in the forthcoming Part II.

but /lāsèʔə./ [lā 55 sɛə 13] “to kill.” Furthermore the syllables /ʔa=, ʔǎ=, ʔā=/, which are prefixes, can be regarded as three alternants, but the occurrence of either of the three is determined not phonologically but morphologically. Both /=mā/ “group,” and /=lā/ “hand” take the same tone, that is, / ‘ /, but / ʔā= / occurs with the former to form /ʔāmā./ [‘a 55 mǎ’ 21] “group,” but never with the latter. On the other hand, /ʔǎ= / occurs only with the latter to form /ʔǎlā./ [‘a 11 lǎ’ 21] “hand.” Therefore, the occurrence of /ʔā= / or /ʔǎ= / is morphologically determined by the succeeding elements. This, together with (6) above, is a morphologically determined alternation. These morphologically determined alternations show that the language is partially governed by the word pitch system. The foregoing tonal changes and replacements/alternations can be summarized as set out below:⁴⁰⁾

Phonologically determined changes/replacements	Automatic phonological changes (1), (2), (3)
	Automatic phonological replacements (4), (5)
Morphologically determined alternants	Free morphemes/words alternants (6)
	Bound morphemes/words alternants (7)

4. Consonants

There are all together 23 single consonants plus 3 consonant sequences (or clusters) being in contrast with each other. To classify the consonants, there are three categories in which they contrast with each other, that is, the manner of articulation, the point of articulation, and voicing. The first category classifies the consonants into the

Point of Articulation		Labial	Dental	Palatal	Velar	Glottal
Manners	Voice					
Stops	Voiceless	p	t	c	k	
	Voiced	b	d	j	g	ʔ
Nasals	Voiced	m	n	ɲ	ŋ	
Fricatives	Voiceless		s	ʃ	x	h
	Voiced		z	y	ɣ	
Affricates	Voiceless		ts			
	Voiced		dz			
Lateral	Voiced		l			

40) Refer to Hockett, Charles. *A Course in Modern Linguistics*, 8th edition. New York, 1965.

stops, the nasals, the fricatives, the affricates and the lateral; and the second category, into the labials, the dentals, the palatals, the velars and the glottals, while the last category divides all the consonants into the voiced and the voiceless. Following are the consonant phonemes of the language.

The stops are contrastive with each other in the second and the third categories, and so are the fricatives. The nasals are mutually contrastive only in the second category, as the fricatives are contrastive with each other only in the third category. Since there is only one lateral consonant, it is contrastive with all the other consonants in the first category only, that is, its laterality. Examples of the consonants in contrast with each other are shown below.

/pāʔə./	[p'aə 53]	"to change, exchange"
/pyǎʔə./	[p'jaə 13]	"to have fever"
/bāba./	[ba 11 ba : 33]	"cheek"
/byǎ./	[b'ja : 21]	"bee"
/māde./	[ma 55 de : 33]	"pumpkin"
/myánú./	[m'ja 44 nu' 44]	"eye"
/tāʔə./	[t'aə 53]	"to be sexually stimulated"
/dāce./	[da 55 tš'ε : 33]	"pointed stick"
/nāʔə./	[naə 53]	"to hurt"
/sāʔə./	[saə 53]	"to be rough"
/zǎ./	[za : 21]	"child"
/tsǎʔə./	[t'saə 13]	"to be correct"
/dzǎʔə./	[dzaə 13]	"to eat"
/lāʔə./	[laə 53]	"to come"
/cāʔə./	[tš'aə 53]	"to sing"
/jáʔə./	[dz'jaə 53]	"to have"
/ñāʔə./	[naə 33]	"to be skillfull"
/šāʔə./	[ʃaə 53]	"to look for"
/yā./	[ja : 55]	"highland field"
/kaʔə./	[k'aə 33]	"to plant"
/gǎʔə./	[gaə 13]	"to hear"
/ŋā./	[ŋa : 55]	"I"
/xǎʔə./	[xəə 53]	"to be hard"
/yǎ./	[ya : 21]	"strength"
/ʔǎʔə./	[ʔaə 13]	"to be wet"
/haʔə./	[haə 33]	"to salute"

Since there will be no need to go into the detailed phonetic description of the above consonants, only the important general rules are presented below.

- (1) The voiceless stops and the voiceless affricates are unaspirated when they oc-

cur in the syllables with the Tones IV and V, that is, /' /, /` /, but they are aspirated in all the other environments. /pā=/ [p'a 55] "to change," /=pā./ [pā' 21] "leaf"; /tsē./ [ts'e: 55] "ten," /tsé=/ [tsɛ 44] "to cross"; /tǎ=/ [t'a 11] "to put," /tá=/ [ta' 44] "to be salty"; /=cā./ [tš'a: 55] "left," /=cá./ [tšā' 44] "rope"; /ka=/ [k'a 33] "to plant," /ká./ [kā'] "cross bow."

(2) /ʔ/ is zero before the syllable juncture /◡/. /ñǝʔiʔə./ [nɔ 11 'iə 53] "to whither."

(3) /j/ is a palatalized [dzʲ] in the syllables with the Tones IV and V, that is, /' /, /` /. /jǝ=/ [džɔ 55] "to be present," /já=/ [dzjā 44] "to have."

(4) When the position E is filled by /ŋ/, the C is nasalized and the /ŋ/ itself is zero, that is, /=V (owel) ŋ/ is always [=Ṽ:]. /mǝŋ./ [mɔ: 21] "horse."

(5) /py, by, my/ are [pʲ, bʲ, mʲ] respectively. /mɛpyǝ./ [mɛ 33 p'jɔ: 21] "facial feature," /byǎ./ [bʲa: 21] "bee," /=myǎ./ [mʲa: 21] "to be plenty."

(6) When /m/ stands in the position D, it is [m̥], and /hm/ is [m̥ᵐ]. /sm̥./ [sm: 55] "three," /cāhm./ [tšā 11 m̥ᵐ: 33] "hair of the body."

The above twenty-three consonants can be classified as below according to the positions in which they occur.

- C₁ Those which occur only as single consonants in the position A. /t, c, k, d, j, g, n, ñ, s, š, x, z, ɣ, ts, dz, l, ʔ/
- C₂ Those which occur not only in A but also in A of AB. /p, b./
- C₃ Those which occur in B as well as in A. /y/
- C₄ Those which occur both in A and E. /ŋ/
- C₅ Those which occur in A and D as well as in A of AB. /m/
- C₆ Those which do not occur in A when F is /' /, or /` /. /h/

5. Vowels

There are ten vowels in contrast with each other. They can be classified in terms of the three categories, that is, the position of the tongue (Front, Middle and Back), the height of the tongue (High, Mid and Low), and the shape of the lips (Rounded and Unrounded). Following are the vowels which are distinctive.

	Front		Middle	Back	
	Unrounded	Rounded		Unrounded	Rounded
High	i			ɯ	u
Mid	e	o		ə	ɔ
Low	ɛ		a		ɔ

(1) All the vowels are laryngealized when they occur in the syllables with the Tones IV and V, that is, /' / and /` /. /cíñɔ./ [tšɨ 44 nɔ' 44] "chisel," /cǝʔə./ [tšɔə

53] “to run,” /càʔə./ [tʃaə 13] “to boil,” /ʔicù./ [ʔi 55 tʃu 21] “water,” /tsóʔə./ [tsə 53] “to build,” /cɔʔə./ [tʃɔə 13] “to be spoiled,” /ʔucú./ [ʔu 33 tʃu 44] “a little,” /yocò./ [jɔ 33 tʃɔ 21] “to be cool,” /cɔʔə./ [tʃɔə 13] “to split.”⁴¹⁾

(2) No example of /e/ occurring with /ʔ/ or /ʔ/ can be found in the author's field note, but Lewis mentions one example, /bìlèʔə./ [bì 11 lə 13] “to give (from the higher to the lower).”⁴²⁾

(3) Only /ɔ/ occurs in /—ŋ/, and /=ɔŋ/ is always [ɔ]. /lɔŋ./ [lɔ : 21] “rabbit.”

(4) /ø/ is slightly diphthongal [oø]. /ʔücø./ [ʔu 11 tʃø : 55] “horn.” Diphthongization is particularly conspicuous in /y—/. /yø./ [yø : 21] “nine.”

The above ten vowels can be classified as below according to the position in which they occur.

V₁ Those which occur in /AB—/ and /A—/. /e, ɛ, ø, ə, u, o, a/

V₂ Those which occur in /A—/ but not in /AB—/. /i, w/

V₃ Those which occur in /A(B)—E/ as well as in /A—/ and /AB—/. /ɔ/

6. Limitation on Phoneme Distribution

From among the syllables theoretically obtainable from the formula in the section 1, the following are the types that actually occur in the language. The numbers refer to the subclasses of the phonemes.

- | | | |
|-----|---|--------------------|
| (1) | C _{1, 2, 3, 4, 5} V _{1, 2, 3} T(one) _{1, 2, 3, 4, 5} | /sə./ “tooth” |
| (2) | C ₆ V _{1, 2, 3} T _{1, 2, 3} | /hə./ “this” |
| (3) | C _{1, 2, 4, 6} C ₅ T _{1, 2, 3, 5} ⁴³⁾ | /sɪm./ “three” |
| (4) | C _{1, 2, 3, 4, 5, 6} V ₃ C ₄ T _{1, 2, 3} | /lɔŋ./ “rabbit” |
| (5) | C _{2, 5} C ₃ V _{1, 3} V _{1, 2, 3, 4, 5} | /byə./ “bee” |
| (6) | C ₂ C ₃ C ₅ T _{1, 2, 3} ⁴⁴⁾ | /lɪmbyɪm./ “grave” |
| (7) | C _{2, 5} C ₃ V ₃ C ₄ T _{1, 2, 3} | /ʔəbyɔŋ./ “friend” |

The above syllabic types are those which are actually found in the author's field note, but further data collecting may reveal the existence of additional types. A table

41) The author would rather regard the laryngealization of the vowels in the Tones IV and V as an automatic phonetic phenomenon accompanying the tones than establish, like Lewis, two series of vowels. See Lewis, Paul. “Akha Phonology,” *Anthropological Linguistics*, 1968. Those “tense throat vowels” in Nishida, Tatsuo. “A Preliminary Study on the Lisu Language in Tak Province,” *the Southeast Asian Studies*, Vol. 5, No. 2, Kyoto, 1967 can be understood to be the same as this laryngealization. However, whether to interpret the laryngealization as a phonetic phenomenon, or to regard it as a distinctive feature is up to individual. The author believes that there are several possible ways to interpret the vowel laryngealization in Akha. For this, see the author's “Problems in the Analysis of Akha Phonology,” (forthcoming).

42) Lewis, Paul. *op. cit.* Statistic measurement of the frequency of the phonemes will doubtlessly throw much light upon historical comparative studies as well as upon descriptive and typological studies.

43) There is no such form as /Cɪm/ in the author's field note.

44) There is neither /mym/ nor /Cym/ in the author's field note.

of all the Akha syllables will be published in later occasion.

7. Exceptional Phoneme Distribution

There are some loan words (mainly from Shan and Burmese), proper nouns and onomatopoeic words which do not conform to the general phonemic rules so far described. They are limited in number and are regarded as being irrelevant to the Akha phonemic pattern as a whole. The following are the formes recorded in the author's field note.

- (1) /—aŋ/: /měsaŋ./ “Mae Sai,” (Northern Thai /mêesăay/)

/jīhaŋ./ “Chiang Rai” (Northern Thai /cēhăay/)

/mějjaŋ./ “Mae Chan” (Northern Thai /mêecăn/)
- (2) /—am/: /măm./ “Burma” (Burmese /myámmá/, Lahu-na /man/)

/lăm./ “one million” (Shan /láan/, Northern Thai /láan/)

/ʔāyăm./ “season” (Shan?)
- (3) /—eŋ/: /sěŋtsay/ “Saenchai” (Northern Thai /sěencăy/)
- (4) /—ay/: /měsay./ “Mae Sai” (Northern Thai /mêesăay/)

/săy./ “shop” (Burmese /sáin/)
- (5) /—ɔa/: /ʔə̀a./ “crow”
- (6) /—aɔ/: /lə̀kàɔ/ “the ninth month” (Shan /lə̀enkáw/, Northern Thai /dú-
ankáw/)
- (7) /—in/: /hə̀biŋ./ “plane” (Northern Thai /huabin/)
- (8) /—uŋ/: /ñibuŋ./ “Japan, Japanese” (Northern Thai /ñipun/); also occurs,

/ñibu./ “Japan, Japanese”

8. Morphophonological Comments

This section may overlap what has already been discussed, but briefly, the following types of morpheme alternants should be kept in consideration.

- (1) Phonologically determined automatic alternants:— /ʔăkũ./ [ʔa 11 k'w: 21] “(It is a) dog.” /ʔăkũ jə̀ʔa./ [ʔa 11 k'w: 11 dʒə 53] “There is a dog.” /ʔakũ-
šăjī./ [ʔa 11 k'w: 11 fa 11 dʒi: 55] “dog meat,” /ʔăkũnə/ [ʔa 11 k'w 11 nə 33] “with a dog,” /ʔăkũʔa/ [ʔa 11 k'wa 13] “of a dog”

- (2) Phonologically determined automatic tone replacements:— /=pă./ in /xăpă./ [xa 11 p'a: 21] “frog” and /=pa= in /xăpază./ [xa 11 p'a 33 za: 21] “tadpole” can be interpreted as two alternants of the same morpheme, which can be represented as {pă~pa}. The occurrence of these alternants is automatically determined by the phonemic environments, that is, /pă/ occurs in the environment /^v—./; and /pa/, in the environment /^v—^v./, but never vis. a vis. Morphophonologically, the both can be symbolized as {/^v/}. In this paper, however, the author will refrain from going further than phonemic symbolization, and will represent them as /xăpă./ and /xăpază./.

- (3) Morphologically determined alternants:— [ŋa: 55] in /—./ “(it is) me.” and

[ŋa 33] in /—mà./ “we” and [ŋa 11] in /ŋǎŋə./ [ŋaə 13] “mine” can be regarded as {/ŋā/∞/ŋa/∞/ŋǎ/}. The occurrence of them is, however, determined by morphological environments, that is, [ŋa: 55], [ŋa 33] and [ŋa 11] occur in /—./, /—mà./ and /—ŋə./ respectively. Only a limited number of morphemes have alternants of this type. In this paper all the alternants are phonemically symbolized.

Furthermore, /ʔā=/ in /ʔāmà./ “group,” /ʔa=/ in /ʔaba./ “turning over” and /ʔǎ=/ in /ʔǎlà./ “hand” can be interpreted as {/ʔā=/∞/ʔa=/∞/ʔǎ=/}, but their occurrence is also morphologically determined by the succeeding morphemes, /=mà, =là, =ba/. Examples of /ʔa=/ is very rare, the rest being either /ʔā=/ or /ʔǎ=/. Only the following can be found with /ʔa=/.⁴⁵⁾

/ʔabā-něŋə./	“to turn over to someone”
/ʔaba-kaŋə./	“for a child to make a war whoop with the hands”
/ʔakǎŋə./	“permission” (Burmese /akhwîn/, Written Burmese //ʔakhwân//)
/ʔamalō./	“high-ranking official”
/ʔama-tsēŋə./	“to elect high-ranking officials”
/ʔaněŋə./	“to turn over to someone”

9. Typological Comments

The following characteristics are recognized as being helpful for further studies in the field of contrast with other related languages, such as Burmese, Lisu, Lahu and Bisu.⁴⁶⁾

- (1) There is only voiced-voiceless contrast in the stop, fricative and affricate consonants, and there is no aspirate-nonaspirate contrast in these consonants.
- (2) The only consonant sequence in the syllable initial position is the bilabial consonants plus the voiced palatal fricative consonant.
- (3) The only final consonant is the velar nasal, which occurs only in /ɔ—/.
- (4) The vowel system is rather asymmetrical with the high-mid-low contrast and the front-middle-back contrasts with partial rounded-unrounded contrast.
- (5) There are distributional limitations on the tones and the syllable types.
- (6) The vowels in the syllables with certain tones are laryngealized.
- (7) Majority of the syllables are open.
- (8) The tone system is a level tone register system.
- (9) The tonal contrasts in a sequence of syllables with the syllable junctures are reduced to /H:L/ and /L:H/.
- (10) Some of the bound morphemes or words which have /ʔ/ in the syllable initial position are proclitically suffixed to the preceding syllables with the syllable juncture /ɔ/.

45) There are only seven examples in which the prefix /ʔa=/ occurs.

46) For Bisu, see Nishida, Tatsuo. “Preliminary Study on the Bisu Language of Northern Thailand, Recently Discovered by Us,” *the Southeast Asian Studies*, Vol. 4, No. 1, Kyoto, 1966.

- (11) Tone replacements occur in certain syllable sequences with syllable junctures.
- (12) Some morphemes have phonemically different alternants the occurrence of which is determined morphologically.
- (13) As a whole, the allophones of the syllabic phonemes are rather simple and regular, but tonal changes and replacements resulting from suprasegmental environments are highly complicated.
- (14) Only the bilabial nasal consonant occurs in the syllable nuclear position.⁴⁷⁾

47) P. S. Since the author's field work, there have been many valuable reports published in the field of Akha linguistics. The following should be added to those which have already been referred to in the foregoing sections.

Dellinger, David. "Notes on Akha Segmental Phonemes and Tones," *Linguistic Circle of Canberra Publications*, Series A—Occasional Papers, No. 9, Papers in Southeast Asian Linguistics, No. 1, Canberra, 1967.

Lewis, Paul. *An Akha to English Dictionary*, Southeast Asian Program, Department of Asian Studies, Ithaca, N. Y., 1968.

Dellinger, David. "Some Comments on Akha: its relationships and structure and a proposal for writing system," *Tribesmen and Peasants in North Thailand*, *op. cit.*

Wyss, Peter. "Thai Orthography for Akha," *Tribesmen and Peasants in North Thailand*, *op. cit.*