

# **A PHONETIC STUDY ON RONGMEI**

DISSERTATION SUBMITTED TO THE JAWAHARLAL NEHRU UNIVERSITY  
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR  
THE AWARD OF THE DEGREE OF

**MASTER OF PHILOSOPHY**

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1996



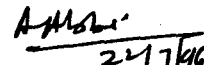
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### CERTIFICATE

This dissertation entitled "A PHONETIC STUDY ON RONGMEI", submitted by CH. CALEB MPAMEI, Centre of Linguistics and English, School of Languages, Jawaharlal Nehru University, New Delhi for the award of the degree of **MASTER OF PHILOSOPHY**, is an original work and has not been submitted so far in part or in full, for any other degree or diploma of any other university.

This may be placed before the examiners for evaluation for the award of the degree of **MASTER OF PHILOSOPHY**.

  
**Dr. Vaishna Narang**  
SUPERVISOR

  
24/7/96  
**Dr. Anvita Abbi**  
CHAIRPERSON

## **ACKNOWLEDGMENT**

I am grateful to my guide Dr. Vaishna Narang who has encouraged me and shown me the direction towards this study on the phonetics of Rongmei. Her patience and understanding towards me in the course of this work is deeply appreciated.

I am thankful to all my friends who have supported me with their encouragement and help in more ways than I can count.

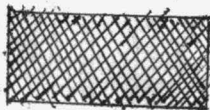
I am especially grateful to my family members who have always stood by me.

**CH. CALEB MPAMEI**

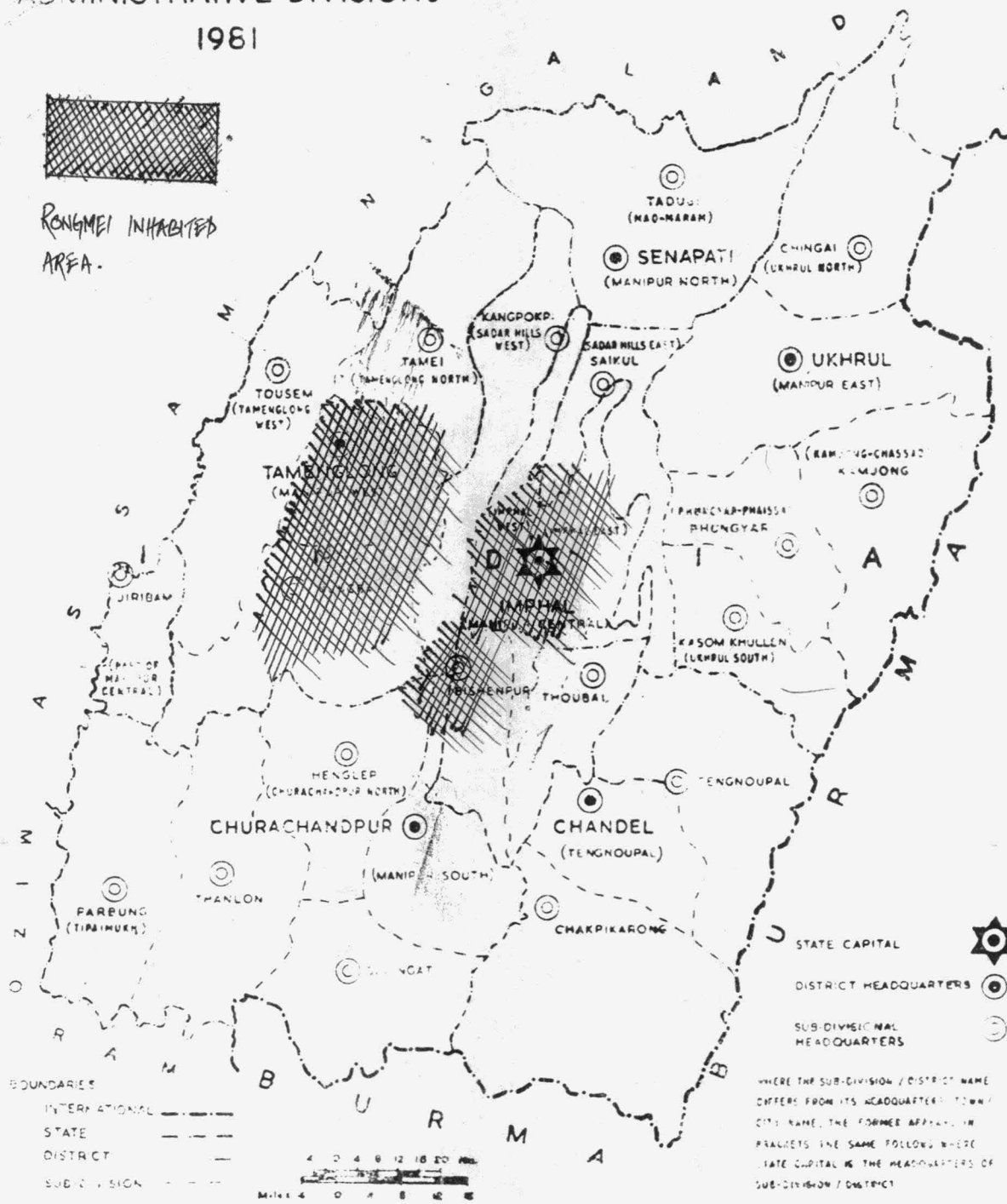
# MANIPUR

## ADMINISTRATIVE DIVISIONS

1981



RONGMEI INHABITED AREA.

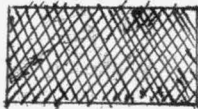


# NAGALAND

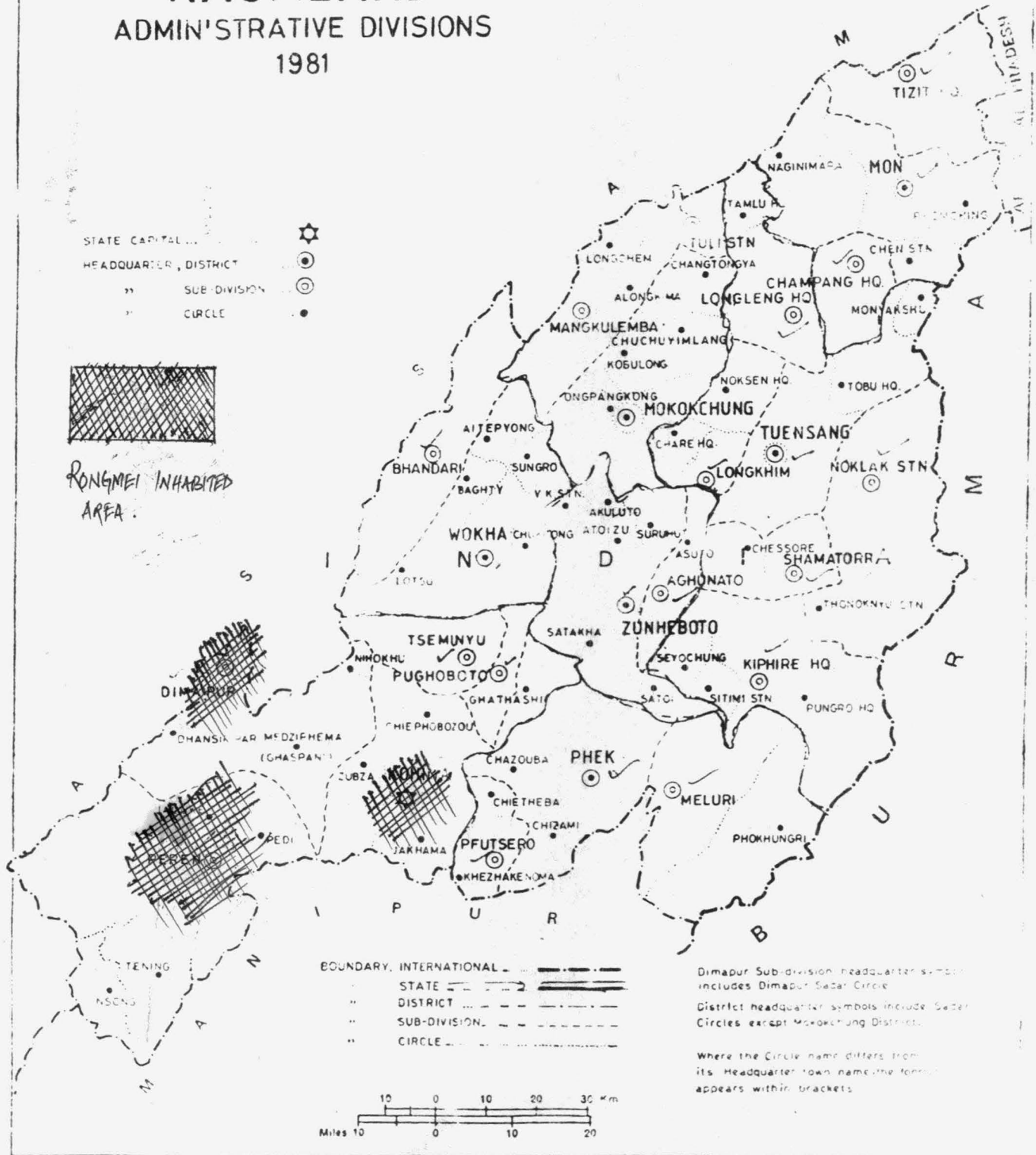
## ADMINISTRATIVE DIVISIONS

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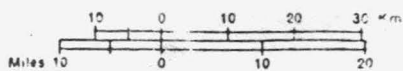
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RONGMEI INHABITED AREA



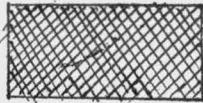
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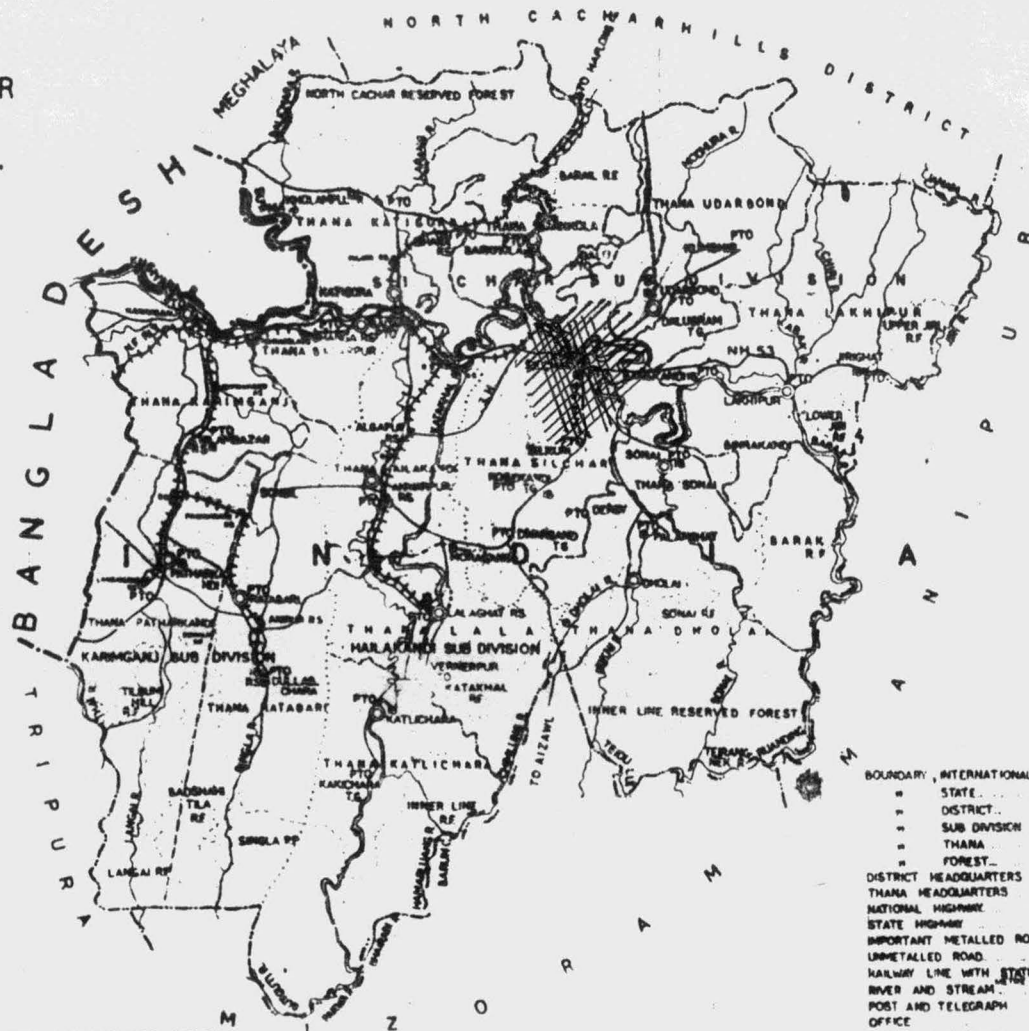
Dimapur Sub-division headquarters symbol includes Dimapur Sadar Circle  
 District headquarters symbols include Sadar Circles except Mokokchung District.

Where the Circle name differs from its Headquarters town name the former appears within brackets.

# ASSAM DISTRICT CACHAR



RONGMEI INHABITED  
AREA.



- BOUNDARY, INTERNATIONAL
- STATE
- DISTRICT
- SUB DIVISION
- THANA
- FOREST
- DISTRICT HEADQUARTERS
- THANA HEADQUARTERS
- NATIONAL HIGHWAY
- STATE HIGHWAY
- IMPORTANT METALLED ROAD
- UNMETALLED ROAD
- RAILWAY LINE WITH STATION
- RIVER AND STREAM
- POST AND TELEGRAPH OFFICE
- INSPECTION BUNGALOW

NOTE - NAMES OF IMPORTANT VILLAGES WITH AMENITIES ARE SHOWN.

Based upon Survey of India map with the permission of the Surveyor General of India. The north-Bangladesh boundary shown on this map is the one existing prior to the conclusion of the agreement on May 16th 1974 between India and Bangladesh. The boundary of Meghalaya shown on this map is as interpreted from the North-Eastern Areas (Reorganisation) Act, 1951, but has yet to be verified. © Government of India. Copyright, 1981.

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## CHAPTER I

### INTRODUCTION

Rongmei is the name of the people as well as the language. Rongmei people form one of the subtribes of a larger group of people called the Zeliangrong which in turn is one of the major tribes of the Naga community. The Naga community consists of over 40 different tribes living in thousand of villages. They live in a contiguous area which covers the whole state of Nagaland and Manipur, parts of Assam, Arunachal Pradesh and Somra tract of northern Myanmar.

There have been different theories put forward by different scholars as to the origin of the nomenclature 'Naga'. So far there is no consensus amongst the scholars regarding this issue. But according to Professor Gangmumei Kamei it is certain that the name (the Nagas) is given by the outsiders, the inhabitants of the Brahmaputra and Barak valleys. <sup>1</sup>

As to the origin and migration of the Nagas, the most commonly accepted theory is that they originally were from somewhere in China, most probably the Sikiang Province. This view is corroborated by some Naga traditions such as



a Lotha folk song.<sup>2</sup> From there, they are believed to have traversed through South East Asia and moved north again and finally entered into the Naga Hills where they are presently settled. This migratory pattern has been conjectured by various scholars after observing the close affinity between the various Naga tribes and the tribes of South East Asia like the Dayaks and Ingorots of Indonesia. The Naga's use of artifacts found in the sea also lends weight to this theory. The Nagas have been living in their present homeland for a very long time. One of the earliest references made about the Nagas was by the 2nd century Greek Geographer of Egypt, Ptolemy who in his "Geographia" made mention of a group of people known as 'Nangalogae' who can be identified as the Nagas who lived in the North East part of India. Nangalogae (Naga Log) in Sanskrit means naked people (Nanga = Naked Loggae (Log) people). The Nagas are not to be misunderstood as the Nagas of central India who were snake worshippers.<sup>4</sup>

The ancient Sanskrit literature also mentions the presence of the Indo-Mongoloid including the Nagas in the North-East region of India around the tenth century before Christ at the time of the compilation of the

Vedas. From this time onwards, the word 'Kirata' was used for the non-Aryan tribes living in the mountains particularly in the Himalayas and the North Eastern areas of India.

The Ahom chronicles which dates back to the 9th century AD also mentioned about the Nagas with whom they had had contacts.

Naga land or the commonly called Naga Hills covers not only the state called Nagaland as mentioned before, but the entire area of Nagaland , Manipur, Assam, Arunachal Pradesh and Burma.

The Naga country lies in the temperate zone and is mountainous. However its mountains are not craggy, awesome and precipitous as in the Himalayas. Rather, the mountains of Naga Hills are gentle ranges mostly running parallel to each other in a north-south direction. The rivers of Naga Hills flow either from east to west into the Brahmaputra or from west to east into the Chindwin in Myanmar.

The average altitude of the Naga Hills varies from 900 to 1500 meters. The annual rainfall received averages between 174.8 and 254 cm. There are thick impregnable forests. It is reported that there are more variety of

plants in a mountain range in the Naga Hills than in the whole of one country in the world.<sup>6</sup>

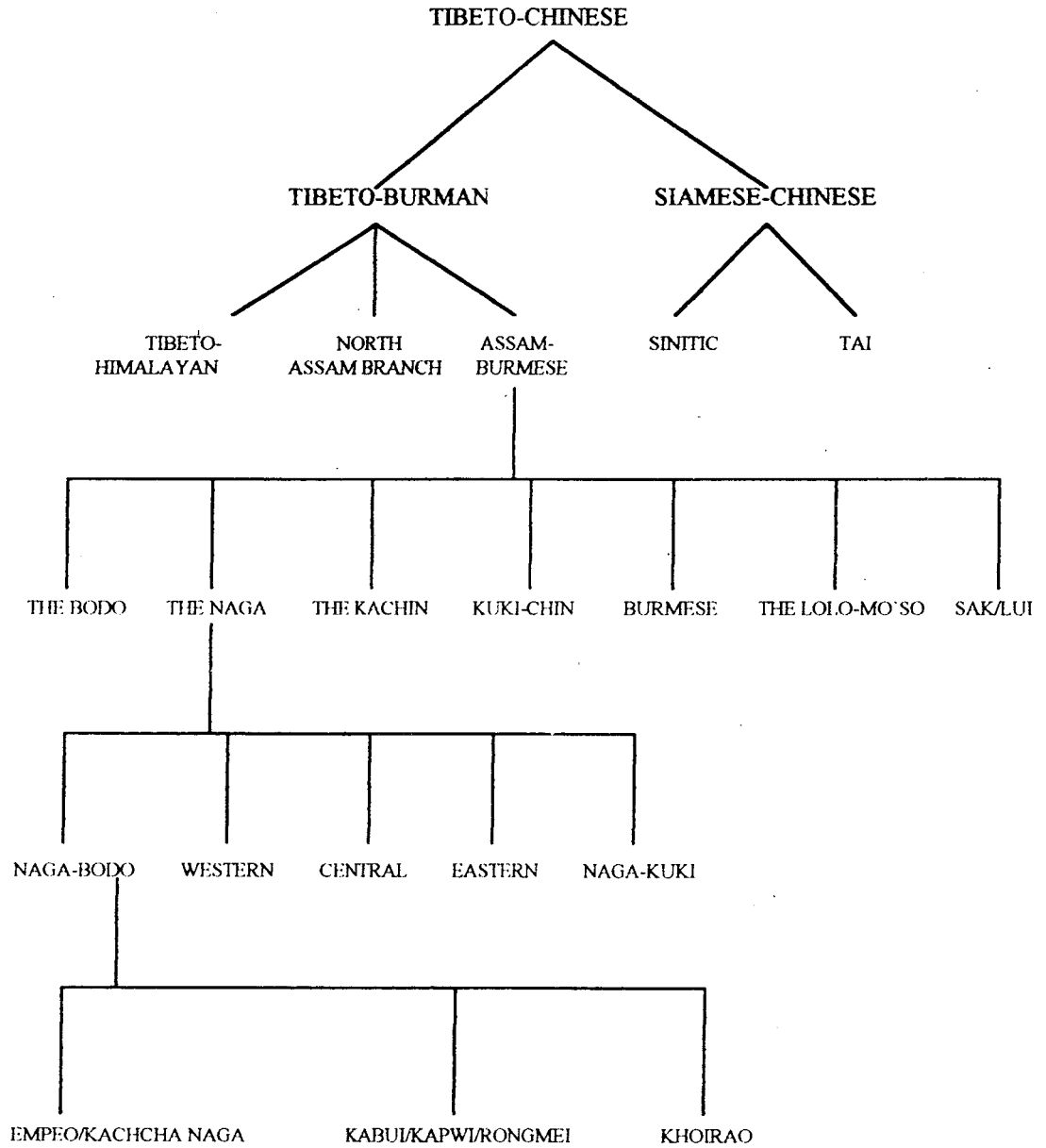
Politically, the Nagas have a wide range of governmental systems. The village, rather than a group of villages or tribe is the basic unit in the political make-up of the Nagas. Therefore, almost all types of political systems are to be found among the Nagas "ranging from the pure democracy of the Angamis to the autocratic rule of the Angs of the Konyaks to the gerontocracy ( tartar ) of the Aos to the semi-republic of the Zeliangrongs".<sup>7</sup>

The Nagas have a wide variety of customs and dresses, racial make-up and physical features. In terms of rituals and modes of worship, too, a vast variety can to be seen.

Linguistically speaking the Naga Hills is one of the most prodigious places in the world. The Naga languages come under the Assam-Burmese Branch of the Tibeto-Burman family which is one of the two main branches of the Tibeto-Chinese, the other being the Siamese-Chinese Branch. (See the Family Tree of Tibeto- Chinese Family in the following page).

The Tibeto-Burman family comprises a long series of dialects spoken from Tibet in the north to Burma in the south; and from Baltistan in the west to the Chinese

**THE TIBETO-CHINESE FAMILY OF LANGUAGES**

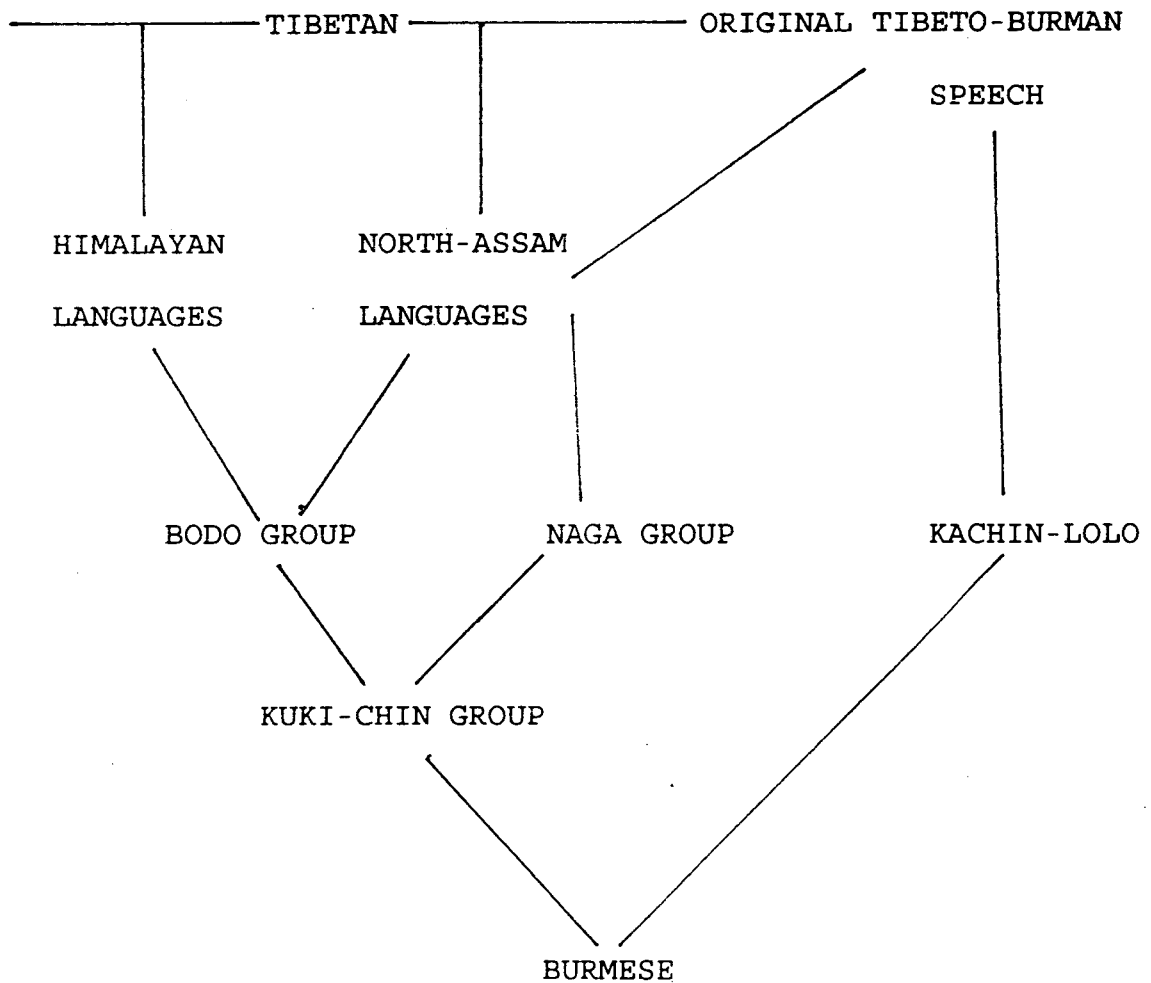


provinces of Seechuan and Yunnan in the east. Tradition and comparative philology agree in pointing to North Western China between the upper courses of Yang-tse and of the Hoang-ho as the original home of the Tibeto-Chinese race.

According to G. A. Grierson in his Linguistic Survey of India (Vol. III, part II), a very ancient form of Tibeto-Burman called Si-hia, now many centuries dead, is the only ancient Tibeto-Burman language with which we are acquainted .

The Tibeto-Burman family is sub divided into three main branches - (a). Tibeto-Himalyan (b). North-Assam Branch and (c). the Assam-Burmese or Lohitic Branch. The most northern representative of the Tibeto-Himalayan Branch is Tibetan, and the most southern representative of the Assam-Burmese Branch is Burmese. Between them lies all the Tibeto-Burman languages. The two extremes are connected along two distinct linguistic chains. The eastern chain consists of the Kachin and Lolo forms of speech which connects Tibetan directly with Burmese. The western chain is at first a pair of chains each beginning in a different locality, but joining together lower down, like the letter 'Y' . The joint chain then goes on and ends again

in Burmese. The eastern limb of this 'Y' begins with two miscellaneous forms of speech which make up the North-Assam Branch and continues through dialects of the Naga Hills into those of the Bodo and Kuki-chin groups, where it meets the other western limb. The latter begins with those dialects of Tibetan which have crossed the Himalayan watershed from the north and have occupied the southern face of that range. These also lead us into Bodo and Kuki-Chin. The joined eastern and western limb then lead us, like Kachin and Lolo, into Burmese. This may be roughly represented by the following diagrams:



While the number of speakers of languages belonging to the Naga-group is less than half of those whose mother tongue is Bodo, the number of Naga languages is four times as many. The extraordinary diversities of speech, differences of language, not merely dialects, which characterize the hill country between the Patkai range on the east, the Jiantia Hills on the west, the Brahmaputra

Valley on the north, and Manipur on the south render it one of the most interesting field for investigation by the linguist.

According to Assam Census Report by Mr. A, W. Davis, I.C.S. quoted by Grierson, " All the tribes in the Naga Hills District which we clamp together under the general term Naga, speak languages which are at the present day whatever they may have been in the past, so different that a member of one tribe speaking his own language is quite unintelligible to a member of the next tribe."

Grierson says " The inhospitable nature of the land and the ferocity of the inhabitants have combined to foster this diversity of speech. Where communication is so difficult, interaction with neighboring tribe is rare, and in former times if a meeting with a stranger did take place, the conversation was sure to be more or less one sided. Under such circumstances, monosyllable languages, such as those of the Nagas, with no literature, with a floating pronunciation, with a system of Taboo which is ever and anon prohibiting the further use of certain words, and with a number of loosely used prefixes and suffixes to supply the ordinary needs of grammar, are bound to change very rapidly and quite independently of each other."<sup>8</sup>



The Naga group of the Assam Burmese Branch is divided into five sub-groups (1) Naga-Bodo (2) Western (3) Central (4) Eastern and (5) Naga Kukis. It is under the first sub-group of Naga-Bodo that Rongmei (also Kabui or Kapwi) is classified by Sir. G.A. Grierson in his Linguistic Survey of India (vol. III part II). The other two languages listed under this sub-group are the Empeo or the Zemei as it is commonly known today and Khoirao. But I find G. E. Marrison's classification of Zemei, Liangmei and Rongmei together (besides others) under the Type C.2 group of the Naga languages more appropriate (this classification is given in Appendix I). This is because of the fact that the Zemei, Liangmei and Rongmei together form what is called the Zeliangrong tribe. In the past these three sub-tribes lived as separate, independent entities because of the different migratory directions the Zeliangrong people had taken.

It is a commonly held belief that the Zeliangrong descended from a family with three brothers. In the course of time these three brothers moved towards three different directions from the place where they had been formerly living. According to the Zeliangrong's legend

preserved in religious hymns and folk songs, they originated from a mythical cave called Taobhei. They moved to a place called Makhel, from where the Zeliangrong people dispersed in their migration to three different directions - north, south and towards the valley area. Makhel is an important point of dispersal for many of the other tribes of the Nagas.

In fact, the terms 'Zemei', 'Liangmei' and 'Rongmei' are merely the names of the different directions the people had taken during their migration. The group of people who moved towards the valley area are called Zemei which comes from the word 'nzè' meaning plain or valley. 'Liangmei' is from the word 'liang' meaning north and 'Rongmei' comes from the word 'nrúang' which mean south. Therefore, inspite of the fact that these three branches of the southern Naga group have their own linguistic codes which are unintelligible to members of the other sub-tribes, they come from a common antacedant.

The Rongmei were the group of people who have moved towards the southern direction of the Naga Hills. They now live mostly in the state of Manipur. Tamenglong District and Imphal Valley, both in Manipur, are the main centres of the speakers of Rongmei. They are also found in Cachar

district of Assam specially in Silchar town. In the state of Nagaland, they are spread over in the western part of Kohima district, including Dimapur town.

According to 1981 census, the total population of the Rongmei in Manipur is 50,256. The bulk of the population of Rongmei is to be found in West Manipur, that is, Tamenglong district. The total population in Tamenglong district is 24,217 which is almost half the total population of the Rongmei community in Manipur. The second largest chunk of the population is found in Central Manipur, or the Imphal valley area which numbers about 9,854. In South Manipur, the population is about 2,469 and in North Manipur about 3,679.

In Nagaland, the Rongmei people live mostly in Kohima district. Out of total of 2,867 Rongmei people in Nagaland, 2,828 are found in Kohima district. Jaluke has the largest population in Rongmei numbering about 1,646. Next is Dimapur town where about 683 people are living. In Kohima town about 337 Rongmei people are living.

A few hundred Rongmei people are also to be found in Silchar town, and Lakhimpur <sup>sub-division</sup> district of Assam but exact census details are not available.

There have not been much linguistic studies of the

various Naga languages. Only a few of the main languages such as Ao, Sema, Angami, etc. have been studied and described. A Phonetic Reader of Ao by K.S. Gurubasave Gowda has been published by Central Institute of Indian Languages (CIIL). This Ao Phonetic Reader gives a brief sketch of the Ao language and its history. The main objective of the work is to assist non-native learner of the language to acquire the correct sounds of Ao language, specially by language teacher and students. Organs of speech are described in details and then the speech sounds of the Ao language is given mainly in articulatory terms. A suggestion for the orthography of the language is given at the end.

A Sema Phonetic Reader by Sreedhar, also published by CIIL is another linguistic work on one of the Naga languages. This Phonetic Reader is written with the same objective as the one by Gowda - mainly for non-native learner of the language.

Another Phonetic Reader on the Angami language spoken in Nagaland in the district of Kohima is available. This is also published by CIIL and has the same pattern and objectives as the other Phonetic Reader series brought out by CIIL.

Sreedhar has done a sociolinguistic study on the interlingual communication pattern of the Nagas in Nagaland using the Pidgin Nagamese. In this work he has identified the phonemic pattern of the Pidgin and their variations. He has given an outline of the grammar and he has also discussed the classification of the Naga languages which was carried out as a doctoral thesis in 1967 by G. E. Marrison. This classification of the Naga language is given in the appendix.

Manipuri or Meitei language is the dominant language in Manipur. This language is the lingua-franca of the people of Manipur and even some parts of Assam and Nagaland. H. Khelchandra Singh has discussed the status and importance of the Meitei language. He has done an interesting study on the script of Meitei language dating back to the 16th century A.D. from the metal coins of those days. The importance of Meitei as a court language, as a language of literature and culture, etc. have been highlighted.

'Manipuri Phonetic Reader' by Inder Singh published by CIIL is also available. This work too has roughly the same kind of pattern which we find in the Phonetic Reader

Series that the CIIL has published. The work is mainly geared towards pedagogical purpose for the non-native learners of the language. It has the description of the speech organs and how the speech sounds are formed. Then follows the classification and description of the Manipuri speech sounds. A discussion about the phonology and orthography is given. A list of words for phonetic drill is also given so that the learner is given a chance to practice the different sounds of the Manipuri language (Complete references of these books are available in the bibliography).

One of the most extensive works done on the Tibeto-Burman languages still remains the Linguistic Survey of India by Sir G. A. Grierson. He has given brief sketches of the Naga group of languages including Rongmei. Sir Grierson himself says that there was not enough data to make any accurate or explicit statement about these languages. He has given a skeleton account of the grammar of Rongmei from the specimens and list of words collected for the survey. The grammatical account is far from complete and it is an attempt at discovering the more important grammatical features of the language.

The Rongmei Literature Society is making some efforts

towards producing a practical orthography with the help of some linguists from the linguistics department of Manipur University. Otherwise, there is no other significant linguistic work that has been undertaken in this language.

Rongmei has received little attention from linguists studying the Tibeto-Burman family of languages till today. Apart from passing remarks made by a few Indian linguists, no serious linguistic work has been done on this language. The most exhaustive study done on this language was by Sir G. A. Grierson in his Linguistic Survey of India which was almost a century ago. This neglect of Rongmei along with other tribal languages in this area may be due to various reasons such as the inaccessibility the place, insurgency problems, lack of trained linguists from the area itself, etc. Therefore, this phonetic study on Rongmei would constitute the first step towards a more serious and indepth study/analysis of this little known language. This work would serve as a valuable base from which further research on various aspects of the language can be undertaken. After completing this phonetic/phonemic analysis of the language, my first priority would be to prepare a Rongmei-English dictionary of basic/core vocabulary.

As pointed out earlier, the Zemei, Liangmei and Rongmei came from a common antecedent. Marrison's listing of these three languages in the Type C.2 group of the Naga languages also corroborated the fact that they are related. Therefore, it is my desire to study these three sister languages along the principle of historical linguistics at a later stage. As such, this present endeavour on the phonetic study of Rongmei will constitute an indispensable preliminary for such a venture in the future.



## Endnotes

1. Gangmumei Kamei, "Origin of the Nagas' Nagas At Work, ed. R. Vashum, et. al. (New Delhi : Naga Student Union Delhi Publication, 1996) 9-10.
2. Nehemiah Panmei, 'The Security and External Dimensions of the Naga Insurgency,' M.Phil. diss. Jawaharlal Nehru University, 1990, 12.
3. Kamei, 13.
4. kamei, 7.
5. Verrier Elwin, Nagaland, (Shillong : 1961) 2.
6. Thepfulhouvi Angami, 'Flora and Fauna of Naga Land', Nagas 90. 1.
7. Kamei, 11.
8. G. A. Grierson, Linguistic Survey of India, Vol. III, Part II, (Delhi : Motilal Banarsidass, 1967).

## CHAPTER II

### METHODOLOGY

Structural linguistics which emerged in reaction to the prestructural phase of the 19th century historicism made tremendous advance in the scientific study of language. For the structural linguist, the descriptive function of grammar was primary, therefore, descriptive adequacy was the criteria by which grammar could be judged. Data-based empirical studies of language were made by the structural linguists leaving little room for subjectivity and grammar was a set of rules and categories to be discovered from the data by a process of inductive generalization. Purely formal distributional methods were employed to study the structure of language. The descriptive analysis, for the structural linguist, must be based upon what people say; the spoken form became primary and the written form entirely secondary. All types of speakers and dialects are important. The notion of preserving the standard, correct and pure forms were discarded. Languages are constantly in the process of change and therefore, the descriptive linguist is interested in the dynamics of language change.<sup>1</sup>

One of the most prominent features of modern linguistics - one which it shares with a number of other

sciences - is structuralism. In short, this is to say that each language is regarded as systems of relation (more precisely put, a set of interrelated systems). The elements of this systems of relation such as sounds, words, phrases, etc. have no validity independently of the relations of equivalence and contrasts which holds between them.<sup>2</sup> In this scheme of things the concept of structure and system play very important roles. The discovery, analysis and description of the patterns into which human speech sounds are capable of being organized is carried out in terms of the two concepts of structure and system. The patterns can be considered as consisting of units which are arranged in various ways. The concept of system deals with the units themselves and the concept of structure deals with the arrangement of these units.

These linguistic units have the potential to occur in a certain context. By virtue of its potentiality of occurrence in a certain context, a linguistic unit enters into relation of two different kinds. The relations which hold between the units which are together present in an utterance is called the syntagmatic relations. On the other hand, the relations which hold between units which are not present together in an utterance, but can be substituted for each other to produce

different utterances is called the paradigmatic relations. Another important feature of the structure of languages is the notion of distribution. Every linguistic unit has a characteristic distribution. If two (or more) units occurs in the same range of contexts, they are said to be distributionally equivalent. If they have no context in common, they are in complementary distribution.<sup>3</sup>

The structural methods of analyzing language propounded by the structural linguists in the early twentieth century is still very much relevant today for the study of language. Therefore, the structural methods of linguistic investigation have been followed in this study also.

Even though a few well-known languages such as English, French, and Japanese have been phonetically described in a very extensive way using the technological advancements of speech synthesis methods other languages have not received as much attention and only the most prominent phonetic features have been described. The lack of phonetic work is specially unfortunate in the case of less prominent languages that are no longer being spoken as a first language and will not be available anymore after a few years from now.

[It is reported that there are about 6000 languages currently being spoken in the world today. Out of these

6000, over half of them will not be spoken by the end of the next century.<sup>4</sup> This fact alone underscores the urgent and important need for description of languages which otherwise would be no more or become extinct in due course. Another reason for the phonetic description of languages is that the endeavour will provide data from the small and lesser known languages, the study of which can aid us in our understanding of languages, and also greatly enrich the linguistic discipline itself.)

Peter Ladefoged points out that there are four basic tasks in making a description of the phonetic structures of a language. First, one must decide what to describe. Second, suitable speakers/informants must be found, third, the necessary phonetic data must be recorded and analyzed. Lastly, it must be written down in a coherent manner.

The first requirement for a phonetic description of a language is a good account of phonology. It is also true that in order to know the phonology, one must know the phonetics. This is the proverbial chicken first or egg first situation. But infact, the two evolve together. One cannot do without the other. Usually the focus is in one or the other in a study, phonetic description being the focus in the present study.

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Therefore in this phonetic study of Rongmei, a tentative phonemic system was worked out first. And according to this tentative phonemic system, a word-list is prepared in such a way that it is conducive for a detailed phonetic study of the sounds of this language. All the vowels and all the consonants are placed in matched environments so that the contextual influences are equalized. Efforts have been made in the preparation of the word list so that words illustrating consonants initially have been placed before a low back vowel such as /a/ and so on. This is done keeping in mind that the preparation of a good word-list in broad phonemic transcription with glosses is crucial for the phonetic study of any language.

This word list is improved upon as the process of elicitation progressed. The words were prompted both in Rongmei and sometime in English to the informant so that the desired data may be elicited. These are transcribed in the narrow phonetic transcriptions. At this stage, the elicitation procedure adopted is somewhat akin to one of the two elicitation techniques proposed by Samarin (1967) - the analytical elicitation techniques. The other being scheduled elicitation which is best suited for a relatively or completely unknown language being investigated. The

analytical techniques<sup>5</sup> always begins with data in the language being studied. In this aspect, I, as a native speaker do not have much problem in the sense that unlike the fieldworker who does not know the language at all, I do not have to spend much time trying to get the meaning of the data through various means.

The recording was done keeping in mind the detrimental effect of excessive background noise such as the continuous noise of running engine, automobile traffic, etc. Also the background noise coming from adjacent rooms or kitchen where other household works are done have been avoided as much as possible. Echo effects of some rooms are also serious impediments for a good recording. Therefore, care had been taken to ensure that a good acoustic environment is available. Even though these measures were taken for making the recordings the informants were made to be as normal and relaxed as possible so that the most natural utterances are made by them.

There were two informants at the initial stage of collecting the data. The first informant is a girl of 21 years old. Her name is Kaningjeiliu Pamei. She is doing B.A.(Hons) Geography from Delhi University. She is a bilingual speaker having a fairly good command over Meitei

and English besides her native language Rongmei. The second informant Makiu Pamei is a boy of 19 years old who has finished his secondary school. He is also a bilingual having a good command over Nagamese and English.

The initial data were taken from these two informants and myself and a broad transcription of this data were made. The word-list in Rongmei orthography (Roman script) was given to the informants. Promptings were also given to the informants so as to indicate what sounds/words were desired. On the basis of this data, the phonemic patterns of the language was worked out. And the word-list is improved upon as the process of elicitation progressed.

The second phase of the elicitation was done with five other informants along with the former two. Giangsinang T. Panmei is a male informant who is 26 years old. He has finished secretarial training course from YMCA. He speaks Rongmei, Meitei and English. The next informant, Akunga, male, 24 years old is doing B.Sc. from Ramjas College, Delhi University. He speaks Meitei and English other than his mother tongue, Rongmei. K.C. Ginette is a female informant from Tamenglong doing B.A. Geography in Delhi University. She is 22 years old. She also speaks Meitei and English. Achuina Panmei is another female informant of 24 years old. She has



completed a secretarial training course from YWCA, New Delhi. She also speaks Meitei and English. Gairiangmei is a male speaker of Rongmei who is 25 years old. He is an M.Phil student of Diplomacy in JNU. He speaks Manipuri/Meitei and English. He is from the Loktak area of Imphal valley.

On the basis of the recordings<sup>and</sup> transcription~~s~~ and made from these seven native speakers, a narrow phonetic transcription is made in as detailed a manner as possible, identifying the various shades of sound available in the language. This narrow transcription is given in the the third chapter while discussing the different allophonic variants that are found in Rongmei. The broad transcription is given in the appendix and also in the third chapter as examples of the different phonemes in their distributional pattern.

The analysis of the data is more subjective in nature even though we have tried to be as objective as possible within the limitations we are confronted with. Though we have tried to be more objective by obtaining spectrographs for the study of tones, even that is very minimal. They are taken to establish the different tones that are functional in the language. The phonemic structure of the language was determined by looking into the distribution pattern of the language.

The presentation of the work is given in three parts for each of the sound. The first part consists of the description of the sound mainly in articulatory terms. Then the next part consist of the distribution pattern of the sound - its occurrence in different contexts. In the last part, the different allophonic variants of the sound and their phonetic characteristics are described.

**Endnotes:**

1. Eugene A Nida, Morphology: The Descriptive Analysis of Words , Ann Arbor: The University of Michigan Press, 1982, 3.
2. John Lyons, Introduction to Theoretical Linguistics , Cambridge: Cambridge University Press, 1987, 50.
3. Lyons, 70.
4. Peter Ladefoged, 'Linguistic Phonetic Fieldwork: A Practical Guide,' Los Angeles, UCLA WWP, 1.
5. William J. Samarin, Field Linguistics: A Guide to Linguistic Fieldwork, Holt, Rinehart & Winston, 1967, 112.

## CHAPTER III

### THE SPEECH SOUNDS OF RONGMEI

Rongmei has a six vowel-system. It has high front unrounded 'i', higher mid unrounded 'e' low back unrounded 'aa' (the symbol 'aa' will be used for the low back unrounded 'a' throughout this work for the sake of typing convenience), higher mid rounded 'o' and high back rounded 'u' and central mean mid 'a' (the symbol 'a' is used for the central mean mid 'ə'). These vowels are discussed in detail one by one :

The vowel /i/ is a phoneme in Rongmei. This vowel is articulated by raising the front part of the tongue towards the palate. This is the high front vowel in Rongmei. It is not as high as the cardinal vowel number 1. The lips are spread.

This sound seems to be very rare in Rongmei at the word initial position. The only example to be found is also a loan word from Meitei. Otherwise it occurs in the word medial and final positions. A few examples are given below :

<u>Word initial</u>	<u>Word-medial</u>	<u>Word-finaly</u>
/icamcám/ - simple	/tiŋ/ - rain	/ti/ - give
	/piŋ/ - afraid	/ri/ - beyond limit
	/mik/ - eye	/raäsí/ - evil spirit
	/tarík/ - spotted	/zupi/ - nail

A variant of this phoneme [i:] is longer in duration at the word final position. For example [ti:] - 'give', [ri:] - 'beyond limit', [pí:] - 'head' etc.

/e/

The e-phoneme is produced by raising the front part of the tongue towards the palate but not as high as [i]. The lips are spread. This sound corresponds to cardinal vowel number 2. but it is articulated a little lower than the cardinal vowel number 2.

This sound does not occur in the word-initial position in Rongmei. It occurs in the word-medial and final positions. Some of the examples of /e/ in the two positions are given below:

<u>Word-medially</u>		<u>Word-finally</u>
/gaukènáá/	- a type of small frog	/tale/ - vain and haughty
/ndèxe/	- not bothered	/ce/ - paper
/gehu/	- wheat	/ram?xe/ - pretension
/kerère/	- bloated stomach	/kage/ - need

When this sound is preceded by a velar stop or fricative, the position of the tongue is raised a little

higher than normal and becomes like the cardinal vowel number 2. We can hear this sound in words like [kage] - 'need', [ram?xe] - 'pretension', [gaukenáa] - 'a type of small frog'.

/aa/

The phoneme represented by [aa] in Rongmei is produced by lowering the tongue as much as possible and retracting it slightly backward. The lips remain in the neutral position. The soft palate is raised.

This sound occurs in the word-medial and final positions but is rare in the word-initial position. Examples in the word-medial and final positions are given below :

Word-medially

Word-finally

/baak/ - break

/takum?maa/ - how

/baan/ - cook

/gaukenáa/ - a type of small frog

/k<sup>h</sup>aam<sup>a</sup>am/ - obstacles

/apalaa/ - an expression regret or disappointment

/kalaan/ - portion

/nkunnaa/ - exclusively

There is a regional variant of this sound specially in the northern part of Tamenglong District including the Tamenglong village where lower mid back vowel [ɔ] is used-both in the word-medial and final position. A few examples

are given below :

/abaaʔt <sup>h</sup> ai/	~	/abɔt <sup>h</sup> ai/	- mango
/raàgaa/	~	/ rɔ̀gɔ/	- scorpion
/ saa/	~	/sɔ/	- lock
/taraa/	~	/tarɔ/	- spill

/o/

While producing this sound the back portion of the tongue is raised. The lips are protruded and rounded. The soft palate is raised and the vocal cords are vibrating. This is the higher mid back vowel /o/.

The occurrence of this sound in Rongmei is very rare. It is found in the word-final position in Rongmei. But the occurrence of this sound in the word-initial and medial position is found only in loan words from Meitei. Examples are give below :

Word-initially

/ózaa/ - teacher

/guaŋŋó/ - come

/tut<sup>h</sup>ó/ - eat

/ò/ - yes

Word-medially

/boráa/ - sack

There is no other allophonic variant of this sound.

/u/

While producing this vowel, the back portion of the tongue is raised as high as possible towards the soft palate but the tip of the tongue is not raised. The lips are rounded and protruded. The soft palate is raised and vocal cords are vibrating.

This sound occurs in the word-medial and final positions. But it is rare in the word-initial position. Examples in the word-medial and final position are given below :

Word-medially

/buŋ/ - stomach

/lùm/ - believe

/luŋkuat/ - temper

/makum?/ - contemplate

Word-finally

/nù/ - mucus

/lu/ - song

/macú/ - colour

/míkt<sup>h</sup>ù/ - eyeball

There is no other variant of this sound in Rongmei.

/a/

The vowel /a/ in Rongmei is produced by the central part of the tongue. The lips are in a neutral position and the tongue also remains in the neutral position. The soft palate is raised and the vocal cords are vibrating. The vowel is always very short. This is the central mean-mid



/a/.

This sound occurs in Rongmei in the word-initial and medial positions. It is difficult to find it in the word-final position. Following are the examples of /a/ in the word-initial and medial position :

Word-initially

/agi/ - debate

/alim/ - flute

/axaat/ - one

/aluɑŋ/ - startle

Word-medially

/kap/ - cry

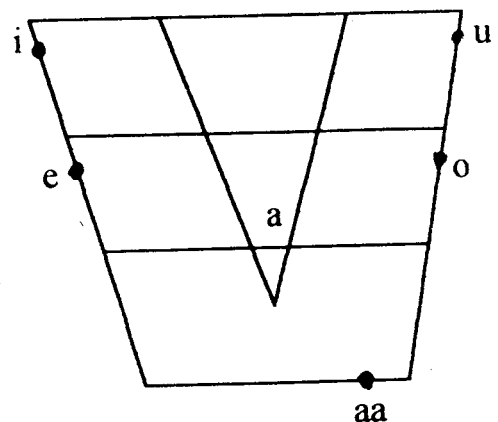
/rap/ - kick

/tacáat/ - eight

/karáam/ - try

There is no other allophonic variation of this sound in Rongmei.

To conclude there are six vowel phonemes in Rongmei and these are as indicated below :



However these vowels occur with a lot of variation in pitch which, when examined closely shows at least three contrasting tones. These tonal phonemes (or tonemes as they are generally called) are discussed in the following section.

## Tone

Rongmei is a contour tone language. The hypothesis formulated at the initial stage of this study regarding the tonal pattern of Rongmei was that it has four tonemes : (a) level tone, (b) rising tone (c) falling tone and (d) low-level tone. But a more rigorous investigation into the nature of tones in this language with the help of sound spectrograms shows that Rongmei has only three tonemes instead of the four that was initially proposed in the hypothesis. It has the first three tonemes formulated in the initial hypothesis - (a) level tone (left unmarked) (b) rising tone /ˀ/ and (c) falling tone /ˁ/. The fourth one which was perceived as a low-level tone is basically the same as (a) i.e. level tone but perceived slightly different due to the presence of a glottal stop at the word final position. This is clear from the following examples given along with their acoustic image on the sound spectrograms :

- |        |   |                              |
|--------|---|------------------------------|
| /ciŋ/  | - | thousand (level tone)        |
| /ciŋˀ/ | - | to draw a line (rising tone) |
| /ciŋˁ/ | - | mountain (falling tone)      |
| /ciŋʔ/ | - | clothesline                  |

The above examples are given in the spectrogram number 1. The first sound in the spectrogram has falling tone. At FC1 (the second harmonics), we notice that the sound starts from approximately 376 Hz and falls down as far as 327 Hz. Here, the tone drops by about 49 Hz. This conclusively establishes the falling tone in Rongmei.

The second sound has a level tone. This is the word [cin] - 'thousand'. If we look at both FC1 and FC2 (the second and first harmonics), this sound stays consistently at almost the same level at around 360 Hz in FC1 (the second harmonics) and 169 Hz at FC2 (the first harmonics). The slight falling at the end of the sound is because of the fact that all sounds at the ending part invariably will fall. This establishes the level tone of Rongmei.

The third sound in this spectrogram is the one with a glottal stop at the final position. The meaning of this word is 'clothesline'. Because of this, the sound seems to be perceived as if it is a low level tone. The spectrogram shows that it is almost similar to the level tone. Further study needs to be done in regard to whether the presence of a glottal stop can be said to influence changes in pitch/tone in Rongmei.

The last sound in the spectrogram is the word in Rongmei

for 'to draw a line'. It shows a decidedly rising pattern in the spectrogram. The sound fundamental frequency starts from from around 174 Hz and rises up to around 195 Hz approximately. It rises by about 22 Hz approximately. (This sound, therefore, represents the rising tone of Rongmei).

In the second spectrogram, we have another example of a three-way tonal contrast on the segment [bam]. When this sound is accompanied by a falling tone as in the first sound on the spectrogram, it means 'seat'. This sound starts falling at FC1 (the second harmonics), from around 342 Hz approximately and goes down till around 302 Hz. Thus the fall on the pitch is about 40 Hz approximately.

The second sound on the spectrogram is a level tone which means 'to stay'. The level nature of this sound is clearly seen on FC2 consistently staying at about 165.0 Hz.

The third sound on the spectrogram has a rising pattern. At FC1 (the second harmonics) it starts from about 325 Hz approximately and rises by about 32.8 Hz approximately until it reaches about 357.8 Hz.

They can be represented in the following manner :

/bām/	-	seat
/bam/	-	stay
/bám/	-	spread

The third set of sounds on the spectrogram no. 3a are for the following examples :

/ram/	-	scoop
/rám/	-	land
/ram?/	-	thing
/rám/	-	cut

The first sound on this spectrogram is a level tone and it means 'to scoop'. This sound remains level at the fundamental frequency of 165

Hz. This is much more clearly seen in fig. 3b which is an enlarged form (in the time scale) of fig. 3a.

The next sound is for 'land' and this has a falling tone starting from 300 Hz and falling down by about 40 Hz and ending at 260 Hz approximately at the second harmonics.

The third sound in this spectrogram is for the word 'thing' in Rongmei and this sound has a glottal stop at the word final position, the problem of which has already been mentioned along with the first set of tones in fig. 1.

The last sound has a rising tone and it means 'to cut and fell'. This is more prominently seen on FC2 (the first harmonics) with the pitch starting from 130 Hz approximately and rising by about 47 Hz till it reaches 177 Hz

approximately.

Besides these examples with their spectrograms, there are various other examples where the three tonal contrasts are found. We can see some of the example below :

- /liam/ - disobey
- /líam/ - cut/curve
- /liam̃/ - overflow
- /ri/ - over, excess
- /rí/ - untie
- /rĩ/ - to preserve
- /nui/ - crumple
- /núi/ - laugh
- /nuĩ/ - leaf
- /ntiŋ/ - spend
- /ntíŋ/ - mat
- /ntiŋ̃/ - straight
- /sau/ - wash
- /sáu/ - point a finger
- /sàu/ - pound, strike with one's head
- /kadiŋ/ - in the midst
- /kadíŋ/ - with great speed
- /kadiŋ̃/ - immediately
- /tau/ - grandchild

SPECTROGRAM No. 1.

KAY ELEMETRICS CORP. MODEL 5500  
SIGNAL ANALYSIS WORKSTATION

Date: 9 3F 19FD  
Analysis by:

Rec. Off Time: 12:1F:23 AM

INPUT SETTINGS	Channel 1	Channel 2
Source	LEFT CONNECTORS	RIGHT CONNECTORS
Frequency Range	DC - 8 KHz	DC - 5 KHz
Input Shaping	HI-SHAPE	FLAT
Buffer Size	14.0 SECONDS	48 SECONDS

ANALYSIS SETTINGS	Lower Screen	Upper Screen
Signal Analyzed	CHANNEL 1	CHANNEL 2
Analysis Format	SPECTROGRAPHIC	SPECTROGRAPHIC
Transform Size	100 pts. (300 Hz)	256 pts. (73 Hz)
Time Axis	200ms (4sec)	200ms (4sec)
Frequency Axis	FULL SCALE	FULL SCALE
Analysis Window	HAMMING	HAMMING
Averaging Set Up	NO AVERAGING	NO AVERAGING

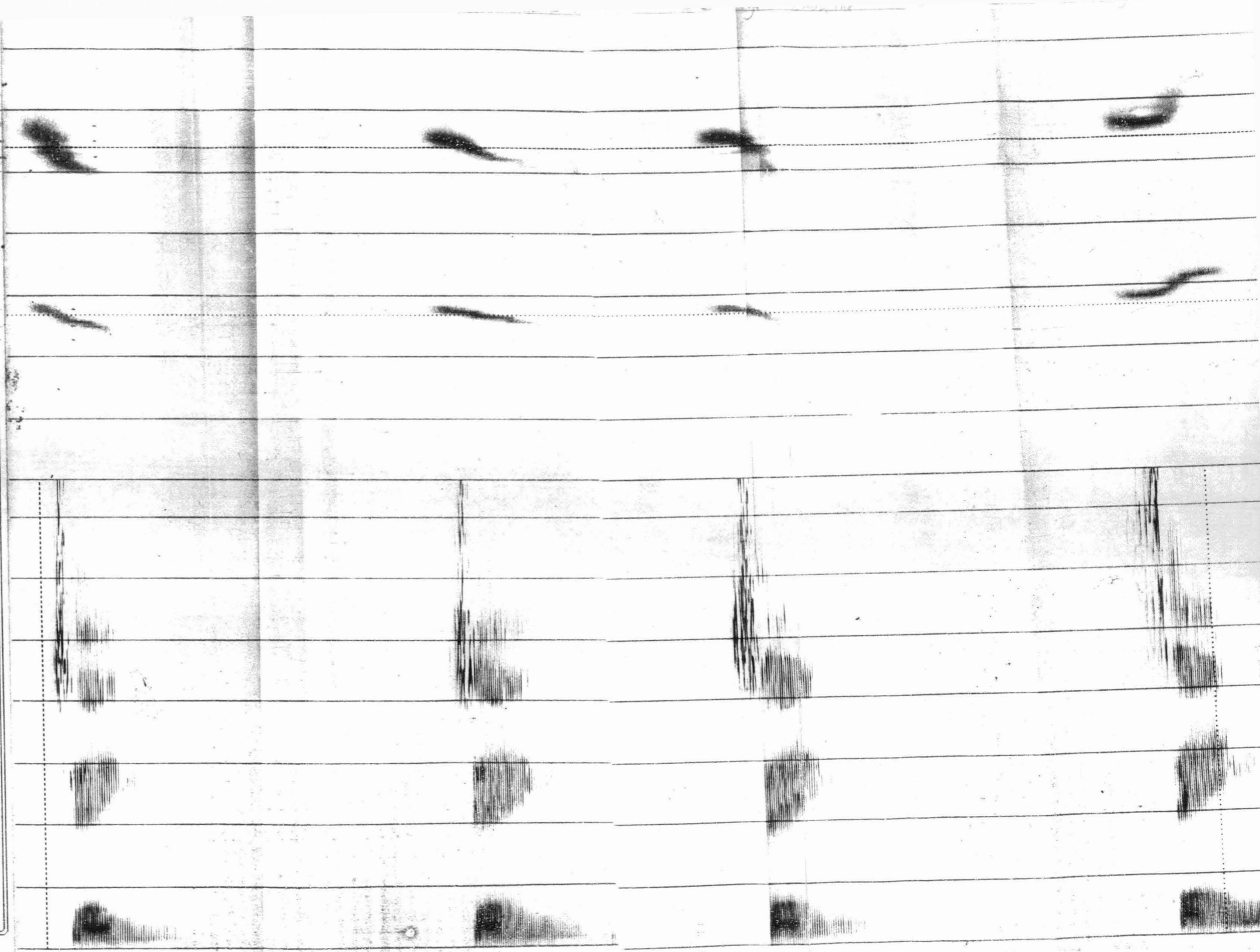
DISPLAY SETTINGS	Lower Screen	Upper Screen
Freq. Divisions	1000 Hz	62.50 Hz
Dynamic Range	30 dB	30 dB
Analysis Atten.	20 dB	30 dB
Set Up Options Set to:	# 29	

CURSOR READINGS:

FC1: 335.0 Hz	FC2: 165.0 Hz	^F: 170.0 Hz
FC1: dB	FC2: dB	^F: dB
R1: 8.951 Sec	R2: 12.46 Sec	
T: 3.512 Sec		
HITCH TC1: Hz	TC2: Hz	
AMPLITUDE TC1: dB	TC2: dB	

SUBJECT MATTER

- (a) cig - mountain
- (b) cig - thousand
- (c) cig - clothesline
- (d) cig - draw a line.



500 Hz ram - scoop

land

thing ramp

rot



SPECTROGRAM No. 2.



KAY ELEMETRICS CORP. MODEL 5500  
SIGNAL ANALYSIS WORKSTATION

Date: g 3F 19FD  
Analysis by:

Rec. Off Time: 12:1F:17 AM

INPUT SETTING	Channel 1	Channel 2
Source	LEFT CONNECTORS	RIGHT CONNECTORS
Frequency Range	DC - 8 KHz	DC - .5 KHz
Input Shaping	HI-SHAPE	FLAT
Buffer Size	14.0 SECONDS	48 SECONDS

ANALYSIS SETTINGS	Lower Screen	Upper Screen
Signal Analyzed	CHANNEL 1	CHANNEL 2
Analysis Format	SPECTROGRAPHIC	SPECTROGRAPHIC
Transform Size	100 pts. ( 300 Hz)	200 pts. ( 9.4 Hz)
Time Axis	100ms (2sec)	100ms (2sec)
Frequency Axis	FULL SCALE	FULL SCALE
Analysis Window	HAMMING	HAMMING
Averaging Set Up	NO AVERAGING	NO AVERAGING

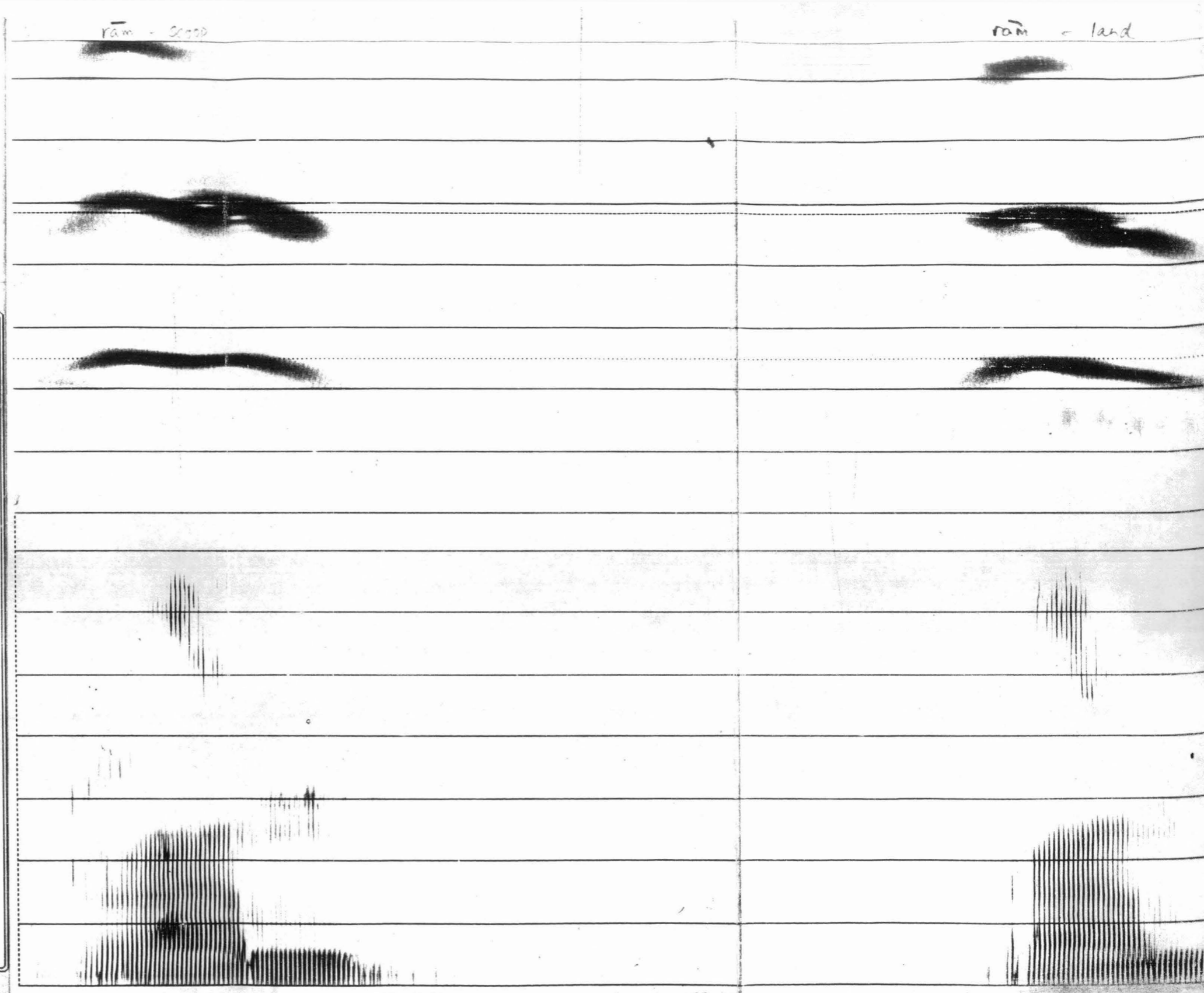
DISPLAY SETTINGS	Lower Screen	Upper Screen
Freq. Divisions	1000 Hz	62.50 Hz
Dynamic Range	30 dB	30 dB
Analysis Atten.	20 dB	30 dB
Set Up Options Set to:	# 29	

CURSOR READINGS:

FC1: 300.0 Hz	FC2: 152.5 Hz	^F: 147.5 Hz
FC1:     dB	FC2:     dB	^F:     dB
^R1:	^R2:	
^T:		
PITCH TC1:     Hz	TC2:     Hz	
AMPLITUDE TC1:     dB	TC2:     dB	

SUBJECT MATTER

- (a) /ram/ - scoop.
- (b) /ram/ - land.



SPECTROGRAM NO-2a

KAY ELEMETRICS CORP. MODEL 5500  
SIGNAL ANALYSIS WORKSTATION

Date: g 3F 19FD  
Analysis by:

Rec. Off Time: 12:1F:49 AM

INPUT SETTINGS  
Source  
Frequency Range  
Input Shaping  
Buffer Size

Channel 1  
LEFT CONNECTORS  
DC - 8 KHz.  
HI-SHAPE  
4.0 SECONDS

Channel 2  
RIGHT CONNECTORS  
DC - 5 KHz.  
FLAT  
16 SECONDS

ANALYSIS SETTINGS  
Signal Analyzed  
Analysis Format  
Transform Size  
Time Axis  
Frequency Axis  
Analysis Window  
Averaging Set Up

Lower Screen  
CHANNEL 1  
SPECTROGRAPHIC  
100 pts. (300 Hz)  
200ms (4sec)  
FULL SCALE  
HAMMING  
NO AVERAGING

Upper Screen  
CHANNEL 2  
SPECTROGRAPHIC  
100 pts. (18.8 Hz)  
200ms (4sec)  
FULL SCALE  
HAMMING  
NO AVERAGING

DISPLAY SETTINGS  
Freq. Divisions  
Dynamic Range  
Analysis Atten.  
Set Up Options Set to:

Lower Screen  
1000 Hz.  
42 dB  
20 dB  
# 29

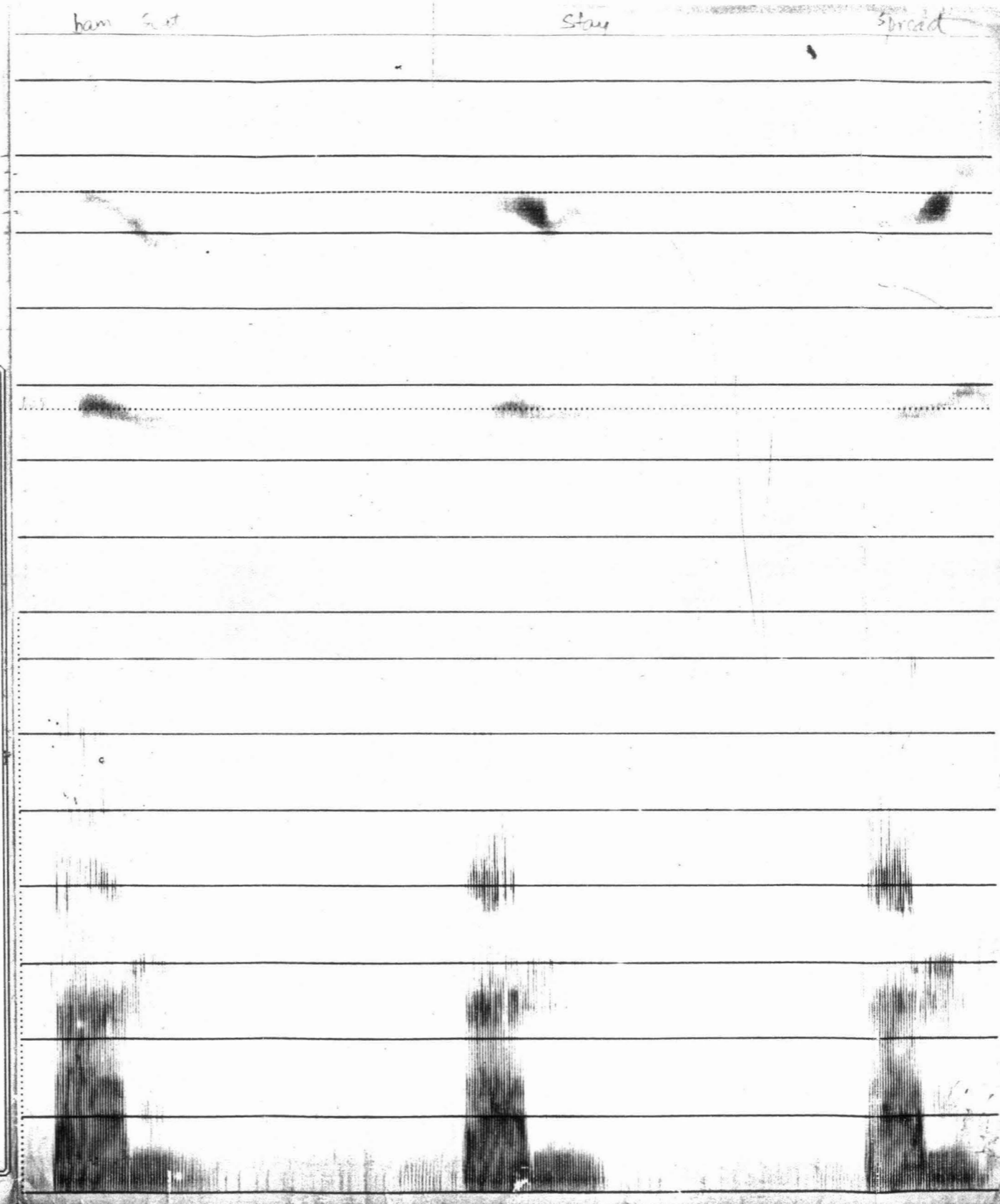
Upper Screen  
62.50 Hz.  
24 dB  
30 dB

CURSOR READINGS:

FC1: 342.5 Hz. FC2: 165.0 Hz. ^F: 177.5 Hz.  
FC1: dB, FC2: dB, ^F: dB  
^R1: 3.283 Sec. ^R2: 1.076 Sec.  
^T: 2.206 Sec.  
PITCH TC1: Hz. TC2: Hz.  
AMPLITUDE TC1: dB TC2: dB

SUBJECT MATTER

(a) /bām/ - seat  
(b) /bām/ - stay  
(c) /bām/ - spread



/táu/ - step on

/tàu/ - hitting the target

To conclude, it is proposed here that there are three tones which are in contrast in this language. One is at a pitch level (on an average) 162 Hz in the speech of this informant. The second one is what we call the rising tone which rises by about 22 Hz approximately whereas the third tone which is a falling tone shows the pitch falling by about 26 Hz approximately.

### Consonants

/p/

The Rongmei p-phoneme is articulated by completely blocking the oral cavity by closing the lips and raising the soft palate to close up the nasal passage. The compressed air from the lungs escape from the mouth with a plosion when the lips are opened. The uvula is raised to close the nasal passage and the vocal cords do not vibrate.

This sound occurs in the word-initial, medial and final positions. Examples in the three positions are given below:

<u>Word-initially</u>	<u>Word-medially</u>	<u>Word-finally</u>
/piŋ/ - afraid	/kaptiat/ - cry baby	/kalip/ - membrane
/puàn/- clothes	/rap̃ian/ - disease	/k <sup>h</sup> ap/ - fined
/pak/ - run	/náptuàn/ - broken rice	/kanáp/ - sticky

There is no other variant of this phoneme except for the unreleased stop in the word-medial position which when this followed by another stop becomes a normal plosive. We can see some of the examples of this sound in words like [kaptiat] - cry baby, [náptuàn] - broken rice, [nápbang] - rice plant, etc.

Rongmei has a large number of homoorganic prenasal elements. This feature is defined in terms of the duration of an event. It is the duration of the velopharyngeal opening which occurs before another articulation such as an oral stop or fricative in circumstances which requires the whole complex to be considered as one phonological unit. In Rongmei it occurs with practically all the consonants except /?/, /h/, /m/, /n/, /ŋ/ and /l/. The prenasal elements occur only in the word-initial position. But in the word-medial position they are perceived as phonemic at the abstract level by the native speakers but in actual articulation, i.e., the concrete manifestation shows that the prenasal becomes a part

of the previous syllable while the nonprenasalized consonants mark the beginning of the next syllable. However, it is interesting to note its absence in the word-final position and its contrast with the nonprenasal counterpart in minimal pairs like /púat/ - 'thing': /mpúat/ - 'to send', etc. The same thing is observed in case of the other consonants with or without their prenasal counterparts. Examples of the prenasal elements are given along with consonants with which they occur.

Prenasal /mp/ : this sound occurs in the word-initial position but is rare in medial position. It does not occur in the word-final position. Some of the examples are given below :

/mpau?/ - son

/mpum/ - swollen

/mpin/ - to scare

/mpimpaa/ - helter skelter.

Minimal pairs:

/mpuàn/ - wind

/púat/ - thing

**/b/**

The articulation of this sound is similar to that of the above bilabial voiceless unaspirated stop /p/ except for the fact that the vocal folds are vibrating while producing this phoneme.

The bilabial voiced unaspirated stop /b/ occurs in the word-initial and medial positions but it is extremely difficult to locate words which have this sound in the word-final position in this language. The following are the examples where this phoneme occurs in the word-initial and the medial positions:

Word-initially

/baalàì/ - tongue  
/baaŋbi/ - beginning  
/bi?lai/ - earthen-pot  
/bù/ - month/moon

Word-medially

/kabaa?/ - meaning  
/kabúat/ - churn  
/luaŋbut/ - hill  
/nápbəŋ/ - paddy plant

There is a variant of this phoneme used by the Rongmei speakers living in the Imphal valley region where a slight aspiration is heard. For example, [beŋ] - 'big knife' will be pronounced [b<sup>h</sup>eŋ], [bàŋ] 'seat' is pronounced [b<sup>h</sup>àŋ], etc. The prenasal /mb/ : This sound is found in the word-intial position but rare in the medial position.

/mbau/ - fluffy

/mbum?/ - ferment

/mbin/ - armpit smell

/mban/ - hot place

Minimal pairs:

/mbu?/ -haunt

/bu?/ - heartbeat

/p<sup>h</sup>/

This sound is produced in the same way as the voiceless bilabial stop /p/ except that there is an aspiration.

The bilabial voiceless aspirated stop /p<sup>h</sup>/ is found in the word initial and medial positions. It does not seem to exist in the word-final position. Some examples are given below :

Word-initially

/p<sup>h</sup>ak/ - burst

/p<sup>h</sup>éaŋ/ - to view/look  
into the distance

/p<sup>h</sup>i/ - wage

p<sup>h</sup>u/- search

p<sup>h</sup>aizug/- toe

Word-medially

/Sianp<sup>h</sup>ai/ - waist

/guip<sup>h</sup>uap/ - tortoise

/ap<sup>h</sup>i/ - chicken-pox

/ap<sup>h</sup>um/- duck

/kap<sup>h</sup>át/ - to climb

There is no other variant of this sound in Rongmei.

The prenasal /mph/: This sound is found in the word-initial position but rare in the medial and does not occur in the word-final position. Examples are given are given:

mp<sup>h</sup>au - pangolin

mp<sup>h</sup>uam - dirty

mp<sup>h</sup>uàn - white

Minimal pairs: /mphìn/ - twins; /phìn/ - mix

/t̚/

This phoneme is articulated by blocking the air passage when the tip of the tongue touches the upper teeth. When the tip of the tongue is withdrawn abruptly from the point of contact, the air is released with a certain degree of plosion. The soft palate is raised to close the nasal passage and the vocal cords do not vibrate.

The voiceless dental stop phoneme /t̚/ occurs in the word-intial, word-medial and word-final position in Rongmei. Following are a few examples :



<u>Word-initially</u>	<u>Word-medially</u>	<u>Word-finally</u>
/ṭiŋ/ - rain	/maʔaṭmai/ - to keep track of	/kagaʔ/ - optimum
/ṭu/ - eat	/maʔiŋmai/ - to observe carefully	/láṭ/ - word
/ṭabui/ - what	/Kaʔuan/ - zenith	/guʔ/ - enter
/ṭam/ - chutney	/kaʔiu/ - encourage	/mbáṭ/ - leech
/ṭaruai?/ -hades	/ṭamʔi/- a food item	/kadáṭ/- contrary

This sound is in free variation with the alveolar stop /t/.

/kagaʔ/ ~ /kagat/	-	optimum
/láṭ/ ~ /lát/	-	word
/guʔ/ ~ /gut/	-	enter
/kaʔiu/ ~ /katiu/	-	encourage
/ṭam/ ~ /tam/	-	chutney

The prenasal element /ṇṭ/ : This sound is found in the word initial position but rare in the medial position.

/ṇṭumei/	-	girl
/ṇṭian/	-	bread
/ṇṭák/	-	intelligent
/ṇṭuʔṇṭaa?/	-	ornaments

Minimal pairs: /ṇṭu/ - girl ; /ṭu/ - eat

/ɖ/

This phoneme is produced in the same manner as that of (t) except that the vocal cords are vibrating.

This is the voiced dental stop phoneme /d/ in Rongmei which occurs in the word-initial and medial positions. It is practically non-existent in the word-final position. Following are some of the examples in the word-initial and medial positions :

<u>Word-initially</u>	<u>Word-medially</u>
/ɖám/ - create	/kaɖiŋk <sup>h</sup> au/ - immediately
/ɖiŋ/ - stand	/kaɖim/ - stamp
/ɖúŋ/ - sit	/míkdui/ - tear
/ɖui/ - water	/kadun?/ - shiver

This sound is in free variation with the voiced alveolar stop /d/. Therefore, [ɖám] ~ [dám] - create, [kaɖiŋk<sup>h</sup>au] ~ [kadìŋk<sup>h</sup>au] - immediately, etc. are possible.

The prenasal element /nɖ/ : This sound is found in the word-initial position but rare in the medial position. It does not occur in the word-final position. Following are a few examples :

/nɖuan?/ - accompany

/nǎát/ - to measure

/nxúkǎúk/ - crooked

/ndiák/ - green

Minimal pairs: /ndui/ -short ; /dui/ - water

/t<sup>h</sup>/

The production of this sound is the same as for [t] except that this sound is aspirated.

The voiceless aspirated dental stop phoneme /t<sup>h</sup>/ occurs in the word-initial and medial position but it is absent in the word-final position. Following are the examples in the word-initial and medial position.

<u>Word-initially</u>	<u>Word-medially</u>
/t <sup>h</sup> in/ - wood	/mat <sup>h</sup> iucùn/ - consensus
/t <sup>h</sup> un/ - bamboo-shoot	/máimat <sup>h</sup> iu/ - everyone
/t <sup>h</sup> uap/ - to patch up	/kat <sup>h</sup> in/ - liver
/t <sup>h</sup> éag/ - tax	/t <sup>h</sup> igt <sup>h</sup> an/ - sunshine after rain
/t <sup>h</sup> uanku/ - thank	/lungt <sup>h</sup> u/ - heart

This sound also is in free variation with the voiceless aspirated alveolar /t<sup>h</sup>/. Therefore,

/t<sup>h</sup>in/ ~ /t<sup>h</sup>in/ - wood

/mat<sup>h</sup>iucùn/ ~ /mat<sup>h</sup>iucùn/ - consensus

/kat̪<sup>h</sup>in/ ~ /kat̪<sup>h</sup>in/ - liver. The prenasal /nt̪<sup>h</sup>/ : The sound is found in the word-initial position but rare in the medial position. It does not occur in the final position. Following are a few examples :

/nt̪<sup>h</sup>uk - deep

/nt̪<sup>h</sup>ak - itch

/nt̪<sup>h</sup>an - clean

/nt̪<sup>h</sup>aan? - python

Minimal pairs: /n̪h̃an/ - worm ; /t̪h̃an/ - ask

**/k/**

In producing this sound, the air passage is completely blocked by raising the back of tongue to touch the soft palate. The soft palate is at the same time raised so as to shut off the nasal cavity. The air is compressed by pressure from the lungs and when the contact of the tongue with the palate is released by lowering the tongue, there is a sudden escape of the air through the mouth producing a plosive sound. The vocal cords do not vibrate till upto the time of the release of the articulators. Thus, a voiceless sound is heard.

The voiceless unaspirated velar stop phoneme /k/ occurs

in all the positions - word-initially, word-medially and word-finally. Following are a few examples :

<u>word-initially</u>	<u>word-medically</u>	<u>word-finally</u>
/kanai/-two	/luŋkuaŋ/-determination	/g <sup>h</sup> uak/- pig
/kala <sup>h</sup> aŋ/-portion	/makum?/-contemplate	/rak/- open eye
/k <sup>h</sup> uŋ/-expensive	/t <sup>h</sup> iaŋkap/-tong	/ŋk <sup>h</sup> uk/-crooked
/k <sup>h</sup> am/-faded	/t <sup>h</sup> akuan?/-horse	/nd <sup>h</sup> iak/-green
/kiruaikuak/-manger	/m <sup>h</sup> aikin/-generation	/nt <sup>h</sup> ak/ - itch

This phoneme has variants in the place of the articulation according to the nature of the following vowel. Thus, in [k<sup>h</sup>uŋ]-expensive, the position of /k/ is more backward in its articulation than for [k<sup>h</sup>am] - 'faded'. Likewise the /k/ in [k<sup>h</sup>iŋ] - 'increase in population' is more forward in its position than [k<sup>h</sup>am] - 'faded'.

The prenasal element /ŋk/ : This sound is found in the word-initial position and medial position. It does not occur in the word-final position. Following are a few examples:

<u>Word-Initially</u>	<u>Word-Medially</u>
/ŋk <sup>h</sup> ak/ - gap	/ŋka <sup>h</sup> aŋkiŋ/ - insects of the locust family
/ŋkui/ - to give birth	/ŋkhuaiŋk <sup>h</sup> iŋ/ - curly

## /g/

The production of this sound is the same as for /k/ except that the vocal cords are vibrating throughout right from the time the articulators come together till the time the articulators come apart. Therefore, we hear the voicing in this sound.

Voiced unaspirated velar stop /g/ occurs in the word-initial position and word-medial position. It is either non-existent or extremely difficult to find in the word-final position.

Following are the examples in the word-initial and Word-medial positions.

<u>Word-initially</u>		<u>Word-medially</u>	
/guai?/	- cow	/kage/	- need
/gan/	- curry	/nāpgan/	- food
/gin/	- guest	/kagáak/	- disturb
/gulau/	- save	/ṭagiāt/	- a hard type of stone

This sound has a more forward variant when the vowel following it is a front vowel and a variant which is a little backward in the position of the tongue when the following sound is a back vowel. Thus, [gin] - 'guest' is more forward

in the position of the tongue than for [kagák] - 'disturb'.

The prenasal element /ŋg/ : This sound occurs in the word-initial position but it is difficult to find in the word-medial position. It does not occur in the word-final position. Following are some of the examples in the word-initial position :

- /ŋgítmai/ - miser
- /ŋgaàn/ - young man
- /ŋguák/ - vomit
- /ŋgìn/ - travel

/ʔ/

In the production of this sound, the tongue remains retracted to a certain degree due to the muscular tenseness in the oral cavity as well as in the pharyngeal cavity but the oral passage remains opened. The soft palate is raised to close the nasal passage. The glottis is closed completely by bringing the vocal cords into contact. The air behind the glottis is compressed by pressure from the lungs. When the glottis is opened abruptly by separating the vocal cords the air escapes through the oral cavity. Thus, this sound is formed. There is no other variant of this sound.

The glottal stop /ʔ/ occurs in the word-initial medial

and final positions. It is found in large number at the word-final position but very rare in the word-initial and medial position. Some examples are given below :

<u>Word-initially</u>	<u>Word-medially</u>	<u>Word-finally</u>
/ʔut <sup>h</sup> éaŋ/- far away	/biʔlaai/ - earthen pot	/luiʔ/- banana leaf
	/naʔbaam/-womb	/mpauʔ/ - son
	/baiʔbún/-conch shell	/laiʔ/-burnt rice

**/c/**

This sound is produced by placing the blade of the tongue against the teeth-ridge thereby closing the oral passage. The soft palate is raised to close the nasal passage. The air is compressed by pressure from the lungs, and then the tongue is released slowly so as to make such an opening that the airstream is squeezed out through it, producing a certain amount of friction.

The voiceless alveolar affricate /c/ is found in the word initial and medial positions but in the word final position it is either non-existent or extremely difficult to find. The following are examples in the word-initial and medial position.



Word-initially

/ciŋ/ - Thousand

/cak/ - count

/caxuàŋ/ - respect

/cì/ - lips

Word-medially

/cùncam?/ - in agreement

/t<sup>h</sup>iŋci/ - brand

/ràacaa/ - alter

/ràcap/ - religion

There is a variant of this phoneme where, we can perceive a slight escape of the air right from the time of the closure of the articulators itself. This variant is perceived somewhat like an alveolar fricative. But it is different from the alveolar fricative in that (a) the aperture through which the air passes through is much narrower than that of the voiceless alveolar fricative /s/. (b) As a result of (a), the amount of air escaping through the articulators is very small whereas for the alveolar fricative /s/ the amount of air passing through is comparatively larger.

The prenasal element /nc/ : This sound is found in the word-initial position but is difficult to find in the word-medial position. It does not occur in the word-final position. Following are the examples in the word-initial position :

/ncum?/ - true

/nciàn/ - to wake

/ncám/ - same  
/s/

This Rongmei phoneme /s/ is articulated by the blade of the tongue against the teeth-ridge. The tip of the tongue is kept against the lower teeth. The teeth are close together because this sound cannot be pronounced with the mouth wide open. The space between the blade of the tongue and the teeth-ridge is very narrow so that when the air stream passes through this narrow space, it produces a hissing sound or friction. The soft palate is raised so that the nasal passage is shut off. The vocal cords do not vibrate.

The voiceless alveolar fricative /s/ occurs word-initially and medially but it is not found word-finally. Following are some of the examples in the word-initial and medial position :

Word-initially

/saa/ - say  
/sakaru?/ - praise  
/séaŋ/ - long  
/saɽpaɽ/ - draw out  
/silu?/ - male dog

Word-medially

/napsún/ - powdered rice  
/kasiám?/ - to make  
/kasiŋ/ - depth  
/zeansi/ - sad  
/gansínmai/ - cook

When this sound is followed by a back vowel, then the tip of the tongue is raised towards the teeth-ridge and does

not touch the lower teeth anymore. There is no other significant variant of this phoneme in Rongmei.

The prenasal element /ns/: This sound is found in the word-initial position but is difficult to locate in the word-medial position. It does not occur in the word-final position. Following are some of the examples :

/nsa/ - useless  
/nsik/ - pinch  
/nsat/ - sting  
/nsun?nsaa?/ - small details

Minimal pairs: /nsa/ - free ; /sa/ - say

/z/

This phoneme is the voiced counterpart of the voiceless alveolar fricative /s/. Therefore, this sound is produced in the same way as that of /s/ except that the vocal cords are vibrating. Thus, producing a voiced sound. The voiced alveolar fricative /z/ occurs in the word-initial and medial position but is not found in the word-final position in Rongmei. Following are the examples in word-initial and medial position :

<u>Word-initially</u>		<u>Word-medially</u>	
/zeəŋ/	- day	/kazáp/	- catch
/zám/	- wound	/kaziṭ/	- swing
/ziak/	- draw	/kazi/	- appropriate
/ziŋ/	- dark	/puanzin?/-	storm
/zùn/	- urine	/suzák/	- put to shame

Whenever this phoneme is followed by a front vowel, the tongue moves slightly towards the front side whereas if it is followed by a back vowel, the blade of the tongue is retracted towards the back. Thus, in words such as [kazi] - 'appropriate', [kaziṭ] - 'swing' etc., the position of the tongue is more towards the front. For the words such as [zùn] - urine, [suzák] - 'put to shame', [zúk] - 'era', etc. the position of the tongue is retracted little towards the back.

The prenasal element /nz/ : This sound is found in the word-initial position but it is difficult to find in the word-medial position. It does not occur in the word final position. Following are a few examples :

/nzu?/	- to receive
/nzəŋ/	- to put in order
/nzúk/	- drip

/nzi/ - not ripe

/ncunján/ - peaceful

Minimal pairs: /nziu?/ - brownish ; /ziu?/ - goat

/x/

In the production of the /x/ phoneme of Rongmei, the back of the tongue is raised but the air passage is not completely blocked so that a narrow aperture is formed between the back part of the tongue and the soft palate. The soft palate is raised to shut off the nasal passage. The vocal cords are not vibrating and the air from the lung passes through this narrow aperture and produces this sound with friction.

This is the voiceless velar fricative /x/ in Rongmei. This is found at the word-initial position and medial positions. In the word final position it is extremely difficult to locate. Following are some of the examples of this phoneme at the word-initial and medial position:

Word-initially

/xàm/ - obstruct

/xiu/ - wash

/xián/ - sour

/xuap/ - to stitch

Word-medially

/kaxák/ - to part

/axeàn/ - endure

/xuàn/ - voice

/pìxim/ - head cover

When this sound is followed by a front vowel, the position of the back of the tongue which is raised, moves more forward as in [xián] which means 'sour'. When it is followed by a back vowel, the position of the tongue is retracted towards the back. Thus, [xuap] - 'to stick', (nk<sup>h</sup>u) - 'cold and cough', [xuàn] - voice, etc. have the position of the tongue more towards the back. However this little variation has no phonemic/functional significance.

The prenasal element /nx/ : This sound is found in the word-initial position but is difficult to find in the word-medial position. It does not occur in the word-final position. Following are a few examples :

- /nxam/ - last
- /nxu/ - cold and cough
- /nxeam/ - mole
- /nxuainxít/- curly

Minimal pairs: /nxuàn/ - wait ; /xuàn/ - voice

**/h/**

While pronouncing this sound, the tongue remains in the neutral or relaxed position leaving the oral cavity wide open. In fact, the mouth is held in a vowel-position and the

air stream from the lung passes through the wide open glottis. The soft palate is raised to close the nasal passage. The vocal cords do not vibrate.

This is the voiceless velar fricative /h/ in Rongmei. This sound occurs in the word-initial and medial positions but in the final position, it is either non-existent or extremely difficult to find. Following are some examples of Rongmei words with /h/ in the word-initial and medial position..

Word-initially

Word-medially

/h<sup>ː</sup>i/ - write

/kahi/ - to touch

/h<sup>ː</sup>im/ - glory

/kaheu/ - desire

/hu/ - front

/kahak/ - similar

/h<sup>ː</sup>án/ - return

/kaihiu?/ - courtyard

This phoneme comprises a great many variants, because of the nature of the sound itself. There are as many variants of /h/ as there are vowels.

Voiced /h/ also occurs as a variant of the h-phoneme when voiced sound precede and follow it as in [kahi] - 'to touch', [kahak] - 'similar', [kahík] - 'sob', etc.

/m/

The Rongmei m-phoneme is formed by completely blocking the mouth passage by closing the lips. The soft palate is

lowered so that the air shifted by pressure from the lungs passes out through the nose as well. The tongue is held in a neutral position and vocal cords are made to vibrate.

This is the bilabial nasal /m/ phoneme in Rongmei and it occurs in the word-initial, medial and final position. Following are some of the examples with /m/ in the three positions :

<u>Word-initially</u>	<u>Word-medially</u>	<u>Word-finally</u>
/macú/ - colour	/míkmaà/ - eye sight	/tím/ - wet
/madán/ - sign	/mit̚?mit̚/ - slowly	/kám/ - faded
/macun?/ - hope	/tàmru/ - thirty	/t̚in̚kum/ - year
/mik/ - eye	/t̚amík/ - a type of spice	/puám/ - swell

This sound has a regional variant specially in the Imphal valley area where there is an aspiration in word-initial and medial positions. Therefore, [mik] 'eye' is pronounced in the valley area as [m<sup>h</sup>ik], [mit̚?mit̚] - 'slowly' is pronounced [m<sup>h</sup>it̚?m<sup>h</sup>it̚], etc.

### /n/

The Rongmei n-phoneme is formed by completely blocking the mouth-passage by raising the blade of the tongue to touch the teeth ridge for a brief period of stop. It is then



released just like any other stop or nasal /m/. The soft palate is lowered so that the airstream from the lungs will pass through the nasal as well as the oral passage. The vocal cords are vibrating so that 'voicing' is produced.

This is the alveolar nasal phoneme /n/ and it occurs in the word-initial, medial and final positions in Rongmei. Following are the examples of /n/ in all three positions :

<u>Word-initially</u>	<u>Word-medially</u>	<u>Word-finally</u>
/nag/ - you	/mianmian/ - slow/ sluggish	/tan/ - leg
/nuí/ - laugh	/miknaʒa/ - pupil of the eye	/tuàn/ - tip
/niŋtàu/ - remember	/kaniu/ - they	/tìn/ - busy
/nim/ - arrest	/thiŋnuàn/ - leaf	/tùn/ - monsoon
/niàn/ - late	/k <sup>h</sup> amnam/ - obstacle	/mikrùn/-spect- acles

**/ŋ/**

This phoneme in Rongmei is formed by completely blocking the mouth-passage by raising the back part of the tongue to touch the fore-part of the soft palate. The soft palate is in its lowered position so that when the air stream is emitted by pressure from the lungs, it passes out through the nose as well. The vocal cords are vibrating throughout

during the articulation of this phoneme.

This is the velar nasal phoneme /ŋ/ in Rongmei. This occurs in the word-initial, medial and final positions. Examples in all the three positions are given below :

<u>Word-initially</u>	<u>Word-medially</u>	<u>Word-finally</u>
/ŋàm/ - power	/maŋmúi/ - dream	/p <sup>h</sup> íañ/ - pour
/ŋambiɕeo/ - bricks	/mairúŋ <sup>h</sup> ìn/ - coal	/ɕiŋ/ - rain
/ŋàn/ - end	/niŋɕiŋ/ - wise	/ziŋ/ - dark
/ŋum?rau/-backbone	/tiŋku?/ - priest	/kaɕañ/-afterward

This phoneme does not seem to have any significant variant.

/l/

This phoneme in Rongmei is articulated by the tip or blade of the tongue touching the teeth ridge in such a way that there is complete closure in the middle of the mouth, yet passage for the air is left on both sides of the tongue. The soft palate is in its raised position to block the air from passing through the nasal passage. The vocal cords are in vibration. This is the alveolar lateral phoneme /l/ in Rongmei. This occurs in the word-initial and medial positions but not in the final position. Following are the

examples in the word-initial and medial positions :

<u>Word-initially</u>	<u>Word-medially</u>
/líŋ/ - sow	/alíŋ/ - industrious
/lunŋiŋ/ - mind	/lùnluŋ/ - condition
/láŋ/ - word	/ŋalán/ - return
/lùm/ - believe	/tələm/ - butterfly

A variant of this phoneme is found among the speakers from Imphal valley area where this sound has an aspiration.

Thus,

/lu/	~	/l <sup>h</sup> u/	-	song
/làu/	~	/l <sup>h</sup> àu/	-	bath
/lùm/	~	/l <sup>h</sup> ùm/	-	believe
/lúŋ/	~	/l <sup>h</sup> úŋ/	-	live

/r/

This phoneme in rongmei is produced by the tip of the tongue loosely held near the teeth ridge and set in vibration by the action of the airstream. The palate is raised to shut off the nasal passage and the vocal cords are vibrating.

This is the alveolar trill phoneme /r/ and is found in the word-initial and medial positions. But it is either non-existent or extremely difficult to find in the word-final

position. Following are examples in the word-initial and medial position.

<u>Word-initially</u>	<u>Word-medially</u>
/raàkai/ - temple	/ruprap/ - spy
/riap/ - chestened	/saruk/ - percentage
/riʔ/ - war	/karáam/ - try
/riànaa/ - tired	/ʔarík/ - spotted.

A variant of this phoneme is found among speakers from the Imphal valley where this sound is pronounced with an aspiration. In the word [ríŋ] - 'live', they employ an aspiration and pronounce it as [r<sup>h</sup>íŋ], [karú] - 'above' is pronounced (kar<sup>h</sup>ú), etc. This sound is also in free variation with the alveolar lateral /l/. Thus, [rù] ~ [l<sup>h</sup>ù] - 'lasting' [rougán] ~ [l<sup>h</sup>ougán] - 'to remove'.

The prenasal element /nr/ : This sound occurs in the word-initial position but is difficult to locate in the word-medial position. It is not found in the word-final position. Following are some examples in the word-initial position :

/nrui/	-	snake
/nrunáa/	-	orphan
/nraaʔ/	-	guitar
/nrím/	-	blue
/nráknrák/	-	alert

These 19 consonant phonemes are represented in the chart below:

### CONSONANT CHART OF RONGMEI

PLACE OF ARTICULATION → MANNER OF ARTICULATION ↓	BILABIAL	DENTAL	ALVEOLAR	VELAR	GLOTTAL
Plosives	p    b p <sup>h</sup>	t    d t <sup>h</sup>		k    g	ʔ
Affricate			tʃ		
Fricatives			s    z	x	h
Nasals	m		n	ŋ	
Lateral			l		
Trill			r		

## CHAPTER IV

### SUMMARY AND CONCLUSIONS

In the preceding pages, an attempt has been made to describe the phonetics of Rongmei which refers not only to the language but also to the people who speak it. Rongmei comes under the Naga branch of the Assam-Burmese group of languages which belong to the larger Tibeto-Burman family. The Rongmei, as it has been mentioned, is a sub-tribe of a larger group of people called the Zeliangrong who form a major tribe of the Naga community.

The Nagas, with their varied and colourful customs, rituals and lifestyle speak different languages. There are as many languages as the number of tribes which is roughly about 40. The diversity of the Naga languages has been attributed to the inhospitable nature of the land which precluded to a large extent, interaction amongst the tribes for many years until very recently. In so far as the Zeliangrong tribe is concerned, the difference in the languages spoken by its tribes is conceived of as a result of the different migratory patterns followed by those once related sub-tribes.

Even though the Naga group of languages constitute one of the most interesting areas for linguistic study as pointed

out by Sir Grierson, there is not much of linguistic study being done on these languages. As monumental as Sir Grierson's work in the Tibeto-Burman languages in his Linguistic Survey of India is, most of the sections on the Naga languages are very skeletal. The linguistic corpus that he has collected consist of the bare minimum only on the basis of which he outlines the prominent grammatical features of each language. Besides Sir Grierson's work, the few languages that have been studied by linguists are those few major languages such as Ao, Nagamese, Sema, Angami, etc. which have been mentioned in the 1st chapter. The study on Naga pidgin commonly known as Nagamese, spoken by majority of the tribes in Nagaland has been done by Sreedhar. He has examined the phonemic systems of the various Naga tribes who use this pidgin to identify the variations that exist among the speakers of this pidgin. His work as pointed out in the 1st chapter, is more socio-linguistic in nature to see the inter-communication pattern among the various tribes who use this pidgin. The Phonetic Reader Series by various linguists that the Central Institute of Indian Languages has published, in so far as their aim and objective is concerned, is to introduce these various tribal languages to the non-native learners who come into contact with these tribal people for

various reasons such as administration, trade and commerce, etc. As such, these works are presented in a manner that the lay reader can understand and grasp with as little difficulty as possible. The authors themselves do not pretend to have done exhaustive study in describing all the phonetic details of these languages. Rather, only the most prominent phonetic features have been described for practical purpose and the need for more vigorous investigation into the sound patterns of these languages have been felt by the various linguists who have pioneered the study of these languages.

The Rongmeis have been particularly unfortunate in terms of the development of their language and literature besides other socio-economic aspects because the region inhabited by them is highly inaccessible due to poor state of road and transport system. At the same time, their area have been divided up into three separate administrative areas of Assam, Manipur and Nagaland. They have been reduced to mere minority in these different states whose voice and aspirations have not been heard for so long.

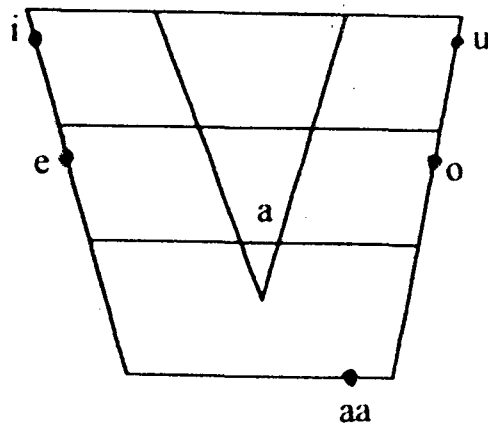
Inspite of this, it is an encouraging sign to see the people taking initiatives themselves to develop their language and literature in various ways. One significant development towards this end was the setting up of the



'Rongmei Literature Society, Manipur'. This society, with the help of linguists have been working on devising an orthography for Rongmei taking into consideration the special need to incorporate the tonal contrasts that is found in the language.

Some of the salient features which emerge from the phonetic study of Rongmei are summed up briefly in the following pages :

1. Rongmei has five vowel phonemes which are indicated on the cardinal vowel chart as below :



- 1.1. The vowel phoneme /i/ : This is the high front vowel in Rongmei. Vowel length is not phonemic.
- 1.2 The vowel phoneme /e/ : This is the higher-mid unrounded vowel in Rongmei which corresponds to the cardinal vowel no. 2 but is articulated a little lower.
- 1.3 The vowel /a/ : This is the low back unrounded vowel in Rongmei. The articulation of this sound is not as

back as the cardinal vowel no. 5. Word initial articulation of this vowel is more like a <sup>central</sup> mean mid vowel [ə] than [a].

1.4 The vowel /ə/ : This is the central mean mid vowel in Rongmei. It is always very short and it occurs in the word initial and medial positions but rare in the final.

1.5 The vowel /o/ : This is the higher mid back vowel in Rongmei. This sound corresponds to the cardinal vowel no. 7, but is articulated a little lower than it.

1.6 The vowel /u/ : This is the high back rounded vowel in Rongmei corresponding to the 8th cardinal vowel. But the articulation of this sound in Rongmei is a little lower than the cardinal vowel no. 8.

2. Tones in Rongmei : Beginning with our preliminary hypothesis that Rongmei has four distinct tones, we conducted a spectrographic study of some of the samples which shows that :

2.1 Phonetically speaking, there are three distinct tones:

(a) a level tone (b) a rising tone and (c) a falling tone.

2.1.1. The approximate fundamental frequency of the level tone is 162 Hz.

Some variation was also noticed in case of different vowels e.g. the tone on the vowel /i/ is 169 Hz whereas on /a/ it

is 152 Hz.

2.1.2. The rising tone : The fundamental frequency of the rising tone shows a glide upward by approximately 22 Hz. For /i/ it starts rising from 174 Hz and goes upto 195 Hz and for /a/ it rises from 160 Hz to 178 Hz.

2.1.3. The falling tone : The fundamental frequency for /i/ falls down from 174 Hz to 152 Hz. But for /a/ it starts falling at 170 Hz and goes down to 148 Hz.

2.2. Distribution of the tones : All the three tonal contrasts occur at the word medial position and the final position but is rare in the word-initial position.

Further investigation is required regarding the relationship between (a) tone and syllabic structure (b) tone and vowel length and (c) tone and intonation pattern in this language.

3. Consonants : Rongmei has 19 consonant phonemes which are shown in the chart in the following page :

### CONSONANT CHART OF RONGMEI

PLACE OF ARTICULATION → MANNER OF ARTICULATION ↓	BILABIAL	DENTAL	ALVEOLAR	VELAR	GLOTTAL
Plosives	p    b p <sup>h</sup>	t    d t <sup>h</sup>		k    g	?
Affricate			c		
Fricatives			s    z	x	h
Nasals	m		n	ŋ	
Lateral			l		
Trill			r		

3.1 Prenasal (homoorganic prenasal) : Rongmei has a set of consonants preceded by prenasal elements practically with all the consonants except for /ʔ/, /h/, /m/, /n/ /ŋ/ and /l/.

Hypothesis 1. The prenasalized consonants are alternate forms of the non-prenasalized counterparts. Thus, /p/ ~ /mp/, /b/ ~ /mb/, /p<sup>h</sup>/ ~ /mp<sup>h</sup>/ and so on.

Hypothesis 2. Distributional variation :

3.1.1. Prenasal elements occur only in the word initial position. In the word-medial position these [mp], [mb], etc. are perceived as phonemic at the abstract label by the native speakers but in actual articulation i.e., the concrete manifestation shows that the nasal becomes a part of the previous syllable while the non-prenasalized consonants (/p/, /b/, /ph/, etc.) mark the beginning of the next syllable.

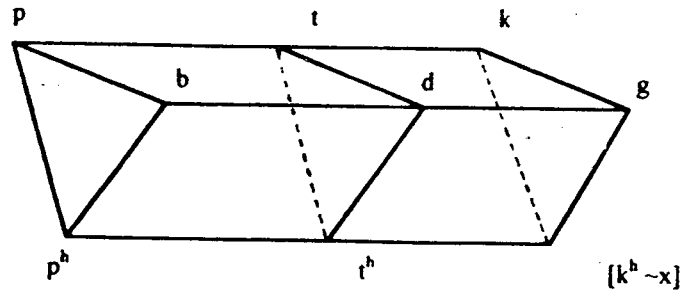
3.1.2 The prenasals are preceded by only their respective types (in the place of articulation) of nasal:

Bilabial [m] before /p/, /b/ and /ph/.

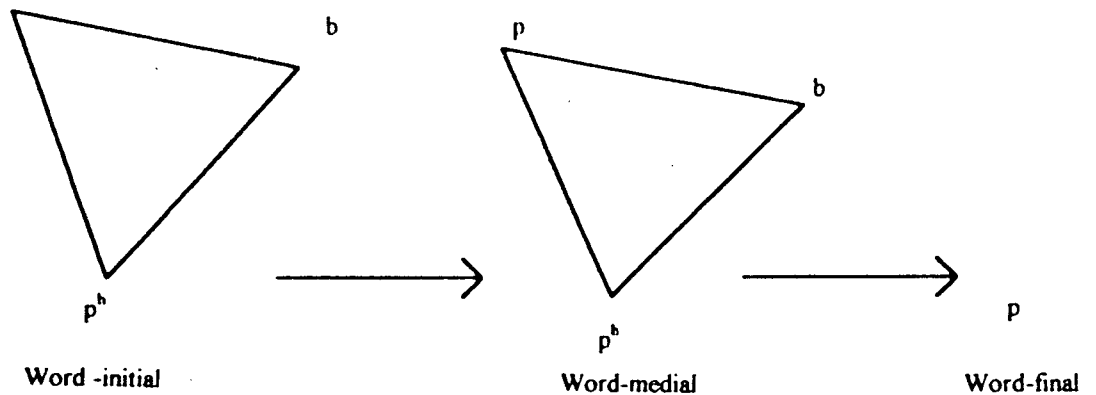
Dental [n] before /t/, /d/, /th/, /s/, /z/ and /r/.

Velar [ŋ] before /k/, /g/ and /x/.

3.2. There is a three-way opposition in the stop series except for the glottal stop. This can be represented thus :



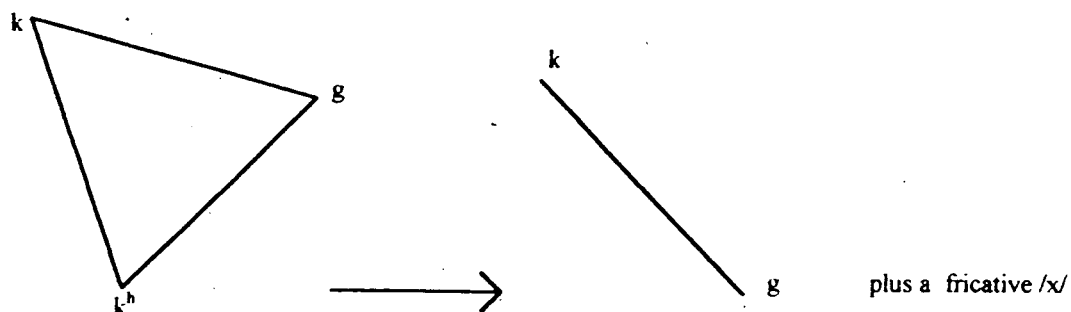
3.2.1 The three-way opposition occurs in the word-initial and medial positions but only /p/ occurs in the word final position:



Hypothesis 1. There is devoicing in the word-final position.

Hypothesis 2. There is deaspiration in the word-final position.

3.2.2. The voiceless aspirated velar stop /k<sup>h</sup>/ seems to have been replaced by the voiceless velar fricative [x]. (See 3.4 below). Thus,



3.3. Affricates : There is only one affricate in Rongmei which is a voiceless alveolar affricate /c/. The actual articulation of this sound is to some degree, somewhat like the fricative /s/. But the native speakers perceive it as very different in quality from the fricative /s/.

3.4. Rongmei has voice and voiceless alveolar fricative /s/ and /z/ as two separate phonemes. There is also voiceless velar fricative /x/, which is in fact perceived sometimes as [k<sup>h</sup>]. Rongmei also has a glottal fricative /h/.

3.5. Rongmei has an alveolar lateral /l/ and an alveolar trill /r/.

3.6. Rongmei has a glottal stop /ʔ/ which occurs only in the medial and final positions.

This preliminary study of the phonetics of Rongmei, even though far from exhaustive, is hoped to be a stepping stone for more detailed study on various aspects of this language including the phonetic and phonological details. It would

certainly help me and others who may wish to compile dictionary of the language in giving the exact phonetic details as required in a dictionary. If it is so, I would consider that the purpose for which this study has been undertaken is fulfilled.



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## APPENDIX - I

**G.E.Marrison's Classifications of Naga Languages** (From Sreedhar).

**Type A.1.** Consists of Tangsen (Yogli), Tangsa (moshang) Nocte and Wanchoo. These languages are spoken in the Tirap division of Arunachal Pradesh, the extreme North Tuensang district of Nagaland and contiguous parts of the Lakhimpur district of Assam and also across Patkoi Range in Burma.

These languages have phonological systems of the common Naga pattern with slight modifications. The vocabulary is similar to type A.2 but with somewhat greater accession of items from Kachin and Thai sources.

**Type A.2.** consists of Konyak, are included in Grierson's Eastern Naga sub-group. **Type B.1.** consists of Yacham-Tengsa, Ao (Chungli), Ao (Mongsen) and Sangtam spoken in the Northern part of Mokokchung district and the Central and Southern parts of Tuensang district.

**Type B.2.** consists of Lotha, Yimchunger, Ntenyi and Meluri, spoken in the Southern parts of Mokokchung and Tuensang districts and in the South-East part of Kohima district. Lotha and Ntenyi are separated from Yimchunger and Meluri in the East, by the Sema who occupied their present territory in

comparatively recent times.

This type is linguistically mixed, but the dominant element is akin to Ao, while the minor part is of Southern affiliation.

**Type B.3.** consists of Tangkhul and Marring, spoken in North and East Manipur and in the Somra tract in Burma.

Both these languages are mixed, but have important affinities with Ao further North, from which they are geographically relatively remote. They also have elements of the Nruanghmei type as well as possible borrowings from Manipuri and Kuki languages to their South.

The languages of type B.1 together with Lotha and Yimchunger from B.2 constituted Grierson's Central Naga group. Ntenyi and Meluri were not included in the *LSI*.

**Type C.1.** consists of Sema, Angami (Kohima), Angami (Khonoma) Chokri, Kezhama and Mao, spoken in the Southern part of Mokokchung district Kohima district and the extreme North of Manipur.

These languages have a distinctive phonology including voiceless liquids and nasals and (except in Sema) initial clusters of which their second element is /r/. They do not normally use consonantal finals. They have certain amount of specialized vocabulary not found in languages of A and B

types.

**Type C.2.** consists of Rengma, Maram, Khoirao, Mazieme, Zeme, Liangmei, Puiron, Nruanghmei. While Rengma is spoken in the Northern part of Kohima district, the remaining languages are in one continuous tract in the upper Barak valley and in the Barail range in the Eastern part of Cachar, South-West Kohima district and North-West Manipur.

These languages are characterized by the extensive use of prenasalized consonants. The prenasal element together with other prefixes (such as a-he-ka-cal in the various languages) provide an extensive system of morphological prefixation. In vocabulary these languages show many affinities with Angami and other languages of type C.1 but cognative words in the two groups are highly contrasted at the phonological level. Of the above languages the position of Rengma and Puiron require further investigation.

Of type C.1, Sema, Angami and Khezama are placed by Grierson in his Western Naga sub-group. Chokri specimen was not available when the LSI was prepared. The languages of the type C.2 were distributed amongst his Western Naga (Rengma), Naga-Bodo and Kuki-Chin sub-groups. According to Marrison the last two never received enthusiastic acceptance.

Marrison, however, claims that only certain languages

show close similarity from one to another at all levels, while at the same time exhibiting significant differences from the rest at least at some level. Hence he sets up a subgroup of six whose members show a close similarity at all levels. These are :

1. Angami (Khonoma), Angami (Kohima) Chokri, Kezhama and Mao.
2. Ao (Chungli,) Ao (Mongsen) and Yacham-Tangsa.
3. Chang, Konyak and Phom.
4. Liangmei and Nruanghmei (Rongmei).
5. Nzieme and Zeme.
6. Nocte, Tangsa, (Moshang), Tangsa (Yogli) and Wanchoo.

APPENDIX - 2

**/P/ in word initial position**

1. /piŋ/ - afraid
2. /piu/ - to wear
3. /piu/ - obey
4. /puàn/ - clothes
5. /paliu/ - naked
6. /palui/ - tickle
7. /pian/ - satisfy
8. /pàu/ - debt
9. /pau/ - masculine
10. /púan/ - bloom
11. /púam/ - swollen
12. /padai?/ - four
13. /pak/ - run
14. /palúp/ - play
15. /pamrai/ - friend
16. /panthào/ - brinjal



**/p/ in word-initial position**

1. /kapt̚iat/ - Cry baby
2. /kapì/ - head/leader
3. /rapian/ - disease
4. /mpei?più/ - bamboo grove
5. /kapeak/ - half
6. /kapa?/ - select
7. /napt̚uàn/ - broken rice
8. /napsún/ - powdered rice
9. /napsiuʔ/ - barley
10. /t̚ampiupui/ - toad
11. /t̚ampi/ - household

**/p/ in word final position**

1. /peap/ - sin
2. /kalip/ - membrane
3. /kaliáp/ - guide
4. /kaluanlip/ - transient enthusiasm
5. /kanáp/ - sticky

- |     |                      |   |                  |
|-----|----------------------|---|------------------|
| 6.  | /tap/                | - | snap             |
| 7.  | /kap/                | - | cry              |
| 8.  | /k <sup>h</sup> eaɸ/ | - | measurement unit |
| 9.  | /k <sup>h</sup> ap/  | - | fine             |
| 10. | /nk <sup>h</sup> ap/ | - | fast             |
| 11. | /rap/                | - | prune            |
| 12. | /rap/                | - | kick             |
| 13. | /t <sup>h</sup> ip/  | - | dry up           |

**/b/ word initial position**

- |     |                         |   |             |
|-----|-------------------------|---|-------------|
| 1.  | /baalài/                | - | tongue      |
| 2.  | /beŋ/                   | - | knife       |
| 3.  | /beŋk <sup>h</sup> uai/ | - | sickle      |
| 4.  | /baaŋbi/                | - | beginning   |
| 5.  | /baanbú/                | - | woodpecker  |
| 6.  | /ba`ampi/               | - | chairperson |
| 7.  | /bi?lai/                | - | clay pot    |
| 8.  | /bianʔ/                 | - | check       |
| 9.  | /bàu/                   | - | fall        |
| 10. | /bù/                    | - | month/moon  |

- |     |           |   |               |
|-----|-----------|---|---------------|
| 11. | /biu/     | - | pierce        |
| 12. | /builuəŋ/ | - | walking stick |
| 13. | /bun/     | - | pour          |
| 14. | /baitəuŋ/ | - | conchshell    |
| 15. | /boraa/   | - | sack          |

**/b/ word medial position**

- |     |              |   |                |
|-----|--------------|---|----------------|
| 1.  | /mbaan/      | - | world          |
| 2.  | /kaba?/      | - | meaning        |
| 3.  | /kabai/      | - | summon, gather |
| 4.  | /kabaam/     | - | venue          |
| 5.  | /kabit/      | - | squeeze, press |
| 6.  | /kabuat/     | - | churn          |
| 7.  | /luəŋ?but/   | - | hill           |
| 8.  | /maibúŋ/     | - | lamp           |
| 9.  | /maibuəŋ/    | - | flame          |
| 10. | /tʰingbaang/ | - | tree           |
| 11. | /naa?baam/   | - | womb           |
| 12. | /nápbaang/   | - | paddy plant    |
| 13. | /nápbi/      | - | crops          |

**/p<sup>h</sup>/ in word initial position**

1. /p<sup>h</sup>éaŋ/ - to view
2. /p<sup>h</sup>aic<sup>h</sup>um/ - heel
3. /p<sup>h</sup>aizun/ - toe
4. /p<sup>h</sup>aik<sup>h</sup>aaŋ/ - one hundred
5. /p<sup>h</sup>aaŋ/ - burst
6. /p<sup>h</sup>éo/ - expose to the sun
7. /p<sup>h</sup>aibaan/ - clothes
8. /p<sup>h</sup>aisaap/ - quiet
9. /p<sup>h</sup>ai<sup>h</sup>hiatpui/ - swallow
10. /p<sup>h</sup>i/ - wage
11. p<sup>h</sup>ian/ - throw a spear, lance etc.
12. /p<sup>h</sup>iŋp<sup>h</sup>iŋ/ - polished well, shiny
13. /p<sup>h</sup>/u - search
14. /p<sup>h</sup>uak/ - naming a person
15. /p<sup>h</sup>up/ - bury

**/p<sup>h</sup>/in word medial position**

1. /sianp<sup>h</sup>ai/ - hip
2. /tulim<sup>h</sup>tānp<sup>h</sup>uāŋ/ - gowrmandizer

3. /gʷaŋp<sup>h</sup>aanlɪn<sup>h</sup>mei/ - governor
4. /gʷip<sup>h</sup>uap/ - tortoise
5. /ap<sup>h</sup>i/ - chicken-pox
6. /ap<sup>h</sup>ian/ - combat
7. /ap<sup>h</sup>iná/ - pigeon
8. /ap<sup>h</sup>ɪm/ - duck
9. /bãap<sup>h</sup>ian<sup>h</sup>mei/ - diarrhoea
10. /camp<sup>h</sup>aa/ - turtle
11. /cãmp<sup>h</sup>ut/ - boiled vegetable
12. /kap<sup>h</sup>aát/ - to climb
13. /kap<sup>h</sup>i/ - slap

**/t/ in word initial position**

1. /t̚iŋ/ - rain
2. /t̚iŋt<sup>h</sup>ai/ - fruit
3. /t̚i/ - give
4. /t̚u/ - eat
5. /t̚aam/ - chutney
6. /t̚iŋt<sup>h</sup>aan/ - sunshine after rain
7. /t̚iŋt<sup>h</sup>ù/ - raindrop

8. /ṭán/ - strong
9. /teotúanbut/ - huge boulder
10. /ṭabui/ - what
11. /ṭampiupui/ - a kind of frog/toad
12. /ṭin̄keo?/ - heaven
13. /ṭukumaa/ - how
14. /ṭaruai?/ - hades

**/ṭ/ in word medial position**

1. /maṭaaṭmei/ - to keep track of
2. /maṭin̄?mei/ - to observe carefully
3. /miḳṭiaṭ/ - blind
4. /kaṭuak-kaṭiṭ/ - hustle bustle
5. /kaṭuan/ - zenith
6. /kaṭuṭ/ - bud
7. /kaṭuai/ - oil yielding seed
8. /kaṭaak/ - great grandson
9. /kaṭiṭna/ - little bit
10. /ṭhin̄ṭuan/ - end part of wood
11. /ṭaamṭi/ - a kind of food item
12. /kaṭin̄/ - to sharpen (specially instruments)

13. /kaṭiu/ - to encourage

**/ṭ/ in word final position**

1. /nāik<sup>h</sup>aaṭ/ - one day
2. /kagaat/ - optimum level
3. /kakaat/ - cap of a bottle etc.
4. /rip<sup>h</sup>iat/ - one who is fit for war
5. /mbāat/ - leech
6. /kādāat/ - measuring standard for length
7. /karit/ - measuring unit for weight
8. /makuat/ - to raise a baby
9. /liat/ - a piece of cloth for carrying babies
10. /lāat/ - word
11. /gut/ - enter
12. /paat/ - to go out
13. /ṭaat/ - walk
14. /kaṭut/ - bud
15. /k<sup>h</sup>iat/ - cancel/criticize

**/ɖ/ in word initial position**

1. /ɖáam/ - creat
2. /ɖiŋ/ - stand
3. /ɖúŋ/ - sit
4. /ɖú/ - far
5. /ɖàu/ - to hack with a knife
6. /ɖui/ - water
7. /ɖèu/ - answer
8. /ɖéŋk<sup>h</sup>ám/ - block
9. /ɖaak/ - weave
10. /ɖaŋeŋ<sup>?</sup>/ - wall
11. /ɖín/ - tell
12. /ɖiaŋ/ - hit with the fist

**/ɖ/ word medial position**

1. /kaɖìnk<sup>h</sup>ou/ - instantly, immediately
2. /kaɖìm/ - to stamp with ones feet
3. /paɖik/ - full
4. /pànɖui/ - to cover the head while sleeping



- |     |                |   |                            |
|-----|----------------|---|----------------------------|
| 5.  | /paḍaiʔ/       | - | four                       |
| 6.  | /aḍiaŋ/        | - | a type of squirrel         |
| 7.  | /míkḍui/       | - | tear                       |
| 8.  | /kaḍùm/        | - | a portion                  |
| 9.  | /kaḍoucaáamei/ | - | a good opportunity         |
| 10. | /caamḍään/     | - | ready                      |
| 11. | /kaḍui/        | - | liquid                     |
| 12. | /kaḍumʔ/       | - | shiver                     |
| 13. | /maḍään/       | - | to put something as a sign |

**/t<sup>h</sup>/ in word initial position**

- |    |  |   |                    |
|----|--|---|--------------------|
| 1. | /t <sup>h</sup> iŋ/                    | - | wood               |
| 2. | /t <sup>h</sup> hiak/                  | - | behaviour          |
| 3. | /t <sup>h</sup> hun/                   | - | bamboo shoot       |
| 4. | /t <sup>h</sup> hèn/                   | - | tax                |
| 5. | /t <sup>h</sup> houʔsùmei/             | - | sacrificial ritual |
| 6. | /t <sup>h</sup> hiŋmui/                | - | stump of a tree    |
| 7. | /t <sup>h</sup> hái/                   | - | die                |
| 8. | /t <sup>h</sup> hiu/                   | - | breath, influence  |
| 9. | /t <sup>h</sup> hait <sup>h</sup> hén/ | - | in the future      |

10. /t̚hãu/ - who  
 11. /t̚hũanku/ - thank  
 12. /t̚huap/ - to patch up

**/t̚<sup>h</sup>/ word medial position**

1. /mat̚<sup>h</sup>iuc̃n/ - consensus  
 2. /meimat̚<sup>h</sup>iu/ - everyone  
 3. /rãt̚<sup>h</sup>iu/ - breath of God  
 4. /p<sup>h</sup>uligt̚<sup>h</sup>u/ - vegetable seed  
 5. /kat̚<sup>h</sup>umʔ/ - three  
 6. /kat̚<sup>h</sup>in/ - liver  
 7. /ɛnt̚<sup>h</sup>uanʔ/ - tomorrow  
 8. /kat̚<sup>h</sup>eak/ - step  
 9. /napt̚<sup>h</sup>ãan/ - new paddy  
 10. /lāt̚-t̚<sup>h</sup>ãan/ - question  
 11. /lunt̚<sup>h</sup>u/ - heart  
 12. /nt̚<sup>h</sup>eiloumei/ - mystery  
 13. /t̚igt̚<sup>h</sup>ai/ - fruit  
 14. /t̚igt̚<sup>h</sup>ãan/ - sunshine after rain

**/k/ Word-initial position**

1. /kanai/ - two
2. /kakùn/ - corner
3. /kalaàn/ - portion
4. /kap<sup>h</sup>at̚/ - climb
5. /kagít̚/ - to beat
6. /kaŋkai/ - dungeon
7. /kat̚<sup>h</sup>umʔ/ - three
8. /kak<sup>h</sup>uat̚/ - steps
9. /kàm/ - faded
10. /kik/ - concentrated
11. /kún/ - expensive
12. /kiruai/ - manager

**/k/ Word-medial position**

1. /luŋkuat/ - determination
2. /luŋʔkùn/ - satisfaction
3. /makumʔ/ - think
4. /t̚iankaap/ - tongs
5. /t̚akuanʔ/ - horse
6. /makaánmeipu/ - leader
7. /t̚akiu/ - coffin

- |     |          |   |                 |
|-----|----------|---|-----------------|
| 8.  | /cakiṭ/  | - | to hold tightly |
| 9.  | /kakaak/ | - | gap             |
| 10. | /meikin/ | - | generation      |

**/k/ Word Final Position**

- |     |                       |   |              |
|-----|-----------------------|---|--------------|
| 1.  | /gúak/                | - | pig          |
| 2.  | /raak/                | - | open eye     |
| 3.  | /ntáak/               | - | alert        |
| 4.  | /nk <sup>h</sup> úk/  | - | crooked      |
| 5.  | /kagáak/              | - | disturb      |
| 6.  | /ndiak/               | - | green        |
| 7.  | /tamkuak/             | - | chutney bowl |
| 8.  | /kuak-kuak/           | - | dirty        |
| 9.  | /méisak/              | - | strength     |
| 10. | /nt <sup>h</sup> áak/ | - | itch         |

**/k<sup>h</sup>/ Word Initial Position.**

- |    |                      |   |          |
|----|----------------------|---|----------|
| 1. | /k <sup>h</sup> áu/  | - | cliff    |
| 2. | /k <sup>h</sup> aam/ | - | obstruct |
| 3. | /k <sup>h</sup> iu/  | - | wash     |
| 4. | /k <sup>h</sup> uí/  | - | stale    |
| 5. | /k <sup>h</sup> utá/ | - | to dig   |
| 6. | /k <sup>h</sup> iag/ | - | sour     |

7. /k<sup>h</sup>uàn/ - voice
8. /k<sup>h</sup>uap/ - to stick
9. /k<sup>h</sup>aak/ - to peel

**/k<sup>h</sup>/ Word Medial Position**

1. /kak<sup>h</sup>áak/ - to part
2. /cink<sup>h</sup>iuʔ/ - glorious
3. /ak<sup>h</sup>èn/ - endure
4. /pik<sup>h</sup>im/ - head cover
5. /nk<sup>h</sup>áa/ - help
6. /nk<sup>h</sup>u/ - cold and cough
7. /t<sup>h</sup>ink<sup>h</sup>uàn/ - pile of fire-wood
8. /cak<sup>h</sup>iucak<sup>h</sup>èi/ - manner
9. /nk<sup>h</sup>uk/ - crooked
10. /think<sup>h</sup>uk/ - wooden box

**/g/ Word Initial Position**

1. /guaiʔ/ - cow
2. /gan/ - curry
3. /géi/ - much
4. /gin/ - guest
5. /giak/ - sweep
6. /gulou/ - to save

- |     |          |   |       |
|-----|----------|---|-------|
| 7.  | /gunʔ/   | - | snow  |
| 8.  | /guigài/ | - | lucky |
| 9.  | /guan/   | - | come  |
| 10. | /gaa/    | - | crab  |

**Word-Medial position :**

- |     |             |   |                 |
|-----|-------------|---|-----------------|
| 1.  | /kage/      | - | need            |
| 2.  | /nápgaán/   | - | food            |
| 3.  | /napgaau/   | - | straw           |
| 4.  | /kagáak/    | - | disturb         |
| 5.  | /kagúak/    | - | mistake         |
| 6.  | /ʔagiátʔ/   | - | a kind of stone |
| 7.  | /giugaamak/ | - | careless        |
| 8.  | /kagitʔ/    | - | to beat         |
| 9.  | /ʔugài/     | - | delicious       |
| 10. | /kagaatʔ/   | - | optimum level   |

**Glottal stop /ʔ/**

- |    |         |   |                     |
|----|---------|---|---------------------|
| 1. | /luiʔ/  | - | banana leaf         |
| 2. | /mpaaʔ/ | - | son                 |
| 3. | /ləiʔ/  | - | burnt rice          |
| 4. | /luaiʔ/ | - | rope made of bamboo |

5.	/n <sub>ɬ</sub> aan?/	-	sufficient
6.	/kaliaŋ?/	-	to wriggle free
7.	/guaŋ?/	-	king
8.	/kalaan?/	-	fry
9.	/ciŋ?/	-	clotheline
10.	/ka <sub>ɬ</sub> iŋ?/	-	to stretch out
11.	/buan?/	-	fishing basket
12.	/bu?/	-	heart beat
13.	/ru?/	-	ten
14.	/zaau?/	-	liquor
15.	/luaŋ?/	-	hill
16.	/ruŋ?/	-	sail boat/ship
17.	/raam?/	-	thing
18.	/karu?/	-	decorate
19.	/nu?/	-	agree
20.	/gaan?/	-	thunder
21.	/n <sub>ɬ</sub> uaŋ?/	-	to accompany
22.	/a?cái/	-	my brother (add + ref)
23.	/nkaa?/	-	by basket carried at the back
24.	/p <sub>u</sub> ?t <sub>ɬ</sub> <sup>h</sup> eaŋ/	-	far away
25.	/n <sub>ɬ</sub> ian?/	-	pillar

### **/c/ Word Initial Position**

1. /ciŋ/ - mountain
2. /caak/ - count
3. /cu/ - hear
4. /cei/ - stick
5. /cak<sup>h</sup>uɑŋ/ - respect
6. /cámp<sup>h</sup>ut̚/ - boiled vegetables
7. /ci/ - lips
8. /ce/ - paper
9. /câu/ - elbow
10. /cùn/ - will, desire

### **/c/ Word Medial Position**

1. /cùncaam̚/ - compatible
2. /cùncun/ - wet with water
3. /kacùn/ - stock up/save
4. /kacùm/ - root cap/bottom
5. /kacuam̚/ - jumping, shipping
6. /t̚<sup>h</sup>iŋci/ - branch
7. /ràcaa/ - after
8. /ràacap/ - religion
9. /t̚acaát̚/ - eight



10. /láatɕiámɔak/ - clause

**/s/ Word Initial position :**

1. /saa/ - say
2. /saakaru/ - praise
3. /séaŋ/ - long
4. /sáam/ - hair
5. /saammaa/ - in short
6. /saanpiáŋ/ - forehead
7. /saatpaatɕ/ - to draw out
8. /sián/ - money
9. /silu/ - male dog
10. /sintu/ - victimize

**/s/ Word Medial Position :**

1. /napsún/ - powdered rice
2. /kasiám/ - to make
3. /kasiŋ/ - depth
4. /zeansi/ - sadness
5. /cùnsùmei/ - worry
6. /diùsímei/ - apprehension
7. /gaansínmei/ - cook

**/z/ word initial position**

1. /zeəŋ/ - day
2. /zaàm/ - wound
3. /zaan?/ - name
4. /ziak/ - draw
5. /zín/ - dark
6. /zùn/ - urine
7. /zúk/ - generation
8. /ziu?/ - goat

**/z/ Word Medial Position**

1. /kazeo?/ - participate
2. /kazaáp/ - jump to catch
3. /kazít/ - swing
4. /nzéanbeak/ - valley
5. /kazímei/ - appropriate
6. /k<sup>h</sup>auzíu/ - mountain goat
7. /puanziŋ?/ - storm
8. /saazinsaazaa/ - speak non-sense
9. /suzáak/ - put to shame
10. /zeuzian/ - grace

**/m/ Word Initial Position**

1. /macú/ - colour
2. /maɣáan/ - sign
3. /macun?/ - hope
4. /makuatɕ/ - bring up
5. /meak/ - son-in-law
6. /méimean/ - picture
7. /mianmian/ - sluggish
8. /mík/ - eye
9. /muk/ - ink

**/m/ Word Medial Position**

1. /míkmaa/ - eyesight
2. /mitmit/ - little by little
3. /ɕaamci/ - gun
4. /ɕaamru/ - thirty
5. /ɕaampiupui/ - toad
6. /ɕamik/ - a type of spice
7. /ɕianmi/ - marriage
8. /ɕimik/ - day

**/m/ word final position**

1. /t̚ím/ - wet
2. /kàm/ - faded
3. /t̚iŋkùm/ - year
4. /t̚iŋlùm/ - summer
5. /t̚aànlam/ - subject matter
6. /taanlum/ - murmur
7. /púam/ - swell
8. /páam/ - hug

**/n/ word initial position**

1. /naaŋ/ - you
2. /núi/ - laugh
3. /nian/ - late
4. /niŋt̚àu/ - remember
5. /nim/ - arrest
6. /naupái/ - bridge
7. /náu/ - breast
8. /niŋt̚h̄iusumei/ - independence

**/n/ word medial position**

1. /miànmián/ - sluggish
2. /míknaá/ - pupil of the eye
3. /malínaa/ - pure
4. /maànmaū/ - accidentally
5. /maansei/ - human being
6. /kanei/ - two

**/n/ word final position**

1. /t̚án/ - leg
2. /t̚uàn/ - tip
3. /t̚in/ - busy
4. /t̚un/ - monsoon
5. /mùn/ - flower
6. /carìn/ - wonder
7. /mìkrùn/ - spectacle

**/ŋ/ word initial position**

1. /ŋaám/ - power
2. /ŋaambíteó/ - bricks
3. /ŋaán/ - end
4. /ŋaàn/ - lean

- |     |                        |   |              |
|-----|------------------------|---|--------------|
| 5.  | /nasáatnáa/            | - | infant       |
| 6.  | /nau <sup>?</sup> diŋ/ | - | thick forest |
| 7.  | /num <sup>?</sup> rau/ | - | backbone     |
| 8.  | /galaán/               | - | return       |
| 9.  | /neanseáŋ/             | - | wall         |
| 10. | /nui <sup>?</sup> mei/ | - | adore        |

**/ŋ/** <sup>medial</sup> **Word Initial Position:**

- |     |                                     |   |  |
|-----|-------------------------------------|---|--|
| 1.  | /maangmúi/                          | - | dream  |
| 2.  | /mairúŋ <sup>h</sup> in/            | - | coal   |
| 3.  | /malaanmei/                         | - | <del>customary body building<br/>initiation rite</del> |
| 4.  | /p <sup>h</sup> iaŋliáŋ/            | - | abnormal   |
| 5.  | /niŋ <sup>h</sup> tiŋ/              | - | wise   |
| 6.  | /tiŋpuàŋ/                           | - | climate  |
| 7.  | /tiŋku <sup>?</sup> /               | - | chief priest   |
| 8.  | /tiŋkum/                            | - | year   |
| 9.  | /tiŋsík/                            | - | cold   |
| 10. | /tiŋkap/                            | - | tong   |
| 11. | /taŋ <sup>?</sup> ui <sup>?</sup> / | - | close eye  |
| 12. | /méiŋ <sup>h</sup> en/              | - | chest  |

**Word Final Position /ŋ/**

1. /p<sup>h</sup>iãŋ/ - pour
2. /niŋtiŋ/ - wise
3. /ṭiŋ/ - rain
4. /ciŋ/ - draw
5. /ziŋ/ - dark
6. /piŋ/ - fear
7. /maãŋ/ - dream
8. /zaãŋ/ - drink
9. /kaɽããŋ/ - afterward
10. /kalaãŋ/ - portion

**/l/ Word Initial Position :**

1. /liŋ/ - sow
2. /luŋniŋ/ - mind
3. /laãṭ/ - word
4. /liãŋ/ - turn
5. /luãŋ/ - march along
6. /lu/ - song
7. /lùm/ - believe
8. /luŋkuaɽ̣/ - temper
9. /luãŋ?buɽ̣/ - hill

10. /liant̚imei/ - pride  
 11. /liàn/ - show  
 12. /lian/ - rebellious

**/l/ Word-Medial Position :**

1. /liulóumei/ - bought  
 2. /liuliumei/ - shaky  
 3. /aléu/ - child  
 4. /lùnluŋ/ - condition  
 5. /malaan/ - gird  
 6. /malai̯pa̯anmei/ - landslide  
 7. /muluai/ - gourd creeper  
 8. /ŋalaan/ - return

Alveolar <sup>trill</sup> ~~flap~~ /r/

**Word Initial Position :**

1. /ra̯akaai/ - church  
 2. /ra̯amrei/ - boundary  
 3. /riap/ - chasten  
 4. /re̯inúŋ/ - ancient days  
 5. /ri?/ - war  
 6. /ru?/ - ten  
 7. /ru̯aksume̯i/ - tonsillitis



### Word Medial Position /r/

1. /ruprap/ - spy
2. /ru<sup>̀</sup>anr<sup>̀</sup>i/ - past events
3. /saruk/ - percentage
4. /kara<sup>́</sup>am/ - try
5. /suanr<sup>́</sup>ei/ - sister
6. /t<sup>́</sup>arik/ - spotted
7. /kara<sup>́</sup>ak/ - tie

### ~~101~~ Word-initial position

1. /hi/ - write
2. /him/ - glory
3. /hi<sup>̀</sup>u/ - hit, ring
4. /hu/ - front
5. /hu?luŋ/ - tooth disease
6. /h<sup>̀</sup>ui/ - sniff
7. /hui/ - stick
8. /hu<sup>̀</sup>an/ - carry
9. /ha<sup>́</sup>an/ - return

**/h/ Word Medially**

1. /kahi/ - to touch
2. /kahèu/ - desire
3. /kahaak/ - similar
4. /kahau?/ - start
5. /kahùi/ - roll
6. /kahiaŋ/ - wheel
7. /kahu/ - before/ahead
8. /kahík/ - sob
9. /kaihiu?/ - porch