A PHONOLOGICAL STUDY OF PA-O DIALECT SPOKEN IN SHAN STATE OF MYANMAR

Aggadhamma

A Thesis Submitted in Partial Fulfillment of

the Requirements for the Degree of

Master of Arts

(Linguistics)

Graduate School

Mahachulalongkornrajavidyalaya University

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The Graduate School of Mahachulalongkornrajavidyalay University has approved this thesis of "A Phonological Study of Pa O Dialect Spoken in Shan State of Myanmar" in partial fulfillment of the requirements for the Degree of Master of Arts in Linguistics.

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Abstract

The purpose of the study is to present the thesis title as "A Phonological Study of Pa-O Spoken Dialect in Ho Pong City, Southern Shan State of Myanmar". This research has 2 objectives; 1) to study the phonemes of Pa O dialect spoken in Ho Pong, Southern Shan State of Myanmar, 2) to analyze consonant sound, vowels sound, and tonemes of Pa O dialect spoken in Ho Pong, Southern Shan State of Myanmar. The sample group consists of six informants and the sample group obtained by purposive way to provide phonology. The research methodology is qualitative. The tools used are books, informants, journals and thesis. The data analyses were Phonological word, syllable, phoneme, and assimilation.

The result of research was found that

The result of the study shows that tones of the final syllable of statement seem to cause to be falling or rising. There are three types of phonological words: monosyllabic words, disyllabic words and trisyllabic words. There are three types of syllables: presyllable, minor syllable and major syllable. The structure of the syllable is C_1 (C_3) (C_4) V_1 (C_2). The phonological system is composed of twenty consonant phonemes / p, pʰ, b, t, tʰ, d, c, cʰ, k, kʰ, ʔ, m, n, ŋ, s, j, h, l, r, w/; There are eleven vowel phonemes, All vowels can be divided into two sets. There are nine single vowels as /i, e, ɛ, ʉ, ə, a, u, o, ɔ/; and two glided vowels are /ai, au/. There are four tones: (1) high, (2) high falling, (3) mid and (4) low.

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List of Abbreviations and Symbols

IPA	International Phonetic Association
/ /	Phonemic Transcription
[ ]	Phonetic Transcription
" "	Meaning of the Word
C_1	Initial Consonant
C_2	Final Consonant
C_3	Second Consonant
C_4	Third Consonant
V	Vowel
T	Tone
/1/	High Tone
/2/	High Falling Tone
/3/	Mid Level Tone
/4/	Low Tone
[^{4}]	Pitch of High Tone
[^{3}]	Pitch of Falling Tone
[^{2}]	Pitch of Mid Tone
[^{1}]	Pitch of Low Tone
S	Strong Stress
W	Weak Stress
U	Unstress
Vd	Voiced
Vl	voiceless
–	ka-1
꞉	ka-2
꞊	ka-3
꞉꞊	ka-4

Chapter I

Introduction

1.1 Background and Significance of the Problems

There are many ethnic groups in Myanmar. The Pa-O is one of Burma's ethnic. They live primarily in Southern Shan State and live in the Tha-thong area of Mon State in lower Myanmar. They are the second largest ethnic in Shan State. They are not only called Pa-O but also Toung-tu as others call them. Myanmar are called "Taung-tu'' which means hill man or "Tong-Su'' by the Shan in Myanmar. They do not like the name of Tong-su from Shan.

The term Taung-tu has a double meaning in Burmese. It can mean "Southern people'' when referring to those Pa-O living in the Tha-tong area of lower Myanmar. In Myanmar can divided into two parts that are upper Myanmar and lower Myanmar.

In this language, "Pa'' means crack or break and "O'' means to pick out or peel. The meaning is according to their belief that the Pa-O legend of Vijjar and Nagar (dragon). The Pa-O ethnic attributed comes incubation from Naga themselves. Their father was Zawgy wizard and mother was a female dragon. One day Naga came down from the naga kingdom to the human world as an attractive young woman. She met Vijjar and fell in love. They lived together in a cave. Soon Naga became pregnant. One day when Vijjar was out Naga fell asleep. When he returned he found a dragon sleeping where he had left his beautiful wife. He left the cave and flew up into the sky never returned. When her time came, Naga laid two eggs. She waited for Vijjar to return, and when he didn't, she gave the eggs to two religious hermits to take care of. She then returned to the naga kingdom. Eventually the two eggs started to crack open. The religious hermits peeled the

two eggs to reveal a human boy in one and a girl in the other.[1] The boy and the girl became the ancestors of the Pa-O people. The boy was named TeiktaTiha and became the first Pa-O king of Thathong, which is also called, Suvannabhumi, or "Land of Gold"

Because the Pa-O are descents of Vijjar and Naga, today the Pa-O women that can afford it wear two ornaments in their colorful turbans representing the top of the head and eye of Naga. In addition, the Pa-O women's traditional dress is layered-leggings, longyi (wrap-around skirt), long shirt, short coat-representing the overlapping scales of the serpent/ dragon Naga. The Pa-O men are wearing black costumes. On top they wear a black jacket, and on the lower parts they wear black or dark blue trousers. A colorful turban is worn on the head.[2]

Pa-O was later to enter Myanmar than Mon people. But they were earlier than Myanmar and Shan. According to the informant, Myanmar and Shan later entered increasingly so that Pa-O moved towards the South and then resettled in Tha-thong.

Perhaps it was around 9 centuries of BC when Pa-O people settled in Tha-thong. They permanently settled there and established Tha-thong. In Tha-thong, they built villages and towns and became as Pa-O people that Pa-O originally lived in Tha-thong.[3]

After SuriyaSandar King, 158 kings of Pa-O Dynasty, latest Dhammamarlar king elected a Mon queen and then Pa-O and Mon mixed race Dynasty reigned till Manuha king of Pa-O.

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[1] Russ Christensen Sann Kyaw, **The Pa-O Rebels and Refugees**, (T. Suthep, Mueang, Chiang Mai: Press, 2006), p. 2.

[2] William Dunn Hackett, **"The Pa-O People of the Shan State, Union of Burma; A Sociological and Ethnographic Study of the Pa-O (Taungthu) People",** [Online], Resource: https:// www.com.kham.com [5 August 2017].

[3] Russ Christensen Sann Kyaw, **The Pa-o Rebels and Refugees,** (T.Suthep, Mueang, Chiang Mai: Press, 2006), p. 9.

During the Manuha was ruled Tha-thong that had destroyed Pa-O people. According to the informant, in A.D 1057 the Myanmar king was Anawrahta, from Pagan, in his desire to acquire copies of Buddhist sacred texts (The Pitakas) that the king of Tha-thong had refused him, led a large army southward.

After a long siege Anawrahta conquered the kingdom, sacked the walled city, and captured the Pa-O king of Manuhar who together with most of the royal court, many monks, scholars, as well as the Buddhist scriptures, was taken back to Pagan.

Then, the Pa-O people who left migrated from the ruins of the capital of Tha-thong and moved to settled of Shan State.

The total of Pa-O populations are over 800,000, certainly less than a million and having an area of Shan State is 611,23 miles; In Myanmar, Pa-O consists of two districts which are Southern Shan State and Mon State. They have 3 townships and 765227 villages.

The Myanmar language belongs to the Tibeto-Burman sub-family of the Sino-Tibetan family. The Myanmar language has seven regional dialects. These are Myanmar, Yo, Yakhine, Thawill, Pyu, Kamyam, Taungtu which is considered as standard language. The Pao (Taungtu) has two dialects where they lived in Southern Shan State and Mon. This study is spoken on the Southern Shan State of Myanmar.

The purpose of this study is to describe the phonological of Pa-O dialect. It is hoped that the result will be served as a study for those who want to know Pa-O dialect spoken in Shan State.

Another expected benefit is that this study will be useful for further linguistic studies in Pa-O dialect.

Ho Na Village

Ho Na village was established about 80 years ago, which had in Ho Pong City, Southern Shan State of Myanmar, and it is nearly Ho Pong concerned Six miles distance, that is a Pa-O village.

Population

The village has 110 homes, consisting of 770 inhabitants with 450 Pa-O females, 250 males and 120 children attending the government middle school in a village.

Economy

The village of Ho-Na villagers are farmers and cultivating fields, crops from the forest. They also grow vegetables (advocate, cucumber, chilies, garlic, onions, pumpkins, peas, potatoes and ground nut) and for business the fruit papayas, corn, bananas, and jackfruit). Apart from the agriculture they do trade with their town in Ho-Pong.

Religion of Monastery in a Village

The most of Pa-O are Buddhists; they believe that they adopted Theravada Buddhism earlier than the Mon. They are very good in Buddhist ceremony with faith and they follow the rules of Buddha. They always have relegations activities such as praying twice a day after getting up in the morning and before going to bad in to sleep. On religious days which are observed as holidays they wear their radiation clothes dark, go to monastery and offer food for the monk's breakfast and lunch. And then they take the precept and Dhamma from the monks.

Housing

The Pa-O house is two floors, made from wood or bamboo. In the inside, there are Buddha image shelves as a center of the house. Fireplace, pot, jar, and equipment are kept outside the house. They have the big Buddhist temple all villages.

Clothes

The Pa-O women that can afford to wear two ornaments in their colorful turbans representing the top of the head and eye of Naga. In addition, the Pa-O women's traditional dress is layered-leggings, longyi (wrap-around skirt), long shirt, short coat-representing the overlapping scales of the serpent/ dragon Naga. The Pa-O men are wearing black costumes. On top they wear a black jacket, and on the lower parts they wear black or dark blue trousers. A colorful turban is worn on the head.

1.2 Objectives of the Study

The objectives of the study are as follows:

1.2.1 To study the phonemes of Pa-O dialect spoken in Ho-Poung, Southern Shan state of Myanmar.

1.2.2 To analyze consonant, vowel sound and tonemes of Pa-O dialect spoken in Ho-Poung, Southern Shan state of Myanmar.

1.3 Statement of the Research Questions

In this research, the study will use the villages as informants for six people of Pa-O native speaker living in those villages, Ho-Pong city, Southern Shan State of Myanmar.

1.3.1 What are the phonemes of Pa-O dialect spoken in Ho-Pong Sourthern Shan State of Myanmar?

1.3.2 What are consonant, vowel sound and tonemes of Pa-O dialect spoken in Ho-Pong, Southern Shan State of Myanmar?

1.4 Scope of the Study

The researcher will study phonology of Pa-O dialect spoken in Ho-Na village, Ho-Pong city, Shan State of Myanmar. The scope of the study consists of 4 items as follows:

1.4.1 Scope of Content

The book, journals, thesis, research, theory and concept are related to the consonant, vowel, tone and of Pa-O dialect spoken in Shan State of Myanmar.

1.4.2 Scope of Population

This study will be conducted at the villages that people speak Pa-O dialect in Shan State of Myanmar. The number of populations for this research will be six native speakers of Pa-O dialect and selected informant participants as informants.

(1). Ven. Rajinda Siri, is abbot of Monastery education high school and college that is called Nong Toung temple.

(2). Mr. Major khunlar, who is working for a Pa-O National Organization as a leader.

(3). Mrs. Win May, who is a teacher at a high school.

(4). Mr. U Khun Mg Phu, who is a president of Pa-O humanist and Member of Parliament of Pa-O National Organization (PNO).

(5). Mr. U Khun Nge who was president of committee of education in Ho Pong city.

(6). Mr. Khun Tun Mg, who is a student studying in Chiang Mai.

1.4.3 Scope of Area

The area of study is used in Ha-Na village of Ho-Poung region, Southern Shan State of Myanmar. Researcher went to Ho-Pong and made some interviews with the local people and then found book and online source for informants to complete my thesis.

1.4.4 Scope of Time

This study will be started from May 2018 to 30 February of 2019.

1.5 Definitions of the Terms

The Phonological Study refers to a study of sound system of the Pa-O dialect spoken in Southern Shan State of Myanmar.

Pa-O Dialect means the language used by ethnic group of people mostly in Southern Shan state of Myanmar.

Phoneme means to study the sound of consonant, vowel, and tone of Pa-O dialect function in syllable: Consonant, vowel and tones.

1.6 Expected Benefit of the Study

1.6.1 Knowing the sound system of Pa-O dialect spoken in Ho-Pong, Southern Shan State of Myanmar.

        1.6.2 Knowing the way of learning and teaching phonology of Pa-O dialect spoken in Ho-Pong, Southern Shan State of Myanmar.

Chapter II

Literature Review

2.1 Concerned Ideas

The Pa-O has a separate their own literature and language. They have two kinds of manuscript from Southern Shan State and Mon State (Thathong A Lantaya). Although two different manuscripts, they use only in Southern State manuscript at the present. The Pa-O literature does not have alphabet strangely, it can find similar to Myanmar but difference pronunciation. For example, they talk in Myanmar and Pa-O:

Myanmar	Pa-O
Sa	Ca
Ca	Kya
Ya	Ra

It can discern to become the Pa-O literature comes with three eras. In AD-1057, Anawyatha who was a Myanmar King, he took the basket of thirty pairs to Pagan when his military won Manuha (Thanthong king). After the Manuha fell, they had to lose out their literature.[1]

The Venerable, Mai Pyo Sayadaw has nurtured second eras of Pa-O literature to progress and proliferation came in AD-1817. He was born in Nan Pan village, Southern of In Le Lake, Shan State. He was also very popular in Pa-O literature history and he always said to the Pa-O people to study the Pa-O literature, not to disappear again, and because when Thathong was damaged you had destroyed your own letters.

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[1] Sunanda Ven, **Original Tablets of Pa-O Text Book in Taunggyi,** (Taunggyi: Taunggyi Press, 1941), p. 3.

Pa-O literature was published at 18th century by the venerable –Mai Pyo sayadaw, Naung Hi sayadaw, Cha Khyisayadaw, Soung Pyaung sayadaw and Pin Pon sayadaw. The Venerable Mai Pyo sayadaw wrote Pa-O based on the manuscript and update repairs it to ages.

Thus, they formed the new of manuscript selection team and the Pa-O literature organizing team. The new of manuscript team leader was In Le, In Po Khon sayadaw, ven. Suriya and the Pa-O literature organizing team leader was Pathama Taunggyi monastery sayadaw ven Narinda. And then, all fields the monks and nicely writers invented a new article and submitted to the new of manuscript selection team. Finally, they were selected and confirmed the new manuscript by the Thi Thin sayadaw who was Sunanda.

According to the resolution, they decided to publish again on 8.4.1948, in Pathama Taung Kyaunggyi monastery, Taunggyi. Those who attended the meeting were Ven-Taung Kyaunggyi sayadaw, Ven-Moe Nal sayadaw, Ven-Tham Pha Pra sayadaw, Khun Sein, U Han, U Thin, and U Bo Khin. That day would be the third age of Pa-O literature day.[2]

The ethnic Pa'O (Tibeto-Burman, Karenic branch) minority group number close to one million persons and currently occupy areas as far north as the southern Shan State and as far south as the northern Mon State in present-day Myanmar. The Pa'O Literary has begun to collect endangered materials, largely consisting of Theravada Buddhist texts in palm leaf manuscript and parabaik (accordian-folded paper manuscript) form as well as scrolls of both religious and literary texts. All texts are written in either the Pa'O language or in Pali employing a slightly modified Pa'O script. There is no doubt as to the significance of these texts as they represent Pa'O interpretations of the Buddhist canon, an alternative to the Burmese lineage that now essentially dominates religious discourse within Myanmar. Further, they

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[2] Pannasarmi Joungsoung, **Religious and Customs of Pa-O,** (Yangon: Sapyae Bikkman Press, 2004), p. 7.

represent a major collection of the Pa'O literary tradition in as much as recent political conditions have effectively quelled Pa'O literature.

Sources of these collected Pa'O texts are disparate; some are harvested from homes in rural villages while most have been gifted by local Pa'O monasteries.

The conditions of the texts vary but few are in worse condition than the political and physical environments threatening them.

First and foremost, the primary vulnerability is the instability of the political situation in Myanmar. Secondly, while conditions at the PLCCC Library represent an improvement, they are still far from ideal. The PLCCC faces oversight by the Ministry of Information which could choose to confiscate library holdings at any time. Further, the potential for catastrophic disaster (fire, flood, etc.) should be considered high both in eventual likelihood and in materials cost since unique treasures are being concentrated into centralized holdings. In fact, one Pa'O monastery (including significant library holdings) was destroyed by fire in 2004.

For this pilot project, the principal applicant traveled to Myanmar for a period of two months, during which time the Pa'O archival materials described above would be digitally captured. The project was structured around the capture of both the archival material and representative metadata for the purposes of preservation and access.

This project was designed to be focused in both its execution and duration. Important religious texts and historical documents in the Pa'O language were targeted for digitization. Four administrative staff members from the PLCCC Library served as expert consultants and project staff for the duration of the project period. The project benefited from their expert guidance, and the manuscripts were arranged and captured based on historical and textual significance. The 71 manuscripts, the overwhelming majority of which are in the Pa'O language, have been captured at digital preservation quality through digital photography. Resulting from the project are over 8,600 high-resolution images (21MB/image) of parabaik (accordion folded paper manuscripts), bound scrolls, and a palm leaf manuscript. The scope of the captured resources is particularly strong in Pa'O interpretations of

the Theravada Buddhist canon. Additionally, Pa'O historical and cultural texts were digitized; particularly interesting are manuscripts that document Pa'O dynasties and claims on important historical sites in contemporary Myanmar. The aggregated documents in this collection easily constitute the largest and most comprehensive Pa'O literary and religious studies resource outside of Pa'O regions in Myanmar and Thailand.

In addition to the digital preservation of these endangered texts, the project itself raised a new awareness of these important resources locally. The PLCCC Library has taken steps to better organize and re-house these materials in improved conditions. Further, the project strengthened the relationship between the PLCCC Library and local Pa'O monasteries, encouraging more projects such as a burgeoning Pa'O-Burmese dictionary and more manuscript conservation efforts.

View the digital collection on the Southeast Asia Digital Library website. EAP104/1 Selection of records from the Pa'O Literary and Cultural Council Committee Library Manuscript Archive [1895-1986, 1257-1348 Burmese Era]

2.2 Research Works Concerned

Review of important articles is included here to provide a basic overview of the study that has been done on the Pa-O Dialect.

2.2.1 Orranat Thanamteun. 2000. A Phonological study of Pa-O (Taungthu) at Ban Huay Salop, Tambon Huay Pha, Muang District, Mae Houng Son Province.

The result of this study shows that the phonological system is composed of twenty consonant phonemes / p, p^h, b, t, t^h, d, c, c^h, k, k^h, $ʔ$, s, h, m, n, $ŋ$, l, r, w, j / eleven vowel phonemes / i, e, $ɛ$, a, $ɰ$, $ə$, u, o, $ɔ$, a^i, a^u /, and four tonemes: high rising high falling, mid-level, and low falling tone. The syllable structure is c_1, (c_3), (c_4), v_1^t, (c_2). There are three types of syllables: presyllable, minor syllable and major syllable. There are three types of phonological words: monosyllabic words, disyllabic words and trisyllabic words. Intonation is caused by tone of the final syllable of the statement either falling or rising.

2.2.2 Sann Kyaw.2006. The Pa-O Rebels and Refugees. Sann Kyaw, an ethic Pa-O, completed two years at University of Mandalay, before the pro-democracy uprising in 1988, when the Universities were closed he Joined the Pa-O National Organization (PNO) military headquarters and served as a signal officer. His native Languages are Pa-O and Burmese, and he is also fluent in English and Thai.

2.2.3 Rungjit Jarenponganarn: 1997. A Phonological study of Arakanese Burmese was spoken in Sittwe city, Arakan State, Burma.

The Syllable structures are three types. They are presyllable, major syllable and minor syllable. There are thirty three consonant phonemes.

2.2.4 Robert B. Jones; 1961. Pa-O. Karen linguistic studies: Description, comparison, and Text.

Jones presents the northern variety of Pa-O spoken around Taunggyi in Burma. The phonemic systems of this variety are presented briefly as follows:

Consonant Phonemes: There are 20 single consonant phonemes as fellow:

Labial	Alveolar	Palata	Retroflex	Velar	Glottal Plosive
Vl. unasp	p	t	c	k	ʔ
Vl. asp	P^h	t^h	c^h		k^h
Vd	b	d			
Nasal	m	n			ŋ
Fricative		s			h
Lateral	l				
Trill			r		
Semi-vowel	w	j			

Jones notes " /h/ has an affricated allophone in free variation with the spirant allophone. /w/ has a libido-dental allophone (v) in initial position, and a post-consonantal allophone which is a monosyllabic high back rounded vowel, (^{u}) ./j/ has an allophone with spiritual friction (ʝ) in initial position, and a post-consonantal allophone which is a monosyllabic high front unrounded vowel, (^{i})".

Final consonants: There are 7 consonant phonemes /p, t, k, ʔ, m, n, ŋ / occur in final position. All are unreleased in final position. The stops / p, t, k/ are somewhat frontier. Final /ŋ / sometime has weak closure resulting in a lenis nasalized prevelar stop which is in free variation with simple nasalization of the vowel. Final / ʔ / in unstressed syllables is dropped, but the nucleus retains its proper allophones of position and length. Such unstressed syllables occur only in normal transition with the following syllable. Final stops occur only with high and low tones.

Consonant Cluster: There are 4 second consonant phonemes /w, j, r, l,/ occurs with initial consonants as consonant clusters as follows:

Second and Third Consonant	Initial Consonant												
w	P l	b	t	tʰ	n	c	cʰ	k	kʰ	ŋ	ʔ	s	h
j	P l	pʰ	m	t	n		cʰ	k	kʰ		ʔ		r
r	P	pʰ						k	kʰ				
l	P		b					k					
rw	Pʰ							kʰ					

Vowel phonemes: There are 10 single vowel phonemes /i, e, ɛ , y, ə, a, ʉ, u , o, ɔ / and 2 single vowels /aⁱ , aᵘ/, as follows:

	Front Unround – Round	Central Unround – Round	Back Unround - Round
Close	I	y	ʉ u
Half-Close	E	Ə	o
Half-Open	ɛ		ɔ
Open		a	
Glide	aⁱ		aᵘ

Jones suggested " /ɨ / is a high back unrounded vowel, founded only in Taungthu deviation from the nine-vowel system of syllabic nuclei of the other five varieties of Karen. /y/ is high central. /o/ is diphthongal.

[oᵘ] , but /e/ is monophthongal. The mid central vowel, /ə / , is some what lower when stressed, somewhat higher and fronter when unstressed. The high vowels are all somewhat lower before final stops and nasals. The low central vowel, / a /, is fronter before /i / , backer before /u /. All nuclei are considerably shorter when followed by a stop."

Tone phonemes: There are four phonemic tones: high rising, high Falling, mid, and low. Closed syllables occur only with the high and the low tones. In unstressed position the high tone of closed syllables has a somewhat lower allotone. Similarity, the low tone has a somewhat higher allotone under the same condition. In the accompanying diagram the relative pitch and contour of the tones in stressed positions are indicated by solid lines. Unstressed allophone of the high and the low tones in closed syllables are indicated by broken lines.

Tone	High	High	High Falling	Mid Level	Low	Low
Level	/ ´ /	/ ´ʔ/	/ ^ /	/ - /	/ ` /	/ `ʔ /
High						
Mid						
low						

2.2.5 Nitasakorn Shiwaruangrote, 2000: A Phonological Study of Yangon Burmese.

The results of revealed that tones of the final syllables or particles create different intonation contours: if the pitch pattern of the final syllables or particles is falling, the intonation of the utterance is falling; if the pitch pattern is rising, then the intonation of the utterance will be rising, which is predicate.

There are four types of phonological words: monosyllabic, disyllabic, trisyllabic and tetrasyllabic. Each word type carries predictably strong stress at the final syllable. There are three types of syllable: major, minor, and presyllable. The structure of the major and minor syllable is C_{i1} (C_{i2}) V_i (V_2) ^{T}, and the structure of presyllable is only /Ca/. The phonemes comprises: 34 consonants, /p, ph, b, d, ɬ, d, t, th, d, k, kh, g, ʔ, s, sh, z, ɕ, h, c, ch, j, m, hm, n, hn, ɲ, hɲ, ŋ , hŋ , w, y, l, h, l, r /; eight oral vowels, /I, e, ɛ, a, u, o, ɔ, ai/; and seven nasal vowels, / ĩ , ẽ, ã, ũ, õ, ɔ̃, ãĩ /. There are four tones: /1, 2, 3, 4/, or high falling, mid falling, mid high, and high abrupt, respectively.

Assimilation is also found in three directional possibilities in which the assimilation works, regressive, progressive and coalescent with either total or partial assimilation. All these three types of assimilation occur very frequently in Yangon Burmese.

2.2.6 Nang Aye Aye Cho. 2014: munity In The Southern Shan State (1886-1962).

2.2.7 William Dunn Hackett. 1953: The Pa-O people of the Shan State, union of Burma: A Sociological and Ethnographic study of the Pa-O (Taungthu) people. Online resource: http://www.Pao kham.com Biographical.

Chapter III

Research Methodology

3.1 Research Design

The research methodology of this used qualitative research. The research processes is necessary information and collecting data will be analyzed and categorized from the primary sources of books and thesis, Secondary sources of the newspaper, magazines, WebPages, blogs and interview.

After having finished the proposal in October 2017, and researcher went back to the hometown, Ho-Na village, Taunggyi, Shan state, Union of Myanmar. It was spent 3 months there; for collecting the data and making records of the data collecting from informants Pa-O Dialect in Ho-Na village.

In the recording at village, the people participated in the conversations were sounding more differently in speaking than the people who live in mountains village and lowlands village. They are a little difference in pronunciation of sound.

In this study a literature survey was undertaken of both published and unpublished documents about the Pa-O language and Myanmar to further develop an understanding of the language. It was started to collect the data when M.A course study began.

In the second trip researcher went to office of Pa-O literature in Ho-Pong on May 2018 for the purpose of research. Many books were collected by there.

This vocabulary was transcribed according to the International Phonetic Alphabet and record on telephone.

In both of Pa-O phonemic and phonetic ways.

/phā/	[pha:]	father	သ
/mə/	[mə:]	mother	မိုး
/nî/	[ni:]	day	နိ

This research is carried out at Ho-Na villages, Ho-Pong city, Southern Shan State of Myanmar.

3.2 Population

To choose six native speakers of Pa-O who were to be used as informants, the critical as follows.

3.2.1 The informants must have been born in Ho-Na village, Ho-Pone city, Southern Shan state of Myanmar.

3.2.2 The informants must use the Pa-O Dialect as their native tongue and their daily lives.

3.2.3 The informant's must have completed articulation so that they can pronounce the sounds clearly and correctly.

3.2.4 The informant's age must be over 40 years old so that they could have much experience in language.

3.3 Preparation of the Study

3.3.1 In the preparation, study to know the literature connecting to the Pa-O dialect.

3.3.2 This studied in detail to get general knowledge information of Pa-O native speakers from Ho-Na village.

3.3.3 To get the books in the Thammasat University and Mahidol University which are concerned this topic.

3.4 Research Tools

This study was conducted through in depth-interview, how to get a general view of sound, vocabulary, pronunciations use in Pa-O dialect.

It is about the general information of native speakers in Ho-Na village, Ho-Pong city, Southern Shan State of Myanmar. In this part six of people will be selected for the interview for investigation of the speaking Pa-O dialect as fellow:

No.	Name	Occupation	Age	Address
1	Ven. Rajinda Siri	Abbot	47	Ho-Pong
2	Mr. Major Khunlar	Patron (leader) of Pa-O National Origination (PNO).	48	Taung Gyi
3	Mrs. Win May	Teacher	43	Ho-Pong
4	Mr. Khun Mg Phu	President of Pa-O humanist	54	Ho-Pong
5	Mr. U Khun Nge	President of committee of education	67	Ho-Pong
6	Mr. Khun Tun Mg	Student	40	Ho-Pong

3.5 Data Collecting

The data will be handout of the Pa-O native speakers in the Ho-Na village, Ho-Pong city, Southern Shan state of Myanmar.

The informants were also asked to describe the pictures from the villagers when the researcher made a question and they will be allocated to answer the questions. All data of villagers answer to record on cards. All words in the word list had been elicited, it will use in data collection.

3.6 Analysis of Data

The data collected from the informants will be analyzed. It is used as a interview of significance when researcher has data that are results will be analyzed the systematic way of linguistics, in both of Pa-O phonemic and phonetic ways.

All data will be used in phonetic symbols of transcribed in the International Phonetic Alphabet that is IPA font. The data cover is usage for analyzing phonological word, syllable, phoneme, and assimilation.

In the phonological word, monosyllabic words were used to analyze phoneme, polysyllabic words were used in analyzing syllable type syllable, phrase and sentences were used to analyze intonation and to analyze the assimilation system, and all types of data in contexts were used in conjunction with dictionaries.

3.6.1 Descriptive Approach

The descriptive approach used in this study is Tagmemics, which sees phonology as a hierarchy of ranks: the intonation group, the phonological word, the syllable and the phoneme. The unit of each rank has the structure stated in terms of the lower rank and has the function stated in terms of the higher rank.

The phonological hierarchy can be diagrammed as follows:

The intonation group
The phonological word
The syllable
The phoneme

Structure   Function
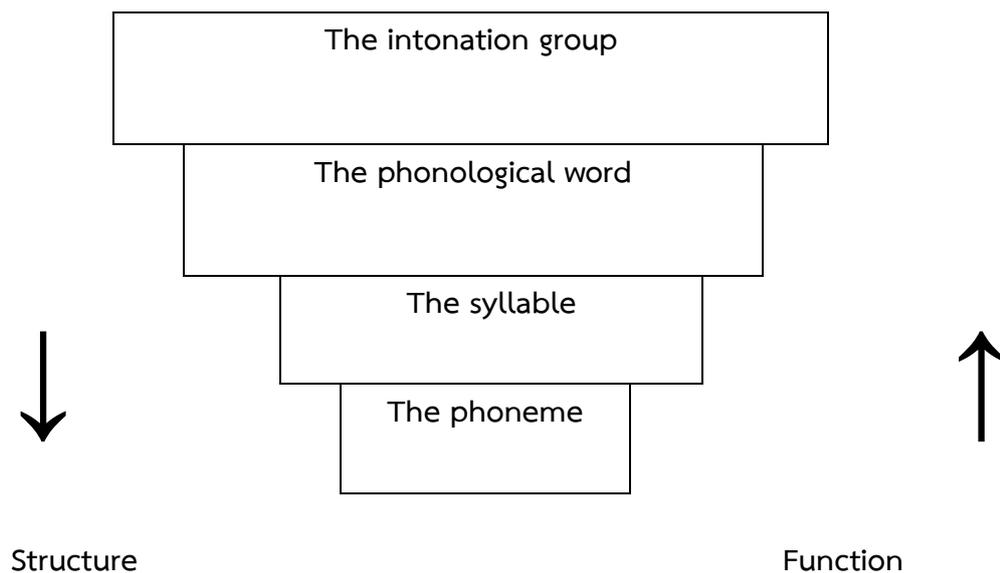
Figure 1: The Phonological Hierarchy of Pa-O

Chapter IV

Results of Research

4.1 The Phonemes

By composing this thesis, researcher hopes that this will not only help for those who want to learn and speak Pa-O language and researchers but also providers as a references thesis for new generation and juniors students to come. I tried my best to compose as completed as in this thesis. Mainly alphabet, vowel and intonation can be referring as described below.

4.2 Definition of Phoneme

The phoneme rank is defined as the rank which the units function in the syllable. It is the lowest rank of the phonological hierarchy and so it has no stable structure.

4.2.1 Function of Phoneme

Pa-O phoneme consists of three main classes which are consonant phoneme, vowel phoneme and toneme.

4.2.2 Result of the Consonants Phoneme

Pa-O consonant phonemes function as the syllable periphery. There are 20 consonant phonemes as spoken in the village of Ho Na: (p, pʰ, b, t, tʰ, d, c, cʰ, k, kʰ, ʔ, m, n, ŋ, s, j, h, l, r, w,). All of them can appear in the initial position. / P, t, k, ʔ, m, n, ŋ / these phonemes can also appear in the final position, / l, r, w, j / these phonemes can appear in the complex element of cluster and / w/ phoneme can appear in the consonant element of cluster (Crystal 1991:74).

In the following table of Pa-O consonants phonemes will be ground according to their manners and position of articulation. It can divided in to six group there are 11 plosive, 2 fricative, 3 nasal, 1 lateral, 1 trill, and 2 semi vowel as shown in the last chart.

Table 1: Pa-O consonant phonemes

Their position	Bilabial	Alveolar	Palatal	Velar	Glottal
Plosive unasp.v1, asp.v1, vd	p, pʰ, b	t, tʰ, d	c, cʰ,	k, kʰ	ʔ
Fricative unasp.vl.		S			h
Nasal vd.	M	N		ŋ̥	
Lateral vd.		L			
Trill vd		R			
Semi-vowel vd.	W		j		

4.2.3 Consonants Classes

In Pa-O dialect, consonants can be divided into four categories according to their initial consonants, final consonants, second member and third member of consonant clusters.

4.2.3.1. Initial Consonants

All Pa-O consonant phonemes can occur at the initial position. There are all of 20 initial consonant phonemes: They are / p, pʰ, b, t, tʰ, d, c, cʰ, k, kʰ, ʔ, m, n, ŋ̥, s, j, h, l, r, w/. The examples below are the Pa-O consonant phonemes as they appear in the initial position.

Example:

/ p /	po¹	"son"	ပို့
/ pʰ /	pʰŋ̥³	"pot"	ဖျိင်း
/ b /	bak³	"chop"	ဗက်
/ t /	tɛm²	"write"	တဲမ်း
/ tʰa: /	tʰwe⁴	"dog"	ထွေး
/ d /	dən¹	"thick"	ဓိန်
/ c /	cu¹	"hand"	စု
/ cʰ /	cʰɛŋ̥³	"coat"	ဆဲင်း
/ k /	kɔŋ¹	"mountain"	ကောင်

/ kʰa: /	kʰang⁴	"leg"	ခင်း
/ ʔ /	ʔeŋ̊⁴	"bite"	အဲင်း
/ m: /	me⁴	"fire"	မေး
/ my: /	mɛʔ¹	"aye"	မဲ့
/ n /	nɛn²	"breat"	နိုင်း
/ ŋ̊ /	ŋ̊an⁴	"tweak"	ငင်း
/ s /	sɯn⁴	"liver"	သွိုန်း
/ j /	jo²	"spoon"	စေား
/ h /	hən¹	"hear"	ဟွိုင်
/ l /	lam²	"house"	လမ်း
/ r /	rt¹	"sing"	ရှစ်
/ w: /	wa⁴	"bamboo"	ဝါး

Table 2: Distribution Initial Consonants and Vowels.

	i	e	ɛ	ɨ	∂	a	u	o	ɔ	aⁱ	aᵘ
P	X	X	X	O	X	X	O	X	X	O	O
pʰ	X	X	X	O	X	X	X	X	X	O	O
b	X	X	X	X	X	X	O	X	X	O	O
t	X	X	X	X	X	X	X	X	X	X	X
tʰ	X	O	X	X	X	X	X	X	X	O	O
d	O	X	X	X	X	X	X	X	X	O	X
c	X	X	X	O	X	X	X	X	X	X	O
cʰ	X	X	X	O	X	X	X	X	X	X	O
k	X	X	X	X	X	X	X	X	X	O	X
kʰ	X	O	X	X	X	X	X	X	X	O	O
ʔ	X	X	O	O	X	X	X	X	X	O	O
m	X	X	X	X	X	X	X	X	X	X	O
n	X	X	X	X	X	X	X	X	X	X	X
ŋ̊	O	O	O	X	X	X	O	O	X	O	O
s	X	X	X	X	X	X	X	X	X	X	O
j	X	X	O	O	X	X	O	X	X	O	O
h	O	O	X	O	X	X	O	X	X	O	X
l	X	X	X	O	X	X	X	X	X	O	O
r	X	X	O	O	X	X	O	O	X	O	O
w	O	X	O	O	X	X	O	O	O	O	O

X : Occurrence

O : Non-occurrence

All consonant phonemes can be the initial consonants and all vowel phonemes can occur in syllables. / ∂, **a** / are the vowel phonemes that has the widest distribution in syllables and / au / is the vowel phonemes that has the narrowest distribution in syllables. / **t, n** / are the consonant phonemes that has the widest distribution in syllables and / **w** / is the consonant phonemes that has the narrowest distribution in syllables. It only occurs with / **e**, ∂, **a** /.

Table 3: The co-occurrence of single initial consonants and tones in open and closed syllables.

	1	2	3	4	5	6	7	8	9	10	11	12
p	X	x	X	X	X	O	o	x	X	X	X	X
pʰ	X	x	X	X	x	O	o	x	X	X	X	X
b	X	x	X	X	x	O	o	x	X	X	X	X
T	X	x	X	X	x	O	o	x	X	x	X	X
tʰ	X	x	X	X	x	O	o	x	X	x	X	X
d	X	x	X	X	x	O	o	x	X	x	X	X
C	X	x	X	X	x	O	o	x	X	x	X	X
cʰ	X	x	X	X	x	O	o	x	X	x	X	X
k	X	x	X	X	x	O	o	x	X	x	X	X
kʰ	X	x	X	X	x	O	o	x	X	x	X	X
ʔ	X	x	X	X	x	O	o	x	X	x	X	X
m	X	x	X	X	x	O	o	x	X	x	X	X
N	X	x	X	X	x	O	o	x	X	x	X	X
ŋ̥	X	x	X	X	x	O	o	x	X	x	X	X
s	X	x	X	X	x	O	o	x	X	x	X	X
j	X	x	X	X	x	O	o	x	X	x	X	X
H	X	x	X	X	x	O	o	x	X	x	X	X
	1	2	3	4	5	6	7	8	9	10	11	12

l	X	x	X	X	x	O	o	x	X	x	X	X
R	X	x	X	X	x	O	o	x	X	x	X	X
w	X	x	X	X	x	O	o	x	X	x	X	X

X : Occurrence and O : Non- occurrence

Tone Open Syllables are 1, 2, 3, 4.

Tone closed syllable (Final Stops / p, t, k, ʔ /) are 5, 6, 7, 8 and (Final Nasals / m, n, ŋ̩ /) are 9, 10, 11, 12.

All single initial consonant phonemes can occur in open syllables and closed syllables. It also can occur with all tones in open syllables and closed syllables with finals /m, n, ŋ̩ /. Closed syllables with final stops / p, t, k, ʔ / not occur with tone / 6, 7 /.

4.2.3.2 Final Consonants

There are 7 final consonants in Pa-O that occur in the final position of the syllable. They are / p, t, k, ʔ, m, n, ŋ̩/.
Example-

/ p /	[kap³]	"rent"	ကောပ်ႇ
/ t /	[tot¹]	"brush"	တွၵ်(တ်)
/ k /	[jak¹]	"machine"	စက်
/ ʔ /	[mɛʔ¹]	"eye"	မ့ဲ
/ m /	[lam²]	"house"	လမ်း
/ n /	[nɛn²]	"breath"	နိၣ်း
/ ŋ̩ /	[ŋ̩aŋ̩²]	"back"	ငၣ်း

4.2.3.3 Second Consonant Cluster

There are 4 consonant clusters in Pa-O that occur as a second member of an initial consonant. They are /l, r, w, j/.
Example:

/ kla:t /	[kla:t³]	"to knock"	ကြက်ႇ
/ kra: /	[kra²:]	"pick"	ကြား

| / kwa: / | [kwa^4:] | "separated" | ကွား |
| / kjo: / | [kjo^4:] | "wet" | စိုး |

The consonant cluster of c_1 and c_3 is restricted to four patterns of consonant cluster as follows:

(a)-l- Cluster / -c_1-l /

C_1 are / p, p^h, k, k^h/

C_3 is / l /

They make 4-1- clusters /pl, p^{h}l, kl, k^{h}l/.

Example:

/pl/	[pleŋ^1]	"shoulder"	ပြင်
/p^{h}l/	[p^{h}la^1]	"bat"	ဖြာ
/kl/	[kle^3]	"turtle"	ကြဲ့
/k^{h}l/	[k^{h}o^1]	"boy"	ခို

(b) –r- cluster (C1r)

C_1 are / p, p^h, k, k^h /

C_3 is / r/

They make 4-r- clusters / pr, p^{h}r, kr, k^{h}r/.

Example:

/pr/	[pra^4]	"arrow"	ပြား
/p^{h}r/	[p^{h}ri^1]	"boat"	ဖြိ
/kr/	[kro^4]	"jade"	ကြား
/ k^{h}r/	[k^{h}rɔʔ^2]	"rare"	ခြား

(c) –w-Cluster (C1 w)

C_1 are / p^h, b, t, t^h, c, c^h, k, k^h, ʔ, m, ŋ̊, s, j, l, r,/

C_3 is /w/

They make 15-w-cluster /p^{h}w, bw, tw, t^{h}w, cw, c^{h}w, kw, k^{h}w, ʔw, mw, ŋ̊w, sw, jw, lw, rw,/

Example:

| /p^{h}w/ | [p^{h}wa^1] | "life" | ဖဝ |
| /bw/ | [bwa^1] | "write" | ဗွာ |

/tw/	[tweṇ¹]	"scoop"	တွောင်
/tʰw/	[tʰwi⁴]	"dog"	ထွီး
/cw/	[cwa³]	"wear"	ဆွ
/cʰw/	[cʰwe⁴]	"crab"	ခွေး
/kw/	[kwat⁴]	"plot"	ကွက်
/kʰw/	[kʰwa³]	"cold"	ခွ
/ʔw/	[ʔwa³]	"drink"	အွ
/mw/	[mwi⁴]	"inheritance"	မွီး
/ṇw/	[ṇwi⁴]	"shell"	ငွီး
/sw/	[swa³]	"friend"	သွ
/jw/	[jwe⁴]	"draw"	ယွီး
/lw/	[lwa³]	"lazy"	လွ
/rw/	[rwi²]	"root"	ရွီး

(D) –J- cluster (C_1 j)

C_1 are / p, b, d, c, cʰ, k, kʰ, n, ṇ, s, l, r/.

C_3 is /j/

They make 12-j-cluster /pj, bj, dj, cj, cʰj, k, kʰ, n, ṇ, s, l, r/.

Example:

/pj/	[pji³]	"parsley"	ပစီ
/bj/	[bjan³]	"monk"	ဗဝင်
/dj/	[djoʔ¹]	"cover"	ဒို.်
/cj/	[cjɔṇ⁴]	"knock"	စောင်း
/cʰj/	[cʰjoʔ³]	"plant"	ဆို
/kj/	[kjan¹]	"fore"	စင်
/kʰj/	[kʰje¹]	"dark"	ခေ့
/nj/	[nja³]	"press"	နျး
/ṇj/	[ṇjo⁴]	"cat"	ညဝ်း
/sj/	[sja³]	"truth"	သ
/lj/	[lja³]	"to rip"	လျး
/rj/	[rja¹]	"to close"	ရျ

4.2.3.4 Third Consonant Cluster

The third cluster consonant C_3 which is the third member of the cluster. It functions as a position initial consonant in syllable. Only a few word of three consonant cluster are found as follows: C_1 are /pʰ/, /kʰ/ and C_3 is /r/ or C_4 is /w/ They make 2 –rw- cluster /pʰrw/, kʰrw/.

Example:

/pʰrw/	[pʰrwe³]	"string"	ဗြ
/kʰrw/	[kʰrwa³]	"collect"	ြ

The following table shows the co-occurrence of the final consonants and vowels of the closed syllable. /p, t, k, ʔ, m, n, and ŋ/ are the consonant phoneme can occur finally and the final consonant phonemes /ʔ/, ŋ/ that have the widest distribution. The final consonant phoneme /p/ is the narrowest distribution and it only occurs with vowel phoneme /i, a, u, o/ and /ɔ/. i, e, ɛ, ɨ, ə, a, u, o, ɔ/ are single vowel phoneme, that can occur with final consonants in the closed major syllable. /aⁱ/ is the vowel phoneme never occurs with final consonants in the closed syllable and /au/ has the narrowest distribution. The vowel phonemes are I, a that have the widest distribution.

Table 4:

	P	t	K	?	m	N	ŋ
I	X	x	X	X	x	X	X
E	O	o	X	X	o	X	X
ɛ	O	x	O	X	x	X	X
ɨ	O	x	X	X	x	X	X
ə	O	x	X	X	x	X	X
A	X	x	X	X	x	X	X
U	X	x	X	X	o	X	X
O	X	o	X	X	x	O	X
ɔ	X	x	X	X	o	X	X
Ai							
Au				X			

X : Occurrence and O : Non-occurrence

Table 5: The co-occurrence of first cluster consonants (C_1), second cluster consonants (C_3) and third cluster consonants (C_4).

$c_1/ c_3/ c_4$ c	-J- cluster $c_1 j$	-l- cluster $c_1 l$	-r- cluster $c_1 r$	-w- cluster $c_1 w$	-rw- cluster $c_1 rw$
P	Pj	Pl	Pr		
p^h		$p^h l$	$p^h r$	$p^h w$	$p^h rw$
B	Bj			bw	
T				tw	
t^h				$t^h w$	
D					
C	Cj			Cw	
c^h	$c^h j$			$c^h w$	
K	Kj	Kl	Kr	Kw	
k^h	$k^h j$	$k^h l$	$k^h r$	$k^h w$	$k^h rw$
ʔ				ʔw	
M				Mw	
N	Nj				
ŋ̥	ŋ̥j			ŋ̥w	
S	Sj			Sw	
J				Jw	
H					
L	Lj			Lw	
R	Rj			Rw	
W					

The co-occurrence of the first member, the second member and the third member of the consonant cluster in table shows that: Consonant phonemes /j, l, r, w/ that appear as the second of consonant clusters and only consonant phoneme /w/ can appear as the third member of consonant clusters. /l, r, j/

consonant phonemes can both the first member cluster and the second member cluster. They cannot be the same phonemes like these /jj, ll, rr/ or /ww/.

In /l, r/ clusters, only bilabial plosives and velar plosives /p, pʰ, k, kʰ/ appear as the first member of the cluster. /k, kʰ/ appear with all of consonant clusters which are /j, l, r, w/ and /pʰ, kʰ/ appear with third member of consonant cluster was /w/. In /w/ cluster, almost consonant phonemes, except /p, d, n, h, w/ appear as the first member of the consonant clusters.

4.2.3.5 Consonant Formational Statement

All consonant phonemes in Pa-O language are produced with an egressive airstream mechanism.

/**b**/ is a voiced unaspirated bilabial plosive phoneme which is realized as follows:

[**b**] a voiced unaspirated bilabial plosive.

Examples:

/bat/	[bat³]	"drop"	ဘဲက်ႏ
/bai/	[bai⁴]	"cheek"	ဗိုင်း
/bwe/	[bwe¹]	"full"	ဗွေ
/blaŋ/	[plaŋ̥⁴]	"fat"	ြမ္လောင်း
/bɔn/	[bɔn¹]	"open"	ဗွောင်
/bʉ/	[bʉ¹]	"paddy"	ဗူ။

/**p**/ is a voiceless unaspirated bilabial plosive phoneme which is realized as follows:

[**p**] a voiceless unaspirated bilabial plosive phoneme.

Examples:

/pat/	[pat³]	"kick"	ပတ်ႏ
/pe/	[pe¹]	"skin, similar"	ပ
/pɔʔ/	[pɔʔ¹]	"haft"	ပို။
/po/	[po¹]	"son, daughter"	ပို
/pla/	[pla¹]	"bat"	ြပာ

| /pɛn/ | [pɛn²] | "vagina" | ပဲဉ်း |
| /pru/ | [pru²] | "betel" | ပြူး |

/pʰ/ is a voiceless aspirated bilabial plosive phoneme which is realized as follows:

[pʰ] a voiceless aspirated bilabial plosive.

Examples:

/pʰa/	[pʰa⁴]	"split"	ဖ
/pʰit/	[pʰit¹]	"invite"	ဖိဝ်
/pʰu/	[pʰu³]	"hole"	ဖု့
/pʰəŋ/	[pʰəŋ³]	"pot"	ဖှိင်္
/pʰlan/	[pʰlan³]	"collapse"	ဖြင်္
/pʰre/	[pʰre¹]	"boat"	ဖြ
/pʰrwa/	[pʰrwa³]	"vomit"	ဖြော့

/t/ is a voiceless unaspirated bilabial plosive phoneme which is realized as follows:

[t] a voiceless unaspirated bilabial plosive.

Examples:

/tak/	[tak¹]	"measure"	တဲက်
/tət/	[tət¹]	"worth"	ထ္ၖိက်
/tɔm/	[tɔm⁴]	"with, and"	တွမ်း
/tem:/	[tem²:]	"write"	တဲမ်း
/twa/	[twa¹]	"equal"	တွာ
/twak/	[twak¹]	"to count"	တွက်
/tom/	[tom¹]	"pick"	တွမ်

/tʰ/ is a voiceless aspirated alveolar plosive phoneme which is realized as follows:

[tʰ] a voiceless aspirated alveolar plosive.

Examples:

| /tʰam/ | [tʰam²:] | "cave" | ထမ်း |

/tʰo/	[tʰo¹]	"tall"	ထို
/tʰi/	[tʰi⁴]	"to see"	ထီး
/tʰut/	[tʰut¹]	"flow"	ထွတ်
/tʰɔŋ/	[tʰɔŋ̥¹]	"walk"	ထောင်
/tʰɛŋ/	[tʰɛŋ̥²]	"excess"	ထဲင်း
/tʰwe/	[tʰwe¹]	"right"	ထွေ

/d/ is a voiced unaspirated alveolar plosive phoneme which is realized as follows:

[d] a voiced unaspirated alveolar plosive.

Examples:

/daŋ/	[daŋ̥¹]	"rice"	ဒင်ွ
/dau/	[dau¹]	"liquor"	ဒဝ်
/di/	[di⁴]	"egg"	ဒီး
/dɔŋ/	[dɔŋ̥¹]	"to arrest"	ဒေါင်
/dji/	[dji²]	"fight"	ဒီး
/dia/	[dia³]	"to hook"	ဒျ၊
/dən/	[dən¹]	"thick"	ဒ၊န်

/c/ is a voiceless unaspirated palatal plosive phoneme which is realized as follows:

[c] a voiceless unaspirated palatal plosive.

Example:

/ca/	[ca¹]	"to start"	စ
/cai/	[cai¹]	"chew"	စိုင်
/ce/	[ce¹]	"open"	စေ
/cu/	[cu¹]	"hand"	စု
/cwai/	[cwai⁴]	"fang"	စွယ်း
/cwa/	[cwa³]	"to dispatch"	စွ၊
/cja/	[cja³]	"trash"	စျ၊
/cɔ/	[cɔ²:]	"spoon"	စော:

/cʰ/ is a voiceless aspirated palatal plosive phoneme which is realized as follows:

/cʰ/ a voiceless aspirated palatal plosive.

Examples:

/cʰe/	[cʰe³]	"mall"	ဆွေႚ
/cʰa/	[cʰa⁴]	"star"	ဆားႚ
/cʰik/	[cʰik³]	"sprinkle"	ဆဲက်ႚ
/cʰɛm/	[cʰɛm⁴]	"to stamp foot"	ဆဲမ်ႚ
/cʰən/	[cʰən̩¹]	"shake"	ဆွိုင်
/cʰom/	[cʰom¹]	"salt"	ဆျမ်
/cʰwa/	[cʰwa¹]	"wear"	ဆွ
/cʰja/	[cʰja¹]	"chicken"	ဆျာ

/k/ is a voiceless unaspirated velar plosive phoneme which is realized as follows:

[k] a voiceless unaspirated velar plosive.

Examples:

/ka/	[ka³]	"wear"	ကႚ
/ki/	[ki⁴]	"femur"	ကီးႚ
/ke/	[ke¹]	"tiger"	ကေ
/kʉ/	[kʉ¹]	"border"	ကူ
/kɔn/	[kɔn³]	"trouser"	ကွင်ႚ
/kleʔ/	[kleʔ³]	"turtle"	ကြေႚ
/kri/	[kri²]	"previous"	ကရီးႚ
/kwi/	[hwi⁴]	"chameleon"	ကွီးႚ
/kjaŋ/	[kjaŋ̩¹]	"loop"	ကွင်ႚ

/kʰ/ is a voiceless aspirated velar plosive phoneme which is realized as follows:

[kʰ] a voiceless aspirated velar plosive.

Examples:

| /kʰa/ | [kʰa³] | "fee" | ခႚ |

/kʰon/	[kʰon³]	"eggplant"	ခုံ့
/kʰɛn/	[kʰɛn⁴]	"chili"	ခဲ့ဉ်း
/kʰaʔ/	[kʰaʔ³]	"shoot"	ခ့
/kʰʉ/	[kʰʉ³]	"around, seed"	ရ့
/kʰwa/	[kʰwa³]	"cold"	ခွ့
/kʰra/	[kʰra³]	"to collect"	ခြ့
/kʰlɔn/	[kʰlɔn:²]	"basket"	ချောင်း
/kʰju/	[kʰju³]	"allium tuberosum"	ချူ့း

/ʔ/ is a voiceless glottal plosive phoneme which is realized as follows:

[ʔ] a voiceless glottal plosive.

Examples:

/ʔa/	[ʔa¹]	"many"	အာ
/ʔeʔ/	[ʔeʔ³]	"tear"	အဲ့
/ʔu/	[ʔu⁴]	"to bark"	အူး
/ʔeŋ/	[ʔeŋ̣¹]	"ginger"	အောင်
/ʔɔk/	[ʔɔk¹]	"to drink"	အွ့
/ʔwa/	[ʔwa³]	"to drink"	အွ့
/ʔwi/	[ʔwi⁴]	"delicious"	အွိုး
/ʔja/	[ʔja³]	"to brake"	အျ့

/s/ is a voiceless unaspirated alveolar fricative phoneme which is realized as follows:

[s] a voiceless unaspirated alveolar fricative.

Examples:

/sa/	[sa³]	"mind"	သ့
/se/	[se¹]	"horse"	သေ
/si/	[si¹]	"die"	သိ
/sʉʔ/	[sʉʔ³]	"cut"	သျူ့း
/sɛŋ/	[sɛŋ̣¹]	"dry"	သဲင်
/swi/	[swi⁴]	"blood"	သွိုး
/sje/	[sje³]	"insect"	သျေ့

| /sɔ/ | [sɔ¹:] | "key" | သော့ |

/**h**/ is a glottal fricative phoneme which is realized as follows:

[**h**] a glottal fricative.

Examples:

/ham/	[ham⁴]	"earth"	ဟံး
/hau/	[hau¹]	"good"	ဟဝ်
/hit/	[hit¹]	"smart"	ဟိတ်
/hɔ/	[hɔ³]	"read"	ဟော့
/hɛʔ/	[hɛʔ³]	"call"	ဟဲ့
/hʉ/	[hʉ⁴]	"fall"	ဟူး
/hən/	[hən¹]	"hear"	ဟ္ဍိင်

/**m**/ is a voiced bilabial nasal phoneme which is realized as follows:

[**m**] a voiced bilabial nasal.

Examples:

/ma/	[ma³]	"work"	မာ့
/mi/	[mi³]	"thatched"	မိ့
/me/	[me⁴]	"fire"	မေး
/mwan/	[mwan¹]	"pillow"	မွင်
/wəŋ/	[mwŋ̩¹]	"quick"	မွိင်
/mən/	[mən¹]	"alive"	မွန်

/**n**/ is a voiced alveolar nasal phoneme which is realized as follows:

[**n**] a voiced alveolar nasal.

Examples:

/naʔ/	[naʔ³]	"knife"	နဲ့
/ni/	[ni¹]	"we"	နိ
/ni/	[ni³:]	"day"	နိ့
/ne/	[ne²:]	"to take"	နေး
/nɛn/	[nɛn²]	"breast"	နဲင်း
/nen/	[nen³]	"smell"	နှမ့်

| /nja/ | [nja³] | "to press" | �花� |
| /nueʔ/ | [nuʔ³] | "to kiss" | ٤ٞ٠ |

/ŋ̊/ is a voiced velar nasal phoneme which is realized as follows:

[ŋ̊] a voiced velar nasal.

Examples:

/ŋ̊aʔ/	[ŋ̊aʔ¹]	"laugh"	c
/ŋ̊en/	[ŋ̊en⁴]	"intelligent"	ဉာဏ်ၩ
/ŋ̊i/	[ŋ̊i⁴]	"same level"	ၧ်ၩ
/ŋ̊o/	[ŋ̊o¹]	"cypress"	ၠ
/ŋ̊ɔk/	[ŋ̊ɔk³]	"nod"	ၐၵာက်ၩ
/ŋ̊ən/	[ŋ̊ən³]	"neck"	ၨၐ်ၩ
/ŋ̊ʉt/	[ŋ̊ʉt³]	"five"	ၐၭ်ၩ
/ŋ̊wa/	[ŋ̊wa¹]	"gate"	ၡ
/ŋ̊ji/	[ŋ̊ji¹]	"together"	ၧ်ၩ

/l/ is a voiced alveolar lateral phoneme which is realized as follows:

[l] a voiced alveolar lateral.

Examples:

/la/	[la³]	"to get"	လၩ
/lam/	[lam²]	"home"	လမ်ၩ
/le/	[le¹]	"light"	ၐလ
/li/	[li⁴]	"squirrel"	လီၩ
/lo/	[lo³]	"people"	လို့ၩ
/lʉ/	[lʉ⁴]	"to offer"	လျာၩ
/lɛn/	[lɛn¹]	"to scare"	လဲၧ
/lja/	[lja³]	"to rip out"	လျာၩ
/lɔ/	[lɔ²]	"cart"	ၐလာၩ

/r/ is a voiced alveolar trill phoneme which is realized as follows:

[r] a voiced alveolar trill.

Examples:

/rak/	[rak¹]	"love"	ရက်
/rai/	[rai³]	"cut"	ရဲင်း
/re/	[re⁴]	"direction"	ရေး
/ri/	[ri¹]	"to ask"	ရိ
/rɔn/	[rɔn¹]	"noisy"	ရောင်
/rʉ/	[rʉ²]	"snake"	ရူး
/rwi/	[rwi²]	"root"	ရွီး
/rja/	[rja³]	"hundred"	ရာ့

/w/ is a voiced bilabial semi-vowels phoneme which is realized as follows:

[w] a voiced bilabial semi-vowels.

Examples:

/wa/	[wa³]	"to down"	ဝ့
/waʔ/	[waʔ¹]	"snow"	ဝ
/wət/	[wət¹]	"to die"	ဝွစ်
/we/	[we³]	"fan"	ဝီ့
/wɔn/	[wɔn³]	"other person"	ဝင်း
/waŋ/	[waŋ²]	"blow"	ဝင်း

/j/ is a voiced palatal semi-vowel phoneme which is realized as follows:

[j] a voiced palatal semi-vowels.

Examples:

/ja/	[ja¹]	"differ"	စ့
/jan/	[jan¹]	"pure"	စင်
/je/	[je³]	"miserly"	ေစ့
/jəʔ/	[jəʔ¹]	"to pant"	စို့
/ju/	[ju¹]	"hand"	၉
/jʉm/	[jʉm³]	"group"	၉ုမ်

4.2.3.6. Consonant Phoneme Contrast

All of consonants described above are phonemically contrastive in Pa-O dialect. The suspect pairs of consonants which are contrastive in identical environments (IE) are shown below together with some examples:

Examples:

/b/=/pʰ/-/m/-/w/

/bit³/	"to cover"	ဘိတ်ႇ
/pʰit¹/	"invite"	ဖိတ်
/be⁴:/	"leaf"	ဘီႇ
/me⁴:/	"fire"	မေႇ
/ba⁴/	"bean"	ဘာႇ
/wa⁴/	"bamboo"	ဝါႇ

/c/=/cʰ/

/ca¹/	"to start"	စ
/cha⁴/	"star"	ဆာႇ

/d/=/tʰ/-/n/-/l/-/r/

/di⁴/	"egg"	ဒီႇ
/tʰi¹/	"water"	ထိ
/dɛn¹/	"cooked rice"	ဒဲၣ်
/nɛn²/	"bread"	နဲၣ်း
/do¹/	"piercing"	ဒို
/lo³/	"people"	လိုႇ
/doʔ¹/	"say"	ဒှါ့ထိး
/roʔ¹/	'stab"	ရှော့

/p/=/pʰ/-/b/

/pa³/	"broken"	ပထိုႇ
/pʰa³/	"to cut"	ဖ္တခဝ်
/paṇ¹/	"branch"	အပင်
/baṇ¹/	"spear"	ဗင်

/t/=/tʰ/-/d/

/to¹/	"hole"	တို

/tʰo¹/	"tall"	ထိုဆွာ
/tən¹/	"to jolt"	ထွိုမ်
/dən¹/	"thick"	ဒ္ဒါန်

/k/=/kʰ/-/ʔ/

/ka³/	"to wear"	ကႝ
/kʰa³/	"fee"	ခ႕
/kɔn³/	"trouser"	ကွဥ်ႝ
/ʔɔn¹/	"expose"	အွှာင်နယ်

/kʰ/=/h/-/ʔ/

/kʰam³/	"gold"	ခံႝ
/ham⁴/	"ground"	ဟံးႝ
/kʰɔŋ¹/	"firm"	ချိုင်
/ʔɔŋ⁴/	"to keep"	အွဥ်းဟဝ်

/m/=/n/-/ŋ/-/w/

/ma¹/	"wife"	မာ
/na¹/	"periphery"	အနာ
/mɔn³/	"hope"	မောင်ႝ
/ŋɔn³/	"neck"	၄ဥ်ႝ
/mi²:/	"tail"	အမေး
/wi³:/	"fun"	ဝိႝ

/n/=/ŋ/-/j/

/naʔ³/	"knife"	နႝ
/ŋaʔ¹/	"laughs"	ေထာႝ
/nɔn¹/	"pond"	နှောင်ကာန်ႝ
/jɔn²:/	"School"	ကျောင်ႝ

/s/=/tʰ/-/h/

/si¹/	"die"	သိွစ်
/tʰi¹/	"water"	ထီ
/sən¹/	"same level"	သ္သိန်ထင်ႝ
/hən¹/	"hear"	ဟွိုန်

/h/=/l/

| /hat³/ | "spicy" | ဟတ်ႉ |
| /lat³/ | "clever" | လက်ႉ |

/r/=/l/

| /ri¹/ | "to ask" | ရိဝင်ႇ |
| /li/ | "sparse" | လိꩡိုႇ |

4.2.4 Result of Vowels

Pa-O vowel phonemes function as the syllable matter. There are 11 single vowels phonemes: /i, e, ɛ, ʉ, ə, a, u, o, ɔ, ai, au/. All vowel can be divided into two sets. They are 9 single vowels and two glided vowels as follows.

- 9 single vowels: /i, e, ɛ, ʉ, ə, a, u, o, ɔ,/.
- 2 glided vowels: /ai, au/.

/p, t, k, ʔ/ is the closed syllable with final voiceless stops that bears the shortest nuclei and /m, n, ŋ/ is the closed syllable with final voiced nasal that bears longer nuclei.

Table 6: Pa-O Vowel Phonemes

Tongue Position Tongue High	Front	Central	Back
Single vowels	i	ʉ	u
Closed	e ɛ	ə	o ɔ
Half-closed		a	
Half-open			
Open			
Glided vowel	ai		au

4.2.4.1 Vowel Formational Statement.

/i/ is a closed front unrounded vowel phoneme which is realized as follows:

[i] a closed front unrounded vowel. It occurs in syllables with all tones.

Examples:

/pi/	[pi¹]	"skin"	အပိ
/di/	[di⁴]	"egg"	ဒိ့
/tʰi/	[tʰi¹]	"water"	ထိ
/ni/	[ni³]	"day"	နိ့

/e/ is a half-closed front unrounded vowel phoneme which is realized as follows:

[e] ahalf-closed front unrounded vowel. It occurs in syllables with all tones.

Examples:

/ke/	[ke¹]	"tiger"	ကေ
/se/	[se¹]	"horse"	စေ
/de/	[de⁴]	"frog"	ဒေ့
/pʰe/	[pʰe⁴]	"to give"	ဖေ့
/me/	[me⁴]	"tail"	အမေး

/ε/ is a half-open unrounded vowel phoneme which is realized as follows:

[ε] a half-open front unrounded vowel. It occurs in syllables with all tones.

Examples:

/mεʔ/	[mεʔ¹]	"eye"	မဲ့
/lεn/	[lεn¹]	"precipitous"	လဲင်
/tʰεŋ/	[tʰεŋ̊¹]	"fill"	ထဲၟ
/nεn/	[nεn²]	"breast"	နဲၟး
/pεn/	[pεn¹]	"board"	ပျဲၟ

/ʉ/ is a closed central rounded vowel phoneme which is realized as follows:

[ʉ] a closed central rounded vowel. It occurs in syllables with all tones.

Examples:

/bʉ/	[bʉ¹]	"paddy"	ဗူ။
/tʰʉ/	[tʰʉ¹]	"finished"	ထွၢလဲၥ်ႈ
/dʉt/	[dʉt³]	"to wipe"	၃တ်ႇ
/kʉ/	[kʉ¹]	"around"	ၵူ
/sʉ/	[sʉ¹]	"dry"	သူ

/ə/ is a mid central unrounded vowel phoneme which is realized as follows:

[ə] a mid central unrounded vowel. It occurs in syllables with all tones.

Examples:

/kʰəm/	[kʰəm¹]	"hand hold"	ၡမ်
/rət/	[rət¹]	"sing"	ရၥ်
/nəm/	[nəm³]	"smell"	နမ်ႇ
/mə/	[mə²]	"mother"	မ်ိုးႈ
/hən/	[hən¹]	"hear"	ဟ်ိုၚ်

/a/ is an open central unrounded vowel phoneme which is realized as follows:

[a] an open central unrounded vowel. It occurs in syllables with all tones.

Examples:

/la/	[la³]	"to get"	လႇ
/pa/	[pa³]	"broken"	ပႇ
/ma/	[ma³]	"do"	မႇ
/lak/	[lak³]	"clever"	လၵ်ႇ
/sa/	[sa³]	"mind"	သႇ

/u/ is a closed back unrounded vowel phoneme which is realized as follows:

[u] a closed back rounded vowel. It occurs in syllables with all tones.

Examples:

/pu/	[pu¹]	"tumescent"	ပူဆရေ့
/cu/	[cu¹]	"hand"	စု
/ʔu/	[ʔu⁴]	"bark"	အူး
/hu/	[hu¹]	"rice"	ဟု
/ru/	[ru²]	"snake"	ရး
/yhu/	[yhu²]	"mouse"	ယူး

/o/ is a half-closed back rounded vowel phoneme which is realized as follows:

[o] a half-closed back rounded vowel. It occurs in syllables with all tones.

Examples:

/po/	[po¹]	"son"	ပို
/mon/	[mon¹]	"pillow"	မိုင်
/pʰo/	[pʰo²]	"cow"	ဖိုး
/ko/	[ko¹]	"in"	အကို
/bot/	[bot³]	"bottle"	ဗုတ်

/ɔ/ is a half-open back rounded vowel phoneme which is realized as follows:

[ɔ] a half-open back rounded vowel. It occurs in syllables with tones.

Examples:

/hɔ/	[hɔ³]	"read"	ဟော့
/tɔ/	[tɔ²]	"forest"	တော့
/wɔt/	[wɔt¹]	"die"	ဝတ်
/lɔ/	[lɔ²]	"cart"	လော း
/tʰoŋ/	[tʰoŋ̩¹]	"drum"	ထုံ

/ai/ is a low open central vowel gliding off to a high front unrounded vowel phoneme which is realized as follows:

[ai] a low open central vowel gliding off to a high front unrounded vowel. It occurs in syllables with all tones.

Examples:

/cai/	[cai⁴]	"spent"	စိုင်း
/lai/	[lai²]	"field"	လှိုင်း
/cʰai/	[cʰai¹]	"later"	ဆှိုင်ႇ
/kʰwa/	[kʰwa³]	"cold"	ခွိ
/mwai/	[mwai²]	"yes"	မွေး

/au/ is a low open central vowel gliding off to a high back rounded vowel phoneme which is realized as follows:

[au] a low open central vowel gliding off to a high back rounded vowel. It occurs in syllables with all tones.

Examples:

/kau/	[kau⁴]	"flower"	ကဝ်း
/tau/	[tau²]	"not"	တဝ်း
/kʰau/	[kʰau¹]	"one half"	တခဝ်
/hau/	[hau¹]	"good"	ဟဝ်
/tʰau/	[tʰau²]	"no have"	အဲၣ်ထဝ်း

4.2.4.2 Vowel Phoneme Contrast

All of vowels described above are phonemically contrastive in pa-O dialect. The suspect pairs are contrastive in identical environments. Examples of the contrastive pairs are given below:

Vowel Phonemes

Examples

/i/ - /e/

/pi¹/	"skin"	ပိ
/pe⁴/	"small"	ပေး

/i/ - /a/

/di⁴/	"egg"	ဒိး
/da³/	"spread"	ဒါ

/i/ - /ɨ/

/mi³/	"thatches"	မိ

| /mʉ²/ | "sun" | မျူး |

/e/- /ɛ/

| /meʔ¹/ | "turmeric" | မေ့ |
| /meʔ³/ | "eye" | မဲ့ |

/e/ - /ə/

| /tʰen¹/ | "scoop up" | တွောင်ထီ |
| /tʰən¹/ | "walk" | ထောင်တဖွ့ |

/ʉ/ - /a/

| /tʰʉ⁴/ | "heavy" | ထွူး |
| /tʰa³/ | "needle" | ထ့ |

/ʉ/ - /ə/

| /lʉ²/ | "birth" | လွူးဖွ့ |
| /lə²:/ | "Bodily" | လွိုး |

/ʉ/ - /u/

| /cu¹/ | "collect" | စုပြိုး |
| /cʉ¹/ | "pour" | ဆူစင်း |

/a/ - /ɛ/

| /pan¹/ | "branch" | ပင်းအထောင် |
| /pɛn²/ | "vagina" | ပဲဉ်း |

/a/ - /ɔ/

| /sa³/ | "mind" | သ့ |
| /sɔ¹/ | "key" | သော် |

/o/ - /ɔ/

| /kʰoŋ̥¹/ | "eggplant" | ခုံ့ |
| /kʰɔŋ̥³/ | "prawn" | ခေါင့် |

/u/ - /o/

| /mu⁴/ | "female" | အမူး |
| /mo¹/ | "green" | အမို |

/ai/ - /au/

| /tai¹/ | "blossom" | ဝါး |
| /tau²/ | "not" | တဝ်း |

4.2.5 Result of Tonemes

Tones in Pa-O language functions, together with vowels, as the syllable-nucleus, There are four contrastive tones in Pa-O language: high, high falling, mid and low. The open syllables and closed syllables with final nasals /m, n, ŋ/ can occur all four of them while the closed syllables with final stops /p, t, k, ʔ/ occur only with the high and the low tones.

Table 7: Tone of Pa O

Phonemic Notation	Name	Tone Symbol	Phonetic Transcription
/1/	high	⌐	4
/2/	High-falling	ꞁ	3
/3/	Mid	|—	2
/4/	Low	L	1

TONE=

Ka-1   Ka-2   Ka-4

Ka-1   Ka-3   Ka-4

1 represents high tone, 2 represents high falling tone, 3 represents mid tone and 4 represents low tone.

4.2.5.1 Toneme Formational Statement

/1/ [⁴] high tone. The pitch pattern of this tone starts below high that occurs with the open syllable and close syllable.

Examples:

/bʰʊ¹/	[bʰʊː⁴]	"feed"	ဗှူး
/lə¹/	[ləː⁴]	"demure"	လှိုး
/tʰam¹/	[tʰam⁴]	"carry"	ထမ်း
/tmoʔ¹/	[moʔ⁴]	"sky"	မိုး
/kɔŋ̊¹/	[kɔŋ̊⁴]	"east"	ဆၚ်ကွင်း

/2/ [³] a high falling tone. The pitch pattern of this tone starts from high that occurs with the open syllable and the closed syllable with finals /m, n, ŋ/. Examples:

/sam²/	[sam³]	"bedbug"	သမ်ႄ
/de²/	[de:³]	"ala"	ဒေႄ
/yaᵘ²/	[yaᵘ:³]	"mortal sin"	ယဝ်ႄ
/kən²/	[kən³]	"clique"	ကွဵင်ႄ
/ci²/	[ci³]	"baulk"	ချုဵရဲး

/3/ [²] a mid-tone. The pitch pattern of this tone starts from mid that occurs with the presyllable, open syllable and the closed syllable with finals /m, n, ŋ/. Examples:

/neŋ³/	[eŋ²]	"tea leaf"	နေင်းသဲင်
/tʰi³/	[tʰi²]	"male"	အထီး
/lam³/	[lam²]	"home"	လမ်း
/cʰo³/	[cʰo²]	"stop"	ဆွုဵး
/cəm³/	[cəm²]	"fresh"	စွုဵန်း
/lwi³/	[lwi²]	"smell"	လွီး

/4/ [¹] a low tone. The pitch pattern of this tone starts from low that occurs with the open syllable and the closed syllable. Examples:

/kɔŋ⁴/	[kɔŋ¹]	"mountain"	ကောင်
/ke⁴/	[ke¹]	"tiger"	ကေ
/ki⁴/	[ki¹]	"up"	ဆႄကီ
/cʰo⁴/	[cʰo¹]	"male"	အချို

4.2.5.2 Toneme Contrast

All four tonemes are contrastive in identical environment (IE) as shown below:
Examples:

Tonemes		Examples	
/1/=-/2/-/3/-/4/	/ka¹/	"wear"	ကွဉ်ကႄ

	/ka²/	"expensive"	ကား
	/ka³/	"car"	ကာႏ
	/ka⁴/	"pass"	ကားဖျတ်
/1/=/2/	/lo¹/	"person"	လိုꤿ
	/lo²/	"to need"	လိုꤿ
/1/=/3/	/la¹/	"to get"	လꤿ
	/la³/	"mon"	လာ
/1/=/4/	/wa¹/	"snow"	၀
	/wa⁴/	"bamboo"	၀ါꤿ
/2/=/3/	/ce²/	"paper"	စေးလာꤿ
	/ce³/	"screwy"	စေꤿ
/2/=/4/	/cʰa²/	"multiplicity"	စား
	/cʰa⁴/	"touch"	စာꤿ
/3/=/4/	/kən³/	"trouser"	ကွင်ꤿ
	/kən⁴/	"east"	ကွင်ꤿ

4.3 Phonological Word

4.3.1 Definition of Phonology

The Phonological hierarchy ranks, i.e. the Phonological word, syllable and phoneme are going to be studied respectively. The phonological word and syllable will be studied in terms of structure. The main focus is placed on phoneme which consists of consonants, vowels and tones.

The phonological word is distinguishing by nuclear stress in languages and in terms of syllable and its stress component.

4.3.2 Structure of Phonology

The word in Pa-O, generally, can be divided into four main types: monosyllabic, disyllabic, trisyllabic and polysyllabic words. The words of various

stress types have 3 sub-types; they are zero stress or unstressed, weak stress and strong stress.

4.3.2.1 Monosyllabic Word

A monosyllabic word is a word with only one meaningful syllable. The strong stress usually occurs on that syllable. As Pa-O is the monosyllabic language, many Pa-O words are in the monosyllabic form. It structure is strong stress.

Example:

/ lam /	[lam²]	"house"	လၢမ်း
/ me /	[me²:]	"tail"	မေး
/ pi /	[pi⁴:]	"flute"	ပီး
/ pʰa /	[pʰa⁴:]	"ashes"	ဖား
/ tom /	[to'm¹]	"bend"	တွမ်
/ cu /	[cu¹:]	"hand"	ၠ
/ nɛn /	[nɛn²]	"breast"	နဲင်း
/ sʉn /	[sʉ'n⁴]	"liver"	သွိုန်း
/ cʰut /	[cʰut³]	"bone"	ဆွတ်
/ kʰaŋ̩ /	[kʰa'ŋ̩⁴]	"foot"	ခင်း

4.3.2.2 Disyllabic Word

Disyllabic word is a word with two syllables. It can be divided into two sub-types in its structure. There are two types of this structure.

Sub-Type 1

This type of structure has an unstressed followed by a major syllable and the last syllable bears the strong stress.

Example:

/ pa tʰo /	[pa³ tʰo¹:]	"spit"	ပၧ
/ pa lɛŋ̩ /	[pa³ lɛ.ŋ̩³]	"bottle"	ပၧလဲင်
/ ta kɔŋ̩ /	[ta kɔ.ŋ̩ ¹]	"hill"	ကောင်
/ tʰa sa /	[tʰa³ sa²:]	"animal"	ထၧသား
/ ka tu /	[ka³ tu⁴:]	"head"	ကၧတူး
/ ʔa pat /	[ʔa pat¹]	"week"	အပတ်

Sub-Type 2

This sub-type of structure has the weak stress falls on the first syllable and the strong stress is on the last syllable.

Examples

/ beŋ tʰa /	[beˈn̥⁴ tʰa³]	"sleep"	မောင်းထာ့
/ cu keŋ /	[cu¹: keˑn̥²]	"wrist"	စုခဲ့ဉ်း
/ kʰaŋ pʰa/	[kʰaˑn̥⁴ pʰa⁴:]	"shoes"	ခင်းဖား
/ pleŋ ʔɔʔ/	[pleˑn̥¹ ʔɔʔ³]	"armpit"	ပြင်ေအွ့
/ saʔ re/	[saʔ re³:]	"glad"	သ့ရေ့

4.3.2.3 Trisyllabic Word

A trisyllabic word is a word consisting of three syllables, which is rare in Pa-O language. There are four types of this structure as follows:

Examples: 1 (u.u.s)

/ ta ca lum/	[ta ca⁴ lum³]	"tick"	တဆင်းလ္ချုမ်
/ run ca ran/	[run¹ ca⁴ ran³]	"money list"	ရှ‌ည်စရင့်

Examples: 2 (u.w.s)

/ ta pʰe ra /	[ta pʰe¹: ra⁴]	"rose apple"	တဖြေရာ့
/ ta kʰo pʰun/	[ta kʰo²: pʰuˈn⁴]	"powder"	တခိုးဖွမ်း

Example: 3 (w.u.s)

/kʰwaʔ ta naʔ/	[kʰwaʔ¹ ta naʔ⁴] "	chill"	ခွတဆွ့
/lai ma sa/	[lai² ma³ sa²:]	"farmer"	လှိုင်းဏသား

Example: 4 (w.w.s)

/ koi neŋ si/	[koi⁴ neˈn̥² si¹:]	"rose"	ကင်းနဲ့ဉ်းသိ
/ kʰam pʰa ham/	[kʰam⁴ pʰa⁴: haˑm²]	"earth"	ခုံဖာ့ပုံ့

4.3.3 Types of Syllable

There are three types of Pa-O syllables in Ho-Poung: They are pre syllable, minor syllable and major syllable.

4.3.3.1 Presyllable

A presyllable consists of a single consonant and the open central vowel /a/ which is usually has the neutral vowel /ə/. This syllable type bears the original high rising or low falling tones with final glottal stop /ʔ/, which its nuclei is considerably shorter when followed by a stop. It occurs on the first syllable of disyllabic word. In this study, one dot after a vowel symbol /v/ means longer than a short vowel, two dot after a vowel symbol /v:/ means much longer than a short vowel. The presyllable is /Ca/ = [Cə]

Examples:

/tə sa⁴/	[tə¹ sa:⁴]	"salt"	တသား
/ tʰə sa²/	[tʰə¹ sa²]	"animal"	ထၟသား
/kə lu³/	[kə¹ lu³]	"hair"	ကလူၟ
/pə mai³/	[pə¹ mai³]	"who"	ပမ္ဲင်ၟ
/bə khaw/	[bə¹ khaw¹]	"garlic"	ဗၟခေါ
/ʔə cwai⁴/	[ʔə¹ cwai⁴]	"fang"	အစွယ်း
/jə lam¹/	[ja¹ lam¹]	"opium"	ယာလဲ

4.3.3.2. Major Syllable

A Major syllable consists of a single consonant cluster, a single vowel and a tone. It always takes a strong stress. Its occurrence is obligatory in monosyllablebic word and in the last position of polysyllabic word, that is, every word must have one major syllable.

The major syllable in Pa-O is C_1, (C_3) (C_4) V_1)

Examples: for open

/pi¹/	[pi:¹]	"skin"	၀
/ni³/	[ni:³]	"day"	နိၟ
/chaw³/	[chaw:³]	"long"	ဆွာ္ၟ
/swi⁴/	[swi:⁴]	"blood"	သွီး
/khrwi¹/	[khrwi:¹]	"rich"	၈ၠ

Examples for closed

/dɔʔ¹/	[dɔʔ¹]	"say"	ဒေါ့ၟ

/kut³/	[kut³]	"nine"	ကွတ်ႇ
/thoŋ¹/	[thoŋ̥¹]	"drum"	ထုံ
/lja³/	[lja³]	"rip out"	လျုႏ
/cjɔŋ⁴/	[cjɔŋ̥⁴/]	"fly"	ကျောင်း

4.3.3.3 Minor Syllable

A minor syllable consists of an initial single consonant or consonant cluster, a single vowel, an optional final consonant, and a tone. It bears a weakly stress and occurs in the word of two syllables or in polysyllabic word. The minor syllable can be both an opened and a closed syllable.

The minor syllable in Pa-O is C1 (C3) V1 (C2)

Examples: for open minor syllables

/ki⁴ leŋ²/	[ki:⁴ leŋ:²]	"knee"	ကီးလေင်း
/se¹ na⁴/	[se:¹ na:⁴]	"understand"	သေနာႏ
/bwai⁴ can³/	[bwai:⁴ can:³]	"monk"	ရဟန်ႇ
/kwai¹ sa⁴/	[kwai:¹ sa:⁴]	"rabbit"	ကွယ်သာႏ
/ʔə¹ mai³/	[ʔə:¹ mai³]	"where"	အ္��ိးမဲင်ႇ

Examples; for close minor syllables

/phit¹ tu³/	[phit:¹ tu:³]	"housefly"	ဖိထ္ꩦႇ
/beŋ⁴ man²/	[beŋ̥:⁴ man:²]	"dream"	ဗေင်းမင်း
/lam² ŋaŋ²/	[lam:² ŋaŋ̥:²]	"roof"	လမ်းငင်း
/lwaʔ³ ŋa⁴/	[lwaʔ:³ ŋa:⁴]	"lazy"	လွꩦ္ငါꩦ
/pleŋ¹ ʔɔ³/	[pleŋ̥:¹ ʔɔ:³]	"armpit"	ပြင်အော္ꩦ

4.3.4 Note on Phonological Word

The syllables can be devised into two classes; they are polysyllabic words and compound words.

4.3.4.1 Polysyllabic Word

A polysyllabic word contains of a free morpheme which is a syllable. It has independent meaning and appears together with bound morphemes. Those are syllables that do not have any meaning and cannot appear independently. The symbol "0" below

represents the syllables which are bound morphemes. This type of structure consists of four syllables.

Example:

/ tʰa(0) ʔa(0) tʰa(0) cʰa /	[tʰa ʔa: tʰa cʰaʔ¹:]	"sick"	ထာေဆာ့ထာႉဆာ
/ ta reŋ̣ suk(0) sjak(0) /	[ta re˙ŋ̣ suk sjak¹]	"disorderly"	တေရင်ႉသျုတ်သျုတ်

4.3.4.2 Compound Words

Compound word contains of at least two free morphemes which are syllables. Those are their independent meanings and appear together with or without bound morpheme (0) which are syllables that do not have independent meaning and appear.

Example:

/ seŋ̣ ron(0) ra tʰi/	[se˙ŋ̣⁴ ro˙n³(0) ra:⁴ tʰi¹:]	"fruit Juice"	ေသင်ႉေရာင်ရ့နဳ
/ pʰu po we po/	[pʰu²: po¹ we²: po¹]	"cousin"	ဖူႇပဳ့ေဝႇပဳ

4.4 Tone

4.4.1 Definition of Intonation

The intonation group is the highest rank in the hierarchy and has no stable function. The structure is stated in terms of the stress group.

4.4.2 Structure

No particular types of intonation can be mentioned. Only tones of final syllable of statement which bear a strong stress seem to create different intonation types. So the final contour can be falling or rising depending on the tone of the sentence as in the following examples:

4.4.2.1 Affirmative Sentences

The affirmative sentence has a falling pitch or a rising pitch according to the tone of the final syllable at the end of the sentence.

ဟန်ႏနီႇ	ခွေ	ေလွ့	ေကျာင်ႇ
/hani³	kʰwi¹	lwaⁱ³	kəŋ³/
Today	i	go to	school

"To day I go to school"

နိမ္မိုး	အဝ်း	ချုး	လမ်း
/mə:²	au⁴	su³	lam⁴/
Mother	is	at	home

"Mother is at home"

ခွေ	ဖြား	မ့်
/kʰwi¹	pla²	mɛʔ¹/
/I	wash	face/

"I wash my face"

ခွေ	ရက်	နာ့
/kʰwi¹	rak¹	na³/
I	love	you

"I love you"

မျူးရဝ်ႇ	ခမ်း	အီး	လော့
/mɯrɔⁱ³	kʰam²	ei⁴	law¹/
Tomorrow	rain	will	drop
"It	will	rain	tomorrow"

ဝွေႇ	လွေႇ	ဆေႇ
/wae³	lawⁱ³	cʰe¹/
He	go to	market
"He	go to	the market"

4.4.2.2 Negatives Sentences

ခွေ	ကျောင်ႇသား	တဖြာ့	တမွေး	တဝ်း
/kʰwⁱ¹	kʰaŋsa²	tapʰra³	tamwe	taᵘ²/
I	student	a	am	not

"I am not a student"

ခွေ	တမဲ့ည်	အံး	တဝ်း	ထပေး
/kʰwⁱ¹	taman¹	am⁴	taᵘ²	thape⁴/
I	want	eat	not	fish

"I do not want to eat fish"

မဟာ   ဝွေ့   တဗေင်း   တင်းထာ့

/maha¹   wae³   tabeŋ⁴   twᵘ²tʰa³/

Last night   he   sleeps   not

"He did not sleep last night"

နီ   ဗွေးစင်း   တမွေး   တင်း

/ni   bwejan   tamwe   twᵘ/

We   monk   are   not

"We are not monks"

4.4.2.3 The Content Question

နာ့   မာ့   ထမဲင်း

/na³   ma³   tha¹maⁱ¹/

You   do   what

"What do you do?"

ဝွေ့   အင်း   မဲင်း ကို

/wae³   awᵘ⁴   maⁱ³ko¹/

He   is   where

"Where is he?"

ဝွေ့   အုံ   တွမ်း   ပမဲင်း

/wae³   on¹   twam⁴   pamaⁱ³/

She   lives   with   whom

"Who with her lives?"

လွေ့   ဗား   တဖူ့   နိုင်းမဲင်း

/lwaⁱ³   ba⁴   tapʰu   naiⁱ²maⁱ³/

Go   to   road   how

"How to go this road"

မျူးရဝ်ခိုး   နာ့   ထွိုင်း   ချိန်မဲင်း   နာရီး

/mɯroⁱkʰo⁴   na³   tʰuŋ⁴   kʰin⁴maⁱ³   nari⁴/

Morning   you   get up   what   time

"What time do you get up in the morning?"

ပွိုးထမဲင်ႇ	နာႇ	ရွိုးထာႇ
/po²tʰamaⁱ¹	na³	ŋo²tʰa³/
Why	you	cry

"Why do you cry?"

4.4.2.4 The Polar Question

နာႇ	အံးနေးႇ	ထထီး	ရား	ဟောင်း
na³	am⁴ne¹	tʰatʰi⁴	ra⁴	hoŋ²/
Yoy	Eat	banana	fruit	p.q

"Do you eat banana?"

ေဝ့ႇ	အံး	လဲင်း	ဒဲင်	နဲ
/wae³	am⁴	lɛn²	dɛŋ¹	ne¹/
He	eat	already	rice	p.q

"Did he eat rice?"

နီ	ေလ့ႇ	အွႇ	ဒဝ်	နဲကား
/ni¹	lwaⁱ¹	ʔwaʔ	daᵘ	ne¹ka²/
We	go	drink	liquor	p.q

"Will we go to drink liquor?"

နာႇ	ဒေါ့ႇဒါးေန	ထုိင်ႇ	ငး	ဟောင်း
/na	°သʔda⁴ne¹	thai³	ŋaᵘ²	hoŋ²/
You	can	Thai	speak	p.q

"Can you speak Thai?"

4.4.2.5 Commands

ေလ့ႇ	ညာႇညာႇ
/lwaⁱ³	nya³nya³/
Go	away

"Go away!"

လွင်	ယို
/lɔn¹	yo¹/
Come	here

"Come here!"

ဆုံ	ထွ့ိုင်း	အုံ	လင်,
/ʔoŋ¹	tʰəŋ⁴	ʔoŋ¹	laŋ³/
Sit	stand up	sit	down

"Stand up and Sit down!"

အုံ	တေ့,တေ့,
/ʔoŋ¹	teʔteʔ¹/
Sit	silent

"Shut up!"

ထူး	မ္ဂိုန်း
/tɯ⁴	məŋ²/
Take	don't

"Don't take!"

4.4.2.6 Negative Command Sentences

လွ့,	မ္ဂိုန်း	သူ,ကို
/lwaⁱ¹	məŋ²	ʔosɯ³/
Go	do not	there

"Do not go there!"

မာ,သီ	မ္ဂိုန်း	သတ်တဝါး
/masi	məŋ²	sattawa⁴/
Kill	do not	being

"Do not kill being!"

ပွ့,	မ္ဂိုန်း	တခါ,
/peʔ	məŋ²	takʰa³/
Closed	do not	door

"Do not close the door!"

လဲည်	ထာ,	လ,တဝ်း
/lɛn¹	tʰa³	la¹twᵘ²/
Lie	do	not

"Do not lie!"

လွ�genꩦ ထꩦgenꩦ   လꩦgenꩦ တꩦဝ်း

/lwa¹ tha³   la¹ twᵘ²/

Lazy   do not

"Don't lazy"

အံၪ   ဟဝ်ဟဝ်   နေꩦ

/ʔoŋ¹   haᵘhaᵘ¹   naw²/

Be   good (good)   polite word

"Be good!" (Be careful!)

Chapter V

Conclusion, Discussion and Suggestion

5.1 Conclusion

This study of Pa-O Spoken Phonology in Southern Shan State of Myanmar, which may be summarized as follows:

5.1.1 Intonations

There is no significant particular intonation pattern. Tones of final syllable of statement seem to cause to be falling or rising.

5.1.2 Phonological Word

There are three types of Pa-O Phonological words: They are Monosyllabic Word, Disyllable Word and Trisyllable Word.

There are three types of stress: strong stress[s], weak stress [w] and unstress [u]. The strong stressed syllable occurs in monosyllabic word, in the last syllable of disyllabic and trisyllabic word while the weak stressed and the unstressed syllables can occur everywhere except at the end of the word.

5.1.3 The Syllable

The syllable structure is C_1 (C_3) (C_4) V_1 (C_2). There are altogether three syllables: Presyllable, major syllable and minor syllable. The presyllable consists of only /ə/ and has neutral tone. The major and minor syllables consist of all vowel phonemes and also all tones.

5.1.4 The Phoneme

There are three classes of phoneme: consonants, vowels and tones.

Consonants: There are 20 consonant phonemes: / p, pʰ, b, t, tʰ, d, c, cʰ, k, kʰ, ʔ, m, n, ŋ, s, j, h, l, r, w/.

Vowels: There are 11 vowel phonemes: /i, e, ɛ, ɨ, ə, a, u, o, ɔ, ai, au/. All vowels can be divided into two sets.

They are 9 single vowels and two glided vowels as-follows.

9 single vowels: /i, e, ɛ, ɨ, ə, a, u, o, ɔ,/.

2 glided vowels: /ai, au/.

Tones: There are four tone phonemes: (1) high, (2) high falling,(3) mid and (4) low.

5.2 Discussion

Concerning to researcher's title, when trying to get tools and to collect the data, the researcher must rely on them, those who can help. First of all, researcher has to go there and interview them.

Further more, the researcher has to keep noted main-point or out line from obtainable discussion in the results of interviewing. Fill in the blank what researcher needs to put more into their research paper and go to local people and ask them whom chosen by getting the correct voices from native speakers. There must be a little bit different pronunciation, because of using voice and intonation. So that, it is difficult when the researcher is learning in practical way and asking questions, because a researcher has to note carefully the form of emotional voices describing. This study will be clear between Pa-O and English speeches. Also, Pa-O can learn and speak English easily. It will be smooth and easier for Pa-O, because their intonation is more than Myanmar and another language such as Thai, English, and Japan. Therefore, Pa-O ethnics could speak Thai language easily, without study heavily in it.

The benefits of learning by doing this research, it is important to contribute a spoken language, intonation wave, emotion. A researcher must listen carefully to every single word and phonetic accent from answer when asking information. All data that researcher has researched presents in the body text.

5.3 Suggestion

5.3.1 There are other Pa-O dialects spoken in Mon, Karin State, lower of Myanmar. It would be interesting to compare all of them.

5.3.2. It would be interesting to compare of Pa-O dialects spoken in Upper Myanmar, Lower Myanmar and northern Thailand.

5.3.3 In other topics, it would be interesting besides of a Phonological to study in social linguistics, morphology, syntax and grammatical studies.

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Appendix

Glossary

The following Pa-O lexical items are listed presented in the list with the general meanings.

The entries are arranged in the following order.

1. The order of initial consonant is / p, pʰ, b, t, tʰ, d, c, cʰ, k, kʰ, ʔ, m, n, ŋ, s, j, h, l, r, w/.
2. The order of vowels is /i, e, ɛ, ʉ, ə, a, u, o, ɔ, aⁱ, aᵘ/
3. The order of tones is /1, 2, 3, 4/

/ p /

/pa³/	broken	ပ၊ထိုၚ်
/pat¹/	to kick	ပတ်၊
/paŋ¹/	branch	ပၚ်
/pan⁴/	to turn	ပန်း
/pa¹ na²/	buffalo	ပနား
/paŋ⁴ lɛ⁴/	sea	ပၚ်းလယ်း
/pe⁴/	small	ပေၚ်ၚါး
/pe¹ dan¹/	ruler	ပေတန်
/peŋ/	wood	ပျၚ်
/pe¹ la⁴/	earring	ပေလား
/pi¹/	skin	ပီၢတဖြိုၚ်
/pi³/	pinch	ပီ၊
/pi⁴/	flute	ပီး
/pɛn/	vagina	ပဲၚ်း
/pə cʰu⁴/	launder	ပချုံး
/pə kjoke¹/	jump	ပကျောက်
/pə len³/	bottle	ပလဲၚ်
/pə nɛn⁴/	soft	ပနဲၚ်း
/pə mai³/	who	ပမဲၚ်

/pə se¹/	wash	ပသေ
/pə soʔ¹/	repulsive	ပသို့
/pa cho²/	to play	ပဆိုး
/pa si⁴/	iron	ပသီး
/po⁴/	extra	ပိုး
/po¹/	child	ပို
/po kʰo¹/	son	ပိုခို
/po mu⁴/	daughter	ပိုမူး
/pɔ⁴ lwn¹/	appearance	ပေါးလွည်
/pɔ²/	father	ပေါး
/pɔ³/	cheap	ပေါ့
/pɔk³/	short	ပေါက့်
/pla¹/	bat	ပြာ
/pla⁴/	arrow	ပြား
/plɔŋ⁴/	corn	ပြောင်းၤခိုခယ်း
/ple¹/	smooth	ပြေ
/ple⁴/	ok, convenient	ပြေး
/pleŋ¹/	shoulder	ပြင်
/pleŋ¹ʔɔʔ³/	armpit	ပြင်အော့
/pləŋ³/	topple	ပြင့်
/pra³/	wipe	ပြာ့
/pru²/	betel	ပြူး
/pjak¹/	joke	ပျက်ထာ့

	/ pʰ /	
/pʰa³/	to split	ဖ့
/pʰa¹/	separated	ဖထို့
/pʰa⁴/	ashes	ဖား
/pʰa¹/	father	ဖ
/pʰa¹ wa¹/	life	ဖဝ
/pʰa¹ pʰra²/	grandfather	ဖဖြား
/pʰa¹ tan¹/	parental older brother	ဖတန်

/pʰa¹ naŋ¹/	father's younger brother	ဖာနင်
/pʰat¹/	read	ဖတ်
/pʰe¹/	grain	ဖေ
/pʰe³/	disaster	ဖေႏ
/pʰe⁴/	to give	ဖေး
/pʰe⁴ la¹/	to lend	ဖေးလ
/pʰeʔ¹/	side	ဖဲ့ႏ
/pʰi̠³/	mother in law	ဖိ
/pʰi̠²/	urchin	ဖီး
/pʰi̠¹ bwa¹/	nun	ဖိဗွာ
/pʰit¹/	inviting	ဖိစ်
/pʰit thu³/	housefly	ဖိထူႏ
/pʰin³/	forget	ဖေင်ႏ
/pʰɛn⁴/	brake wind	ဖဲဉ်ႏထာႏ
/pʰɛŋ¹/	edge	ဖဲင်
/pʰəŋ³/	pot	ဖို့င်ႏ
/pʰə⁴/	low	ဖို့း
/pʰən³/	covered wall	ဖွောင်ႏ
/pʰək¹ bo⁴/	union	ဖောက်ပိုး
/pʰu¹/	father in law	ဖု
/pʰu³/	hole	ဖုႏ
/pʰu²/	younger	ဖူး
/pʰu² kʰo¹/	younger brother	ဖူးခို
/pʰu² mu⁴/	younger sister	ဖူးမူး
/pʰu⁴/	bevy	ဖုႏ
/pʰo²/	cow	ဖိုး
/pʰo¹/	have been	ဖိုလဲဉ်း
/pʰom¹ wan³/	fighting	ဖုမ်ဝင်ႏ
/pʰoʔ¹/	bake	ဖို့ႏ
/pʰɔ⁴/	identified	ဖောႏထန်ႏ
/pʰɔt¹/	sweep	ဖွစ်ႏ

/pʰɔʔ/	vomit	ဖြော့ၢ
/pʰli¹/	gondola	ဖြီ
/pʰle¹/	smooth	ဖြေ
/pʰleʔ/	intestines	ဖြဲ
/pʰlen⁴/	competition	ပြိင်း
/pʰlan⁴/	shoulder	ဖြိုင်
/pʰloʔ¹/	animal skin	ဖြို့ၢ
/pʰreŋ²/	black	ဖြေၣင်း
/pʰre¹/	tongue	ဖြေၢ
/pʰre³/	buy	ဖြေၢ
/pʰre⁴/	answer	ဖြေးချာ
/pʰra²/	old age	ဖြား
/pʰra⁴/	yawn	ဖြားနမ်း
/pʰrom⁴/	fruit	ဖြိုး
/pʰroŋ²/	mouth	ဖြောင်း
/pʰraᵘ³/	Shan people	ဖြောဝ်ၢ
/pʰraᵘ⁴/	talk	ဖြောဝ်း
/pʰraw¹/	repays	ဖြောချာ

/ b /

/ba¹/	carry by back	ဗ
/ba³/	arrive	ဗၢတ္�်း
/ba⁴/	bean	ဗား
/ba²/	crazy	ဗား
/ba⁴ mai³/	which	ဗားမဲင်ၢ
/ba⁴ taᵘ²/	not yet	ဗားတဝ်း
/bak³/	chop	ဗက်ၢ
/baŋ¹/	spear	ဗင်
/be¹/	bean	ဗေ
/beŋ⁴/	sleep	ဗေင်း
/bi¹/	small	ဗိ
/bi³/	piece of cloth	ဗိ

/bi⁴/	leaf	ဗီး
/bi²/	consonant	ဗျင်း
/bɛ²/	goat	ဗဲး
/bɛn/	loop	ဗျင်ပတ်
/bə¹/	thin	ဗျါ
/bə⁴/	hate	ဗျါး
/bəŋ⁴/	take off	ဗွောင်း
/bən¹/	open	ဗွောင်
/bən¹/	same	ဗျါန်ပီ
/bʉ¹/	paddy	ဗျူ
/bʉ⁴/	feed	ဗျူး
/bʉ²/	throw	ဗျူး
/bʉŋ⁴/	dare	ဗျန်း
/bo¹/	duke	ဗိုလ်မူ,မတ်
/bo¹ tai¹/	lotus	ဗိုတိုင်
/bon¹/	kindle	ပုံမေး
/bɔʔ¹ lɛʔ³/	dirty	ဗော့,လဲ့,
/bɔʔ¹/	near	ဗော့,
/bai⁴/	cheek	ဗိုင်း
/bwa¹/	rub	ဗွ,
/bwa³/	white	ဗွာ
/bwaⁱ¹/	full	ဗွေ
/bwaⁱ⁴/	owner	အဗွေး
/bwaⁱ⁴ jan³/	monk	ဗွေးစင်,

/ t /

/ti³/	guard	တီ
/ti⁴ mal³/	strengthen	တီးမယ်,
/tɛm⁴/	referee	တဲင်း
/tɛm²/	write	တဲမ်း
/tɛŋ²/	block of resist	တဲင်း
/tʉ¹/	stupid	တွျူနတ်,

/tʉ²/	common	တွူးၟၢ
/tʉ⁴/	push	တွူး
/tət¹/	rub	တွစ်
/tək¹/	count	တွက်
/təŋ⁴/	stands up	ထွိုင်း
/təŋ¹ tub²/	floor	ထွိုင်ထပ်
/tə¹ bar⁴/	one	တဗား
/tə¹ pʰu³/	street	တဖ္ု
/tə¹ chi¹/	ten	တဆီ
/tə¹ tʰa¹/	bridge	တထာ
/tə¹ dwe¹/	cucumber	တဒွီ
/tə¹ kəʔ³/	mango	တခါ့
/tə¹ kʰa³/	door	တခါ့
/tə¹ nat¹/	gun	တနတ်
/tə¹ si²/	yellow	တသီး
/tə¹ sa¹/	new	တသာ
/tə¹ sa⁴/	salt	တသား
/tə¹ li³/	wind	တလီ့
/tə¹ loŋ³/	middle	တလောင့်
/ta¹/	tail	ထ့
/ta²/	for	တား
/tan¹/	big	တန်
/tom⁴/	with	တွမ်း
/tɔk³/	strong	တောက်
/tɔŋ³/	remember	တောင့်
/tɔn⁴/	shine	တောင်း
/taᵁ²/	not	တဝ်း
/twaⁱ⁴/	bite	တွယ်း
/twak¹/	count	တွက်
/twak¹ ta⁴/	only for	တွက်တား

/ tʰ /

/tʰi¹/	water	ထီ
/tʰi³/	umbrella	ထီး
/tʰi⁴/	see	ထီႏ
/tʰi²/	male	အထီး
/tʰi¹ kʰɔŋ¹/	river	ထီခြောင်
/tʰi¹ kʰwa³/	cold water	ထီခွဲႏ
/tʰi¹ lwa:²/	hot water	ထီလျား
/tʰɛ¹/	takes out	ထေထန်ႏ
/tʰɛʔ¹/	fall	ထဲ
/tʰɛŋ¹/	girded	ထဲင်
/tʰɛŋ²/	more	ထဲင်း
/tʰʉ⁴/	take	ထူႏ
/tʰʉ¹/	finish	ထွ||
/tʰʉ⁴/	heavy	ထွ||ႏ
/tʰə¹/	fish	ထပေႏ
/tʰə¹ tʰi⁴/	banana	ထထီႏ
/tʰə¹ ma³/	work	ထမာႏ
/tʰə¹ lɔk³/	ghost	ထလောက်ႏ
/tʰə¹ mai³/	what	ထမဲင်ႏ
/tʰə¹ si¹/	death	ထသီ
/tʰə¹ rʉt¹/	photo	ထရုပ်
/tʰa¹/	needle	ထႏ
/tʰaʔ¹/	starch	ထတ်
/tʰam²/	cave	ထမ်း
/tʰan²/	out	ထန်ႏထိုႏ
/tʰaŋ¹/	sharp	ထင်
/tʰaŋ³/	north	ထင်ႏ
/tʰaŋ²/	think	ထင်း
/tʰaŋ⁴/	climb	ထင်ႏ
/tʰu³/	take	ထူႏ

/tʰut¹/	worthy	ထွို့က်
/tʰot¹/	outpouring	ထောက်,ထို့
/tʰom¹/	insult	ထွမ်
/tʰoŋ¹/	drum	ထုံ
/tʰo¹/	tall	ထို
/tʰɔʔ¹/	pig	ထော့
/tʰɔŋ¹/	walk	ထောင်
/tʰɔŋ⁴/	prison	ထောင့
/tʰɔŋ²/	pounding	ထောင်း
/tʰwⁱ⁴/	dog	ထွီ့
/tʰwa¹/	is	ထွာ

/ d /

/di²/	penetrated	ဒီးၚ
/di⁴/	egg	ဒီ့
/de⁴/	frog	ဒေ့
/deʔ¹/	wing	ဒေ့
/deʔ³/	pick	ဒဲ့
/dɛn¹/	rice	ဒဉ်
/deŋ²/	tight	ဒဉ်း
/dʉt¹/	wipe	ဒွစ်,
/də⁴/	cook	ဒွါး
/dən¹/	thick	ဒွါန်
/dəŋ⁴/	low	ဒွှါင်း
/da⁴/	can	ဒါး
/da¹/	spread	ဒါ
/dan¹/	aluminum	ဒန်
/du¹/	beri-beri	ဒို
/duʔ¹/	closed	ဒို့
/dɔ⁴/	cook	ဒွါး
/dɔʔ¹/	say	ဒေါ့
/do¹/	body piercing	ဒို

/doʔ¹/	cover	နိုဲ့
/don¹/	village	နို့
/doŋ⁴/	play drum	နို့း
/dja¹/	dresses	�
/dja³/	floor	ဒါ
/dja⁴/	just	�း

/ c /

/ci¹/	flower	စိ
/ci⁴/	rows	စိုး
/ce¹/	open	‌ေစ
/ce³/	sticky	‌ေစ့
/ce² /	paper	‌ေစး
/ce⁴/	left	‌ေစုံး
/cɛʔ³/	soldier	‌ဲေစ့
/cɛŋ¹/	stinging pain	စဲင
/cɛŋ⁴/	corner	စဲင်း
/cɛŋ²/	bright	စဲင်း
/cə²/	jumping bean	စ္ပိုး
/cən¹/	cotton	စ္ပိုင
/cəŋ⁴/	buckle	စ္ဂိုး
/ca¹/	start	စ
/ca³ /	separated	စ့
/ca³/	sell	စာ
/ca²/	kind	စား
/cuʔ¹/	collect	စု
/cu³/	agree	စုံး
/cu¹/	hand	စု
/co⁴/	wet	စိုး
/co²/	half day	စ္ပိုး
/cɔ²/	spoon	‌ေစား
/cɔn⁴/	straight	စ္ဇိုင်း

/cɔŋ³/	forsake	စွိုင်
/cwa³/	escape	စွး
/cwi⁴/	lead by the hand	စွိုး
/cjɔŋ³/	monastery	ကျောင်း
/cjɔŋ²/	fly	ကျောင်း
/cjɔn⁴/	hit	စောင်း

/ cʰ /

/cʰi̱¹/	ten	ဆိ
/cʰi̱⁴/	urine	ဆိုး
/cʰi̱³/	prohibit	ဆို၊ခါ၊
/cʰe³/	market	ဆော၊
/cʰe⁴/	chop	ဆော၊
/cheʔ¹/	few	ဆော၊
/cʰɛm⁴/	stamp foot	ဆဲမ်း
/cʰɛn/	carries	ဆဲင်
/cʰɛŋ³/	jacket	ဆဲင်၊
/cʰɛŋ⁴/	restaurant	ဆဲင်း
/cʰə¹/	sink	ဆွို၊
/cʰə³/	deadlock	ဆွိုး
/cʰəʔ¹/	sick	ဆော့
/cʰəŋ³/	shaken	ဆွိုင်
/cʰaʔ¹/	sew	ဆ၊
/cʰa¹/	hurt	ဆာ
/cʰa³/	star	ဆာ၊
/cʰa²/	tender	ဆား
/cʰan³/	strangely	ဆန်၊
/cʰaŋ¹/	elephant	ဆင်
/cʰu¹/	pestle	ဆု
/cʰu³/	prize	ဆု၊
/cʰu⁴/	pour	ဆု၊
/cʰut¹/	retreat	ဆွတ်

/cʰut³/	bone	ဆွတ်ႇ
/cʰoʔ¹/	plant	ဆိုႛ
/cʰom¹/	salty	ဆွံ
/cʰom⁴/	mortar	ဆွံႃ
/cʰon³/	bush	ဆုန်ႇ
/cʰon²/	deep	ဆုံး
/cʰoŋ¹/	polish	ဆွမ်ႛ
/cʰɔʔ¹/	thorn	ဆောႛ
/cʰa̤⁴/	spent	စဲင်ႃ
/cʰa̤¹/	chew	စဲင်
/cʰwa¹/	wear	ဆွ
/cʰja¹/	hen	ဆျာ
/cʰja⁴/	sour	ဆျာႃ

/ k /

/ki¹/	above	ကီ
/ki⁴/	thigh	ကီႃ
/kip³/	shear	ကိပ်ႇ
/kim³/	pinch by nail	ကိမ်ႇ
/kim³ ra̤³/	scissors	ကိမ်ႇရဲင်ႇ
/ke¹/	tiger	ကေ
/kɛn¹/	middle	ကဲည်
/kɛŋ²/	grieve	ကဲင်း
/ku⁴/	beds	ကူႃ
/ku³/	copy	ကူႇ
/kʉ¹/	border	ကူ
/kʉt³/	nine	ကွတ်ႇ
/kəʔ¹/	chip	ကွစ်ႛ
/kətu⁴/	head	ကတူး
/ka¹/	wear	ကႛ
/ka³/	bus	ကာႛ
/ka²/	expansive	ကား

/ka⁴/	cross	ကား
/kam¹/	pencil	ကံ
/koŋ³/	hit	ကွဲ့
/kɔk³/	cup	ကောက့်
/kɔŋ¹/	Mountain	ကောင်
/ka̤¹/	broken	ကဲင်
/ka̤²/	diligent	ကဲင်း
/ka̤⁴/	barred	ကဲင်း
/ka̤⁴ patʰa¹/	barred bride	ကဲင်းပထ
/ka̤¹ pʰlan¹/	collapse	ကဲင်ပြင်း
/kaᵘ¹/	basket	ကဝ်
/kaᵘ³/	suasion	ကဝ်ဝင်း
/kaᵘ²/	former	ကဝ်းရီး
/kaᵘ⁴/	flower	ကဝ်း
/kwa⁴/	different	ကွား
/kwi¹/	request	ကွီ
/kwi¹ kʰwn³/	request permit	ကွီအခွင်း
/kwan¹/	trace	ကွင်
/kwaⁿ⁴/	fly	ကွင်း
/kja⁴/	cut	ကျား
/kya¹/	skillful	ကျ
/kya³/	bind	ကျ့
/kju⁴/	dance	ကျူး
/kjɔ¹/	over/ roast	ကျော်
/kjɔ⁴/	famous	ကျော်း
	/ kʰ /	
/kʰi̤¹/	boars	ခိ
/kʰin⁴/	time	ချိန်း
/kʰit¹/	age	ခေတ်
/kʰɛ¹/	coagulate	ခယ့်
/kʰɛ⁴/	Chinese	ခယ်း

/kʰɛn⁴/	chili	ခဲဉ်း
/kʰɛŋ²/	annular	ခဲဉ်း
/kʰʉ¹/	beset	ခို
/kʰʉ³/	seed	ခို့
/kʰʉ⁴/	dig/ smoke-v	ခိုး
/kʰʉ²/	put on	ခိုး
/kʰʉn²/	insult	ခွန်း
/kʰʉm¹/	hold	ချုမ်
/kʰₐʔ/	slobbery	ခို
/kʰₐ³/	relative	ခို့
/kʰₐn¹/	prize	အခန်
/kʰa³/	hurl	ခ့
/kʰa¹/	was/ ed	ခါ့
/kʰa⁴/	bitter	ခါး
/kʰaŋ⁴/	foot	ခင်း
/kʰan¹/	estate	အခင်
/kʰam³/	gold	ခမ့်
/kʰam³/	rain	ခမ်း
/kʰam²/	country	ခမ်းနိုင်းငံး
/kʰam² leŋ¹/	aboard	ခမ်းလင်
/kʰun¹/	mr.	ခွန်
/kʰo¹/	male	အခို
/kʰon³/	thief	တခွန့်
/kʰo⁴/	headway	ဆ့ခိုး
/kʰo¹ kʰɛ⁴/	corn	ခိုခယ်း
/kʰɔk¹/	fold	ခေါက်
/kʰɔŋ³/	crab	ခေါင့်
/kʰɔm¹/	fastness	ချိုင်
/kʰlam¹/	kampong	အခင်
/kʰloʔ³/	fleece	ခလော့
/kʰlon²/	basket	ခြောင်း

/kʰlaᵘ⁴/	shout	ခြောဝ်
/kʰri⁴/	arrow	မြိုး
/kʰru¹/	to make after	ခြူ
/kʰro²/	poor	ခြေား
/kʰwi⁴/	curl	အခွေး
/kʰwi¹/	I	ခွေ
/kʰwe²/	meet	ခွဲး
/kʰwaʔ¹/	cold	ခွၞ
/kʰwa³/	pickaxe	ခွာ
/kʰwaŋ³/	permit	အခွင်ၞ
/kʰrwi¹/	rich	ခြွိ
/kʰrwa¹/	saw	ခြွာၞ
/kʰjan¹/	desiccate	အၟင်ၞချင်
/kʰjaŋ⁴/	basket	ချင်း
/kʰjo¹/	blue	ချို
/kʰjoʔ¹/	deer	ချိုၞ
/kʰjo³/	administer	ချိုး
/kʰjɔʔ³/	slacken	ချောၞ
/kʰjɔ¹/	smooth	ချောၞ

/ ʔ /

/ʔi¹/	takes to	အီလွေၞ
/ʔi⁴/	will	အီး
/ʔe⁴/	feces	အေး
/ʔeʔ¹/	tear	အဲၞ
/ʔeŋ⁴/	narrow	အဲင်း
/ʔen¹/	ginger	အောင်
/ʔʉ¹/	whoopee/ yes	အွူ
/ʔʉm¹/	pastille	အွမ်
/ʔə³/	dumb	အၞ
/ʔə¹/	much/many	အာ
/ʔə⁴/	force	အာၞ

/ʔə¹ tam¹/	big	အတန်
/ʔə¹ bwa³/	white	အဗွာ
/ʔə¹ chwa³/	long	အဆွာ
/ʔu¹/	blow	အူတလိ,
/ʔu⁴/	bark	အူးထာ,
/ʔuṇ¹/	stay	အုံအဝ်း
/ʔo¹/	whole	အုံ
/ʔo⁴/	pick out	အိုး
/ʔoʔ¹/	spew/ broken	အွော့ထို,
/ʔok¹/	drink	အောက်
/ʔoṇ¹/	live	အုံ
/ʔɔn⁴/	put	အွင်း
/ʔɔm⁴/	grovel	အွမ်း
/ʔaᵘ⁴/	be	အဝ်း
/ʔwⁱ/	delicious	အိုးမွေး
/ʔwa³/	drink	အွ,
/ʔwa¹/	searchable	အွာ

/ s /

/si¹/	die	သီထို,
/si³/	all of you	သီဖုံး
/si²/	yellow	တသီး
/si¹ kja³/	god	သီကျာ,
/sin¹/	putrefaction	သေင်
/sin⁴/	tree	သေင်း
/siṇ⁴/	similar	သေဉ်း
/se¹/	know / horse	သေ
/se³/	smallish	အသေ,စား
/se⁴/	fastness	သေ,
/seṇ¹/	dry	သဲင်ခြစ်,
/seṇ³/	go back	သဲင်,ချာ
/sen⁴/	cleft	သဲဉ်း

/seˈ naˈ⁴/	understand	သေနား
/sɛʔ¹/	chip	သဲ့
/sɛŋ¹/	takes in	သဲမ်
/sʉ¹/	will	သွ||
/sʉ³/	fall	သွ||ႏ
/sʉ⁴/	louse	သွ||း
/sʉm³/	fail	သွမ်ႏ
/sən¹/	beat dowm	သန်
/sə ra⁴ /	heart	သႜရား
/saʔ¹/	mind	သႜ
/sa¹/	hood	အသႜ
/sa³/	breath	သာထႜ
/sa⁴/	louse	သား
/saŋ³/	should	သင်ႏ
/saŋ⁴ kɛn³/	tomb	သင်းခဲင်ႏ
/sak¹/	old	သက်
/su¹/	six	သု
/su⁴/	taros	သုး
/sut³/	boil	သွတ်ႏ
/sun³/	mushroom	သွန်ႏ
/so⁴/	firewood	သိုး
/som/	three	သွံ
/sɔ¹/	key	သော
/sɔt³/	eight	သွစ်ႏ
/sɔn¹/	learn	သွဉ်
/sai¹/	sand	သဲင်ႏ
/swi⁴/	blood	သွီး
/sjaŋ³/	clear	သျင်ႏ
/sjaŋ⁴/	novice	သျင်း

/ h /

| /hɛ³/ | shadow | ဟႜဩ |

/hɛʔ³/	call	ဟဲ့ႋ
/hʉt³/	scrape	ဟွတ်ႋ
/hən¹/	hear	ဟွိုန်
/ha¹/	night	မျူးဟာ
/hat³/	spicy	ဟတ်ႋ
/ham³/	ground	ဟံးႋ
/han⁴ ʔo¹/	curry	ဟန်းအို
/han⁴ ni³/	today	ဟန်းနီ်ႋ
/hoʔ³/	stomach	ဟို့ႋ
/hɔ³/	read	ဟော်
/haᵘ¹/	good	ဟဝ်

/ m /

/mi³/	thatches	မိႋ
/mi⁴/	condiment	မိး
/miŋ¹/	name	မိၟ်ႋ
/miŋ⁴/	if	မိၟ်း
/miŋ¹/	want	မဲၟ်
/miŋ¹ lwe³/	want to go	မဲၟ်လွေႋ
/meʔ¹/	turmeric	မေ့
/me²/	nail	မိး
/me⁴/	fire	မေး
/mɛʔ¹/	eye	မဲ့
/mɛ¹ ŋwa³/	face	မဲ့ငါ
/mɛ¹ ku³/	eyebrow	မဲ့ခုႋ
/mɛn⁴/	true	မဲၟ်း
/mʉ²/	sun	မျူး
/mʉ² ha¹/	evening	မျူးဟာ
/mʉ² raᵘ³/	morning	မျူးရဝ်ႋ
/mə²/	mother	မိုးႋ
/mə² pʰa¹/	parents	မိုးဖာ
/məm¹/	pillow	မိၟ်

/ma³/	do	မာႇ
/ma¹/	wife	မာ
/ma²/	lose	ထိုႇမား
/ma⁴/	wrong	မားႇ
/mat³/	pin	တမတ်ႇ
/ma³ haᵘ¹/	repair	မာႇဟာဝ်
/ma³ si¹/	kill	မာႇသီ
/mu¹/	hone	မူ
/mu⁴/	female	မူးႇ
/mo¹/	green	မို
/mo³/	dark	အတမို်ႇ
/mo²/	aim	အင်းမို်း
/moʔ¹/	sky	မို်ႇ
/moʔ¹ ʔe⁴/	cloud	မို်ႇအေးႇ
/mɔ¹/	preacher by man	မော
/mɔ⁴/	idot	မေားႇ
/mɔk²/	overturn	မောက်
/mɔk³ pʰa²/	lime	မောက်ဖား
/mɔk³ ʔun¹/	coconut	မောက်အွန်
/mɔk³ klaŋ̥³/	jack-fruit	မောက်ကြင်ႇ
/mai³/	what	ထမဲင်ႇ
/mai³ kʰa¹/	when	မဲင်ႇခါ
/mwi⁴/	assets	အမို်းႇ
/mwa¹/	poor	မွကော်ညှိ

/ n /

/ni¹/	we	နီ
/ni³/	day	နီ်ႇ
/ni²/	debt	နီ်း
/ni⁴/	hemline	နီ်းႇ
/niʔ¹ pʰu³/	noise	နေ်ႇဖူ
/nin²/	green tea	နိန်း

/niŋ⁴/	year	နောင်း
/nɛn³/	knobbly	နဲ့ဉ်ထန်း
/nɛn²/	breast	နဲ့ဉ်း
/nɛn² tʰi¹/	milk	နဲ့ဉ်းထိ
/nʉ⁴/	depress	ၡူး
/nʉt³/	seven	ၡွတ်ႄ
/nʉm³/	smell	ၡွမ်ႄ
/nə¹/	enter	ၡို့
/nə²/	sweet	ၡိုး
/naʔ¹/	knife	ၡ်
/na¹/	periphery	အနာ
/na³/	you	နာႄ
/na²/	ear	နား
/na⁴/	listen	နားႄ
/na² ri⁴/	clock	နားရိုႄ
/naŋ²/	back	�း
/naŋ⁴/	tug	�ႄ
/nun³/	last	နန်ိုႄ
/nun²/	worry	ထာႄနန်း
/nuʔ³/	kiss	ၡိုႄ
/nuk³/	extract	နုတ်ထန်းႄ
/no³ cak²/	actuate	နိုႄစက်
/noŋ³/	horn	နိုႄ
/nɔŋ¹/	pond	ထိနောင်
/nɔŋ⁴/	push	ၡိုႄႄ
/nai² ʔo¹/	like this	နိုင်းယို့
/nai² mai³/	how	နိုင်းမဲ့ၼ်ႄ
/nai⁴/	throw	နိုင်းထိုႄ
/nja³/	press	ၡျႄ
/nja⁴/	hip	ၡျားႄ
/njeʔ⁴/	press down	နိုပ်ႄ

/n̠i⁴/	analogy	င်း
/n̠ʉ¹/	woozy	တၛ‖
/n̠ʉ²/	fry	င်း
/n̠ʉʔ¹/	look up	င့်ထွား
/n̠ə¹/	gymnosperm	ငှ
/n̠ə¹ mʉ²/	conifer	ငှမျိုး
/n̠ə³/	prize	အငှ်
/n̠ə²/	cry	ငှိုး
/n̠at/	five	ငတ်ှ
/n̠a³ rȧ³/	hell	ငရဲင်ှ
/n̠a¹/	next	ခဲ့ငါ
/n̠a⁴/	very over	ငါး
/n̠aʔ¹/	laugh	ငထာှ
/n̠an³/	paratyphoid	ငန်ရေားဂါး
/n̠am²/	fear	ငမ်း
/n̠aŋ²/	back	ငင်း
/n̠aŋ⁴/	pull	ငင်း
/n̠o²/	to fry	ငှိး
/n̠ɔk³/	nod	ငုတ်ှ
/n̠ɔ³/	lurch	ငေါိှ
/n̠aᵘ²/	speak	ငဝ်း
/n̠aᵘ² ŋwa³/	word	ငဝ်းၛ
/n̠ja¹/	delay	ည
/n̠ja³/	far	ညာှ
/ŋwi⁴/	shell	ငွိး
/n̠jɔ⁴/	cat	ညောင်ှ

/ l /

/li¹/	breakup	လိ
/li³/	nephew	လိှ
/li²/	pastel	အလီး
/li⁴/	capybara	လိး

/lit³/	four	လစ်ႅ
/lik¹/	literature	လေက်
/liŋ¹/	sex	လိၚ်
/le¹/	light	လေ
/le³/	weight	လေႅ
/leʔ¹/	burn	လဲ့ႅ
/lek²/	circle	လေပ်
/leŋ¹/	bluff	လဲၚ်
/lʉ²/	born	လ္�းဖွာႅ
/lɛʔ¹/	cremate	သၾ္ဂိုလ်း
/lɛn¹/	lie	လဲၚ်
/lɛn²/	finish	ထ္�လဲၚ်း
/lɛn⁴/	skip/pluck	ဒဲ့ႅလဲၚ်း
/lə¹/	bonus	လ္ၙိ
/lə²/	descent	လ္ၙိး
/ləŋ¹/	bunch	လ္ၐ္ဝၚ်း
/laʔ¹/	under	ဆႅလ
/la³/	get	လႅ
/la⁴/	leaf	လား
/la¹/	moon	လ
/lan¹/	crop up	လန်ထန်း
/lan³/	skew	လန်ႅထန်း
/laŋ¹/	other	အလၚ်
/laŋ³/	get out	လၚ်ႅ
/lam²/	home	လမ်း
/lam⁴/	flag	လံး
/luʔ¹/	embed	လ္ၙိုႅ
/lu³/	god	လ္ၟုး
/lu²/	fumes	အၡိုး
/lu⁴/	batiste	လူးၡ္ဂိုႅ
/lu⁴/	donate	အလူး

/loʔ¹/	gone	လိူ့
/lo⁴/	need	အၚ်းလိူး
/lo³/	person	လိူႉ
/lom³/	warm	လွမ်ႇ
/lom²/	enough	လျှမ်း
/lom³/	flood	ထီလွ်ႉး
/loŋ̊²/	stone	လုံး
/loŋ̊⁴/	worm	လုံႇး
/lɔ²/	cart	လေား
/lɔ⁴/	quickly	လောႇ
/lɔ¹/	haunt	လောထာႇ
/lɔn¹/	come	လွ်ၚ်
/lai³/	swordsmanship	လ့ၚ်ႇ
/lai²/	farm	လ့ၚ်း
/lai⁴/	change	လ့ၚ်ႇ
/laᵘ²/	reply	လဝ်းချာ
/laᵘ¹/	cockroach	လဝ်
/lwa³/	lazy	လွႉ
/lwaŋ̊²/	run	လွၚ်း
/lwai³/	go	လွ္ႉ
/lwai¹/	mill	လွ္
/lja³/	rip out	လျႉ
/lja¹/	sprinkle	လျာ₱
/lja²/	hot	လျား
/lja⁴/	abandon	လျားထိုႇ

/ r /

/ri¹/	ask	ရိ
/ri²/	before	အွၚ်ရီး
/ri⁴/	drop	ရီႇမဲက်ႇ
/re³/	beauty	ယောၚ်ႇရေႇ
/re²/	rattan	ရေး

/re⁴/	aim	ရေး
/rʉ⁴/	timidity	ချုံး
/rₐʔ¹/	fight	ရော့
/rₐt¹/	sing	ရှစ်
/rₐ²/	tired	ရှိုး
/rₐŋ¹/	money	ရှင်
/rₐŋ²/	hurry up	ရှင်းထာ့
/ra¹/	maybe	ရ
/ra⁴/	fruit	ရား
/rak²/	love	ရက်
/ran²/	level	အရန်း
/ran⁴/	danger	ရန်း
/ram³/	approximate	ရမ့်
/ru³/	the day after tomorrow	တရူ့
/ru²/	snake	ရူး
/rɔ¹/	rust	ရော
/rɔ³/	mix	ရော့
/rɔn¹/	noisy	ရောင်
/rɔŋ⁴/	color	ရောင်း
/rɔʔ⁴/	stab	ရော
/rai¹/	plant	ရဲင်
/rai³/	dabble	ရဲင့်
/rai²/	dare	ရဲင်း
/rwi²/	root	ရှိုး
/rwa³/	saw	ရွာ့
/rja³/	hundred	ချာ့
/rja²/	equation	တချား

/ w /

/wi¹/	vibrate	ဝိ
/wi³/	fan	ဝိ့
/we²/	elder	ဝေးတန်

/we² kʰo¹/	elder brother	ဝေးချို
/we² mu⁴/	elder sister	ဝေးမူး
/waʔ³/	snow	ဝ
/wa¹/	fall down	ဝႛ
/wa³/	husband	ဝါ့ချို
/wa²/	bird	ဝါး
/wa⁴/	bamboo	ဝါ့
/wan³/	throw	ဝန်ႛထိုႛ
/wan/	fall	ဝန်
/wam⁴/	plate	ဝန်း
/waŋ¹/	chop sth off	ဝင်ကြေင်း
/waŋ³/	others	ဝင်ႛလာင်
/waŋ²/	fan oneself	ဝင်းဝိ့
/waŋ² sa³/	ashamed	ဝင်းသ႞
/wai³/	end	ဝိုင်ႛ
/wai²/	impend	အဝ်ႛဝဲင်း
/wai⁴/	pray	ဝဲင်းဘုရာ႞

/ j /

/ji²/	point	ယီးစ္စ
/jip¹/	wink	ယိဝ်ိ႞
/jek¹/	stare	ယဲက်
/je³/	polices	ယယ်ိ႞
/je⁴/	askew	တယေ႞
/jen¹/	quiet	ယေဉ်
/jəŋ¹/	thin	ယျွာင်
/jaʔ¹/	deep	ယော့
/ja³/	opium	ယာ
/ja²/	bust	ယား ကဲင်
/ja⁴/	complexion	ယာ႞
/ju²/	mouse	ယူး
/ju⁴/	think	ယူးစဉ်ႛစာ႞

| /jut³/ | raise | ယွၟတ် |
/jo¹/	this	ယို
/jo³/	easy	ယို့
/jo²/	simple	ယို:
/jo⁴/	confection	ယို:
/joʔ¹/	monkey	ယွ�ို.
/jɔʔ³/	swell	ပေယွၟ:
/jɔŋ̩¹/	thin	ပေယွၟင်
/jwa¹/	slow	ယွ
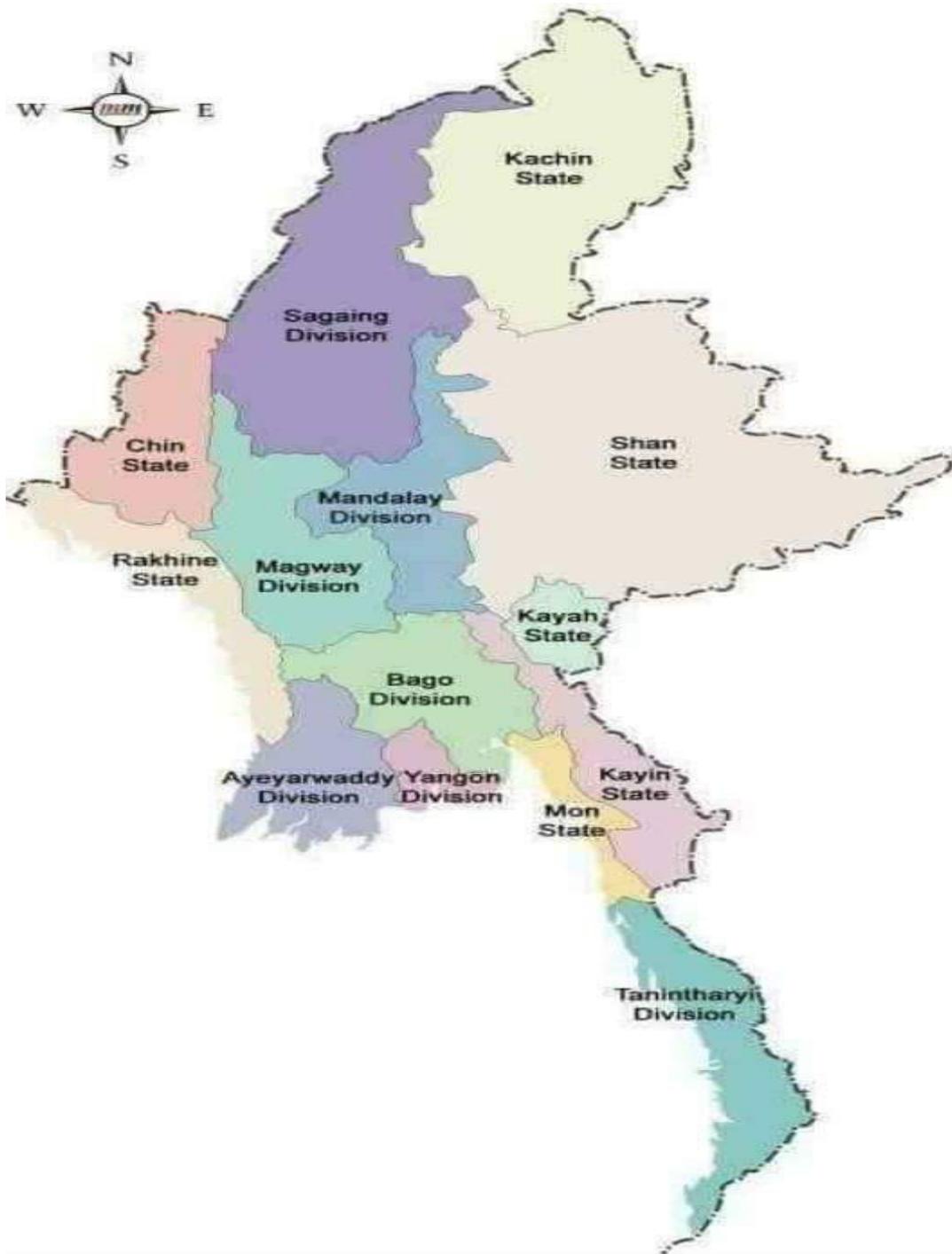
Figure 1: Map of Myanmar

Figure 2: Ho-Na Village

Figure 3: Ho-Na Monastery

Figure 4: Clothes of Pa O Culture

Figure 5: Main Informant Nong Taung Sayadaw, Ven Rajinda Siri and the Reseacher

Figure 6 : General Informant. Mr. Major U Khun Lar and the Researcher.

Biography of Researcher

Name	: Aggadhamma
Date of Birth	: December 29, 1985
Place of Birth	: Ho-Na, Ho-Pong, Southern Shan State, Myanmar
Date of Monk Ordained	: MAY 3, 2004
Nationality	: Myanmar
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Mobile	: 099-243-4041
E-Mail	: asiakhum@gmail.com
Educational Qualification	: Graduated B.A (Buddhism), Buddhist University, Yangon, Myanmar. 2013-2014
Residing Monastery	: Wat Pho-Houm, Pho Sam Tome, Banpahan, Autthaya, Thailand.
Current Education	: M.A (Linguistic), Mahachulalongkornrajavidyalaya University, Wangnoi, Ayuthaya, (13170), Thailand.