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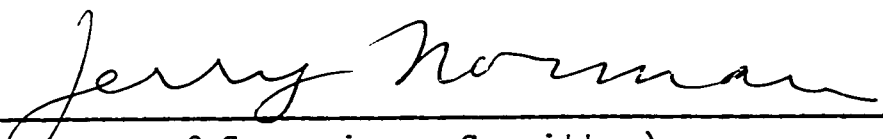
Prapin Manomaivibool

A dissertation submitted in partial fulfillment
of the requirements for the degree of

Doctor of Philosophy

University of Washington

1975

Approved by 
(Chairperson of Supervisory Committee)

Program Authorized
to Offer Degree Asian Languages and Literature

Date August 18, 1975

UNIVERSITY OF WASHINGTON

Date: August 4, 1975

We have carefully read the dissertation entitled "A Study of Sino-Thai Lexical Correspondences"

Prapin Manomaivibool submitted by
in partial fulfillment of
the requirements of the degree of Doctor of Philosophy
and recommend its acceptance. In support of this recommendation we present the following joint statement of evaluation to be filed with the dissertation.

Of the many approaches to the study of Chinese historical phonology, the study of the Chinese elements in the non-Han languages of Southeast Asia is perhaps the least developed. Leaving aside the question of whether these languages are genetically related or whether the Chinese element in them is due to borrowing, there is no doubt that they provide many clues to persons interested in the evolution of Ancient and Archaic Chinese. Effective use of such material has been impeded by the lack of exhaustive collections and studies of the data. In this dissertation, Prapin Manomaivibool has collected a very impressive body of Chinese-related forms found in Standard Thai; in quantity it far surpasses all previous work of this kind. Ms. Manomaivibool is highly qualified for this sort of work: She has done graduate work in Thai language and literature in Thailand as well as having studied Chinese language and linguistics here. As a result her material and interpretations rest on the best sources in Thai, Chinese and western languages.

After a brief introduction to the historical contacts between the Han Chinese and the Thai-speaking peoples, Ms. Manomaivibool undertakes a detailed examination of the Chinese elements found in Thai. This examination is divided into several aspects: the initial (the consonantal onset of the syllable), the final (the remainder of the syllable minus the tone) and the tone. Each Thai word is given in Thai script, a transliteration of the script and its modern pronunciation. For Chinese forms, characters and the Ancient Chinese reconstruction, according to Karlgren, is given; where relevant, the author includes the Archaic reconstructions of Li Fang-kwei. Difficult cases are discussed in detail. In many cases the author has found features which could not be reconstructed for Chinese from internal evidence alone: particularly interesting in this regard are the voiceless sonorant initials and certain final consonants which have been lost in Chinese.

This dissertation is a most welcome addition to the scholarship on the history of the Chinese language. At the same time, it will help to

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throw light on certain disputed points of Thai linguistic history. We the undersigned, therefore, wish to recommend that her dissertation be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

DISSERTATION READING COMMITTEE

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CHAPTER I

INTRODUCTION

I.1. Subject and Aim of Study

I.1.1. Subject

The source material for this study is a body of approximately 620 Standard Thai words that appears to be related in some way to Chinese. Recent loans that were introduced into the Thai language from Chinese immigrants in Thailand during the 19th and 20th Centuries will not be discussed. Such loanwords have been studied by Søren Egerod (1958) in his "Swatow Loanwords in Siamese." This study also excludes from consideration words which have been authoritatively identified as originating from Chinese in the official Thai monolingual dictionary issued by the Thai Royal Institute (Rāṭṭhabandittaya-sathān, 1950).

The lexical items studied here are all words which the Thais have assumed to be of native origin. Most of the lexical items are also widely attested in other Tai¹ dialects, and that fact makes it very probable that they existed in the proto-language before the Tai people spread throughout the various regions of South East Asia. But that fact neither confirms that the lexical items originated from the native Tai stock, nor excludes the possibility that they are related in some way or other to Chinese.

I.1.2. Aim of study

My purpose will be to present an analysis of the phonology of the Thai words in question, and to investigate the systematic relationships which exist between Chinese and Thai. The study of

these lexical items is meant, primarily, to throw some light on the reconstruction and phonology of Middle Chinese, and possibly of Old Chinese. Secondly, the analysis may be useful to those scholars working on the reconstruction of Proto-Tai.

This word study will not attempt to prove or disprove the hypothesis that Chinese and Tai are related genetically. At present the genetic relationship of Tai with any other language group remains undemonstrated in any rigorous fashion. The once popular idea of a Tai-Chinese relationship advanced by Henri Maspéro (1911, 1920) and Kurt Wulff (1934) has never been systematically proven, though most scholars still approach the study of Tai as if the Chinese-Tai connection were at least potentially provable. On the other hand, some scholars, mostly general linguists and anthropologists not well acquainted with languages of South East Asia, have abandoned the Tai-Chinese division, and have uncritically accepted the hypothesis advanced by Paul K. Benedict (1942). Benedict based his hypothesis on rather scanty evidence from a number of minor languages in the area, for example, Laqua and Lati (China-North Vietnam border), and Kelao (small scattered group in south-central China), in which he perceived traces of a transitional group between Tai and Indonesian. He then tentatively named this group of minor languages "Kadai," and proposed the theory that the Tai languages are ultimately related to Malayo-Polynesian² but at the same time deeply influenced by Chinese, from which they have borrowed a considerable number of words, a complete tonal system, and monosyllabicity. Despite the fact that

the theory has been widely accepted, a careful study of the data and the methodology reveals, in my opinion, that the relationship should by no means be considered incontrovertibly established. Moreover, many of Benedict's reconstructions of Tai words are very debatable. At present it is premature to assert that Tai is related to Indonesian: the relationship has yet to be proved. It is a problem which will take some time to solve. A more realistic reconstruction of Proto-Tai would place us much nearer a solution to such a problem.

At this point, the Tai family is best considered a separate language stock (Li 1960, Brown 1965, Jones 1966). For it is only by searching for lexical and morphological parallels on all sides, and as a result establishing the phonetic equations found in such parallels, that a genetic relation of a doubtful group such as Tai, can finally be decided.

In this study, I shall merely offer material consisting of lexical items showing regular phonological correspondences between Chinese and Thai. Later scholars in Sino-Tai studies may then consider whether some of the correspondences are the result of borrowing, or are due to common inheritance, or both, or whether some correspondences are just accidental. However, some of the entries are so common in South East Asia that we cannot be certain about their origin. Since the Chinese are generally considered to be culturally superior, scholars who believe the relation to be one of borrowing, think that the origin of such words is Chinese; for example, "ginger" (No. 169),³ "eggplant" (No. 181), "mustard-plant" (No. 106), and "chicken" (No. 95). The task,

however, of proving these items to be Chinese loans to Tai or of Tai loans to Chinese is a difficult one.

I.2. General information on the Thais

I.2.1. Thai prehistory.

Thai history before the 13th Century inscription of King Ram Kamhaeng has remained obscure, and the national origins of the Thai people continue to be hidden. From the end of the 19th Century up to the middle of the 20th Century, it was generally acknowledged that the Nanchao 南詔 people were Tai or Shan, in the general sense of belonging to the Tai linguistic family.

At the end of the last century, British and French scholars working in Burma and Indochina, including missionaries working among the Shan tribes, were interested in doing research on the origins of the Thais. Their interest was stimulated because in their tribal contacts across the Chinese border they frequently came upon Tai speakers. The widespread use and homogeneity of the Tai dialects in South China and northern South East Asia induced these European scholars to postulate the existence of an ancient Tai state in the area. From the work of Terrien de Lacouperie (1885) and E. H. Parker (1891, 1892-3), a connection between the Tai speakers around the border of South China and those of an ancient Tai state was established. Parker (1892-3: 339), in particular, was able to show that there were apparently convincing correspondences between a couple of Nanchao words as they appeared in the Chinese records and modern Thai words, especially the term "prince" chao 詔 which has nearly the same sound as the modern Thai word for "prince."

The theory that Nanchao was a Tai kingdom fitted admirably into the historical schemes of the day. Historians began to link Nanchao with the Thai kingdom of Sukhothai. They hypothesized that Kubilai Khan's overthrow of the Nanchao kingdom in 1253 caused a great and sudden emigration of the Tais southwards. This vast new wave of emigration which increased the small Tai population then living in what is now northern Thailand was instrumental in the sudden rise to power of the Sukhothai kingdom in the second half of the 13th Century. The prehistory of the Tai race, once connected with Nanchao, was divided by those earlier European scholars, such as Parker (1892-3), W. C. Dodd (1923), and W.A.R. Wood (1933), into three great waves of migration. First, a migration from North China into Central China some thousands of years ago; second, a migration from Central China into the Southwest (mainly into Yunnan) some 1800 years ago; and third, a migration out of China into the area of present day Thailand.

This view has been uncritically accepted by the Western and Thai authors writing on the history of the Tai race. The most widely cited and most influential of works in this line are The Tai Races by Dodd (1923) and History of Siam by Wood (1933). From the days of the publication of these books, the theory has been largely adopted; one or two dissenting voices, however, have been raised during the last two decades.

As we now examine thoroughly the opinions of those early European scholars, we realize that they were based on incomplete information, on misunderstood data, and on too naive a view of the

issue. Through the error of using limited types of Chinese historical documents, which were themselves used uncritically, the view that the Nanchao people were Tais was fabricated by those European scholars and amateur historians, whose primary occupations were those of colonial civil servants or missionaries. As F. W. Mote (1964) has pointed out, those authors neither gave any evidence of having examined carefully and thoroughly any of the documentary sources, nor did they cite any authority for their sweeping statements; all the non-Chinese speaking peoples of South and Southwest China were identified as Tai. Actually, this region is a very complex cultural zone shared by various distinct ethnic groups.

The historical amateurs of the Nanchao-Tai theory based their surmise on the fact that no Chinese territories south of the Yangtze were mentioned in Chinese documents dating as late as the sixth or fifth century B.C. (De Lacouperie 1885). These writers concluded that there was another nation occupying the land south of the Yangtze, and consequently produced Tai-speaking peoples to fill up the unknown regions. If they had had a full knowledge of Chinese historical records, as Mote has pointed out, they would have learned that the people occupying the land south of the Yangtze some 2,000 years ago are clearly identified as the Ch'ü 楚⁴ of Central and South China and the Yüeh 粵 of the East Coast. The Yüeh spoke a language quite different from the Chinese of the time, but the people of Ch'ü spoke a language quite close to Han Chinese. These people were not forced to migrate; actually they were culturally and racially assimilated and were

finally administratively united with China. Mote asserted that Chinese history presents no cases of a nation, culturally and linguistically different, which after being defeated by the Chinese, carried out a nationwide migration moving from North to Central to South China and finally across the border of China.

From the intensive studies carried on in recent years on the ethno-linguistic history and geography of the areas in and around South and Southwest China, the evidence seems to indicate that the Nanchao people were not Tai (Credner 1935, Blackmore 1967). According to Mote's opinion, the Tais probably never resided further north than the very southernmost border region of China. There exists no linguistic or historical evidence to support the theory of the great migrations of the Tais from the North of China. In fact, Mote observed that there is good evidence for a limited movement of the Tais some 150 or 200 miles up the Mekhong River into Central Yunnan, and perhaps for short distances northwards into other places in South China.

The above views advanced by Mote toward the end of 1964 created a stir among Thai students of language, history, and culture in Bangkok. Consequently, his article has stimulated interest in a reexamination of the history and movements of the Thai people before they entered Thailand.

In reexamining the materials, one eventually goes back to the first authority that refuted the theory that the Tais principally formed the people of Nanchao. In 1909, not long after the Nanchao-Tai theory had emerged, H. R. Davies pointed out that the Mon-Khmer and Tai speaking peoples in Yunnan came from

the east, not from the north. Davies (1909) noted that latitude 25°N formed roughly a dividing line between the Tibeto-Burman languages in the north and the Shan and Mon-Khmer languages in the south. He found that Shan and Mon-Khmer are hardly spoken north of 25°N ; however they extended eastward right through Kweichow and Kwangsi. Thus, the location of Tali^{大理}, the capital of Nanchao, placed well to the north of 25°N , put into doubt whether there was a Tai-speaking population in the capital city of Nanchao.

After the publication of Davies' work, the matter was allowed to rest for some time. Later Wilhelm Credner, a German geographer did a survey in Yunnan in 1935. Only then did Davies' opinion receive support. Credner (1935) found that the present-day habitat of the Shans in Yunnan was centered around the tropical valleys in the south of the province. He also observed that rice was the only cereal they cultivated during summer, but that in winter they preferred to relax at home instead of following the example of the neighboring tribes living at higher altitudes who cultivated wheat and barley under the ideal conditions provided by winter weather. From his observation, Credner inferred that the Shans must have always lived in a tropical country long accustomed to a tropical climate with rice as the only cultivated food plant. He concluded that their migration into southern Yunnan, must have taken place, not from the north, but from the east, that is from the tropical lowland of the river plains and from the coastal regions of South China.

In addition, linguistic study of the various ethnic groups

that share the soil of Yunnan has unearthed evidence that show fairly convincingly that the Nanchao languages of the Wū-mán 烏蠻 "Black Barbarians" and the Pái-mán 白蠻 "White Barbarians," the major populations in Nanchao, bear no relation to Tai (Blackmore 1967). The Wū-mán were Tibeto-Burman speakers, closely related to the Lolo who are the main non-Chinese group occupying the north and east of present day Yunnan. As for the language of the Pái-mán, the data shows that it is the ancestor of Minchia, a language of uncertain origin, spoken by the present inhabitants around Tali Lake in the west of Yunnan (Blackmore 1967). In any case, Minchia definitely is not a Tai dialect. This was demonstrated by an analysis done by Davies (1909) of a hundred Minchia words of which he could find only two that seem to be of Shan origin. The term "chao" which has been taken to be a main element that links Nanchao with Tai, actually proves nothing, since quite similar words in parallel meanings are found in Tibeto-Burman and other non-Tai languages. Moreover, the history of the origin of the word "chao" has not yet been settled (Mote 1964:105).

We have seen that Nanchao showed no relationship linguistically with Tai. Twentieth century scholars (Pelliot 1904, Ling 1938, Blackmore 1967) also point to another feature of Nanchao culture which bears no affinity to that of the Tais. In the names of the Nanchao rulers, the last syllable of the father's name became the first syllable of the son's. For instance, the Nanchao rulers from 713 to 809 as appearing in the Chinese records were: Shèng-ló-p'í 盛邏皮 -- P'í-ló-kó 皮邏閣 -- Kó-ló-fèng 閣邏鳳 -- Fèng-chiā-ì 鳳伽異 -- Ì-móu-hsún 異牟尋 .

The custom of the linked-name patronymic system, though unknown among the Tais, was common to all the Wū-mán of western Yunnan and was a distinct feature of the culture of the Tibeto-Burman speaking peoples at least up to the 17th century.⁵ This linked-name patronymic system then links the Nanchao people with the Tibeto-Burman speaking peoples (Blackmore 1967:62-68).⁶

From the evidence on all sides, it has been shown that to identify the Nanchao people as Tai without further qualification is a practice that should now be abandoned. The Tais in southern Yunnan were coincidentally there and had nothing whatever to do with the setting up of Nanchao. Mote has asserted that according to all documentary evidence, there were only two branches of the Tais on the southwestern borders of Nanchao: 1) the various tribes of the Shih-ch'ih 飾齒 "adorned teeth" and of the Tiāo-t'í 彫題 "tattooed forehead" tribes,⁷ and 2) the Máng-mán 茫蠻 tribes.⁸ The Mán Shū 蠻書 states that the language of these tribesmen had to undergo three or four translations before they could communicate with the people around the Nanchao capital region (Luce 1961:60). These Tai-speaking tribesmen probably had no direct historical connection with the Thai people who later founded Sukhothai. Mote observed that other Tai-speaking peoples who resided in Kwangsi and Kwangtung were perhaps closely related to the Thais of the 13th Century Sukhothai.

At the present stage of knowledge we are not yet ready to identify the ancestors of the Thais who emerged into Thai history in the 13th Century at Sukhothai. From the foregoing discussion, it is evident that we should rule out the Nanchao-Tai theory.

Mote's suggestion that the Thai people may have originated in the region between Kwangtung and Northern Vietnam needs to be clarified, although it is possible that from that particular area the Tais may have been in a constant process of movement westward along the modern boundary of China throughout historical time, while diffusing themselves somewhat to the north into Kwangsi, Kweichow, and Yunnan. They also moved southwards into present day Laos and Thailand.

At the same time that Mote advanced his view in 1964, Dr. Sood Sangwichien, a Thai physical anthropologist, also presented some new evidence concerning Thai prehistory. He had studied the skeletons found by the Thai-Danish Prehistoric Expedition at Ban Kao in Kanjanaburi province. The skeletons have been dated to about 1,500 B.C.. Dr. Sangwichien found, for example, that the skull of the skeletons had the same oval shape as found in the skull of the present day Thais, and that the alveolar prognathism of the Ban Kao skulls is a typical feature among the Thais. The several significant physical characteristics of the population of Ban Kao, which are of a kind not normally lost or changed through hereditary transmission, and which can be found in the Thais of the present time, suggest that some of the Thais today can number the Ban Kao population among their lineal ancestors. After 1,500 B.C., there was no great wave of migration, which was ethnically distinct, into the present home of the Thais. Dr. Sangwichien (1966) emphasized that this is only a tentative suggestion, not a proof that Thailand today is the original home of the Thais. But the work is still in progress

and more archaeological evidence connected with Thai-speaking people before the Sukhothai period, including other prehistoric finds from different sites in South East Asia, are needed before a firm conclusion can be drawn.

In addition to the search for more archaeological evidence, a careful study of Chinese documentary sources relating to Tai tribes along the border of South China from historical, linguistic, and cultural perspectives may solve several problems of early Thai history. Let us now look at the present geographical distribution of the various Tai dialects spoken in Indochina and north of the Peninsula.

I.2.2. Geographical distribution of the Tai languages

The Tai language group is the most widely spread language group in the Indochinese Peninsula and extends even beyond the Peninsula in the north. Tai-speaking peoples are found from the Shan States of Burma, Assam, to far into the Chinese provinces of Kweichow, Kwangsi, and Kwangtung, and from the southernmost provinces of Thailand to the interior of Yunnan.

In Thailand there is the Standard Thai of Bangkok and the three main groups of dialects spoken in the North, Northeast, and the South. Other Tai dialects are Saek at the village of At Samat in Amphoe Muang in the province of Nakhon Phanom on the banks of the Mekhong River (Gedney 1970), Phu Tai in various places in the Northeast (Gedney 1970), and Shan which is spoken sporadically in northwest Thailand, especially in the Mae Hong Son area (Egerod 1957).

Next comes Laos. There we find the Tai language of Lao,

Saek in the Thakhek region (Gedney 1970), Red Tai in Sam Nuea province (Gedney 1964), and Lü in the northern part of Laos (Li 1964).

Six Tai dialects are spoken by the Tai inhabitants in North Vietnam. White Tai is one of several tribal dialects spoken in North Vietnam (Donaldson 1963, Gedney 1964). Yay is found in a number of relatively small areas in the extreme north of North Vietnam, adjoining or near the Chinese border. It is the language referred to on linguistic maps as "Nhang" or "Nyang," from the Vietnamese term for it, or sometimes as "Yang," from the pronunciation of the Vietnamese name by some of the Tai speakers of the area, or as "Giay," which like "Yay" is the word used by the speakers themselves for the language as well as the people (Gedney 1965). The other Tai dialects in North Vietnam are Black Tai (Gedney 1964, Fippinger 1970), Nung (Savina 1924, Freiburger 1966), Tho (Diguet 1910, Li 1974), and Tay which is a Tho dialect (Savina 1909, Li 1974).

In Assam, there was once a Tai-speaking population of the Ahom language which is now extinct. Recently, G. A. Grierson (1966) reported a number of people speaking such Tai dialects as Khāmti in Lakhimpur, Phākial in Lakhimpur, and Nōra, Tai-rong and Aitonia in Sibsagar.

Shan is a Tai dialect spoken by the majority of people in the Shan States of the Union of Burma. Speakers of Shan are also found in the Shan States of Yunnan. Regional variations exist among the Shan dialects in Burma, Thailand, and Yunnan, but are not beyond mutual intelligibility (Egerod 1957).

In Yunnan several other Tai-speaking populations reside as neighbors of the Yunnan Shans. In the southern part of Yunnan, there exists an estimated population of about two hundred thousand of which about sixty percent speaks a Tai language called Lü. Subdialects of Lü subsist, but on the whole the differences are slight (Li 1964).

In the district of Fùníng 富寧, in the southwestern part of Yunnan, there are Tai peoples speaking the dialect of Pó-ài 剥隘 (Li 1944, Wang 1966). In southern Yunnan, one finds also Nung, Tho, and White Tai which are the Tai dialects spoken in North Vietnam as mentioned before.

The population of Kweichow also includes speakers of various divergent Tai languages. The major group is that which Li (1965) named the "Kam-Sui." This group is considered to be a separate group closely related to the Tai group. Some particular features developed among the "Kam-Sui" languages seem to indicate that they separated rather early from the Proto-Tai. Under the label "Kam-Sui," Li assigned four different languages:

1) Kam, called Tùng 侗 in Chinese, is spoken mainly in the southwestern part of Kweichow, in the districts of Yü-p'ing, T'ien-chu, Chin-p'ing, Li-p'ing, Jung-chiang, and Ts'ung-chiang along the Hunan border. The Kam language consists of a number of dialects (Li 1965).

2) Sui, called Shuǐ 水 in Chinese, is found in the southeastern part of Kweichow, in the districts of San-tu, Jung-chiang, Ts'ung-chiang, and Li-po along the Kwangsi border. It consists of several dialects (Li 1948, 1949, 1957).

3) Mak or Mò 莫 in Chinese is spoken only in a few villages in the northwestern part of Li-po (Li 1948).

4) T'en, called Yáng-huáng 羊黃 in Chinese, is found only in a few villages in Hui-shui situated south of Kweiyang, the provincial capital (Li 1966, 1967).

Mak and T'en, together with Sui, may form a group which Li has designated temporarily as the "Sui Group."

Other Tai dialects in Kweichow, besides the "Kam-Sui," are the "Jui" group. The speakers of this group in Kweichow are designated by the Chinese as "Chùng-chiā" 仲家 or "Chùng" 仲, but the people themselves seem to prefer the name "Í-chiā" 夷家 or "Í-jén" 夷人, which is perhaps the basis for the term "Pù Í" 部夷 (the I people) used in general to refer to the Tai-speaking population in Kweichow. The term Jui, ?Jui, Jai, ?Jai or Dioi is the native name according to the pronunciation of the dialect (Li 1957a, 1957b). In the southern part of Kweichow, one finds the Tai dialect of Tú-shān 獨山 (Li 1971). Other Tai dialects include those of Kwèiyáng 貴陽, and Ts'è-hēng 冊亨.

The Jui-speaking people of Kweichow are found also in Kwangsi. There they are designated by the Chinese as "Chuàng-chiā" 撞家, 撞家, or "Chuàng" 僮. Of the Jui group in Kwangsi there is the Wū-míng 武鳴 dialect, but it does not have the name "Jui" or its corresponding form. It is simply called "T'ǔ" 土, a name used rather loosely to refer to speakers of other dialects in Kwangsi, such as Lúng-chōu 龍州 (Li 1940, 1947).

In the central part of Kwangsi, there is the Tai dialect of

Ch'ien-chiāng 遷江. In the western part of Kwangsi, there exist people speaking the Tai dialect of T'ien-pǎo 天保 (Li 1970). Other Tai dialects are those of Lúng-ān 隆安, Pǎi-sè 百色, T'ien-chōu 田州, Líng-yún 凌雲 (Li 1930), and Hsī-lín 西林.

Last come the Lí 黎 dialects which are spoken in the center and south of Hainan Island 海南島. According to Li (1945), the Li dialects show divergence from the ordinary Tai languages; they present several phonetic peculiarities, possibly under the influence of an aboriginal speech. Li is presumably a Tai language.

Benedict (1966) found that the dialect of Ong-Be, spoken in the northern part of Hainan, exhibits specific Kam-Sui affinities. He thought that it can be placed in the general para-Tai framework. Ong-Be is also known in the literature as "Shú-Lí" 熟黎, one of the many populations on the Island of Hainan.

I.2.3. Triple trends of cultural influence

The history of the peoples of Indochina shows that they have been influenced culturally and linguistically by other civilized nations of the region. Chinese cultural influence was first introduced into the coastal regions of the Indochinese Peninsula by commercial exchanges between northern China and the "barbarians of the south" (Coedès 1967:39-40). The latter, in exchange for silk, supplied the Chinese court's great demand for luxury articles and commodities, such as, ivory, rhinoceros horn, tortoise shell, peacock tails, kingfisher feathers, spices, and aromatic woods.⁹ Through trading, Chinese culture spread

over the Chekiang, Fukien, Kwangtung, and Kwangsi area during the period from the ninth to the fourth centuries before Christ.

In the third century B.C., Chinese cultural influence was reinforced around the north of Indochina by its conquest of the Red River Delta. Kwangtung and Kwangsi were conquered and were annexed to China under Shih Huang-ti (246 B.C. - 209 B.C.) of the Ch'in dynasty. The population of the conquered area which was made up of peoples related to the Tais and the Annamites were then profoundly influenced by China (Coedès 1967:39-68, Hall 1964:183-184).

The economic importance of the Peninsula attracted into the coastal regions of the Peninsula not only the Chinese, but also the Indians. According to Coedès (1968), the spread of Indian culture came as a consequence of an intensification of Indian commercial exchanges with South East Asia early in the Christian era. Indian trading settlements in South East Asian ports drew into the Peninsula cultivated persons, literati, and priests who were instrumental in disseminating Indian culture. The transmitted cultural elements were mainly aspects of court life and culture. Often, a pretentious ruler was merely desirous of radiating the grandeur of an Indian court.

Over most of the area of Indochina, mainly in coastal regions and along river valleys, we find peoples who have assimilated Chinese and Indian cultures in varying extents. The Thais, living on the Indochina Peninsula, are not to be exempted from these cultural trends. The Thais have been influenced by yet another cultural wave, that from Cambodia. Coedès (1968:161)

observed that the Thais absorbed Cambodian political organization, material civilization, letters for writing, and a sizable number of words.

The cultural influence from these nations over the Thais is reflected, especially, in the heterogeneous nature of their language. Besides the native Tai stock, the Thai language contains numerous words originating from several sources, for example, Chinese, Pali, Sanskrit, and Cambodian. Loanwords from Pali and Sanskrit have been studied by Gedney (1947), while Cambodian loanwords in Thai are the subject of a thesis by Nacaskul (1962). These two works have been used during my research to exclude Thai words borrowed from Pali, Sanskrit, and Cambodian.

I.3. Published Sino-Tai Lexical Studies

The literature on Sino-Tai lexical study is not rich. The various works are here applied and are given in the bibliography of this dissertation. The main work has been that done by Wulff, Maspéro, Haudricourt, and especially Li.

After the first serious attempt at comparing Chinese and Tai words done by Wulff (1934), interest in this field was stimulated. In recent years, there are a number of linguistically trained scholars who have contributed significantly to our knowledge in the field. Among them, we may name, in particular, Søren Egerod and William J. Gedney. The latter is now doing linguistic research on the various Tai-speaking peoples. When his study and Li's work on comparative Tai, now in progress, are completed, the Sino-Tai relation may then be clarified.

I.4. The Corpus

The corpus of this study is compiled principally from the published articles of the scholars mentioned above.

The lexical items compared show phonological correspondences that point to, at least, four different periods: 1) Thai lexicon that bear correspondences to the Chinese forms of Archaic or Old Chinese, 2) those corresponding to the Chinese forms of the pre-Ancient or Middle Chinese period, 3) those that correspond to the Chinese forms of the Middle Chinese, and 4) those corresponding to the Chinese forms of late Middle Chinese.

I.5. Orthography

I.5.1. Chinese orthography

For Chinese words, Karlgren's reconstruction of Ancient Chinese is used. Archaic rime categories are given where relevant; occasionally, Archaic Chinese reconstructions are given. In the case of Archaic Chinese, the reconstruction according to the system proposed by Li (1971) will be applied. Ancient Chinese forms are preceded by a * mark, while Archaic Chinese forms will follow a ** mark.

I.5.2. Thai orthography

For Thai words, the IPA symbols are applied to transcribe the Thai letters. In presenting the lexical items, the paper will give for each item a transliteration of the script according to its actual spelling, and a phonemic transcription according to its present pronunciation in Standard Thai. The latter form will be written in brackets. Proto-Tai reconstruc-

tions are given where possible marked by one asterisk. The proto forms will be those worked out by Li, quoted from his manuscript on comparative Tai (the book is now in progress).

I.5.3. Sino-Thai lexical items

Lexical items studied in the paper are numbered for convenience of reference. The number after each item in the body of the text is cited according to those given to the entries in the list (see section VII.2.) arranged alphabetically in the order of the phonemic transcription of the Thai words. For the convenience of Chinese scholars unfamiliar with Thai, a list of the lexical items, arranged according to the strokes of Chinese characters with their corresponding number on the list in Chapter VII, will be given as an index.

I.6. Conventions

This study will use a uniform set of symbols for the various data which come from a number of different sources using different symbols and conventions in their transcriptions. Here we shall present the symbols, conventions, including non-bibliographical abbreviations applied in the body of the study:

- h- is used to note a voiceless consonant, e.g. hm
- h is used to represent aspiration, e.g. kh
- ?- is used to represent the glottal stop ʔ, e.g. ʔb.
- x- is used to represent χ, e.g. xau.
- ː is used to note long vowel, e.g. aː
- sonorant is used to note nasals, liquids, semivowels and vowels
- /- is used to represent "or," e.g. l/r
- * mark for PT and MC forms, e.g. *ma

**	mark for OC forms, e.g. **grat
/	MC <u>shǎng</u> tone, e.g. *duo/
-	MC <u>ch'ù</u> tone, e.g. *duo-
[]	encloses phonetic transcription
>	is used to mean "changed to"
<	is used to mean "derived from"
OC	Old Chinese or Archaic Chinese
EH	Eastern Han
WH	Western Han
WC	Wei Chin
NPC	Nan-Pei-Ch'ao
MC	Middle Chinese or Ancient Chinese
<u>CY</u>	<u>Ch'ieh-yùn</u>
<u>KY</u>	<u>Kuáng-yùn</u>
PT	Proto-Tai
NT	Northern Tai
CT	Central Tai
SW	Southwestern Tai
TH	Standard Thai

FOOTNOTES

¹The word "Tai" is used by a number of Tai speakers to designate themselves, whereas the word "Thai" is used only in Thailand and Laos. Since the form "Thai" is the official romanized version of the language of Thailand, it is kept here to refer to the standard language of Thailand; and the form "Tai" is chosen to refer to the whole family of languages spoken in many different countries, except occasionally where I shall preserve the spelling "Thai" used by authors being discussed.

²The recent discovery of the final -l in Saek (Gedney 1970) raises the new possibility that at least one Tai dialect is, in respect of this final, more similar to Malayo-Polynesian than was thought before. This possibility is most pleasing to the scholars who like to think that Tai is ultimately related to Malayo-Polynesian.

³Each lexical item when mentioned in the body of the text is followed by a number which refers to the number given to that lexical item in the word list presented in section VII.2. of Chapter VII.

⁴The readings of the Chinese characters in this dissertation are romanized according to the modified Wade-Giles transcription as in Mathews' Chinese English Dictionary. The four tones, i.e., first, second, third, and fourth, are indicated by the signs - , / , \ , and \ , respectively.

⁵Paul Pelliot (1904:116) was the first author who pointed out the linked-name patronymic system of the Nanchao rulers. He

noted that it was also a characteristic of the legendary kings of early Burma, for example, Pyo-so-ti -- Ti-min-yi -- Yi-min-baik. Later Ling Ch'un-sheng 凌純聲 (1938) brought forward evidence from Chinese records that the patronymic linkage system existed as well in the hereditary Moso ruling family of Lichiang, among the common people of Moso, and the Lolo-speaking Honi tribes of Yunnan at least up to the 16th Century, also among the Lolo of Szechwan and Kweichow up to the 17th Century.

⁶Blackmore (1967:68) even suggested that the "horn" headdress of the Nanchao people might link Nanchao with the modern Lolo and possibly Burmese.

⁷According to the Mán Shū they were the miscellaneous tribes of Yǔng-ch'āng city 永昌城 and K'āi-nán city 開南城. They included such tribes as the Hēi-ch'ih 黑齒 "black-teeth" who used lacquer to paint their front teeth, and the Chīn-ch'ih 金齒 "gold-teeth" who used gold carved plates to cover their front teeth as an adornment, and removed them when they ate. The people of these tribes all wore a single hairknot on the top of the head. They used blue cloth as trousers. They also threw strips of blue cloth across the torso (Luce 1961:42).

⁸The Mán Shū says they were miscellaneous peoples of K'ai-nan. The various Máng tribes were named the Tà-t'àn Máng 大賧茫, Ch'āng Máng 昌茫, Shèng-k'ung Máng 盛恐茫, Hsién Máng 蘄茫, and Shīh Máng 施茫. They lived in pile-propped houses. Some lacquered their front teeth. All wore trousers of blue cloth, and strung canes and strips of bamboo

from their waist. With red silken cloth they bound their head-dress, leaving it to hang behind as an ornament. Also it says that these peoples had elephants the size of the water-buffalo. The native custom was to rear elephants to till the fields (Luce 1961:43).

⁹For a study of the exchanges of luxury articles and commodities between the Chinese and Thai courts in the 18th Century see Prapin Manomaivibool (1970), A Comparative Study of Sino-Siamese Diplomatic Documents 1784-87, unpublished M.A. Thesis, University of Washington.

CHAPTER II

THAI FROM 1283 TO 1975 A.D.

II.1. Standard Thai

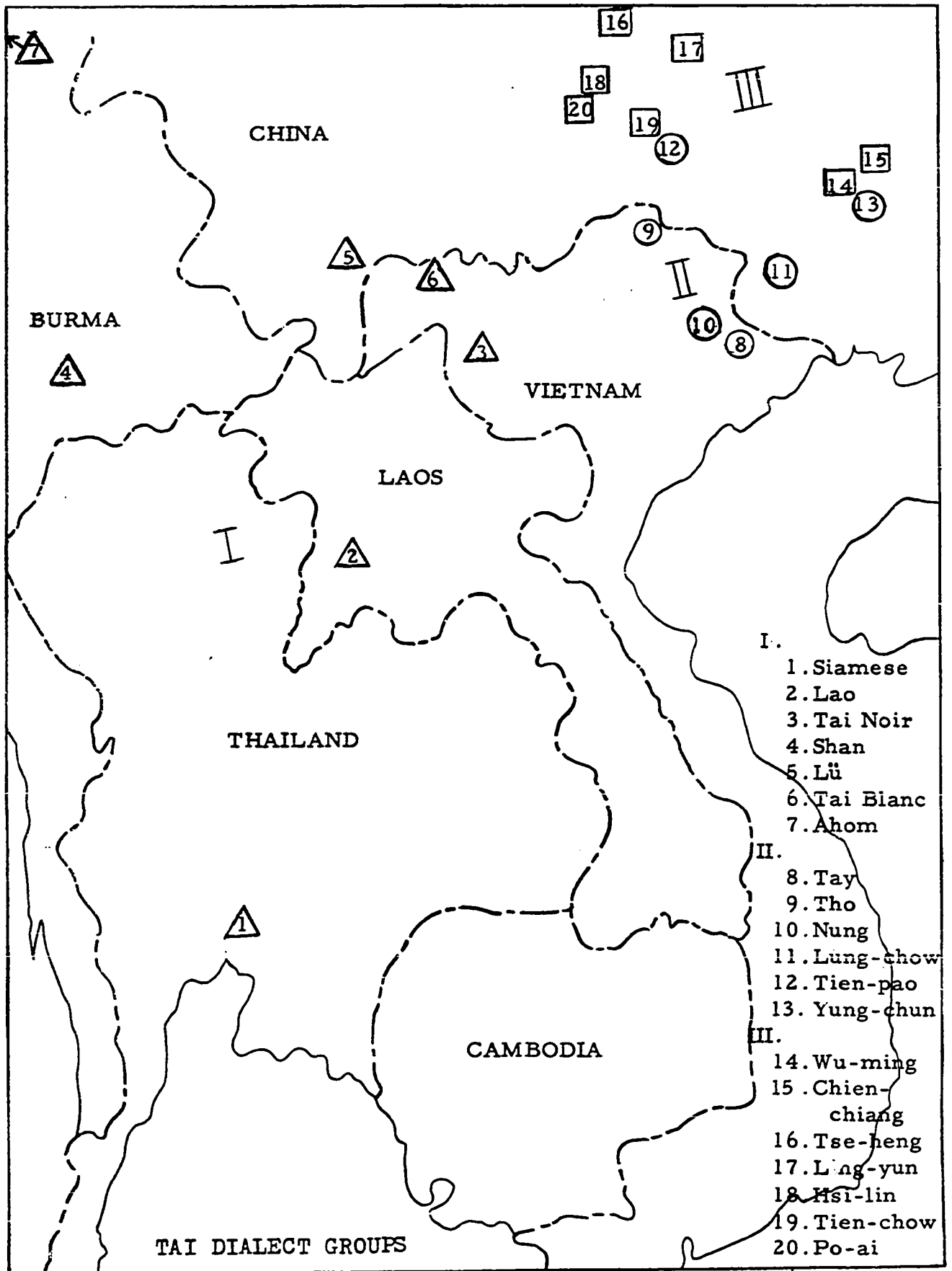
Standard Thai, sometimes referred to as Siamese, is spoken by the population of Bangkok, Thailand, and, as the official language, is taught in schools throughout the country.

Among the three main groups proposed by Li (1959, 1960) in his classification of Tai dialects, Standard Thai belongs to the Southwestern group. The other two groups of Tai dialects are the Central, e.g. Lungchow in southwestern Kwangsi, and the Northern, e.g. Po-ai in southeastern Yunnan (see map on the following page). Although the names of the three groups seem to be geographic, the criteria of their classification, actually, are based on the distribution of vocabulary items and phonological characteristics.

II.2. History of Orthography

The earliest known inscription in Thai script was discovered at the city of Sukhothai. It is a stone obelisk containing 1,500 words. King Ram Kamhaeng, who ordered the inscription, devised this type of Thai script in 1283 A.D. (Bradley 1909, Coedès 1918, 1923).¹

The origin of the Thai script is still not clear; several theories have been proposed. Cornelius B. Bradley (1912, 1917) has invalidated two of the theories, one which considered the Thai script as derived from Sinhalese Pali script, and another which saw Thai script as being derived from the Burmese script.



Bradley rejected these theories on the ground that Thai script contains all the letters of the Grantha script which are not found in Pali or Burmese, and that the letters of the Sukho-thai inscription bear no internal resemblance to those of the Sinhalese Pali or the Burmese scripts; although the external form of Thai letters, being square, give an impression similar to that of the Pali script.

Before Bradley advanced his ideas, Georges Coedès had developed the theory generally accepted in Thailand. According to his 1925 work, "Tamnān aksorn Thai" (The History of Thai Writing), Coedès traced the origin of the northern and southern Indian scripts, their influence in Thailand and neighboring countries, the origin of Khmer script, and finally the origin of Thai script itself.

The oldest writing known in India is the script used in the inscriptions of Asoka,² on a few old coins, and in some other inscriptions which date back to the third century before the Christian era. These inscriptions are in different forms of Prakrit in the Brahmi script (Chatterji 1967:7). The Brahmi script underwent an evolution after the time of Asoka in the form of Sungan Brahmi in the second century B.C., Kusana Brahmi in the first century A.D., the Gupta script in the fourth and fifth centuries A.D., and Siddhamatrka in the sixth and seventh centuries A.D.

In the seventh century A.D., the Devanagari script was developed from a variety of the Gupta character through the Sidd-

hamatrka, and from the eighth century onwards it became the most important Indian script. On a separate line of development, in South India, Brahmi was developing differently, and by the middle of the sixth century, the Pallava script had clearly emerged. From the Pallava script the modern Telugu, Kannada, Malayalam, Grantha, and Tamil scripts emerged (Chatterji 1967:8).

The early Grantha is the script of the early South Indian kingdoms of the Pallavas of Kanchi (5th to 9th centuries A.D.), which were southwest of the city of Madras.

Epigraphical evidence has proved that the earliest Hindu colonist in historical times -- who settled in Champa and the Malay Archipelago -- came from the country of the Pallavas of Kanchi,.... It was no doubt through the Brahmans of South India in the first place that Indian civilization was carried to Champa, Cambodia, and Java. The South Indians brought their own early Grantha alphabet and used Sanskrit for their inscriptions. Indeed, the South Indian style of writing agrees exactly with the script of the earliest inscriptions discovered in Southern Vietnam, Cambodia, Borneo, and Java.
(Diringer 1968:314-315)

Diringer (1968) then concluded that it was this South Indian script that gave birth to several scripts in South East Asia. The offshoots are as follows:

- 1) Cham and Khmer
- 2) Burmese, Mon, and Pyu
- 3) Tai: Shan, Lao, Lü, Khun, Ahom, Thai, Miao, Khamti, and Chan Lao of Tongking

Thus Coedès, Bradley, and Diringer agreed that Thai script was related ultimately to the Grantha script of South India.

Now let us focus on the Khmer script which King Ram Kamhaeng used as a model when he devised the Thai letters used in the 1283 A.D. inscription. According to Coedès (1925), all the

Cambodian inscriptions are closely connected with the early Grantha character, but differ from the latter in three ways:

- 1) Cambodian inscriptions are generally in a symmetrical and elegant style, which is rarely found in Indian epigraphy.
- 2) The thin straight horizontal line on top of the Indian letters was changed into a thick notched line. The Cambodians call it "saka" (hair), because it looks like curly hair.
- 3) The South Indian letters are rounded, whereas the Cambodian letters are square.

The early Cambodian script was divided into two varieties: the lapidary script for inscriptions, and the current script for everyday writing (Coedès 1925).

When the Thai people first moved into the Mekhong valley in the first century B.C., the Mons were powerful and civilized. Therefore the Thais were influenced by the Mons in religion and the arts. Coedès (1925) presumed that the Thai people even used the Mon script for writing; although no inscriptions remain, evidence appears in the writing of some other Tai groups. The script that the Ahom and the Lü peoples use at the present time is derived from the old Mon script.

In the first half of the tenth century, the Khmers conquered the Mons, and occupied the city of Chaliang and Sukhothai. The Thais then learned the Cambodian current script which was used in political documents and began to use it instead of the Mon script. In 1235, the Thais became independent and set up the Sukhothai kingdom. In 1283 A.D., King Ram Kamhaeng decided that the Khmer letters were inconvenient for writing Thai, and since the Thais had proclaimed themselves independent from the

Khmers, it was not proper to use the Khmer script for writing Thai. Thus he devised a new script, which appears in the 1283 A.D. inscription. The Thai alphabet of King Ram Kamhaeng was an adaptation of the Cambodian script, which was adopted when Sukhothai was occupied by the Khmers.

Coedès (1925) thought that the King simply adopted the Khmer script in writing Thai. King Ram Kamhaeng's script is similar to that of the Cambodian (see below). The way in which the 1283 A.D. inscription followed the Cambodian practice of writing the "short a" (ไมหันากาฬ mai-han-?ā-kāt), i.e. using two consonants together, the first standing for the final consonant, and the second for the vowel, was the same as the Cambodian practice, for example, กณ knn = กัณ kan.

Coedès (1925) hypothesized that the King intended the following improvements in the Cambodian script:

1) He changed the forms of the letters and made them easier and more convenient to write.

a) The "saka" on top of each letter had no real significance, so he removed it; e.g. the Cambodian letter ភ kh was changed into ក.

b) Some Cambodian letters consist of two or three lines; he changed them so they could be written with one continuous line, e.g. ក k was changed into ក, and ឃ was changed into ฃ.

2) Six Cambodian letters: ច, ជ, ឌ, ឍ, ណ, and ញ, all of which face towards the right, look so very much alike in forms as to make one letter easily mistaken for another. The letters were turned around in different directions: ច, ជ, and ឌ

were faced towards the left into 𑄢, 𑄣, and 𑄤, respectively; th was faced downwards into 𑄥; and d and n were turned upward into 𑄦 and 𑄧.

3) In the Cambodian writing system, when two consonants followed each other, one has to use a combination of two consonants following one another; the second consonant must change into its simple form, and in some cases it is written underneath the first consonant. Some simple forms differ considerably from the original one, for example, 𑄨 (l m) and 𑄩 (s r). The King, realizing it was not convenient to have two different forms for each letter, simplified it by having just one form for each letter, putting the two consonants on the same line following each other. For example, 𑄪 𑄫 pla:. He also changed the place of some vowels. The Cambodians put the vowels i, i: on top and u, u: at the bottom of the letters; the King lined them up, putting them on the left side of the letters like the vowels æ and ai.

4) The Cambodian language, in contrast to Thai, has no tones. Thus, tone marks for indication of the tones in Thai were invented for the first time. As a result, Thai is "the only Tai language which clearly marks all the tones in the writing system" (Haas 1958). In the Sukhothai period, there were only two tone marks; a vertical stroke ' and a cross +. Both were written above the consonant.

In the Sukhothai period, all the letters were written on the same line, but a change was introduced in 1357 A.D. in the reign of King Lü Thai. He placed the vowels i and i: on top of the consonants, and u and u: at the bottom, thus reverting back

to the Cambodian practice. Another change, which affects some letters, was introduced in 1680 by King Narai the Great in the Ayutdhaya period. For example:

๑ was changed into ๑

๒ was changed into ๒

๓ was changed into ๓

๔ was changed into ๔

Most Thai letters used today look similar to those used in the Sukhothai and Ayutdhaya periods. Actually, the orthography has been very conservative and in several cases reveals an early stage of Standard Thai. The list of alphabets given in Table 1 shows its gradual evolution from the time it was first devised in the thirteenth century down to the present time.

II.3. Explanation of the Writing System

II.3.1 Initial consonants

There are forty-four consonants in King Ram Kamhaeng's script.⁴ In Table 2, the consonant letters are given in the form of Standard Thai script, so as to facilitate typing. Each consonant is then transcribed into two distinct sets of symbols; the upper one represents a transliteration of the script, and the lower one a phonemic transcription according to the way the consonant is now pronounced in Standard Thai.⁵ Here the values of the transliteration are chosen in accordance with what the values probably were in the Sukhothai period.

All the consonants shown in Table 2 may occur in initial position. In addition to these single-consonant initials, there are two types of initial clusters.

Table 1. Table of Alphabets.					
	Khmer 1257 A.D.	K. Ram Khamhaeng 1283 A.D.	K. Lu Thai 1357 A.D.	King Narai 1680 A.D.	Standard Thai 1975 A.D.
k	ក	ក	ក	ក	ก
kh	ខ	ខ	ខ	ข	ข
x	-	-	ຊ	จ	จ
g	ហ	ហ	ហ	ด	ด
ɣ	-	-	ឃ	ฉ	ฉ
gh	ឃ	ឃ	ង	น	น
n	ឃ	ង	น	น	น
c	ជ	ជ	จ	จ	จ
ch	ច	ច	ช	ช	ช
f	-	-	ฝ	ฝ	ฝ
z	ឆ	ឆ	ฉ	ฉ	ซ
ʃh	ឆ	ឆ	ฬ	ฬ	ฬ
ɲ	ឆ	ឆ	ญ	ญ	ญ
ʔd, t	ត	ด	ต	ต	ต
th	ត	ด	ถ	ถ	ถ

Table 1. Table of Alphabets (Continued)					
	Khmer 1257 A.D.	K. Ram Kamhaeng 1283 A.D.	K. Lu Thai 1357 A.D.	King Narai 1680 A.D.	Standard Thai 1975 A.D.
d	ຂ	๗	-	๗	๗
dh	ឈ	๘	-	๘	๘
n	ណ	๙	ណ	๙	๙
?d, t	ត	๑, ๓	๑, ๓	๑, ๓	๑, ๓
th	ត	๒	๒	๒	๒
d	ដ	๓	๓	๓	๓
dh	ឌ	๔	ឌ	๔	๔
n	ន	๕	ន	๕	๕
?b, p	ប	๖, ๗	ប, ๗	ប, ๗	ប, ๗
ph	ផ	๘	ផ	๘	๘
f	-	๙	ផ	๙	๙
b	ប	๑	ប	๑	๑
v	-	๒	ប	๒	๒
bh	ហ	๓	ហ	๓	๓
m	ម	๔	ម	๔	๔

Table 1. Table of Alphabets (Continued).					
	Khmer 1257 A.D.	K. Ram Khamhaeng 1283 A.D.	K. Lu Thai 1357 A.D.	King Narai 1680 A.D.	Standard Thai 1975 A.D.
y	យ	ย	ย	ย	ย
r	រ	ร	ร	ร	ร
l	ល	ล	ล	ล	ล
w	វ	ว	ว	ว	ว
ɕ	ច	ช	ช	ช	ช
s	ស	ศ	ศ	ศ	ศ
s	ស	ส	ส	ส	ส
h	ហ	ห	ห	ห	ห
l. ʔ	ឃ	ข	ข	ข	ข
h	អ	ค	ค	ค	ค
a	-	เ	เ	เ	เ
a:	អា	อ	อ	อ	อ
i	អ	โ	โ	โ	โ
i:	ឺ	เอ	เอ	เอ	เอ

Table 1. Table of Alphabets (Continued).

	Khmer 1257 A.D.	K. Ram Khamhaeng 1283 A.D.	K. Lu Thai 1357 A.D.	King Narai 1680 A.D.	Standard Thai 1975 A.D.
u	-	-	-	๒	๒
u:	-	๓	๔	๕	๖
u	๗	๘	๙	๑	๒
u:	๓	๔	๕	๖	๗
e	๘	๙	๑	๒	๓
æ	-	๔	๕	๖	๗
ai	๘	๙	๑	๒	๓
əi	-	๔	๕	๖	๗
o	๘	๙	๑	๒	๓
au	๔	๕	๖	๗	๘

Table 2. Initial Consonants.

Table 2. Initial Consonants.									
<u>Voiceless</u>					<u>Voiced</u>				
unasp. stops	asp. stops	fricatives	unasp. stops	fricatives	asp. stops	nasals	semi-vowels	lat-erals	trills
		π^5	θ	θ^6	π	η			
Velars	η	π^5	θ	θ^6	π	η			
	k	x	g	γ	gh				
	k	kh	kh	kh	kh				
Palatals	γ	π	π	π	π	π	u		
	c	ζ	f	z	jh	y	y		
	c	s	ch	s	ch	y	y		
Retroflexes	η	π	π		π	π		π	π
	η	π	π		π	π		π	π
	η	π	π		π	π		π	π
Dentals	η	π	π		π	π		π	π
	η	π	π		π	π		π	π
	η	π	π		π	π		π	π

Table 2. Initial Consonants (Continued).

		<u>Voiceless</u>			<u>Voiced</u>			
		unasp.stops	asp. stops	frica- tives	unasp. stops	frica- tives	asp. stops	nasals semi- vowels lat- erals
Labials	ʋ	ʋ	ɥ	ɬ	w	w	ɳ	ɰ
	?b	p	ph	f	b	v	bh	w
	b	p	ph	f	ph	f	ph	w
Glottals	ʔ			ʈ		ʈ		
	ʔ			h		h		
	ʔ			h		h		

1) Those beginning with ʌ k, ʌ x, ʌ g, ʌ t, ʌ d, ʌ p, ʌ b, ʌ kh, and ʌ ph followed by ʌ l, ʌ r and ʌ w, are given in Table 3.

2) Those beginning with voiceless ʌ h and ʌ ? followed by voiced ʌ y, ʌ w, ʌ ŋ, ʌ ɲ, ʌ n, ʌ m, ʌ r, and ʌ l are given in Table 4. The consonant ʌ ? precedes only ʌ y.

II.3.2. Finals

The term final is used here to mean the vowel plus the final consonant if any; in other words, the syllable minus the initial and tone.

Thai has nine pure vowel phonemes: i, e, æ, ə, a, u, ʊ, o, and ɔ. These vowels occur singly, doubled, and in certain non-geminate combinations, and combined with final endings -w and -y,⁸ -m, -n, -ŋ, -p, -t, -k,⁹ and -?. Thus, they form the set of finals. In Table 5 the final consonant -ŋ represents also -m and -n, and -k represents also -p and -t.

II.3.3. Tones

In the thirteenth century, Thai had only two tone marks to indicate the tones. We do not know for certain what actual tones those symbols represented; however, we may assume that the script of King Ram Kamhaeng represented the original tonal situation, that is, the division of Thai words into four tone classes A, B, C, and D (Li 1943, 1966). The two tone marks were used to indicate class B and C. Words of class B were marked by a perpendicular stroke ' above the consonant; and class C by a little cross + above the word. The other two classes, A and D, were not marked, but one could distinguish them by their syllabic types. Class A consists of words which

Table 3. Initial Clusters.

	n k	ŋ x	n g	ŋ t	n d	ɹ p	w b	ŋ kh	u ph
a l	kl		gl			pl	bl	kh1	ph1
	kl		kh1			pl	ph1	kh1	ph1
j r	kr		gr	tr	dr	pr	br	kh1	ph1
	kr		kh1	tr	sʔ	pr	ph1	kh1	ph1
ɹ w	kw	xw	gw					kh1	
	kw	kh1	kh1					kh1	

Table 5. Finals.

	-y	-w	-m,	-n,	-ŋ	-p,	-t,	-k
-ə	ɿ	ɿ	ɿ ¹¹	-ŋ		ɿ	-ŋ	
a	aɪ	au	aŋ	aŋ		ak	aɪk	
aʔ	aɪ ¹⁰	au	aŋ	aŋ		ak	aɪk	
ɛ	ɛ	ɛ	ɛ	ɛ ¹²	ɛ	ɛ	ɛ	ɛ
i	iɛ	iw	iŋ	iŋ	iŋ	ik	iɪk	iak
iʔ	ia	iu	iŋ	iŋ	iŋ	ik	iɪk	iak
ɛ	ɛ	ɛ	ɛ	ɛ ¹²	ɛ	ɛ	ɛ	ɛ
u	uɛ	uay	uŋ	uŋ	uŋ	uk	uɪk	uak
uʔ	u	uai	uŋ	uŋ	uŋ	uk	uɪk	uak
ɛ	ɛ	ɛ	ɛ	ɛ	ɛ	ɛ	ɛ	ɛ
u	u	u	u	u	u	u	u	u
uʔ	u	u	u	u	u	u	u	u

Table 5. Finals (Continued).

	-y	-w	-m,	-n	-ŋ	-p,	-t,	-k
l-ɜ̄		l-ɜ̄	l-ɜ̄	l-ɜ̄		l-ɜ̄	l-ŋ	
e		ew	eŋ	eŋ		ek	e:k	
e?		eu	eŋ	eŋ		ek	e:k	
u-ɜ̄		u-ɜ̄	u-ɜ̄	u-ɜ̄		u-ɜ̄	u-ŋ	
æ		æw	æŋ	æŋ		æ:k	æ:k	
æ?		æu	æŋ	æŋ		æ:k	æ:k	
ɿ-ɜ̄	ɿ-ɜ̄		ɜ̄	ɿ-ɜ̄		-ŋ	ɿ-ŋ	
o	o:y		-ŋ	o:ŋ		-k	o:k	
o?	o:i		oŋ ¹⁶	o:ŋ		ok ¹⁶	o:k	
ɿ-ɜ̄	-ə ¹³							
ɜ̄	ɜ̄:y			-ə ¹⁵			-əŋ	
ɜ̄?	ɜ̄:i			ɜ̄:ŋ			ɜ̄:k	
				ɜ̄:ŋ			ɜ̄:k	

Table 5. Finals (Continued).

	-y	-w	-m,	-n,	-ŋ	-p,	-t,	-k
l-əː	l-ə	l-ɨ		l-ɨ ¹⁵			l-ə̃	
ə	əː	əi ¹⁴		əiŋ			əːk	
əʔ	əː	əi		əiŋ			əːk	

are either of open syllable type or of closed syllable type with final -m, -n, or -ŋ; while class D is limited to words ending in final -p, -t, -k, or -?. Table 6 provides a chart showing the tones and syllable types with their transliteration symbols in terms of the four tonal classes A, B, C, and D.

Table 6. Tones				
Tones	Syllable Type			
	open or ending in -m,-n,-ŋ			ending in -p,-t,-k,-?
	no tone mark A	l B	+	no tone mark D

II.4. Match between Written Symbols and Present Phonemic System

A description of the thirteenth century transcription has been given in the preceding section, but that of Standard Thai will not be described here. Several careful phonological descriptions have already been made in this field by various scholars, such as Mary R. Haas (1956, 1958, 1964), William J. Gedney (1947), and A. S. Abramson (1962). Here, I shall discuss the match between written symbols and present phonemic systems of the Thai language, focusing on the aspects of consonant, final, and tone.

II.4.1. Comparison of consonant symbols

Whether the forty four consonants at the time of King Ram Kamhaeng were actually kept distinct by the speakers of the thirteenth century Thai remains an unanswered question. The possibility exists that some of the letters in King Ram Kamhaeng's alphabet may have been used only to transliterate words of foreign origin and were not kept distinct in actual speech. Such a possibility is supported by the fact that certain letters, such as the retroflex set, never occur in native Thai words. However, if we assume that the forty four consonants of King Ram Kamhaeng represented forty four distinct consonant sounds (presumably the sounds that the forty four transliteration letters stand for), then the number of the consonant sounds has shrunk drastically in modern Standard Thai. Tables 7 and 8 give a comparative chart of consonant symbols, the former tabulating the transliterated symbols of King Ram Kamhaeng's script (cf. Table 1), and the latter tabulating the twenty one consonant phonemes of Standard Thai.

Table 7. King Ram Kamhaeng's Consonants.

Velars		k	kh	x	g	ɣ	gh	ŋ		
Palatals		c	ch	ç	ʃ	z	ʝh	ʝ	y	
Retroflexes	ʔɖ	ɖ	ɖh	ʂ	ɖ		ɖh	ɖ	ɭ	r
Dentals	ʔd	t	th	s	d		dh	n	l	
Labials	ʔb	p	ph	f	b	v	bh	m	w	
Glottals	ʔ			h		ɦ				

Table 8. Consonant Phonemes of Standard Thai.

Velars	k	kh	ŋ				
Palatals	c	ch	y				
Dentals	t	th	d	n	s	l	r
Labials	p	ph	b	m	f	w	
Glottals	ʔ	h					

Let us now look at each of the above phonemes of Standard Thai in comparison with the letters of the Sukhothai alphabet.

The phoneme /k/, corresponding to the Sukhothai k [k], needs no discussion. Other phonemes, in which there is a one to one correspondence between Standard Thai and Sukhothai letters and need not be discussed, are /ŋ/, /c/, /r/, /p/, /m/, /w/, and /ʔ/. The individual consonant phonemes in Standard Thai that are related to more than one letter of the Sukhothai alphabets will be discussed in order.

/kh/ comes from the Sukhothai kh, x, g, γ, and gh. The x and γ have become obsolete; the x is now replaced mainly with the letter kh and γ mainly with the letter g.¹⁷ The letters g and gh are now pronounced [kh], thus merging with the original kh [kh]. The letter g [kh] is still commonly used, whereas gh [kh] is used mainly for words of Pali and Sanskrit origins.

/ch/ corresponds to the Sukhothai ch, ɟ and ɟh. Both the letters ɟ and ɟh have developed into /ch/. The ɟh used only for words of Pali and Cambodian origin, never occurs in native

Thai words.

/y/ comes from the Sukhothai y and ꠢ; the latter is mainly used to spell words of Pali and Sanskrit origin.

/d/ comes from the preglottalized stop ʔd of the Sukhothai alphabet. Today /d/ is pronounced as voiced, but it still behaves like voiceless initials on the tones (see Li 1947).

/th/ comes from the Sukhothai th, d, and dh. All three letters are still current in Thai orthography. The main feature is the devoicing of the voiced stops (see the discussion of tone in section II.4.3. below).

/s/ comes from the letters ꠌ, z, and s. The s spells almost all the Thai words that begin with an /s/ initial, while the ꠌ and ꠌ are mainly used in words of Sanskrit or Cambodian origin.

In addition, the whole dental set of /d/, /t/, /th/, /s/, /n/, and /l/ corresponds also to the Sukhothai retroflexes: /d/ to the ʔḍ, /t/ to the ṭ, /th/ to the ṭh, ḍ, and ḍh, /s/ to ṣ, /n/ to ṇ, and /l/ to ḷ. This set of retroflex consonants is rarely used and never occurs in native Thai words. They appear in words either of Pali or Sanskrit origin.

/b/ is from ʔb. It is a voiced consonant, but behaves like voiceless initials on the tones (see Li 1947).

/ph/ comes from the Sukhothai ph, b, and bh. The letter bh occurs mainly in words originating from Pali, Sanskrit, and Cambodian.

/f/ corresponds to the letters f and v. Both letters still appear in Thai orthography and are commonly used.

/h/ comes from the Sukhothai h and ĥ. The letter ĥ occurs in onomatopoeia, words of Northern Thai dialect origin with initial ĥ- that corresponds to Central Thai r-, and in transliteration of foreign words.

II.4.2. Brief comment on the coalescence of finals

All the final sounds of thirteenth century Thai are kept distinct in modern Standard Thai, except for three which have fallen together. These three finals are ๑ ai [ai], ๑ əi [ai], and ๑ ay [ai]. The last of the three forms here may not raise any question, since the form never occurs in native Thai words and is only used to spell words of Pali and Sanskrit origin. It is very likely that in actual speech the Sukhothai people did not keep ๑ ay [ai] distinct from the sound [ai].

As to the vowels ai [ai] and əi [ai], whether they were actually kept distinct in actual speech is a question that cannot be positively answered. The ai [ai] corresponds to [ai] in other Tai dialects, while əi [ai] corresponds to [əi] in White Tai, to [aĩ] in Lungchow, and to [ə:], [ə:i], [ua] in other Tai dialects (Donaldson 1963, Li 1940, Haudricourt 1948). From this fact, I infer that while the symbol ๑ ai was devised to express the vowel [ai], the symbol ๑ əi was used to represent another vowel distinct from [ai], probably [əi]. The two symbols have now merged and both are pronounced [ai] in Standard Thai. In general, the sound [ai] in Thai is spelled with the ๑ ai, only twenty words in Thai are spelled with the ๑ əi. The twenty words are ๑ kləi [klai] C1 "near, close," ๑ grəi [khrai] A2 "who, whom," ๑ grəi [khrai] B2 "to desire,"

ใจ cai [cai] A1.¹⁸ "heart, mind," ใจ jai [chai] B2 "to be so,"
 ใจ jai [chai] C2 "to use, to send (on an errand)," ใ yai [yai] A2
 "why," ใ dai [dai] A1 "what," ใ tai [tai] C1 "beneath, below,"
 ใส sai [sai] A1 "clear, transparent," ใส sai [sai] B1 "to put
 into, to put on (clothing)," ใ nai [nai] A2 "inside," ใ bai
 [bai] A1 "leaf, classifier," ใ bai [bai] C1 "dumb," ใ fai
 [fai] B1 "to pay attention to, have an interest in," (ส-)-ใ (sa-)-
 bhai [phai] C2 "daughter-in-law," ใ hai [hai] C1 "to give," ใ
 hnai [yai] B1 "big, large," (หลวง)-ใ (hlong-hlhai [lai] A1 "to dote
 on (a young woman)," and ใ hmai [mai] B1 "new."

In a certain case, Standard Thai lengthens an originally short vowel of the Sukhothai script. The vowel au [au] is short, in contrast with a:w [a:u] and it corresponds to [au] in other Tai dialects (Sarawit 1973). But some of the words spelled with the vowel au [au] are now pronounced [a:u] in Standard Thai, such as ไก่ klau [kla:u] C1 "hair knot," ใจ jai [cha:u] C2 "morn-
 ing," ไก่ kau [ka:u] C1 "nine," ใจ cau [ca:u] C2 "lord, prince," and ใ plau [pla:u] B1 "empty." The same is true of some cases of ai [ai] and ใ [ai], as in ใ dai [da:i] C1 "to get, obtain," ใ tai [ta:i] C1 "below, beneath," and ใจ jai [chai] C2 "to use."

The semivowels -w and -j contrast with -m, -n, -ŋ and -p, -t, -k in final positions as the ending consonant of a final and are considered by the Thais as final consonants. But in actual speech, the -w and -j are pronounced -u and -i respectively.

II.4.3. Tones

The tonal system of King Ram Kamhaeng's period as described in section II.3.3. above originally provided four tonal cate-

gories. The four categories, being influenced by the initial consonants of the syllable, developed and merged in certain ways so that we now have five different tones in Standard Thai. In order to understand this development, let us first look into the possible groupings of the initial consonants as they appeared in the script of King Ram Kamhaeng, and then into their present grouping in Standard Thai.

The transliterated values of King Ram Kamhaeng's script seem to show a four-way distinction of stops. Based on this, we may set up four categories of initials as follows:

I. Voiceless aspirated stops such as ๑ kh [kh]; this includes voiceless fricatives such as ๑ x [kh].

II. Voiceless unaspirated stops such as ๑ k [k].

III. Preglottalized stops such as ๑ ʔd [d̚]; this includes the glottal stop ๑ ʔ [ʔ].

IV. Voiced stops such as ๑ g [kh]; this includes voiced consonants such as ๑ ŋ [ŋ].

The tonal splits in Standard Thai do not reflect a four-way split conditioned by the phonetic differences of these four categories of initial consonants. Instead, the Standard Thai tones seem to reflect the influence of three classes of initial consonants. It is a difficult question to answer whether this three-way classification of consonants existed in the Sukhothai period. The earliest extant work which mentions the three-way classification of consonants is a seventeenth century work entitled Cindāmani (Suksaphan 1963), considered the first grammar of Thai. In the book, the three divisions are named

"high," "middle," and "low" consonants. The "high" consonant division corresponds to the first category of Sukhothai initials, such as the voiceless aspirated stops; the "low" consonants to those of the fourth category, such as the voiced stops. The "middle" consonants corresponding to the second and third categories, combines the voiceless aspirated stops together with the preglottalized stops.

In my opinion this grouping of the consonants into three divisions was not to provide a three-fold distinction of initial consonants for each of the four tonal classes.¹⁹ It was rather a sophisticated linguistic device set up to explain the limitations on the distribution of types of initial stops in various tones after the tones had developed into the five phonemically different tones we now have. My assumption is that the Sukhothai language had four tones, each with two allophones: A1, B1, C1, D1 of the voiceless initials and their allophonic tones of the voiced initials A2, B2, C2, D2, respectively. With time, the tones developed, and by the seventeenth century, certain splits and mergings of tones had surfaced:

- 1) subclass A1 split into two, namely A1 and A1';²⁰ tone A1' then merged with A2
- 2) tone B2 merged with C1²¹
- 3) tone D1 merged with B1, and
- 4) subclass D2 was influenced by the vocalic length of long versus short vowels and developed into two, namely D2s (short vowel) and D2l (long vowel); the former then merged with C2, and latter with B2 (Li 1947, 1954, 1966).

With the five phonemically different tones in mind, the Thai grammarians of the seventeenth century, recognizing the limitations on the distribution of classes of initial stops in various tones, devised an explanatory three-way classification of the consonants. All the voiced consonants were grouped together into one division; while the voiceless consonants were divided into two, based on the aspiration versus non-aspiration distinction of the voiceless stops.²² The unaspirated stops were named "middle," probably because they constitute a division intermediate between those upper, i.e., the so-called "high" consonants, and those lower, i.e., the so-called "low" consonants. The pitch level of the "middle" consonants in tone A is the same as that of tone A with the "low" consonants; in tonal class B, the "middle" consonants have the same pitch level as the "high" consonants; and in tonal class C, the "middle" consonants link the "high" and "low" divisions together, i.e. the "middle" consonants in tone C merges first with tone C of the "high" consonants, and then with tone B of the "low" consonants. The "high" and "low" divisions, while being linked together by the "middle" division, each still retains one tone that is distinctive from any of the three tones mentioned above. The "high" division has its distinctive tone in class A, and the "low" division in class C.

Table 9 will illustrate the development of the four tonal categories under the three-way classification of initial consonants. The tones in the table are designated by terms of pitch levels and contours (Chao 1930). Five numerals are used to

represent the pitch levels: 1 - low, 2 - mid-low, 3 - mid, 4 - mid-high, and 5 - high. Two numerals represent the tone contour: 22 means that the tone starts at a mid-low pitch and ends in a mid-low pitch, thus a mid-low level tone; 41 means that the tone starts at the mid-high pitch and ends in low, thus a falling tone, etc.

Table 9. Standard Thai Tones.					
Division of initial consonants	Tonal class				
	A	B	C	Ds	Dl
High	24	22	41	22	22
Middle	33	22	41	22	22
Low	33	41	55	55	41

The chart shows that tonal classes A, B, and C developed into five tones, and that tones developed from tonal class D are identified with three of the tones developed from tones B and C. Thus, setting tones A, B, and C together as one type and tone D aside as another type, the seventeenth century Thai grammarians (Suksaphan 1963) devised another kind of division, in addition to the three-way classification of initials. This time the division was for the purpose of explaining the distribution of tones according to syllabic types. Syllables were divided into two types:

1) Kham-pen "live syllable." This term is the native Thai term used to designate syllables ending in a vowel or a nasal. This type corresponds to the syllables with tonal classes A, B, and C, and may have all five tones of Standard Thai.

2) Kham-tāi "dead syllable." This term is the name given to syllables ending in a stop consonant or glottal stop. This type corresponds to the syllables with tonal class D, and has merely three tones: 22, 41, and 55. Syllables with a short vowel normally have tones 22 and 55, those with long vowel tones 22 and 41.

The five tones of Standard Thai are designated by the native Thai terminology as follows:

- 1) Sāman "common" is the mid-level 33
- 2) ʔək "first" is the low level 22
- 3) Thō "second" is the falling tone 41
- 4) Trī "third" is the high tone 55 or 453²³
- 5) Cattawā "fourth" is the rising tone 24

This dissertation in designating the tone of the lexical items studied will use neither the native Thai terminology nor the terms of pitch levels and contours. Instead, the four tonal classes with their bifurcated subclasses 1 and 2, presumably the tonal situation of the thirteenth century Thai will be used, with the addition of tone A1' (see note 20), to designate the tones of the Standard Thai lexicon in this study.

Before concluding this section, I should comment on the tone marks. Standard Thai has multiplied the two tone marks in the script of King Ram Kamhaeng into four. The four tone

marks are ' , ˊ (for the old +), ˊ , and + (which has nothing to do with the old +). The added tone marks ˊ and + are mainly used for writing onomatopoeic words and loanwords in the high and rising tones, respectively. The period when the added tone marks were introduced is unknown. However, almost all the native Thai words with tone marks receive the marking ' or ˊ . But the tone marking is not always completely historical. Because of the coalescence of certain tones and initial consonants, a word which should be marked by tone mark ' is often marked by ˊ and vice versa. However, such cases can be easily checked by comparative study. For instance, khæ:ŋ (falling tone) "shin" is now written ๕๓ khæ:ŋ Cl, but comparison shows that it belongs to class B (Li 1974), and therefore it should be written with a voiced consonant initial with tone B2. The correct form is preserved in King Ram Kamhaeng's inscription, where it is written ๕๓ ɣæ:ŋ [khæ:ŋ] B2.²⁴

FOOTNOTES

¹In my opinion, the Thai script may possibly not have been devised personally by King Ram Kamhaeng. He may have only been the sponsor of the reform. The Manchus also have the legend that the Mongol alphabet was adapted to Manchu by Nurhaci, the first emperor. Tradition in Thai literature always attributes the authorship of a literary piece to the King. It is likewise true that, even though the King might compose certain parts of a work, his usual role was as patron of the Court poets, who actually composed the works.

²King of Pataliputra, reigned from 259-222 B.C.

³These letters are fifty years later, i.e. 1730 A.D.

⁴Thai has nine more consonants than Cambodian. The added consonants are ฏ x, ฦ ɣ, ฏ z, ฝ f, ฝ v, and ฝ h. Three pairs of Cambodian consonants are split into six Thai consonants, ฦ > ฦ ʔd, ฦ t, ฦ > ฦ ʔd, ฦ t, and ฦ > ฦ ʔb, ฦ p. In Cambodian each of the letters represents two allophones (ฦ d, t; ฦ d, t; and ฦ b, p); they can be pronounced in either way depending on the following sound, for example, pra:b and bamra:b.

⁵This system of transcription will also be applied in Tables 3, 4, and 5.

⁶Burney and Coedes (1928) explained the origin of "ฏ" and "ฦ" as "x" and "ɣ." They inferred this from a comparison of words having these two consonants as initials in the 1283 A.D. inscription with other Tai languages, such as Shan, White Tai,

and Dioi. Shan and White Tai have [kh] for Thai "๑" and "ฦ," while Dioi has [h] for these two Thai letters. Later Haudricourt (1952) compared Thai with White Tai and concluded that "๑" is written with kh in White Tai, and therefore it represents a Proto-Tai voiceless velar affricated stop; and that "ฦ," corresponding to an affricate in White Tai, represent a Proto-Tai voiced velar affricated stop. He then wrote "๑" as "q" and "ฦ" as "G."

Here I follow Burney and Coedès (1928): "x" for "๑" and "ɣ" for "ฦ" because fricatives with a two-way distinction perfectly accord with Sukhothai script. If they were affricated stops as proposed by Haudricourt (1952), they should come in a manner similar to other sets of stop consonants in Thai, i.e., in a three-way or four-way distinction.

⁷This consonant-cluster feature, though it is shown in spelling, is not shown in modern Thai pronunciation. This cluster occurs mainly in Sanskrit and Cambodian loans.

⁸The semivowels -w and -j are considered final consonants because of their occurrence following the nucleus vowel in contrast with other consonants (the nasals and stops) which occur in that position.

⁹The final consonant sounds [-n], [-p], [-t], and [-k] may be represented by the letters ๑ n, ๑ ʔb, ๑ ʔd, and ๑ k, respectively. However, in writing words that are mainly of Pali, Sanskrit or Cambodian origin, the sound [-n] may be spelled by ๑ n, ๑ ๑, ๑ r, ๑ l or ๑ ๑; the sound [-p] by ๑ p, ๑ b or ๑ bh;

the sound [-t] by ๑ c, ๒ j, ๓ ?d, ๔ ?t, ๕ th, ๖ d, ๗ dh, ๘ t, ๙ th, ๑ d, ๒ dh, ๓ g, ๔ s; and the sound [-k] by ๑ g.

¹⁰The final ๒ ay [ai] never occurs in native Thai words. It is used to spell words of Pali and Sanskrit origin (Uppakitsinlapasan 1968:46).

¹¹The sign ๒ mai-han-?ā-kāt never occurs by itself. It is a shortened form of ๒ a when followed by a final consonant.

¹²The vowels i: and u: have no final ending in /ŋ/.

¹³This is the same symbol as the one that is used to write the glottal stop ๑ ?. It is also used to write the vowel sound ๑: in Thai.

¹⁴I have based my transliteration of "๒" as "əi" on the fact that it corresponds to [əi] in White Tai, to [ə:i], [ə:], and [ai] in other Tai dialects (Donaldson 1963, Haudricourt 1948, Li 1940).

¹⁵Some speakers pronounced these two finals as if they were written with a short vowel; ๑:y is pronounced [ɔi] and ๑:ŋ is [əŋ].

¹⁶In writing syllables like nok, phok, son, pon, etc., the Thais simply write the initial consonant and the final consonant together, without putting into writing the vowel sign ๒-๑o?.

¹⁷Words formerly written with ๒ x[kh] in the 1283 A.D. inscription are ๒ x๑: Al "hook," ๒ xau Al "hill," ๒ x๑:ŋ Al "thing," ๒ x๑:n Al "to reply," ๒ x๑:n Al "arm," ๒ xun Al

"lord," 𑜋𑜃𑜫 xa:m A1 "tamarind," 𑜋𑜃𑜫 xa:w A1 "white," 𑜋𑜃𑜫 xwæ:n A1 "to hang," 𑜋𑜃𑜫 xap D1 "to sing," 𑜋𑜃𑜫 xau C1 "rice; to enter," 𑜋𑜃𑜫 xa:m C1 "to cross," 𑜋𑜃𑜫 xwn C1 "to ascend," and 𑜋𑜃𑜫 xa: C1 "to kill." The 𑜋𑜃𑜫 [kh] in all these words is now replaced with 𑜋𑜃𑜫 kh [kh], except that in the last word, it is replaced with 𑜋𑜃𑜫 gh [kh] in B2 tone.

In the same inscription, the letter 𑜋𑜃𑜫 γ [kh] appears in the following words: 𑜋𑜃𑜫 γ: A2 "throat, neck," 𑜋𑜃𑜫 γw:n A2 "night," 𑜋𑜃𑜫 γam B2 "twilight," 𑜋𑜃𑜫 γw:n C2 "hammer," and 𑜋𑜃𑜫 γæ:n B2 "shin." The first four words are now written with initial 𑜋𑜃𑜫 g [kh] and the last one with 𑜋𑜃𑜫 kh [kh] in C1 tone.

¹⁸See note 20 below.

¹⁹So far there exists no Tai dialect that has 12 distinct tones (Li 1966).

²⁰A1' here will be used to indicate the A1 words which were originally of voiceless initials but later merged with the A2 words of voiced initials.

²¹Coedès (1928) believed that tones B2 and C1 were pronounced differently in the thirteenth century, that they only merged some time after that period. I think it might be possible that tone B2 was pronounced with a glottal, based on the peculiar fact that tonal class B and D1 normally have the same tonal development in all Tai dialects.

²²The grouping of all the voiceless unaspirated stops together obscured the glottalized nature of the preglottalized stops. Eventually the preglottalized feature was lost in Stan-

dard Thai and as a result Thai now has only a three-way distinction instead of the original four-way distinction. The preglottalized stops were grouped together with the voiceless unaspirated stops because they behaved alike.

²³The high tone 55, when not followed by another syllable, normally has a drop at the end and becomes 453.

²⁴The merging of tones B2 and C1 is the result of the falling together of certain voiced and voiceless consonants. The fourway distinction of stops in ancient Thai has developed into a three-way distinction in modern Thai; *p > p, *ph and *b > ph, and *ʔb > b. However, the original initials can be recovered by checking the influence of the initial consonant on the tone of the word in question; for example, for 11 ba: B1, the tonal subclass 1 points to a voiceless initial. Thus, it is the preglottalized b which has developed into voiced b in Standard Thai.

CHAPTER III

THE TWO SYSTEMS

III.1. Presentation of the Two Phonological Systems

In Chinese and Thai, morphemes are predominantly monosyllabic; thus, the syllable will be used as the basis for phonological description. Each syllable consists of three components: an initial, a final, and a tone. The initial component of the syllable can be either a single consonant or a consonant cluster. The final component means the part of the syllable minus the initial and tone. The final is comprised of a vocalic nucleus and an optional ending consonant. As for the tone, the four tonal categories generally used for Proto-Tai (PT hereafter) and Chinese will be used. That is, the letters A, B, C, and D are applied to note the four tones in PT, and the terms p'ing 平, shǎng 上, ch'ù 去, and jiù 入 for those in Chinese.

In subsequent chapters, this study will first analyze the initial correspondences of Standard Thai and Chinese lexical items (Chapter IV). Then the final (Chapter V) and tonal correspondences (Chapter VI) will be considered. In this chapter, brief descriptions of the phonological systems of PT and Middle and Old Chinese will be given, so as to provide the reader with a preliminary notion of the phonological inventories of the languages concerned. The system of PT will be discussed first a discussion of the Middle and Old Chinese systems will follow.

III.2. Proto-Tai

Material on the various Tai languages is plentiful. This

makes it possible to reconstruct the proto-language from which the Tai languages have developed. The PT forms cited in this dissertation will be mainly those worked out by Li (MS) and Sarawit (1973). The PT initial consonants based on Li's reconstruction are given first; these are followed by the PT vowel system;¹ last, the PT tonal system is described.

III.2.1. Proto-Tai initials

Basing himself on a comparative study of the vocabulary in the various Tai languages, Li (MS) has traced their phonological changes and reconstructed the PT initial consonant system. Since the material for the study of PT was recorded by different authors, it varies in its phonetic accuracy and in the amount of vocabulary recorded. It is therefore necessary to make a selection of a small number of well-recorded languages to establish a systematic comparison. For this purpose, Li chose three languages to represent the three main subgroups of the Tai language family (Li 1960). Standard Thai (TH hereafter) was chosen as the representative of the South-Western (SW hereafter) group, Lungchow (Li 1940) the Central (CT hereafter) group, and Poai (Li 1957a, 1957b) the Northern (NT hereafter) group.

Li's choice of these three languages was guided by three factors. First, the phonetics and phonemic structure of these representative languages are fairly accurately recorded and analyzed. Second, the recordings of these languages are rich in lexical material. The richness makes it possible to reconstruct a fairly complete phonological system for PT. Third, for the three representative languages there are texts which can be used

as a control for the lexical material.

Li reconstructed the PT consonantal system by systematically comparing sets of correspondences among the various dialects; he also took into account their tonal development which is influenced by the phonetic features of the initials. The PT initial may be a single consonant or a consonant cluster. We shall first give the simple initials, then the consonant clusters.

III.2.1.1. PT simple initials

The simple initial consonants as reconstructed by Li are tabulated in Table 10 on the following page.

Before examining the correspondences in the three Tai groups for the PT initial consonants, let us discuss some of the reconstructed consonants.

III.2.1.1.a. PT unaspirated stops

PT *p- and *t- are represented in all Tai dialects by p- and t-, respectively, and thus create no problem for the reconstruction. Haudricourt (1948) reconstructed them as *pp- and *tt-, fortis unaspirated stops. His reconstruction may have been based on the Thai script where modified Indic letters ് and ് are used to write the sounds p- and t-, respectively. The reason why Thai does not use the regular Indic p- and t-, i.e., the letters ് and ്, to write these sounds is because the Indic alphabet was transmitted into Thai through Cambodian where p- and t-, each stands for two allophones: in Cambodian p- and t- are pronounced [p-] and [t-], respectively, when followed by a consonant, and are pronounced [b-] and [d-] when followed by a vowel. The Thai script having applied the regular ് for the value [b-]

and ʔ for [d-], created a modified ɿ for the value [p-] and ʔ for [t-].

The two other unaspirated stops are *c- and *k-. PT *c- is represented in the SW and CT dialects by c-, except in Shan which has s-. In the NT group, it is generally represented by s- (a fricative) or c- as in Saek and Chuang, or simply by ʃ- as in Yay.

*k- remains k- in all dialects, except in some CT and NT dialects, such as Western Nung (Sarawit (1973:37) and Poai where *k- was palatalized to c- before the front vowels -i and -e (or æ). According to Li (1974), this palatization was a late development, since not all CT or NT dialects show such palatalization.

III.2.1.1.b. PT aspirated stops

Initials *ph-, *th-, *ch-, and *kh- are generally preserved in the SW and CT groups, with some exceptions: *ph- is represented in Black Tai, a SW dialect, as f-; *ch- as c- in White Tai and Black Tai, as s- in Lü, and as ʃ- in Shan and Lungchow; and in Western Nung, *kh- was palatalized to ch- before the front vowels -i and -e (Sarawit 1973:35).

As a rule, the aspirated stops lost their aspiration in all NT dialects, except in Saek where the aspiration is still preserved. PT *kh- in the NT dialects merged with the original *k- and, thus, is palatalized into c- before a front vowel -i or -e. As for *ch-, there are very few forms in modern Tai dialects corresponding to this phoneme in PT and it is represented either by s- as in Saek or by ʃ- as in Poai.

III.2.1.1.c. PT voiced stops

The PT voiced stops have become unvoiced in all modern dialects. The common development found for the voiced stops are p- for *b-, t- for *d-, k- for *g-, and c- for *j-. Dialects where the voiced stops behave otherwise are Thai and Lao among the SW group, Leiping of the CT group, and Saek of the NT group where *b-, *d-, and *g- have become aspirated ph-, th-, and kh-, respectively; *j- becomes ch- in Thai and Leiping, but s- in Lao and Saek. In Western Nung, *g- has merged with the ordinary *k- and changed into c- before -i and -e. Of the PT voiced stops, *j- developed most divergently. In the NT dialects, besides developing into c-, it also becomes š- in Wuming, Poai, and Puyi, and s- in Yay, Saek, and Chuang. Words with this set of initials regularly have series 2 of the tones, indicating that they were originally voiced (cf III.2.4.).

III.2.1.1.d. PT preglottalized initials

PT *ʔb-, *ʔd-, and *ʔy- remain preglottalized only in some NT dialects, such as Wuming (Li 1943, 1974), Chuang and Puyi (Sarawit 1973). In most of the Tai dialects, except those which will be mentioned below, they become voiced b-, d-, and y- with some glottal stricture and laryngeal depression. In Shan, Lungming, and Poai, *ʔb- becomes m-, and *ʔd- becomes n-, merging with the original PT nasals *m- and *n- respectively. In Shan, *ʔb- occasionally becomes w-, and *ʔd- becomes l- (Li 1943).

Haudricourt (1950) reconstructed *ʔp- and *ʔt- basing himself on information supplied by Li (1943), but used the voiceless stop signs. Li's reconstruction of a glottal stop followed by a

voiced consonant is guided by the fact that all Tai dialects show some voicing, even if the glottal feature may have been lost. Words with these initials normally have series 1 of the tones pointing to an original voiceless initial (cf. III.2.4.).

One of the preglottalized set, *ʔy- is preserved in the spelling of at least four words in TH: อย⁰ ʔya: [ya:] B1 "do not," อย¹ ʔyu: [yu:] B1 "to be at, stay," อย² ʔya:ŋ [ya:ŋ] B1 "pattern, kind, to be like," and อย³ ʔya:k [ya:k] D1 "to want, desire." These words actually are spelled with the glottal sign followed by y-, which indicate that the pronunciation of ʔy- may have persisted up to the time when Thai script was introduced in the thirteenth century.

No preglottalized velar is found in any of the Tai dialects. However, basing himself on Li's (1973) observation that in some Dioi dialects *ʔy- is a glottal stop plus a prepalatal voiced plosive, Egerød (1951) suggested that ʔy- may go back to PT *ʔk- (or *ʔg-), thus filling the phonological lacuna. Egerød, citing a similar weakening of other preglottalized stops in Shan, suggested that one may perhaps assume:

<u>PT</u>	<u>Old Thai</u>	<u>Shan</u>
*ʔb-	*ʔb-	w-/m-
*ʔd-	*ʔd-	l-
*ʔk- (or *ʔg-)	*ʔy-	y-

III.2.1.1.e. PT glottal stop

Glottal stop in PT is usually associated with the preglottalized consonants because of their similar influence on the

tones. PT initial *ʔ- is preserved in all Tai dialects. Normally, syllables in the Tai languages that begin with a vowel, are preceded by a glottal stop.

III.2.1.1.f. PT voiced nasals

Initials *m-, *n- and *ŋ- are represented in all dialects by m-, n-, and ŋ-, respectively, and thus create no problem in reconstruction. The only voiced nasal that developed differently is *ɲ-. This nasal is preserved in Black Tai, White Tai, Ahom, Lü, and Lao among the SW dialects, in Nung, Tay, Tho, and T'ienpao among the CT dialects, and in Wuming, Dioi, Saek, and Chuang among the NT dialects. But in the dialects other than those mentioned above, it is represented by the semivowel y-.

III.2.1.1.g. PT voiceless sonorants

PT *hm- and *hn- have become m- and n-, respectively, in practically all Tai languages. However, words with these initials belong to series 1 of the tones indicating an original voiceless nasal. TH orthography hm- and hn- also point to an earlier voiceless nasal.²

PT *hŋ- is represented by ŋ- in some dialects, such as Thai, Western Nung, Saek, etc., and by h- in some other dialects, such as White Tai, Black Tai, Lao, Leiping, Lungming, Lungchow, and Yay. But in some dialects, it alternates between ŋ- and h- as in Shan and Lü.

Initial *hɲ- developed in the various Tai languages in a manner similar to PT *ɲ- (cf. III.2.1.1.f.).

*hl- is represented in all Tai dialects by l-, whereas *hr- is represented variously. In the CT and SW dialects, it is h-,

except in Ahom where it is r-. In the NT dialects, it is represented by r- or its equivalents according to dialects; that is, r- in Wuming, Yay, Saek and Chuang, l- in Poai, ɖ- in Dioi, and ɣ- in Ch'iengchiang.

*hw- develops in a manner similar to PT *w- (cf. III .3.2. - 1.1.1.), i.e., it is represented normally by w- or v-. Ahom shows b- (Li MS).

The distinction between these voiceless consonants and their corresponding voiced consonants in PT is always reflected in the tones. Words with the voiceless set have series 1 of the tones. Also, the Thai orthography frequently begins these words with an h- indicating an original voiceless consonant.

III.2.1.1.h. PT voiceless fricatives

Initial *f- remains f- in the SW dialects, except Shan and Ahom where it appears as an aspirated stop ph-. In the CT dialects, ph- normally corresponds to *f-. In the NT dialects, it is either f- as in Wuming, Poai, Chuang, or v- as in Yay and Saek. Occasionally it appears as h- in some Puyi dialects (Li MS).

*s- appears generally as s- in the SW group, except in Shan where it is ʃ-. It is represented by s- in Lungming and Western Nung or ʃ- in Leiping, Lungchow and Nung in the CT group; and by s- in Saek and Chuang, ʃ- in Poai, or θ in Wuming and Yay in the NT group.

*x- has merged with and developed in a manner similar to PT *kh- in most SW and CT dialects (see *kh- in III.2.1.1.b.).

The NT dialects are the only group where *x- is distinguished from *kh-. There *x- is represented by h- in most dialects, occasionally by ɣ- or v- in some Puyi dialects (Li MS).

Li also noted that in Lü and White Tai *x- is either x- or kh-. But words with x- more often have no shift of tone from series 1 to series 2, whereas words with kh- normally shift their tone from series 1 in the SW and CT groups to series 2 in the NT group. This alternation of voiced and voiceless consonants in the NT dialects has not yet been explained. Nevertheless, the kh- and x- forms in Lü and White Tai are fairly reliable, since they agree on the whole with the Sukhothai inscriptions where the normal ɰ kh- and modified ɰ x- are preserved.

PT *h- generally appears as h- in most Tai dialects. In Leiping, a CT dialect, *h- becomes v- before the vowel -u (Sarawit 1973). Li (MS) also noted that in some Puyi dialects, h- is lost and is replaced by a voiced laryngeal murmur ħ- or a velar fricative ɣ-, and in a few cases it is represented by y- when followed by a front vowel and by v- when followed by a rounded vowel.

All words with the fricative initials discussed in this section show series 1 of the tones, thus indicating their voicelessness origin.

III.2.1.1.i. PT voiced fricatives

This set of initials has become voiceless in practically all Tai dialects, except in Tho, a CT dialect, and Saek where *v- remains v-, and *ɣ- remains Saek ɣ-.

PT *v- is normally devoiced to f- in almost all Tai

languages, except Ahom and Shan where it becomes ph-.

*z- becomes s- and merges with PT *s- in all three groups, except in Tho where it is represented by r-.

*ɣ- has merged with PT *g- in a number of dialects, such as in Thai, Black Tai, Lao, Western Nung, etc. But in some dialects, it is kept distinct from *g-. Of the SW group, White Tai and Lü have x- for *ɣ-, and k- for *g-, Shan and Ahom have kh- for *ɣ-, and k- for *g-. Of the CT group, Lungming has h- for *ɣ-, Tay has kh-, and T'ienpao has y- before unrounded vowels or v- before rounded vowels, while *g- would give k- in all dialects. The NT group mostly has h- for *ɣ-, but Wuming has x-.

III.2.1.1.j. PT liquids

Initial *l- remains l- in all Tai languages, and thus need not be discussed. The other liquid *r- is described by Li (MS) as probably a tongue tip trill in PT, requiring a strong breath to achieve as evidenced by its development into h- in almost all SW dialects, except Thai and Ahom where it is kept as r-. The CT group mostly represents it as l-, but as ɭ in Lungchow, and hr- in T'ienpao. In the NT group, Saek, Wuming and Chuang have r-, Poai has l-, Dioi ɖ-, and Ch'ienchiang ɣ-.

III.2.1.1.k. PT semivowels

The palatal semivowel *y- is kept in all dialects as y-, except in Lao where it is p-. The labial semivowel *w- is represented in the Tai dialects either as w- as in Thai, Shan, Lao, etc., or v- as in White Tai, Black Tai, Lü, etc. But Ahom has b-. According to Li (MS), the pronunciation of v- in most Tai dialects is a fricative without much friction, as commonly found

in many Chinese dialects.

The PT initial consonants discussed above are given in Table 11 below with their correspondences in Proto-NT,³ Proto-CT, and Proto-SW groups as reconstructed by Li (MS). The righthand column in the table gives the corresponding initials in TH so that references can be made concerning the reconstructed sound for the initial of the TH lexicon appearing in this study.

Table 11. Proto-Tai Initial Correspondences.				
Proto-Tai	Proto-NT	Proto-CT	Proto-SW	Standard Thai
*p	*p	*p	*p	p[p]
*t	*t	*t	*t	t[t]
*c	*c	*c	*c	c[c]
*k	*k	*k	*k	k[k]
*ph	*p	*ph	*ph	ph[ph]
*th	*t	*th	*th	th[th]
*ch	*ch?	*ch	*ch	ch[ch]
*kh	*k	*kh	*kh	kh[kh]
*b	*b	*b	*b	b[ph]
*d	*d	*d	*d	d[th]
*f	*f	*f	*f	f[ch]
*g	*g	*g	*g	g[kh]
*?b	*?b	*?b	*?b	?b[b]
*?d	*?d	*?d	*?d	?d[d]
*?y	*?y	*?y	*?y	?y[y]

Table 11. Proto-Tai Initial Correspondences (Continued).

Proto-Tai	Proto-NT	Proto-CT	Proto-SW	Standard Thai
*ʔ	*ʔ	*ʔ	*ʔ	ʔ[ʔ]
*m	*m	*m	*m	m[m]
*n	*n	*n	*n	n[n]
*ɲ	*ɲ	*ɲ	*ɲ	y[y]
*ŋ	*ŋ	*ŋ	*ŋ	ŋ[ŋ]
*hm	*hm	*hm	*hm	hm[m]
*hn	*hn	*hn	*hn	hn[n]
*hɲ	*hɲ	*hɲ	*hɲ	hɲ[y], y[y]
*hŋ	*hŋ	*hŋ	*hŋ	hŋ[ŋ]
*hl	*hl	*hl	*hl	hl[l]
*hr	*hr	*hr	*hr	h[h]
*hw	*hw	*hw	*hw	hw[w]
*f	*f	*ph	*f	f[f]
*s	*s	*s	*s	s[s]
*x	*x	*kh	*kh	kh[kh]
*h	*h	*h	*h	h[h]
*v	*v	*v	*v	f[f]
*z	*z	*z	*z	z[s]
*ɣ	*ɣ	*ɣ	*ɣ	g[kh]
*l	*l	*l	*l	l[l]
*r	*r	*r	*r	r[r]
*y	*y	*y	*y	y[y]
*w	*w	*w	*w	w[w]

III.2.1.2. PT initial clusters

Initial clusters are kept in a rather small number of Tai dialects, i.e., Thai, Ahom, Lungan, Wuming, and Saek. Most other Tai dialects simply simplified the clusters. This tendency to simplify the clusters is obviously seen in a comparative study where it shows that even dialects that have consonant clusters tend not to keep all the clusters.

For our purposes here, the clusters treated will be those consisting of a labial, dental, or velar followed by -l-, -r-, or -w-.⁴ The fact that some of the clusters are preserved in at least one dialect of the three main groups of the Tai family renders a safe assumption that consonant clusters existed in PT, but were simplified separately in individual dialects. Since no single modern dialect preserves all clusters, many of the initial clusters were established from a comparative study of the dialects.

The initial consonant clusters as reconstructed by Li (MS) are given in Table 12 on the next page.

Before examining the correspondences in the three Tai groups for the PT initial clusters, let us discuss some of the reconstructed forms. Under the discussion of each cluster, the simplified forms of the cluster in the various dialects will be given (Li 1954, 1973 b., MS).

III.2.1.2.a. PT -l- cluster

PT *pl- remains pl- in TH, Ahom, Wuming, and Saek. All SW dialects, except Thai and Ahom, drop the liquid, while most CT and NT dialects simplify it to p- before the vowel -i, -e, or

Table 12. Proto-Tai Initial Consonant Clusters.

Table 12. Proto-Tai Initial Consonant Clusters.			
	Labials	Dentals	Velars
-l-	pl	tl thl dl	kl khl gl
-r-	br	tr thr dr	kr khr gr
-l-/-r-	phl/r ?bl/r ml/r	?dl/r nl/r	ηl/r
-w-			kw khw gw ηw xw ɣw

-u, and to pj- before any other vowels. In T'ienchow, a NT dialect in Kwangsi, *pl- before vowels other than -i, -e, and -u, is simplified, then palatalized: *pl- > pj- > c-.

There are only a few examples of *bl-. In the NT and CT groups, *bl- becomes p-; in the SW group, it becomes phl- in Thai, but normally p- in other dialects as in Lao, Shan, and Lü.

*vl- is tentatively reconstructed. The reconstruction is based on only one example, i.e. the word for "ashes," the SW dialects have thau in Thai, tau in Ahom, Shan, Lü, and tau or phau in White Tai; the CT dialects have peau in Nung, tau in Tay and Tho; the NT group has tau in Poai. The tone of this word in the Tai dialects is B2 pointing to an earlier voiced initial.

PT *tl- becomes t- in the SW and CT groups, but r- or its equivalents in different dialects of the NT group (cf. III.2.1. - 1.g.). Li noted that the way a whole group of dialects treated this cluster uniformly shows that the simplification took place very early. Thus, he reconstructed *t- for the Proto-SW and Proto-CT groups, and *hr- for the Proto-NT group.

*thl- becomes th- in the SW and CT groups. In the NT group, it developed first into *ch-, then š-. Saek simply dropped the liquid.

PT *dl- was simplified uniformly into l- in the CT and SW groups, and into r- or its equivalents according to dialects in the NT group, except Saek which normally has l-. Although the SW and CT groups show l-, it is not reconstructed as *l- because *l- would give l- in all the three groups. Yet, it cannot be reconstructed as *r-, because in Thai this would yield r-.

However, words with this initial have tonal series 2 pointing to an original voiced initial. Thus it is temporarily reconstructed by Li (1973b) as *dl-.

*kl- was simplified to k- in the SW dialects, except in Thai and Ahom where it remains kl-. In the CT group, it becomes k- before high vowels i, u, ʊ, and either kj- or c- before all the other vowels. This development of *kl- to c- also took place in most of the NT dialects, except in Wuming and Saek. Wuming preserves the cluster, whereas Saek represents it as tl-.

*khl- normally lost its liquid in the SW group, except in Ahom it is sometimes preserved as r-. Besides the normal kh-, Lao sometimes has s-. In White Tai, the development of *khl > kh > ch shows a rare case of palatalization in the SW group. This cluster becomes khj-, kh-, h-, ʃ-, or s- in the CT group; and c- in the NT group; only Wuming has kl-.

*gl- is generally kept in TH as khl-. Examples for this cluster are not many.

III.2.1.b. PT -r- clusters

*pr- is generally reduced to a dental stop in almost all dialects, except Saek. It becomes t- in the SW group and most NT dialects, and th- in the CT dialects, except Nung and Lungchou where it becomes either ph- or phj-. Of all the dialects, Wuming seems to be alone in keeping the liquid but dropping the labial stop. TH has the cluster pr- but it is of late and secondary origin, used only to spell loanwords from Sanskrit or Cambodian.

*br- merged with PT *bl- in all cases (see *bl- in III.2. -

1.2.a.)). It is only distinguished from *bl- in some SW dialects, such as Lao, Shan, and Lü where it is ph- for *br-, but p- for *bl-; and in TH where it is phr- for *br-, but phl- for *bl-.

PT *vr- is tentatively reconstructed. Its existence is not entirely certain because the reconstruction is based on only a few examples. Moreover, the cluster merged and developed in the same way as *br- in the SW and CT groups. In the NT group, it merged with *ɟ-.

*tr- becomes t- in the SW and most of the NT groups. It gives th- or h- in the CT group. According to Li (MS), this development in the CT dialects started with an added aspiration to the dental stop caused by the liquid -r-, thus changing *tr- to thr-. Later the liquid was dropped and th- became either th- or h-. Wuming behaves differently by dropping the dental stop but keeping the liquid r-. In Saek, it is either represented by tr- or pr- (Haudricourt 1963a, 1963b, Gedney 1970).

*thr- developed in a manner similar to *tr- in the CT dialects, i.e., *thr- > th-, or h-. In Proto-SW and Proto-NT, it was simplified first into *hr-, then developed differently. The SW group dropped the liquid and it became h-, the only exception occurs in Ahom. Ahom, together with the NT group, dropped the h-, and it became r-, or the equivalents of r- in the NT dialects (cf. under *hl- in III.2.1.1.g.).

*dr- becomes r- in the SW group, and also r- or its equivalents in the NT dialects. It is represented by l- in the CT group.

*kr- is represented by khj-, ch-, ʃ- in some SW and CT

dialects; the aspiration was caused by the liquid -r-. For this cluster, NT dialects normally have a liquid derived from Proto-NT *hr-, giving l- in Poai. Words with this cluster are rare.

*khr- normally becomes simply kh- in the SW and CT groups, and c- in the NT, except in Wuming where it has r-. In some cases, the NT dialects seem to indicate Proto-NT *hr- (Li MS).

*gr- developed differently in the SW group. TH has khr-, Ahom and Shan dropped the liquid and simplified g- to kh-, White Tai c-. In the CT dialects, it often becomes kj- or k-, while most NT dialects have c-.

*xr- becomes h- in the SW dialects, except Ahom where only the liquid r- is preserved. In CT, it becomes h-, kh-, khj-, s-, or š-. This cluster merged with *hr- in the NT dialects (cf. III.2.1.1.g.).

III.2.1.2.c. PT -l-/-r- clusters

The nature of the liquid in this set of clusters is undetermined. It can be -l- as well as -r- because the dialects do not agree on their reflexes. In some cases, the nature of the liquid cannot be determined because the dialects show no contrast between the -l- cluster and the -r- cluster, such as the case in *phl-/r-. The modern Tai dialects rarely preserve this cluster. Ahom is the only SW language which keeps it as phr-. Lung-an of the CT group preserves it as phl-. Of the NT group, Wuming has pl-, and Saek phr- in Gedney's system (1970), but pr- in Haudricourt's (1963a, 1963b). Unfortunately, none of these four dialects shows contrasts between the clusters phl- and phr-. In all other dialects, the cluster is simplified. The SW dia-

lects simply drop the liquid. The CT group also drops the liquid, and it becomes either ph- or phj- depending on the following vowels (the same as in the case of *pl- above). The NT group behaves in the same way as the CT, but deaspirated the labial stop to p-. T'ienchou palatalizes the pj- of other NT dialects into c-, otherwise p- (Li MS).

*bl-/r- in the SW group, normally becomes b- or d- in Lao and Lü, m- or l- in Shan, but Thai shows only one development, d-. In the CT dialects, such as Lungchow, it becomes b- or bj- depending on the following vowel, with two cases of d- (Li MS). In the NT dialects, such as Poai, it becomes n-, but bl- in Saek (Gedney 1970). Of the dialects that show two developments, it is impossible to tell which comes from which because the dialects do not agree on their reflexes.

*ml-/r is actually preserved as ml- in Wuming, Saek, and Ahom. Other dialects present more complicated developments. TH has m-, l-, or ma-l-, Lungchow m- or l-, and Poai n- or mj-. Since the dialects show two forms, it is undetermined whether PT has merely *ml-, or that *mr- also existed but merged with *ml- in some languages, and gave divergent developments in some other languages.

*?dl-/r- merged with PT *?d- in all dialects (cf. III.2. - 1.1.D.), except Saek. Li's reconstruction (1972) is based mainly on Saek where it becomes r-, and occasionally tr- or tl-. Sarawit (1973:25) separated *?dl- and *?dr- on the basis of the Saek correspondences. She reconstructed *?dl- where Saek has a corresponding r-, and *?dr- where Saek has tr-.

*nl-/r- becomes n- in the SW and CT groups, but r- or its equivalents in the NT dialects, except Saek which has n-.

*ɲl-/r- is reconstructed on the basis of one single example, "sesame," but the etymology is very certain. Li (MS) reconstructed *ɲl-/r on a parallel basis to the clusters *nl-/r- and ml-/r- mentioned above.

III.2.1.2.d. PT -w- clusters

*kw- is commonly found in all modern Tai dialects where this PT labio-velar is kept. Only in Ahom where the rounding is sometimes lost.

*khw- remains in the CT and most SW dialects, except in Lü and White Tai where it becomes xr-. As a common feature, the NT dialects lost the aspiration and the cluster becomes kw-.

*gw- is normally simplified to kw- in all CT and NT dialects, and to khw- in the SW, except in Ahom where the rounding is lost in some words.

*ɲw- developed differently in the various modern dialects. It becomes ɲw-, ɲ-, v-, or w-. The divergent forms make it difficult to formulate any regular development.

*xw- becomes khw- in most SW dialects. Lü and White Tai have xw-. Ahom has either khw- or kh-, the latter occurs more often. The CT group has khw-, while the NT dropped the velar and preserved only w- which becomes v- or h- in some cases.

*ɣw- is represented by khw- in Thai, Lao, and Black Tai; xw- in Lü and White Tai; and either kw- or khw- in Shan. The CT group has normally v-, and the NT group has v- or h-.

Correspondences in the proto-language of the three Tai

groups for the PT initial clusters reconstructed by Li (1954, 1973b, MS) are given in Table 13 below. The righthand column gives the corresponding initials in TH.

Table 13. Proto-Tai Initial Cluster Correspondences.				
Proto-Tai	Proto-NT	Proto-CT	Proto-SW	Standard Thai
*pl	*pl	*pl	*pl	pl[pl]
*bl	*bl	*bl	*bl	bl[phl]
*vl	*d	*bl	*d	d[th]
*tl	*hr	*t	*t	t[t]
*thl	*tl	*thl?	*th	th[th]
*dl	*r	*l	*l	l[l]
*kl	*kl	*kl	*kl	kl[kl]
*khl	*kl	*khl	*khl	kh[kh]
*gl	*gl	*gl	*gl	gl[khl]
*pr	*pr	*phr	*t	t[t]
*br	*br	*br	*br	br[phr]
*vr	*ɟ	*br	*br	br[phr]
*tr	*tr	*thr	*t	t[t]
*thr	*hr	*thr	*hr	h[h]
*dr	*r	*l	*r	r[r]
*kr	*hr?	*khr	*kr	kl[kl]
*khr	*kr,*hr	*khr,*xr	*khr	kh[kh]
*gr	*gr	*gr	*gr	gr[khr]
*xr	*hr	*xr	*xr	h[h]
*phl/r	*pl/r?	*phl	*phl/r	ph[ph]

Table 13. Proto-Tai Initial Cluster Correspondences
(continued).

Proto-Tai	Proto-NT	Proto-CT	Proto-SW	Standard Thai
*?bl/r	*?bl/r	*?bl/r	*?bl/r	?d[d]
*ml/r	*ml/r	*ml/r	*ml/r	l[l]
*?dl/r	*?dr?	*?d	*?d	?d[d]
*nl/r	*nr	*n	*n	n[n]
*ɲl/r	*ɲl/r	*ɲ	*ɲ	ɲ[ɲ]
*kw	*kw	*kw	*kw	kw[kw]
*khw	*kw	*khw	*khw	khw[khw]
*gw	*gw	*gw	*gw	gw[khw]
*ɲw	*ɲw	*ɲw	*ɲw	w[w]
*xw	*hw	*khw	*khw	khw[khw]
*ɣw	*ɣw	*ɣw	*ɣw	gw[khw]

III.2.2. PT final system

Most of the work on comparative Tai has dealt with either reconstruction of the initials and tones for PT or with a specific dialect. Li, in some of his articles, such as the ones on Poai (1957a) and on Tai-Kam-Sui (1965), points out the special development of some vowels, diphthongs, and the prevocalic glides -w- and -y-. Actually, Li's reconstruction of the vowels for PT is presented in Wang's "Phonology of Chinese Loanwords in a Northern Tai Dialect" (1966), a doctoral dissertation supervised by Li. However, none of the literature on the Tai languages

is concerned exclusively with the reconstruction of the PT finals.⁵ Recently, Mary Elizabeth Sautter Sarawit (1973) filled the gap in the study of PT with her doctoral dissertation on "The Proto-Tai Vowel System."

In my study of Sino-Tai parallels, the reconstruction of the finals for PT will be based on Sarawit's system (1973). Sarawit's reconstruction draws upon data from 115 Tai dialects⁶ grouped according to Li's (1960) division of SW, CT, and NT groups. Sarawit first reconstructed the vowel system for Proto-Southwestern Tai, Proto-Central Tai, and Proto-Northern Tai. From these three proto systems of vowels, she then reconstructed the overall PT vowel system.

The reconstruction for the PT finals given in Sarawit's system (1973) is given in Table 14 on the following page. The letters in parentheses mean that the preceding final exists only in the dialect group mentioned.

Before examining examples of the correspondences in the three Tai groups for the PT finals, let us discuss some aspects of Sarawit's reconstruction (1973).

Sarawit reconstructs PT simple vowels in final position as i:, u:, e:, ə:, o:, and a: based on the fact that the length opposition in the vowels is normally neutralized in final position when there is no other ending following the vowel. Her reconstruction of these simple vowels as long is also based on the fact that in all Tai languages, final simple vowels are always long (Sarawit 1973:98,133).⁷

The reconstruction of a long and short series of high vowels

Table 14. Proto-Tai Finals

	im	in	in	ip	it	ik(SW,NT)
i:	i:u	i:n	i:n	i:p	i:t	i:k
u:	u:m	u:n	u:n	u:p(SW,NT)	u:t(SW)	u:k(SW,NT)
u:	u:m	u:n	u:n	u:p	u:t	u:k
u:	u:m	u:n	u:n	u:p	u:t(SW,NT)	u:k
e:	e:u	e:n	e:n	e:p	e:t	e:k
e:	e:u	e:n	e:n	e:p	e:t	e:k
e:	e:u	e:n	e:n	e:p	e:t	e:k
o:	o:m	o:n	o:n	o:p	o:t	o:k
a:	a:u	a:n	a:n	a:p	a:t	a:k
ia	ia:u	ia:n	ia:n	ia:p	ia:t(SW,CT)	
ia:(CT,NT)	ia:i	ia:n	ia:n	ia:p	ia:t	
wa	wai	wan	wan	wap	wat	wak

Table 14. Proto-Tai Finals (Continued).

wa:	wa:i		wa:n		wa:k
ua		uam(SW,CT)	uan	uap	uak
ua:	ua:i		uan	uan	
			uan	uan	euk
eu:			eu:n	eu:n	eu:k
		oim	oin		oit
			oin	oin	oit
					oi:k

plus a in PT, i.e., *ia, *ia:, *ua, *ua:, *ua, *ua:⁸ proposed by Sarawit (1973) is based on two derivations:

1) The PT long ia:, ua:, and ua:⁸ developed into different vowels in different dialects as shown below.

	<u>PT</u>	<u>Proto-SW, Proto-CT</u>	<u>Proto-NT</u>
	*ia:	*e, *e:	*ia, *i:, *i
	*ua:	*a:	*ua
	*ua:	*a:	*ua
'full' A1'	*tlia:m	*tem	*hrim
'deer' A1'	*kwua:ŋ	*kwa:ŋ	*vuaŋ
'to fear' C1	*?yua:n	*?ya:n	*yuan

2) The short series *ia, ua, ua normally remains as such in the various Tai dialects.

	<u>PT</u>	<u>PT-SW</u>	<u>PT-CT</u>	<u>PT-NT</u>
	*ia	*ia	*ia	*ia
	*ua	*ua	*ua	*ua
	*ua	*ua	*ua	*ua
'change' B2	*plian	*plian	*pian	*plian
'left over' A1	*hlua	*hlua	*hlua	*hlua
'cycle, year' DIL	*khruap	*khuap	*khuap	*khruap

Another remark about Sarawit's PT vowel system (1973) is her reconstruction of the diphthongs *eu, *eu:, *oi, *oi:. The

form *eu: is based only on the word for "daybreak." Moreover, the contrast of short and long, *eu and *eu: is found only when it is followed by a velar final ending (Sarawit 1973:421). As for the pair *oi and *oi:, Sarawit based her reconstruction on the correspondences in the different Tai groups. Generally, *oi and *oi: would give the following forms:

<u>PT</u>	<u>Proto-SW</u>	<u>Proto-CT</u>	<u>Proto-NT</u>
*oi	*o	*o	*u, *ə
*oi:	*ɔ:	*o:	*u:, *u, *ə

Sarawit's reconstruction of the PT vowel system is a most significant contribution to the study of comparative Tai. However, some of her forms must be considered tentative since they are based on only one cognate set. The correspondences in the proto-language of the SW, CT, and NT groups for the PT finals given below are those reconstructed by Sarawit (1973). The right-hand column are the corresponding finals in Standard Thai.

Table 15. Proto-Tai Final Correspondences.				
Proto-Tai	Proto-NT	Proto-CT	Proto-SW	Standard Thai
*im	*im	*im	*im	*im
*in	*in	*in	*in	in
*iŋ	*iŋ	*iŋ	*iŋ	iŋ

Table 15. Proto-Tai Final Correspondences (Continued).

Proto-Tai	Proto-NT	Proto-CT	Proto-SW	Standard Thai
*ip	*ip	*ip	*ip	ip
*it	*it	*it	*it	it
*ik	*ik	-	*ik	ik
*i:	*i:	*i:	*i:	i:
*i:m	*i:m	*im	*i:m	i:m
*i:n	*i:n	*in	*i:n	i:n
*i:ŋ	*i:ŋ	*iŋ	*i:ŋ	iŋ
*i:p	*i:p	*ip	*i:p	i:p
*i:t	*i:t	*i:t	*i:t	i:t
*i:k	*i:k	*i:k	*i:k	i:k
*i:u	*i:u	*i:u	*i:u	iu
*un	*un	- *un	*un	un
*uŋ	*uŋ	*uŋ	*uŋ	uŋ
*uk	*uk	-	*uk	uk
*u:	*u:	*u:	*u:	u:
*u:m	*u:m	*um	*u:m	u:m
*u:n	*u:n	*un	*u:n	u:n
*u:p	*u:p	-	*u:p	u:p
*u:t	-	-	*u:t	u:t
*um	*um	*um	*um	um
*un	*un	*un	*un	un
*uŋ	*uŋ	*uŋ	*uŋ	uŋ
*up	*up	*up	*up	up

Table 15. Proto-Tai Final Correspondences (Continued).

Proto-Tai	Proto-NT	Proto-CT	Proto-SW	Standard Thai
*ut	*ut	*ut	*ut	ut
*uk	*uk	*uk	*uk	uk
*u:	*u:	*u:	*u:	u:
*u:m	*u:m	*um	*u:p	u:p
*u:p	*u:p	*up	*u:p	u:p
*u:t	*u:t	-	*u:t	u:t
*u:k	*u:k	*u:k	*u:k	u:k
*em	*ɛm	*em	*em	em
*en	*ɛn	*en	*en	en
*eŋ	*ɛŋ	*eŋ	*eŋ	eŋ
*ep	-	*ep	*ep	ep
*et	*ɛt	*et	*et	et
*ek	*ɛk	*ek	*ek	ek
*e:	*e:	*e:	*ɛ:	æ:
*e:m	*e:m	*e:m	*ɛ:m	æ:m
*e:n	*e:n	*e:n	*ɛ:n	æ:n
*e:ŋ	*e:ŋ	*e:ŋ	*ɛ:ŋ	æ:ŋ
*e:p	*e:p	*e:p	*ɛ:p	æ:p
*e:t	*e:t	*e:t	*ɛ:t	æ:t
*e:k	*e:k	*e:k	*ɛ:k	æ:k
*e:u	*e:u	*e:u	*ɛ:u	æ:u
*əm	*am	*om	*om	om
*ən	*an	*en	*en	en

Table 15. Proto-Tai Final Correspondences (Continued).

Proto-Tai	Proto-NT	Proto-CT	Proto-SW	Standard Thai
*əŋ	*aŋ	*uŋ	*uŋ	uŋ
*əp	*ap	*op	*op	op
*ək	*ak	*uk	*uk	uk
*əi	*ai	*i:	*i:	i:
*əu	*au	*u:	*u:	u:
*ə:	*a:	*ua	*ua	ua
*ə:n	*a:n	*uan	*uan	uan
*ə:ŋ	*a:ŋ	*uanŋ	*uanŋ	uanŋ
*ə:t	*a:t	*uat	*uat	uat
*ə:k	*a:k	*uak	*uak	uak
*ə:i	*a:	*uai	*uai	uai
*ə:u	*u:	*au	*au	au
*om	*ɔm	*om	*om	om
*on	*ɔn	*on	*on	on
*oŋ	*ɔŋ	*oŋ	*oŋ	oŋ
*op	*ɔp	*op	*op	op
*ot	*ɔt	*ot	*ot	ot
*ok	*ɔk	*ok	*ok	ok
*o:	*o:	*o:	*ɔ:	ɔ:
*o:m	*o:m	*o:m	*ɔ:m	ɔ:m
*o:n	*o:n	*o:n	*ɔ:n	ɔ:n
*o:ŋ	*o:ŋ	*o:ŋ	*ɔ:ŋ	ɔ:ŋ

Table 15. Proto-Tai Final Correspondences (Continued).

Proto-Tai	Proto-NT	Proto-CT	Proto-SW	Standard Thai
*o:p	*o:p	*o:p	*ɔ:p	ɔ:p
*o:t	*o:t	*o:t	*ɔ:t	ɔ:t
*o:k	*o:k	*o:k	*ɔ:k	ɔ:k
*o:i	*o:i	*o:i	*ɔ:i	ɔ:i
*am	*am	*am	*am	am
*an	*an	*an	*an	an
*aŋ	*aŋ	*aŋ	*aŋ	aŋ
*ap	*ap	*ap	*ap	ap
*at	*at	*at	*at	at
*ak	*ak	*ak	*ak	ak
*ai	*ai	*ai	*ai	ai
*aï	*aï	*aï	*aï	ai
*au	*au	*au	*au	au
*a:	*a:	*a:	*a:	a:
*a:m	*a:m	*a:m	*a:m	a:m
*a:n	*a:n	*a:n	*a:n	a:n
*a:ŋ	*a:ŋ	*a:ŋ	*a:ŋ	a:ŋ
*a:p	*a:p	*a:p	*a:p	a:p
*a:t	*a:t	*a:t	*a:t	a:t
*a:k	*a:k	*a:k	*a:k	a:k
*a:i	*a:i	*a:i	*a:i	a:i
*a:u	*a:u	*a:u	*a:u	a:u

Table 15. Proto-Tai Final Correspondences (Continued).

Proto-Tai	Proto-NT	Proto-CT	Proto-SW	Standard Thai
*ia	*ia	*ia	*ia	ia
*iam	*iam	*iam	*iam	iam
*ian	*ian	*ian	*ian	ian
*iaŋ	*iaŋ	*iaŋ	*iaŋ	iaŋ
*iap	*iap	*iap	*iap	iap
*iat	-	*iat	*iat	iat
*iak	*iak	*iak	*iak	iak
*iai	*i:	*ai	*i:	i:
*iau	*iau	*e:u	*iau	iau
*ia:	*ia	*e:	-	-
*ia:m	*im	*em	*em	em
*ia:n	*i:n	*e:n	*ɛ:n	æ:n
*ia:ŋ	*i:ŋ	*e:ŋ	*ɛ:ŋ	æ:ŋ
*ia:p	*ip	*ep	*ep	ep
*ia:t	*i:t	*e:t	*ɛ:t	æ:t
*ia:k	*i:k	*e:k	*ɛ:k	æ:k
*ia:i	*i:	*ai	*ai	ai
*ia:i̯	*u:	*ai̯	*ai̯	ai
*ia:u	*o:	*au	*au	au
*wa	*wa	*wa	*wa	wa
*wam	*wam	*wam	*wam	wam
*wan	*wan	*wan	*wan	wan

Table 15. Proto-Tai Final Correspondences (Continued).

Proto-Tai	Proto-NT	Proto-CT	Proto-SW	Standard Thai
*uaŋ	*uaŋ	*uaŋ	*uaŋ	uaŋ
*uap	*uap	*uap	*uap	uap
*uat	-	*uat	*uat	uat
*uak	*uak	*uak	*uak	uak
*uai	*uai	*uai	*uai	uai
*ua:	*ua	*a:	*a:	a:
*ua:ŋ	*uaŋ	*a:ŋ	*a:ŋ	a:ŋ
*ua:t	*uat	*a:t	*a:t	a:t
*ua:k	*uak	*a:k	*a:k	a:k
*ua:i	*uai	*a:i	*a:i	a:i
*ua	*ua	*ua	*ua	ua
*uam	-	*uam	*uam	uam
*uan	*uan	*uan	*uan	uan
*uaŋ	*uaŋ	*uaŋ	*uaŋ	uaŋ
*uap	*uap	*uap	*uap	uap
*uat	-	*uat	*uat	uat
*uak	*uak	*uak	*uak	uak
*uai	*uai	*uai	*uai	uai
*ua:	*o:	*ua	*ua	ua
*ua:n	*uan	*a:n	*a:n	a:n
*ua:ŋ	*uaŋ	*a:ŋ	*a:ŋ	a:ŋ
*ua:i	*o:	*ai	*ai	ai

Table 15. Proto-Tai Final Correspondence (Continued).

Proto-Tai	Proto-NT	Proto-CT	Proto-SW	Standard Thai
*euŋ	*oŋ	*uŋ	*uŋ	uŋ
*euk	*ok	*uk	*uk	uk
*eu:	*o:	*u:	*u:	u:
*eu:ŋ	*o:ŋ	*uŋ	*uŋ	uŋ
*eu:k	*o:k	*uk	*uk	uk
*oim	*um	*om	*om	om
*oin	*ən	*on	*on	on
*oit	*ut	*ot	*ot	ot
*oi:n	*ən	*o:n	*ɔ:n	:n
*oi:ŋ	*uŋ	*o:ŋ	*ɔ:ŋ	:ŋ
*oi:t	*ət	*o:t	*ɔ:t	ɔ:t
*oi:k	*uk	*o:k	*ɔ:k	ɔ:k

III.2.3. PT tone system

One of the best known characteristics of the various Tai languages is that every syllable carries a tone. Thus, scholars in the field of comparative Tai generally presuppose that PT must also have had tones. The fact that the tones of the various Tai languages show very regular correspondences makes it possible to reconstruct the tone system for PT. From the correspondences

of tones and their distributions, Li (1943, 1962) has reconstructed four tones in PT. However, to know the phonetic character of the four PT tones, whether they were level, rising, falling, etc., is impossible.

The four tones in PT are generally designated by the letters A, B, C, and D. The tones A, B, and C occurred in "smooth" or "live" syllables, i.e., syllables ending in a sonorant. Tone D occurred in "checked" or "dead" syllables, i.e., syllables ending in a stop. The four tones are further bifurcated into two allophonic subclasses conditioned by a voiced-voiceless distinction in initials. These two subclasses are designated by the numerals 1 and 2 for the voiceless and voiced series, respectively. Thus, A1, B1, C1 and D1 indicate that a tone belongs to PT subclass 1 which had voiceless initials; A2, B2, C2 and D2 to PT subclass 2 which had voiced initials.

During the PT period, this distinction between voiced and voiceless initials accounts for the tonal systems of all three groups, SW, CT, and NT (Li MS). But sometime later a split in the tones took place. Some dialects further split the tones by distinct treatment of the preglottalized type of initials. Certain dialects treated the preglottalized set as voiced, while some other dialects treated them as voiceless initials.

Although modern Tai dialects display a great divergence of tonal patterns, all agree on the fact that their tonal splits were conditioned by the phonetic feature of the initial: voiceless friction, voiceless aspirated, voiceless unaspirated, preglottalized, or voiced. Besides the phonetic feature of the

initial which influenced all the four tone classes, vocalic length also had its influence, but only on tone class D. Thus, tone D was further divided into two types: s for the short vowel type, and l for the long vowel or the two-vowel cluster type.

The development of the four tone classes A, B, C, and D from PT into the three groups of NT, CT, and SW, represented by Poai, Lungchow, and TH respectively is summarized by Li (MS) as given in Table 16 on the next page, followed by correspondences of the various tones in Table 17.

III.3. The Ch'ieh Yün or Middle Chinese System

Middle Chinese (MC hereafter) which will serve as the basis for the Chinese lexicon in this study was the sound system reconstructed according to the language of the Ch'ieh-yün 切韻, a rime dictionary compiled in 601 A.D. by Lù Fǎ-yén 陸法言 and others. The reconstruction of MC is mainly the accomplishment of Bernhard Karlgren (1915-26, 1954).⁹ Since his reconstruction was published, scholars have been working out refinements of Karlgren's system in the light of both new materials available and of advanced linguistic theories (see the appended bibliography). None of them, however, can be accepted without reservation. For the present study, Karlgren's reconstruction as it appeared in his "Grammata Serica Recensa," will be used, with some modifications, as the basis of the Chinese lexicon.

III.3.1. Background

Before the presentation of Karlgren's MC system, we shall

Table 16. Proto-Tai Tonal Development.

PT	Poi	Lungchow	Standard Thai
A	1	rising 24, or falling 31	mid-level 33, or rising 24
	2	high level 55	mid-level 33
B	1	low level 22	low level 22
	2	falling 31	falling 41
C	1	mid-high-level 44	falling 41
	2	mid-level 33	high 453 or 55
D	S	high level 55, or	low level 22
		mid-high level 44	
	1	L low level 22	high level 55
	2	falling 31	

Table 17. Proto-Tai Tonal Correspondences.

PT	Poai	Lungchow		Standard Thai
A1	"to take"	?au 31	?au 33	?au 33
	"white"	ha:u 24	kha:u 33	kha:u 24
A2	"to smear"	ta: 55	ta: 31	tha: 33
B1	"old"	kau 22	kau 55	kau 22
B2	"wharf"	ta: 31	ta: 11	tha: 41
C1	"nine"	ku: 44	kau 24	kau 41
C2	"horse"	ma: 33	ma: 21	ma: 453
D1S	"seven"	šet 55	cit 55	cet 22
	"raw, uncooked"	nip 44	dip 55	dip 22
D1L	"mustard plant"	ka:t 22	ka:t 55	ka:t 22
D2S	"to wash clothes"	ɬak 44	ɬak 31	sak 55
D2L	"root"	la:k 31	la:k 31	ra:k 41

first give a brief account of the background and some of the traditional terminology belonging to the field of Chinese historical phonology.

The Ch'ieh Yün (CY hereafter), the language to which the "MC sound system" refers especially, is a rime dictionary which employs a "spelling" system called fǎn-ch'ieh 反切.¹⁰ This is the device of spelling out the reading of a new character through the use of two known characters, in which the first or the upper character, shàng-tzù 上字, represents the initial consonant

of the new character, whereas the second or the lower character, hsia-tzù 下字, represents the final and the tone, e.g.

家古牙切 means that 家 is read with the initial of 古 *kuo/ combined with the final and tone of 牙 *nga. Thus, 家 is *ka.

It has been held that CY is a highly systematized rime book containing extremely strict definitions of phonetic distinctions aiming at providing the correct norm of pronunciation. Chōu Tsū-mó 周祖謨 (1966) has clearly demonstrated that the phonological system of CY was not based solely on the dialect of one given area, i.e. it did not represent the homogeneous dialect spoken in the Sui capital of Ch'áng-ān 長安 toward the end of the sixth century A.D. as thought by Karlgren and Maspéro (1920). Rather, it was established on the basis of the received cultured speech and literary pronunciation of the South, on the one hand, and on an attempt to bridge the differences between the pronunciation of the South and the North on the other hand.

Unfortunately, the original 601 version of CY is not intact and the edition which has been the source for information on the sound system of CY is the enlarged Sung edition issued under imperial patronage entitled Kwǎng Yùn (KY hereafter) 廣韻. It was compiled by Ch'én P'éng-nián 陳彭年 and others in 1008, and contains altogether 206 rimes. From these 206 rimes, the Chinese phonologists have abstracted 16 "groups" of rimes, called Shè 攝.¹¹ The traditional names for the 16 rime groups are as follows:

- | | | | |
|------------|------------|-------------|-------------|
| 1. kuǒ 果 | 2. chiǎ 假 | 3. hsièh 蟹 | 4. hsiào 効 |
| 5. hsién 咸 | 6. shān 山 | 7. tàng 宕 | 8. chiāng 江 |
| 9. kěng 梗 | 10. yù 遇 | 11. chǐh 止 | 12. liú 流 |
| 13. shēn 深 | 14. chēn 臻 | 15. tsēng 曾 | 16. t'ūng 通 |

These 16 rime groups were divided into k'āi-k'ǒu 開口 "open-mouth" and hó-k'ǒu 合口 "closed-mouth." The distinction between this dichotomy is indicated by the presence or absence of a rounding medial. In Karlgren's system this was reconstructed in either the form of the vowel -u- or that of the semi-vowel -w-. Thus, the k'āi-k'ǒu rimes are those unmodified by medial -u- or -w-, and the hó-k'ǒu rimes those modified by -u- or -w-. Karlgren wrote this medial with either -u- or -w- not for the purpose of indicating a phonemic difference, but solely for the purpose of distinguishing the rimes. When one rime contains both k'āi-k'ǒu and hó-k'ǒu finals, -w- is used, but when the hó-k'ǒu rime is an independent one, then -u- is used.

In addition, each rime group is divided into four "divisions," called těng 等, which refer to varying types of syllables. This distinction seems to be based on the vowel quality of the syllables and the presence or absence of a palatal medial. The palatal medial, reconstructed by Karlgren as -i̯- (hereafter -j-), occurs exclusively before third division rimes in CY. And the initials which can occur before medial -j- in the third division were complex compared to those occurring before the other three divisions. The initials which occurred exclusively before third division rimes were the palatal sibilants *tś-, *tśh-, *dź-, *ś-, *ź-, *ńź-, *g-, *z-, *j-

(喻三), and the labiodentals *f-, *v-, etc. which developed subsequently from MC labial initials occurring before -j-, except when -j- was followed immediately by -i- (Li 1971).¹² As for the second division rimes, the initials which occurred exclusively before this division were the supradental or retroflex initials *ʈ-, *ʈh-, *ɖ-, *ɖh-, *ʈʂ-, *ʈʂh-, *dʒ-, and *ʂ-.

The vowel quality upon which the distinction of the four divisions were made seemed to be the degrees of openness of the vowels. In Karlgren's system, the first division finals have only vowels of the non-low-front type, the second division finals always have a low front vowel, the third division is characterized by the palatal medial -j-, and the fourth division the vocalic medial -i-.

III.3.2. Karlgren's MC system

Karlgren based his reconstruction on the KY and the rime tables of the Sung times.¹³ His system as applied to this study will appear with the modifications of his phonetic symbols and emendations of his phonetic values suggested by Li (1971):

a. Karlgren reconstructed the voiced stop and affricate initials as aspirates, stating that it would be phonetically hard to explain how unaspirated voiced initials could later become aspirated. Li reconstructed them as unaspirated voiced initials basing himself on the fact that MC had only one set of voiced initials; thus aspiration itself was not a significant distinction.

b. Karlgren reconstructed the ㄗ initial set as alveolar palatal stops and nasal, i.e. *ʈ-, *ʈh-, *ɖh-, and *n-. These have been recognized by Ló Ch'áng-p'úi 羅常培 (1931) as retro-

flex or supradentals on the basis of Sanskrit transcriptions in Chinese. Li supplied further evidence in favor of a retroflex set by pointing out that the distribution of the 知 initial set in MC was very similar to that of the 莊 (or 照二) retroflex set. That is both sets of initials could occur before the second as well as the third-division finals. If the 知 set were truly alveolar palatal stops, then they should have behaved, in regard to their distribution, like the alveolar palatal affricates, i.e. the 章 (or 照三) set which occurred only before the third division finals.

In addition, Karlgren hypothesized that the 知 and the 莊 initial sets both evolved from OC dental initials under the influence of the second division finals. If so, then one would find it difficult to explain why the second division finals could cause one set of dentals to become palatals, yet caused another set of dentals to become retroflex. For such reasons, Li has reconstructed the MC 知 set as retroflex initials *ʈ-, *ʈh-, *ɖ-, and *ɖh-.

c. Karlgren's reconstruction fails to distinguish certain pairs of different rimes in the CY, e.g. rimes chīh 脂 and chīh 之 are written *-i, chiā 佳 and kuài 夬 are *-ai. Li modified them by writing 之 as *-ī, and 佳 *-ai.

d. Initial yīn 云 or 喻三 is written as *j- and yī 以 or 喻四 as *ji- instead of Karlgren's *ɣj- and zero.

e. Aspiration is depicted by -h- instead of Karlgren's '.

f. To facilitate printing, Karlgren's medial -i- and vowel symbol a are changed to -j- and a, respectively.

In addition, here we write the glottal stop initial as ?- instead of Karlgren's dot.

III.3.2.1. MC initials

Here the initials of MC will be listed with the Chinese characters traditionally applied to designate each of the initials.

Table 18. Middle Chinese Initials.

Labials	幫 p-	滂 ph-	並 b-	明 m-		
Dentals	端 t-	透 th-	定 d-	泥 n-	來 l-	
Supradentals	知 t-	徹 th-	澄 d-	娘 n-		
Dental sibilants	精 ts-	清 tsh-	從 dz-	心 s-	邪 z-	
Supradental sibilants	莊 ts-	初 tsh-	崇 dz-	生 s-		
Palatals	章 ts-	昌 tsh-	船 dz	日 nz	書 s-	禪 z-
Velars	見 k-	溪 kh-	羣 g-	疑 ng-	曉 x-	匣 ɣ-
and						
Laryngeals	影 ?-	云 j-	以 ji-			

III.3.2.2. MC finals

The finals of MC will be listed below according to the 16 rime groups. Each group is divided into the dichotomy of k'āi k'ǒu and hó-k'ǒu, and also into the four divisions. All rimes are given with the Chinese characters traditionally used to denote each rime. In addition, for the sake of convenience all finals will appear with the International Phonetic Alphabet (IPA) symbols in brackets next to their reconstructed forms.

Starting from rime hsién 咸 down to rime t'ūng 通, we shall let the nasal final consonants -m, -n, -ng stand for their corresponding stop final consonants -p, -t, -k, respectively.

Table 19. Middle Chinese Finals.			
Rime Group	Division	K'āi-k'ǒu	Hó-k'ǒu
果	I	歌 â [a]	戈 uâ [ua]
	III	戈 jâ [ïa]	戈 jwâ [ïwa]
假	II	麻 a [a]	麻 wa [wa]
	III	麻 ja [ia]	
遇	I		模 uo [uo]
	III		魚 jwo [ïwo]
	III		虞 ju [ïu]
蟹	I	咍 âi [ai]	灰 uâi [uai]
	I	泰 âi [a:i]	泰 wâi [wa:i]
	II	皆 âi [ai]	皆 wâi [wai]

Table 19. Middle Chinese Finals (Continued).

Rime Group	Division	K'āi-k'ǒu	Hó-k'ǒu
	II	佳 aī [a:i]	佳 wāi [wa:i]
	II	夬 ai [a:i]	夬 wai [wa:i]
	III	祭 jài [iei]	祭 jwài [iwei]
	III	廢 joi [iei]	廢 jwoi [iwei]
	IV	齊 iei [iei]	齊 iwei [iwei]
止	III	支(j)ie [(j)iě]	支(j)wie [(j)wiě]
	III	脂(j)i [(j)i]	脂(j)wi [(j)wi]
	III	之(j)ī [(j)ī]	
	III	微(j)ei [(j)ěi]	微(j)wei [(j)wěi]
效	I	豪 âu [au]	
	II	肴 au [au]	
	III	宵 jâu [iɛu]	
	IV	蕭 ieu [ieu]	
流	I	侯 ǎu [ǎu]	
	III	尤 jǎu [iǎu]	
	III	幽 jiǎu [jiǎu]	
咸	I	覃 âm [am]	
	I	談 âm [a:m]	
	II	咸 ǎm [am]	
	II	銜 am [a:m]	
	III	監 jām [iɛm]	
	III	嚴 jɔm [iɛm]	凡 jwɔm [iɛwɛm]

Table 19. Middle Chinese Finals (Continued).

Rime Group	Division	K'āi-k'ǒu		Hó-k'ǒu	
深	IV	添	iem [iem]		
	III	侵	jēm [iēm]		
	I	寒	ân [an]	桓	uân [uan]
	II	山	ăn [an]	山	wăn [wan]
	II	刪	an [a:n]	刪	wan [wa:n]
	III	仙	jăn [iēn]	仙	jwăn [iwen]
	III	元	jøn [iēn]	元	jwon [iwen]
臻	IV	先	ien [ien]	先	iwēn [iwen]
	I	痕	ən [ən]	魂	uən [uən]
	III	真	jěn [iēn]	諄	juěn [iüēn]
	III	臻	jēn [iēn]		
	III	殷	jən [iēn]	文	juən [iüən]
宕	I	唐	âng [aŋ]	唐	wâng [waŋ]
	III	陽	jang [iãŋ]	陽	jwang [iwaŋ]
江	II	江	ang [ɔŋ]		
曾	I	登	əŋ [əŋ]	登	wəŋ [wəŋ]
	III	蒸	jəŋ [iəŋ]	職	jwək [iwek]
梗	II	庚	uŋ [ɐŋ]	庚	wuŋ [weŋ]
	II	耕	ɛŋ [æŋ]	耕	wɛŋ [wæŋ]
	III	庚	juŋ [iɛŋ]	庚	jwuŋ [iweŋ]

Table 19. Middle Chinese Finals (Continued).

Rime Group	Division	K'āi-k'ǒu	Hó-k'ǒu
	III	清 jǎng [ǐɛŋ]	清 jwǎng [ǐwɛŋ]
	IV	青 ieng [ien]	青 iweng [iwen]
通	I		東 ung [uŋ]
	I		冬 uong [uon]
	III		東 jung [ǐuŋ]
	III		鍾 jwong [ǐwon]

III.3.2.3. MC tones

According to the traditional Chinese terminology, the tones of MC are designated p'ing 平, shǎng 上, ch'ù 去, and jù 入. Paralleling the Proto-Tai tonal system, the jù tone represents a distinct syllabic type ending with a final consonant *-p, *-t, or *-k, with which the other three tones do not co-occur.

In this study, the p'ing tone will be unmarked, whereas the shǎng and ch'ù tones will be indicated by a slash and a hyphen, respectively, after the word, e.g. 五 *nguo/ and 四 *si-. No sign is needed for the jù tone which is always characterized by a final stop consonant.

III.4. A Brief Account of Old Chinese

In addition to MC, the reconstruction of Old Chinese (OC hereafter), sometimes called Archaic Chinese, shàng-kǔ yīn

上古音 are given occasionally. OC loosely refers to the phonological system of Chōu and Ch'īn periods (1122-207 B.C.).

The reconstruction of OC is based mainly on two sources, i.e. the rimes in pre-Ch'īn texts, especially those in the Shih Ching, and the hsieh-shēng 諧聲 or "phonetic compounds." The rime groups of OC were set up by relegating the words in rime position to series, called yùn-pù 韻部 "rime categories." As for characters which never rimed, the Chinese phonologists then utilized the phonetic compounds in determining the assignment of a word to a rime category. They considered that characters having identical phonetic elements, i.e. shēng-fú 聲符 "sound indicators," should be grouped together in the same rime category.¹⁴ For instance, character 每 *muai- is never found in rime, but since it possesses the phonetic 母 which is also the phonetic in 海 *xai/, 梅 *muai, and 悔 *xuai/, and these three characters all rimed with other words belonging to the OC rime category chīh 之 (Li 1971), 每 *muai- was assigned also to rime category chīh based on its phonetic.

Initially, Kù Yén-wǔ 顧炎武 (1613-1682) devised 10 categories of rimes, Chiāng Yǔng 江永 (1680-1762) 13, Tuàn Yü-ts'ái 段玉裁 (1735-1815) 17, and Chiāng Yü-kào 江有誥 (d. 1851) 21. Later, Hsià Hsīn 夏忻 (1789-1871) examined the arguments of Wáng Nièn-sūn 王念孫 (1744-1832) and devised 22 rime categories.

As pointed out by Li (1971), we can accept this rime classification with confidence, because the results of the studies obtained independently from the phonetic compounds and the

rimes in the Shih Ching have been in accord and mutually corroborative. Here we shall list below Li's reconstruction of the OC sound system, and shall not discuss further the details of Li's OC system¹⁵ since it has been described in detail in his 1971 work entitled "Shàng-kǔ yīn yén-chiù" 上古音研究 (Studies on Archaic Chinese Phonology).

Table 20. Old Chinese Initials.

	Stops			Nasals		Continuants	
Labials	p	ph	b	hm	m		
Dentals	t	th	d	hn	n	hl	l
Affricates	ts	tsh	dz			s	
Velars and	k	kh	g	hng	ng		
Laryngeals	?					h	
Labio-velars and	kw	khw	gw	hngw	ngw		
Labio-laryngeals	?w					hw	

Table 21. Old Chinese Finals.

Rime Category	Division I	Division II	Division III	Division IV
之	æg	ræg	jæg,jiæg	
	æk	ræk	jæk,jiæk	
幽	ægw	rægw	jægw,jiægw	iægw
	ækw	rækw	jækw	iækw
宵	agw	ragw	jagw,jiagw	iagw
	akw	rakw	jakw	iakw
侯	ug		jug	
	uk	ruk	juk	
魚	ag	rag	jag,jiag	
	ak	rak	jak,jiak	
歌	ar	rar	jar,jiar,juar	
佳		rig	jig	ig
		rik	jik	ik
脂		rid	jid	id
		rit	jit	it
微	əd	rəd	jəd,jiəd	
	ət	rət	jət,jiət	
祭	ad,uad	rad,riad	jad,jiad,juad	iad
	at,uat	rat,riat	jat,jiat	iat
蒸	əng	rəng	jəng,jiəng	
中	əngw	rəngw	jəngw	
東	ung	rung	jung	
陽	ang	rang	jang,jiang	

Table 21. Old Chinese Finals (Continued).				
Rime Category	Division I	Division II	Division III	Division IV
耕		ring	jing	ing
真		rin	jin,rjin	in
文	ən	rən	jən,jien,rjien	iən
元	an,uan	ran,rian	jan,jian,juan	
葉	ap	rap,riap	jap	iap
緝	əp	rəp	jəp	iəp
談	am	ram,riam	jam,jiam	iam
侵	əm	rəm	jəm	iəm

Table 22. Old Chinese Tones.									
P'ing	平	-m	-n	-ng	-ngw	-b	(-d)	-g	-gw
Shang	上	-mx	-nx	-ngx	-ngwx	-bx	(-dx)	-gx	-gwx
Ch'ü	去	-mh	-nh	-ngh	-ngwh	-bh	-dh	-gh	-gwh
Jü	入	-	-	-	-	-p	-t	-k	-kw

The OC readings appearing occasionally in this paper are based on Li's reconstruction system as tabulated above. In assigning a word which is not mentioned in Li's work, to one or another of the OC rime categories, we have consulted T'ung T'ung-hó's (1948) tables in his "Shàng-kǔ yīn-yùn piǎo kǎo 上古音韻表稿 (Tentative Archaic Chinese phonological tables).

Footnotes

¹At the time this dissertation is being written, Professor Fang-kuei Li's manuscript of A Handbook for Comparative Tai has been completed up to the PT initials. The part on the PT vowels, in the process of being completed, is not accessible to me. Thus, Sarawit's (1973) dissertation, The Proto-Tai Vowel System, has been supplemented here to give a full picture of the PT system.

²Li (MS) pointed out that for *hn-, the Sui dialects have two correspondences, either hn-, such as hno A1 "winter, cold," or ?n, such as ?na A1 "thick." Since there exist no such distinctions in the Tai languages, Li did not assume two kinds of voiceless n- in PT.

³Saek sometimes behaves differently from other NT dialects (cf. III.2.1.1.b., c., h., and i.), and since there is not enough published material to be sure of the particular development, Li, in these cases, has not included Saek in his reconstruction for the Proto-NT initials.

⁴Sarawit (1973) reconstructed quite a number of PT initial clusters with -w- as well as -y- and -wy-, such as *sw-, *swy-, *thw-, *?dy-, *rwy-, etc. Her reconstructions of clusters with a prevocalic glide are based on Li's "Tai and Kam Sui" (1965) and Puyi materials. These are not included here since it is mainly an approach to solve the difficult problems of vowels in Tai and its remotely related languages, such as Kam and Sui.

Moreover, they need further investigation.

⁵In his book, From Ancient Tai to Modern Dialects (1965), Brown deals with the specific dialects of Thai and reconstructs the vowel system for Proto-Thai. Gedney in his paper "A puzzle in comparative Tai phonology" (1971), points out the problem of correspondences concerning the alternations between high vowels i:, u:, and high vowels with diphthongs ai, aĩ, au. In another article on Saek, Gedney (1970) notes the occurrence of a final ending -l in Saek instead of -n as found in the other dialects. It may be possible to reconstruct -l for PT. But so far Saek is the only Tai dialect that shows such a characteristic. Until a complete list of vocabulary of this dialect is available, it is premature to separate the -l from -n in PT even if a reconstructed -l in the final ending position is presupposed.

⁶Sixty Thai dialects are spoken in Thailand and surrounding areas. They include Standard Thai, Shan, Lü, Lao, Black Tai, White Tai. They include Tho and Nung dialects which are spoken in the Northeastern part of North Vietnam and in Southern Kwangsi, including Nung, Western Nung, Lungchou, Leiping, and Lungming. Other Thai dialects are spoken in Kwangsi, southern Kweichow, eastern Yunnan and the northernmost part of North Vietnam, including the dialects of Puyi, Yay, Poai, Saek, Chuang, and Wuming (Sarawit 1973:1-2).

⁷Wang (1966) reconstructed these vowels simply as i, u, u, e, ə, o, and a without any indicator for length. He probably did so because there is no contrast of length when these simple vowels occupy the final position of the syllable.

⁸Instead of using a and a: in these diphthongs, Wang (1966) applied the symbol ə for Sarawit's a, and a for a:. Thus, he had iə, uə, uə, ia, ua, ua where Sarawit had ia, ua, ia:, ua:, ua:, respectively.

⁹Karlgren called his reconstruction of the language found in CY "Ancient Chinese." Here we shall call it instead "Middle Chinese," which is a more accurate rendering of chūng-kǔ yīn 中古音.

¹⁰This "spelling" device was developed during the first few centuries A.D. Sūn Yén 孫炎, compiler of the third-century work Ėrh-yă-yīn-i 爾雅音義, is said to have been the first to make use of this spelling system.

¹¹The 16 rime groups are according to Chīng-shīh chēng-yīn Ch'ieh Yūn chīh-nān 經史正音切韻指南 (c. 1336) compiled by Liú Chièn 劉健. In the earlier work Ch'ieh Yūn chīh-chāng t'ú 切韻指掌圖 (1067?), only 13 groups were set up: rime group kuǒ 果 was combined with chiǎ 假, tāng 宕 with chiāng 江, and tsēng 曾 with kēng 梗.

¹²Li believed that labial initials followed by -j- gave rise to rounding and eventually becoming labiodentals, except rimes 宵 -jäu and 幽 *-jěu. He explained that labial initials + -j- in rime 宵 was not dentilabialized due to the dissimilating effects of the following -u which prevented the rounding of the labial initials. As for rime 幽, he stated that it evolved from *-jiəgw and reconstructed it *-jiəu in MC based on the evidence that in Sino-Korean transcriptions, the -i- of this

rime is still preversed in some cases, e.g. 糾 kiu, 幼 iu.

¹³The rime table is a way of accommodating the material of the rime dictionary in tabular form. It is a highly developed system of classifying and distributing the rimes. Rimes exhibiting certain interrelationships were grouped together, each group occupying one table.

¹⁴According to Li (1971), the great contributor in the study of phonetic compounds is Tuàn Yü-ts'ái who systematically classified the phonetic elements or sound indicators according to the rime categories. He initiated the theory that characters having the same phonetic elements should be classed together in the same rime category.

¹⁵For more information and background concerning OC, see also Chapters One and Two of Ting Pang-hsin's (1972) dissertation where a short historical study of Archaic Chinese phonology and a review of the reconstruction of OC finals are given.

CHAPTER IV

INITIAL CORRESPONDENCES

This Chapter begins our investigation of the main topic of this study, the Sino-Thai lexical correspondences. We shall make a detailed comparative study of TH and MC, attempting to illustrate the linguistic parallels between the two languages. In Thai, there is a large body of forms which can be systematically related to MC and at the same time are reflexes of Proto-Tai forms. This means that the linguistic relationship goes back to a time when the Chinese still preserved all or most of the features of MC, while the Thai preserved those of Proto-Tai.

TH along with its Proto-Tai antecedents (cf. III.2.) will be the basis of the Thai lexicon. MC, as it appears in Karlgren's "Grammata Serica Recensa" (1957) with some minor modifications (cf. III.3.) provides the basis for the Chinese lexicon. In several cases, the Thai words show a relationship to the Chinese forms of an older stage, that is, to a reconstructed OC (cf. III.4.). In such cases, Li's reconstruction of OC (Li 1971) will be cited with two identifying asterisk marks **.

In order to establish regularities of phonemic correspondence between MC and TH, this study will analyze the three components of the syllables in Chinese and Thai (cf. section III.1.) beginning in this Chapter, with the initial correspondences. The final and tonal correspondences will be set forth in the following chapters.

The presentation of the initials is given in seven categories based on their places of articulation. The sub-headings under each category give the reconstructed MC initial, marked by *, and its corresponding TH form. Thus, for example, *b: b[ph] means that the reconstructed MC *b corresponds to TH b[ph]. The Thai forms are given in transliteration followed by a phonemic transcription in brackets (cf. I.5.2.). Wherever possible, the initials of the PT forms as established by Li (cf. III.2.1.) are given and are identified by an asterisk mark.

IV.1. Labials

IV.1.1.a. *p : p[p]

報 *pâu- : ปาว pa:w [pa:u] B1 *p- "to announce, report"

分 *pjwən : ฝั pan [pan] A1' *p- "to divide into shares"

八 *păt : แป pæ:ʔd [pæ:t] D1 *p- "eight"

The regular correspondence of MC *p- in TH is p-[p-]. Altogether we have sixteen pairs of perfect fits as far as the initial consonant is concerned (all examples are contained in the word list in VII.2.). Nevertheless, one does not always find such systematic correspondence between MC *p- and TH p- [p-]. In other instances, MC *p- corresponds to TH pl- [pl-], ph- [ph-], ?b-[b-], b-[ph-], and f-[f-].

IV.1.1.b. *p : pl [pl]

變 *pjän- < **pljiah : ปลี่ยน pli:an[plian] B1 *pl- "to change"

膚 *pju < **pljag : ปลาก plw:ak[plwak] D1 *pl- "bark, shell"

The initial system of MC has neither -l- nor -r- clusters.

However, -l- and -r- clusters have been reconstructed for OC

readings. Yakhontov (1960) and Pulleyblank (1962-3) thought that the set of vowels placed in the second division of the rime tables are the reflex of a lost liquid medial and, thus, they established a medial -l- for division II rimes. Since then, this hypothesis has been received; from the evidence of the sound glosses in the Shih Ming 釋名, it has been assumed that -l- clusters remained at least up to the end of the second century A.D. (Pulleyblank 1962:110-137). The linguist who most recently grappled with this problem is Li (1971). He has adopted and modified Yakhontov's and Pulleyblank's idea, setting up a medial -r- for second division rimes in OC. According to Li's system, medial -r- occurred not only after labials and velars, but also after dentals; in this latter case, it caused the preceding simple dental initials to evolve into MC supradentals (see IV.4.1.b.). Moreover, the medial -r- affected the vowels; it centralized the following vowels and thus gave rise to the MC vowels in second division rimes (cf. Chapter V). By the MC period, however, medial -r- had already been lost.

Evidence of its existence is found not just in Chinese where words with Division II vocalism are frequently found after other initials in hsiéh-shēng series pointing to a cluster. The medial -r- is also evidenced in Thai where some Chinese-related Thai words have related forms with initial l[1]. For instance, MC 剥 *pāk < **pruk (cf. 剥 *luk < **bluk) corresponds to TH ɔn pɔ:k [pɔ:k] *p- D1 "to peel." Interestingly, the Thai word has a cognate ɔn lɔ:k [lɔ:k] D2 "to skin, peel (as a rind or skin)" which may occur by itself or coupled with [pɔ:k] D1

in [pɔ:k] D1- [lɔ:k] D2 "to peel off." Another possibly related form might be 𪛗𪛗 plɔ:k [plɔ:k] D1 meaning "an encasement, slipcover, or sheath."

The liquid medial established for Division II rimes is believed to occur before third division medial -j- as well (Yakhontov 1960, Pulleyblank 1962-3, Li 1971). But between the consonant and medial -j-, the liquid element had disappeared by the MC period. Nevertheless, evidence in favor of a connection between the liquid medial and -j- exist in hsiéh-shēng relationships which indicate clusters. The most commonly noted examples are those in which initial 來 l- has contacts with labials and velars in hsiéh-shēng series. The two pairs of correspondence cited above in this section illustrate this nicely.

The reconstructed OC -l- in 變 **pljiah and 膚 **pljag is recovered not only on the basis that the MC form has medial -j- after labial initials, but also on the basis of hsiéh-shēng series where a cluster is indicated, namely 𪛗 *ljwän, *luân : 變 pjän- and 膚 *luo : 慮 *ljwo : 膚 *pju, respectively. Karlgren reconstructed the OC reading of 變 as **pljan and 膚 as **pljwo, and Pulleyblank (1962-3) reconstructed them as **plān and **plāh, respectively. With the initial cluster pl- in the corresponding TH forms, the reconstructed **pl- of these words in OC is confirmed.

IV.1.1.c. *p : ph[ph]

布	*puo-	ꨀꨣ pha: [pha:] C1	*ph- "cloth"
痧	*pjwei- < **pjadh	ꨀꨣ ph?d [phot] D1	"prickly heat"
膚	*pju	ꨀꨣ phiw [phiu] A1	*ph- "skin, rind"

The last example has double correspondence in TH as shown in this section and in the preceding section. The form [plwak] D1 exists in all Tai dialects (Li MS), whereas the form [phiu] A1 is found only in the SW group.¹ I suggest that the former is related genetically to Chinese, while the latter was borrowed into Thai from MC.

IV.1.1.d. *p : ?b[b]

半	*puân-	ꨀꨣ ?ban [ban] C1	"a half"
法	*pjwɔp	ꨀꨣ ?bæ: ?b[bæ:p] D1	"model"
飛	*pjwei	ꨀꨣ ?bo:y [bo:i] A1	"to fly"
背	*puâi- < **pagh	ꨀꨣ bæ:k [bæ:k] D1	"to carry on the back"

Generally, voiceless initial *p in MC corresponds to TH voiceless p[p] or to another voiceless initial with the same place of articulation, namely ph[ph] and ?b[b]. However, in a couple of cases, MC *p has as its counterpart TH voiced b[ph].

IV.1.1.e. *p : b[ph]

崩	*pəng	ꨀꨣ ban[phan] A2	"tumble down"
舫	*pjwang-	ꨀꨣ buan[phuan] B2	"pontoon; raft"

Both cases are perfect with regard to their final and tonal correspondences, as well as to their meanings. The only irregularity lies in their initial correspondence of *p : b[ph].

IV.1.1.f. *p : f[f]

粉 *pjwən/ : ฟู fun [fun] B1 "powder"

Among the TH forms, only one form is found which reflects the extensive dentilabialization of the post MC period. Other TH forms with initial f[f] and hw[w] that seem to be related to MC *p- also exist, but the initial of their corresponding Chinese forms did not go through dentilabialization. The problem is to explain why they are dentilabialized in TH when they are not in Chinese. A possible answer is these forms were not borrowed directly from Chinese, but borrowed into Thai from Vietnamese which has initial v- for these words:

貝 *puài- : ฝ้าย fa:y [fa:i] C1 "cotton"²

巴 *pa : ฝ่า fa: [fa:] B1 "the palm (hand), sole (foot)"

拜 *pwāi- : ไหว้ hwai [wai] C1 "to salute, show respect by placing the hands palm to palm and raising them to the face"

播 *puā- : หว่าน hwa:n [wa:n] B1 "to sow, cast or scatter (grain)"

The Vietnamese forms for the four words are vãi, vãi, vãi, and vãi, respectively.

IV.1.2.a. *ph : ph[ph]

片 *phien- : แผ่น phæ:n [phæ:n] B1 "sheet, classifier"

派 *phaī- : แยก phæ: [phæ:] B1 "to branch off"

破 *phua- : ผ่า pha: [pha:] B1 *ph- "to split, cut"

The correspondence of MC *ph to TH ph [ph] is illustrated by 9 perfectly regular cases.

IV.1.2.b. *ph : p[p]

拂 *phjwət : ฝุ่น paʔd [pat] D1 "to dust, wipe"

鴨 *phjət : ไม้เป็ด peʔd [pet] D1 "duck"³

肺 *phjwɔi- < **phjadh : ฝน ปอด pɔːʔd [pɔːt] D1 *p- "lung"

The alternation of aspirated and unaspirated initial consonants in the comparison of Chinese and Thai forms occurs frequently. Such alternation can also be observed in Thai itself, particularly in the derivation of words. The word [pɔːt] D1 "lung," cited here, has a related form ฝน phɔːʔd [phɔːt] D1, an old Thai word meaning "to breathe in or inhale" (Ministry of Education, Thailand, 1920). The initial ph- of this word makes a perfect fit for the Chinese **phjadh, but it functions as a verb, not a noun.

Variation between p[p] and ph[ph] as well as between other unaspirated and aspirated consonant initials is not rare. For instance, ฝน phæːn [phæːn] B1 (片 *phien-) "sheets, classifier for flat and thin objects (as sheets of paper, planks, tiles, etc.)" and ฝน pæm [pæːn] C1 (扁 *pien/) "flat, thin and round." These two words may also be related to ฝน ?bæm [bæːn] A1' "flat and thin; level, even." ฝน pua [pua] B1 "male, man" (夫 *pju) might be related to ฝน phua [phua] A1 "a man who is married to a woman; husband." One other related pair is ฝน phan [phan] A1 "to flutter about" and ฝน pan [pan] B1 "to cause to resolve."

Alternations of initial consonants (and also of tones, for that matter), as found in Chinese and Thai, are no longer productive; only a few vestiges of such variation in the deriva-

tions of words remain in the language to puzzle us. One could hypothesize that such alternations came originally from some kind of prefixation or infixation process. To determine the validity of such an hypothesis would require extensive treatment not only in relation to the alternation of aspirated and unaspirated consonants, but also to the other morphological devices such as variations of voiced and voiceless initial consonants and of tones. Unfortunately, it is beyond the scope of this study to study such problems. Nevertheless, it does seem clear that alternations of the type in question do in fact point back to some early though not easily accounted for derivational phenomena in the language. There are many examples. Sometimes transitive verbs appear to be derived from intransitive, or again nouns from verbs, or adjectives from nouns or verbs.

IV.1.2.c. *ph : p1[p1]

興 *phjäu : ɿlaŋ ple:w [ple:u] A1 *pl- "a tongue of flame,
a blaze"

This is a case where the TH form shows an initial cluster, but the Chinese form happens to be one for which initial cluster cannot be reconstructed because no hsiéh-shēng evidence indicating a cluster is found.

IV.1.2.d. *ph : ?b[b]

偏 *phjäŋ : ɿɿu ?be:n [ben] A1' *?b- "to incline"

IV.1.2.e. *ph : b[ph]

噴 *phuən- : ɿu bn [phon] B2 "to squirt, emit"

批 *phiei : ɿɿu bæ:y [phə:i] A2. This word always appears

in the binom 𠵿𠵿𠵿 ban [phan] A2 - bə:y [phə:i] A2 meaning "a remark in parenthesis, incidental comment, an interposed word or phrase added by way of explanation." But this original meaning, which is the same as that for the Chinese term 旁批 *bāng *phiei, has become obsolete in Thai and the term is now used in its popular sense of "proverb or axiom." The irregular correspondence of TH b[ph] to MC *ph might be the result of the influence of the initial b[ph] in the first syllable since syllables in TH binomes have a tendency to begin with the same initial, for example [bo:i] A1' - [bin] A1' "to fly," [phan] A1 - [phuan] A1 "to move back and forth," [pha:i] B2 - [phæ:] C2 "to be defeated," and [phuan] B2 - [phi:] A2 "fat, chubby."

IV.1.3.a. *b : b[ph]

肥	*bjwei	: 𠵿 bi: [phi:] A2	*b-	"fat"
簿	*baī	: 𠵿 bæ [phæ:] A2	*b-	"raft"
忿	*bjuan/	: 𠵿 bu:n [phu:n] C2		"to get angry" ⁴

The regular correspondence of MC *b to TH b[ph] is illustrated by 15 pairs of examples. Although the voiced quality of this labial stop in TH, as well as in other Tai languages, has been lost, evidence exists still in its correspondences with MC and OC forms. The tone register of words with initial b[ph] also points to its being originally a voiced consonant (cf. section III.2.3.)

IV.1.3.b. *b : bh[ph] < *b

婦	*bjəu/	: 𠵿 bhəi [phai] C2	*b-	"daughter-in-law, woman relative by marriage"
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Since the reconstructed PT initial is *b-, it then makes a perfect fit for MC *b-. This word in TH always appears in the term ^๙สะใภ้ [sa?] D1 - [phai] C2 "daughter-in-law." The first syllable apparently contains no meaning in itself, but Li (MS) suggested that it is possible that the syllable [sa?] D1 is a contracted form for ^๙สาว sa:w [sa:u] A1 "a young woman, virgin." TH contains many cases like this and they are normally disyllabic compounds of which the first syllable being unaccented becomes shortened and slurred and looks like a prefix after the model of Sanskrit and Cambodian loanwords. Some of these so-called prefixes that have already been identified are for example ^๙ตะวัน [ta?] D1 - [wan] A2. "The sun" is derived from a compound ^๙ตา [ta:] A1' "eye" and ^๙วัน [wan] A2 "day," ^๙ตะเคียน "Hopea odorata, a kind of large tree" and many plant names with the prefix [ta?] D1, from ^๙ต้น [ton] C1 "plant, tree" and ^๙เคียน [khian] A2 "Hopea odorata."

IV.1.3.C. *b : bl/r[phl/r]

疲 *bjiē	: เพลีย bli:a [phlia] A2	"weary, exhausted"
棒 *bàng/	: พลอง blɔ:ŋ [phlɔ:ŋ] A2	"a club, cudgel"
別 *bjät	: พลัด bla?d [phlat] *bl-	D2 "to be separated from"
備 *bji-	< **bjiəgh : พรัก brak [phrak] D2	"prepare, ready" ⁵

As for the last two examples, there is no internal evidence in Chinese for initial clusters. The first example, on the other hand, might be different. Besides เพลีย bli:a [phlia] A2, TH has another word เพลี้ย pli:a [plia] C1 meaning also "tired, weak, exhausted." In Chinese, we have also 罷 ^๙*bjiē/ "wear out, ex-

haust," which has been reconstructed ****bleaδ** in OC by Pulleyblank (1963:215). The OC reading of 罷 in Li's (1971) and Karlgren's (1957) systems is ****bjě** and ****bia**, respectively. But Pulleyblank (1963:215) stated that his reconstruction of initial cluster ****bl-** in this word is proved by the alternative reading 罷 ***bai/** "stop, cease," a second division word which he reconstructed ****bleaδ** (cf. section IV.1.1.b. above). Both the forms bli:a [phlia] A2 and pli:a [plia] C1 in Thai support Pulleyblank's reconstructed initial cluster ****bl-** in this case. The two words in TH are both considered common. Sometimes, they go together in the expression อ่อนเพลียเพลียกาย [ʔɔ:n] B1 - [plia] C1 - [phlia] A2 - [ka:i] A1' "weak and tired." Sometimes, they are interchangeable, as in [ʔɔ:n] B1 - [plia] C1 and [ʔɔ:n] B1 - [phlia] A2, both meaning "exhausted or enfeebled." Sometimes, one cannot be replaced by the other; we say [phlia] A2 - [ka:i] A1' "to be physically tired," and [phlia] A2 - [cai] A1' "to be mentally tired," but we cannot apply [plia] C1 in these expressions. Actually, [plia] C1 is used less than [phlia] A2, and usually does not occur by itself.

IV.1.3.d. ***b** : ph[ph] < ***bl/r**

縛 ***bjwak** : ผูก phu:k [phu:k] D1 ***bl/r-** "to bind, tie"

The TH form has a reconstructed initial cluster in PT, but the Chinese form has a simple initial ***b-** both in its MC and OC readings (Li 1971 has ****bjak** > ***bjwak**).

IV.1.3.e. ***b** : ph[ph] < ***phl/r**

白 ***bok** : เผือก phu:ak [phu:ak] D1 ***phl/r-** "white"

Li (MS) tentatively reconstructed ***phl/r-** for this word in

PT. The Chinese form, being a second division word is reconstructed by Li (1971) as either ****brak** or ****briak** (cf. section IV.1.1.b. above).

IV.1.3.f. ***b** : v[f]

伏 ***bjəu-** < ****bjəgh** : 𠵿 vak [fak] D2S "to hatch"

The initial of the TH form reflects the extensive dentalization of the post MC period. This word in Thai is very common. As for the Chinese form, it is still current in Min, e.g. Foochow pou,⁶ Amoy pu.⁶ This word is also related to

拖 or 勾 ***bâu-** < ****bəghw** and 孚 ***phju** < ***phjag** "same meaning - to hatch," and possibly related to 覆 ***phjəu-** < ****phjəgh** "to cover over."

IV.1.4.a. ***m** : m[m]

磨 ***muâ-** : 𠵿 mo: [mo:] B2 "to grind"

幔 ***muân-** < ****manh** : 𠵿 man:n [ma:n] B2 "curtain"

慕 ***muo-** < ****mag** : 𠵿 mak [mak] D2 "to like, love, desire"⁶

The labial nasal m- which remained mostly unaltered from OC to MC, normally corresponds to m- [m-] in TH. Altogether, we have found 20 pairs of such regular correspondences.

IV.1.4.b. ***m** : ml[ma-l]⁷

𧈧 ***mʉng** < ****mrang** : 𠵿 mlæŋ [ma-læŋ] A2 ***ml/r-** "insects"

The TH word here is used as a collective name for insects in general. It also has a doublet 𠵿 mæ:ŋ [mæ:ŋ] A2 which is used interchangeably with [ma-læ:ŋ] A2. The Chinese word, however, means "gadfly, housefly." Its reconstructed initial

cluster **mr- comes from the fact that it is a second division rime word (see IV.1.1.b.). Li (MS) suggested that this word probably is related also to 螟蛉 *mieng *lieng which is reduplicated from **mling "insect on mulberry leaves."

IV.1.4.c. *m : hm[m]

Since TH hm-[m-] corresponds to both **m- and **hm- in OC, all our hm- [m-] correspondences can be divided into two groups, as follows:

1) The corresponding sets under this group are those where the TH forms have hm-, but a voiceless hm- cannot be reconstructed for the OC readings for lack of internal evidence.

These instances are:

巫	*mju < **mjag	:	𐄢𐄢 hmɔː [mɔː]	A1	*hm-	"sorcerer, doctor"
帽	*mâu- < **mægwh	:	𐄢𐄢 hmuak [muak]	D1	*hm-	"hat"
霧	*mju- < **mjægwh	:	𐄢𐄢 hmɔːk [mɔːk]	D1	*hm-	"fog, mist"
務	*mju- < **mjægwh	:	𐄢𐄢 hmk [mok]	D1	*hm-	"apply oneself to, be intent on, devote oneself to" ⁸

2) The following correspondences of *m : hm [m] are those for which one could postulate some kind of **hm- provenance in OC. The reason is they are characters which belong to the group of which initial 明 m- frequently shows contacts with 曉 x- or 徹 th- in the phonetic compounds. We may suggest that the initials of these words were derived from a consonant

****m-** with some kind of voiceless onset in the proto-language, but later developments gave rise to ***m-** in some words, and ***x** or ***tʰ** in the others.

墨 ***mæk** < ****mæk** : หมึก hmuk [muk] D1 ***hm** "ink, black"
(cf. 黑 ***xək**)

物 ***mjuət** < ****mjət** : วิชา hmuaʔd [muat] D1 "class, division"
(cf. 忽 ***xuət**)

芒 ***mwāŋ** < ****mang** : หมอŋ hmɔːŋ [mɔːŋ] A1 "obscured, clouded, darkened"
(cf. 荒 ***xwāŋ**)

甌 ***mju/** < ****mjagx** : หม้อ hmɔː [mɔː] C1 ***hm-** "pots and jars in general"
(cf. 甌 ***xuo**)

萬 ***mjwɔn-** < ****mjanh** : หมื่น hmuen [muɛn] B1 ***hm-** "ten thousand"
(cf. 蔓 ***tʰai**)

The above examples, in addition to having hsiéh-shēng contacts with a voiceless initial, all have a corresponding Thai form with initial hm [m-]. The facts from both the Chinese and Thai sides may possibly suggest a reconstructed voiceless ****hm-** for these words in OC readings.

The correspondences of MC ***m-** to both TH m[m] and hm [m] as illustrated here show that hm [m] in TH, on one hand, is related to MC ***m-**. But TH hm[m], it has been suggested, corresponds to MC ***x-** < ****hm-** (see section IV.7.5.). Perhaps this will pose some problem insofar as the correspondence of TH hm [m] and MC initials is concerned. Is it possible that MC ***m-** < ****m-** and ***x-** < ****xm-** would both correspond to TH hm [m]? Is it possible that MC ***x-** developed from some other origin

rather than OC **hm-? For the time being, we shall leave these questions open. It requires extensive treatment in relation to MC *x-, and will be discussed below in the section dealing with *x-.

IV.1.4.d. *m : w[w]

亡 *mjwang : ว่าง wa:ŋ [wa:ŋ] A2- *w- "to die, perish"

We have only one case of MC *m corresponding to TH w [w]. This reflects the extensive dentilabialization of the post MC period. This word in TH always appears in the disyllabic expression [wa:ŋ] A2 - wa:y [wa:i] A2 "to die, perish." Probably, it is also related to an Old Thai word ว่าง ma:ŋ [ma:ŋ] C2 and its doublet mla:ŋ [ma-la:ŋ] C2 "to destroy, kill."

IV.2. Dental Stops and Sonorants

IV.2.1.a. *t : t[t]

統 *tâm/ : ทุ้ม tum [tum] C1 *t- "pendants"⁹

底 *tiei/ : ใต้ tɛi [tai] C1 *t- "below, under"

鬥 *təu- : ต่อสู้ tɔ: [tɔ:] B1 "to fight, wrangle"

The term [tɔ:] B1 in the sense of "to fight, wrangle" never occurs by itself in present day Thai. It always appears with some other word, such as ต่อสู้ [tɔ:] B1 - [kɔ:n] A1' "to fight (literally to strike with the arms)," ต่อสู้ปาก [tɔ:] B1 - [pa:k] D1 - [tɔ:] B1 - [kham] A2 "to wrangle (lit. to fight with the mouth and words)," and ต่อสู้ [tɔ:] B1 - [su:] C1 "to fight against." Synonym compounds are very common in TH: [tɔ:] B1 and [su:] C1 both mean "to fight." However, the term [tɔ:] B1 "to fight" formerly appeared alone, as in the Thai version of Ramayana composed in the reign of Rama I (1782-1809 A.D.) :

ซึ้งเจ๋มาต๋อควยพอไค้ [sun] B2 [cao] C1 [ma:] A2 [tɔ:] B1 [duei] C1
[phɔ:] B2 [dai] C1 "That you dare to come fight with [me, who is
your] father."

Altogether we have 18 sets of MC *t corresponding regularly
to TH t[t].

IV.2.1.b. *t : d[d]

塚 *tuən : กอน dɔ:n [dɔ:n] A1' *d- "rising ground, a
mound"

短 *tuân/ : ก้วน duan [duan] C1 "to be shortened"

IV.2.1.C. *t : d[th]

賭 tuo/ : ท้า da: [tha:] C2 *d- "to challenge, dare"

單 tân : โทน do:n [tho:n] A2 "single, alone"

The Chinese Min dialect of Chiènyáng 建陽 has 1- for both
characters and has been reconstructed as having initial *-t in
Proto-Min.¹⁰ The TH words and the Chiènyáng words probably pre-
serve the initial of the primitive forms.

IV.2.2.a. *th : th[th]

炭 *thân- : ถ่าน tha:n [tha:n] B1 *th- "charcoal"

天 *thien : แถน thæ:n [thæ:n] A1 "supernatural beings"

吞 *thən : ถุน thun [thun] A1 "to drink (a solution of a
drug)"¹¹

The regular correspondence of MC *th is TH th [th]. The
number of such regular sets comes to 17.

IV.2.b. *th : t[t]

添 *thiem : เต็ม tem [tem] A1' *t1- "filled up, full"

IV.2.2.e. *th : d[d]

梯 *thiei : ไท ?dai [dai] A1' ?d1-? "stairs, steps"

This word in Thai always appears in the binom kra? [kra?] D1- [dai] A1' "stairs." The first syllable is now regarded as a mere prefix with no meaning in itself. But Lao has ^ขก^น khan C1 - dai A2 for "stairs." Perhaps, the TH [kra?] D1 is a contracted form of [khan]C1 "steps."

IV.2.2.d. *th : hl[1]

土 *thuo/ : ^{หล}หล hla: [la:] C1 "earth, land"

This correspondence is unusual. It is presented here because in all other aspects, except the initial, it is perfect. Actually, voiceless lateral hl is, phonetically speaking, very close to the aspirated dental stop th. As Li (1971) has pointed out, initial th- was used most frequently in T'ang time transcriptions for the voiceless lateral of Tibetan which is normally written lh, for example, the names lha-mthong was transcribed 貪通 thām-thung, and lho-gong as 土公 thuo-kung. Li (1971) even reconstructed OC **hl- for MC *th- and ʈh- in words that have contacts with *l- in hsiéh-shēng series, such as 獺 **hlat > *thât "other," and 离 **hljar > *ʈhjě "a mountain demon."

IV.2.3.a. *d : d[th]

同 *dung : ^ตต dan [than] A2 *d- "together, altogether, assemble"¹²

竇 *dau- : ^ดด do: [tho:] B2 "a drain, pipe"

段 *duân- : ^ดด do:n [tho:n] B2 *d "piece, section, portion"

The regular correspondence of MC *d in TH is d [th]. Altogether, we have discovered 27 such pairs.

IV.2.3.b. *d : th[th] < *d

袋	*dâi-	: ໄ໊	thai [thai] C1 "sack, bag, long purse to (*d- B2) tie around the waist"
豆	*dau-	: ດົງ	thua [thua] B1 "beans" (*d- B2)
特	*dək	: ຖີ້	thuk [thuk] D1 "young male animal" (*d- D2)
條	*dieu	: ພຽງ	thæ:w [thæ:u] ¹³ A1 "row, long line, (*d- A2) classifier"

The TH words above all have voiceless initial th[th] and tonal subclass 1, but the NT and CT dialects have forms with a tone and an initial that point to PT *d- (Li MS). The NT group, such as Poai has tai B2, tu: B2, tak D2, and te:u A2, respectively. In the Central dialects, Lungchow has tai B2, thu D2, and te:u A2, respectively. There are many other words besides these in TH and other SW dialects that have tones which reflect an earlier voiceless initial, but they appear in the CT and particularly in the NT group with tones that must indicate an earlier voiced initial. Such irregular correspondences in Thai can, in some cases, be explained. The TH word [thai] C1 "sack, bag," spelled with a "high" consonant and tone C1 is clearly a case where the modern Thai spelling is misleading. It should be spelled with a low consonant d[th] and tone B2 (both B2 and C1 have the same contour 41) as attested by comparative evidence from closely related dialects such as Lao, Lü, White Tai, etc. (Li MS). As for the word [thæu] A1 "row, long line, classifier," TH has a cognate ຖີ້ diw [thiu] A2 with the same

meaning, except that it is not used as a classifier. Actually, the initial d [th] and tone A2 correspond perfectly with the Chinese form, but the vowel correspondence is irregular.

IV.2.3.c. *d : th[th]

條 *diek : ๓ thk [thok] D1 "to denude, strip off"

堂 *dâng : โงง tho:ŋ [tho:ŋ] A1 "hall"

IV.2.3.d. *d : t[t] < *d

頭 dəu : ๓ tua [tua] A1' "classifier for animals"

This word appears in the NT dialects with a tone and an initial indicating an earlier voiced initial. Poai, for example, has tu: A2. So this is a case similar to those mentioned in section IV.2.3.b.

IV.2.3.e. *d : t[t]

緞 *duân- : ๓ tuan [tuan] B1 "satin"

陶 *dâu : ๓ tau [tau] A1' "stove, kiln"

IV.2.4.a. *n : n[n]

捺 *nât : ๓ nua?d [nuat] D2 *n- "to press down firmly,
to massage"

納 *nâp : ๓ næ:ʔb [næ:p] D2 "to insert, enclose"

難 *nân : ๓ na:n [na:n] A2 "difficult"

The last example, [na:n] A2 "difficult," never appears alone in this context. It is found only in the expression
ลำบากยากนาน [lam] A2 - [ba:k] D1 - [ya:k] D2 - [na:n] A2 "to be in difficulty," which is a synonym compound; both [lam] A2 - [ba:k] D1 and [ya:k] D2 mean "a difficulty; hardship." Altogether we have found 10 cases of MC *n corresponding to TH n[n].

IV.2.4.b. *n : hn[n]

The correspondence of MC voiced dental nasal initial consonant *n- to that of a voiceless hn[n] in TH is parallel to the case of MC *m : TH hm[m] (see section IV.1.4.c.):

1) The Thai form has hn[n], but a voiceless **hn- cannot be reconstructed for the OC reading for lack of internal evidence:

男 *nâm : 孺 hnum [num] B1 *hn- "a young man"¹⁴

2) A voiceless **hn- may possibly be reconstructed for OC since these words often show contacts with voiceless initials, such as 透 th-, 徹 th-, or 審 s- in hsiéh-shēng series. Some of the words such as the first example below have been reconstructed with a voiceless nasal initial in Proto-Min, because the tonal development in Min indicates the presence of a voiceless nasal initial in the proto-language (Norman 1973).

鹽 or 膿 *nuong : 𣎵 hnɔ:ŋ [nɔ:ŋ] A1 *hn- "pus"
(cf. 僂 *sjän)

鑷 *njäp : 𣎵 hnæ:ʔb [næ:p] D1 *hn- "pincers, tweezers"
(cf. 攝 *sjäp)

弩 *nuo/ : 𣎵 hna: [na:] C1 *hn- "crossbow"
(cf. 弩 *thâng)

那 *nâ : 𣎵 hnai [nai] A1 *hn- "how, which, where"
(cf. 𣎵 *thâm)

The word for "crossbow" in TH occurs only in the combination 𣎵𣎵 [na:] C1 - [mai] C2 "crossbow." In other SW dialects, as well as the CT dialects, the word na "crossbow" has tone C1. But the NT dialects normally have tone B1 and have

the meaning "arrow (particularly of a crossbow)." This word in Dioi has a related form neue C1 meaning "bow" (Li MS).

IV.2.4.c. *n : y[y] < *ŋ

溺 *nieu-¹⁵ : เปี่ยว yi:aw [yiao] B2 *ŋ "to urinate; urine"

This is an irregular case where MC *n corresponds to y[y]. The regular correspondence of MC *n is TH n[n] and in some cases, as shown above, hn [n].

IV.2.5.a. *l : l[l]

錄 *ljwok : ลอก lo:k [lo:k] D2 "to copy down, transcribe"

累 *ljwi/ : เลื้อย lu:ay [luai] C2 "creepers, to wind about"

輦 *ljän/ : เลื่อน lu:an [luan] B2 "to push, slide"

The Thai word in the second set might be related also to 累 *ljwi "to wind about, to bind, to string." Actually, this character corresponds not only to TH [luai] C2 "creepers, to wind about," but also to ร้อย ro:y [ro:i] C2 "to bind together, to string (as flowers)." Since MC *l does correspond regularly to TH r[r], then [ro:i] C2 may be a better cognate for 累 *ljwi. More examples of MC *l : TH r [r] are given below.

As for the last pair, the Thai word has one other meaning "a cart drawn by men or cattle." So does the Chinese word, in Shih Ching, which is used in the sense of "a cart drawn by two men." Also connected is 連 *ljän "a kind of carriage; to pull a cart."

Examples of MC *l corresponding to TH l[l] are numerous. Altogether we have 19 such regular sets.

IV.2.5.b. *1 : r[r]

路鳥 *luo- : 鷺 ra: [ra:] C2 "a species of bird of the heron family"

溜 *ljəu- : 溜 ri:aw [riau] B2 "rapids; vigorous, strong (as the current of a river)"

捋 *luât : 捋 ru:ʔd [ru:t] D2 "to scrape off"

The word [ru:t] D2 meaning "to scrape off" is not commonly used in present day Thai. But old people in their sixties still use it in certain expressions: 捋โคลน [ru:t] D2 - [khlo:n] A2 "to scrape off mud (from the limbs)," 捋ปลาไหล [ru:t] D2 - [pla:] A1' - [lai] A1 "to clean off eels by scraping them with straw or banana leaves," and 捋ข้าว [ru:t] D2 - [kha:u] C1 "to strip off grains of rice from the stalk." The word [ru:t] now is currently used in the sense of "to grasp with one hand and pull with the other (as in separating leaves from the stems)," and is frequently used in the derived meaning "to pull open (the curtain)."

MC *1 corresponding to TH r[r] is rather regular. The number of such correspondences comes to 15.

IV.2.5.c. *1 : hl[l]

This case is parallel to the case of *m : hm [m] and *n : hn [n] (see IV.1.4.c.).

1) *1 : hl [l]

黎 *liei : หลาย hla:y [la:i] A1 "numerous, all"

The Chinese word in this example cannot be reconstructed with an initial **hl- for lack of internal evidence.

2) *l : hl [l]

鯪 *lâi : ไหล hlai [lai] A1 "a kind of eel"
(cf. 誅 *t̥hi)

廉 *ljäm : เหลี่ยม hli:am [liam] B1 "angle"
(cf. 嫌 *xiem)

醪 *lâu : เหล้า hlau [lau] C1 *xl- "liquor"
(cf. 瘰 *t̥hjəu)

The last example might be related also to 酉 *jiəu/ (see IV.7.9. below).

IV.2.5.d. *l : h[h]

羅 *lâ : แล hæ: [hæ:] A1 *xr- "a cast-net"
六 *ljuk : แหก hk [hok] D1 *xr- "six"

Both words have been reconstructed by Norman (1973) with a voiceless lateral initial in Proto-Min, because the tonal development in Min indicates the presence of a voiceless initial in the proto-language. In Chiènyáng, a northern Min dialect, both words have initial s-, i.e. sue² 羅 and so⁸ 六, which is similar to TH h-. That these two words must have had a voiceless onset is supported by Li's (MS) reconstruction of an initial *xr- for their PT readings. Mei and Norman (1971) have proposed that these words with initial s- in some northern Min dialects, and with initial h- in Tai were derived from initial consonant lh- (voiceless l).

IV.2.5.e. *l : kr[kr]

醕 *luâi- < **luadh : กรวด kruaʔd [kruat] D1 "to make a libation"

楝 *lien- : เกรียม kri:an [krian] A1' "Melia azederach, a

kind of tree"

The word [kruat] D1 "to make a libation" occurs only in the compound กรวดน้ำ [kruat] D1 - [na:m] C2, a way of pouring water onto the ground as a token of respect for the dead. The more common word for "pour (water) on" is รด [rot] D2, which means "to sprinkle (water) as a blessing, to pour (water) on the bride and groom at a wedding; or to water (plants)."

As for the second example, TH has another word for "Melia azederach" : เลี่ยน li:an [lian] B2.

The TH forms in the two examples above show initial cluster kr [kr]. Initial clusters can probably be reconstructed for the OC readings based on the cluster kr[kr] suggested by the TH forms, on the one hand, and on the fact that the words in Chinese have contacts with 見 k- in hsiéh-shēng series, on the other hand:

酎 *luâi- ~ 𣎵 *kwok

棟 *lien- ~ 諫 *kan-

IV. 2.5.f. *1 : gl[khl]

烙 lâk < **glak : 𣎵 glɔ:k [khlɔ:k] D2 *gl "to burn"

籬, 籬 *luo- < **glagh : 籬 gla: [khla:] C2 "a kind of tree resembling rattan; used for making mats."

瀾 *lân < glan : 瀾 glw:n [khlw:n] B2 "wave"

The TH forms show initial cluster gl [khl], which corresponds to the OC reconstruction of **gl- for these words. The reconstruction of a cluster initial on the Chinese side is based on the hsiéh-shēng contacts of initial 來 l- and 匣 r-

in these words.

IV.2.5.g. *1 : gr[khr]

藍 *lâm < **glam : กราม gra:m [khra:m] A2 *gr- "indigo"
 懶 *lân/ < **glanx : กราม gra:n [khra:n] C2 *gr- "lazy"

The case of *1 : gr [khr] is similar to the previous case of *1 : gl [khl].

IV.2.5.h. *1 : br[phr]

鑾 *luân < **blwan : พรวน bruan [phruan] A2 "neck-bells (for domestic animals)"

The reconstruction of the OC initial cluster is based on the hsiéh-shēng series where a cluster is indicated (see IV.1.1.-b. above). The initial cluster in the TH form is solid corroboration for the OC reconstruction.

IV.2.5.i. *1 : ph[ph] < *phl/r

顱 *luo < **blag : ผาก pha:k [pha:k] D1 *phl/r-
 "forehead"

The Chinese form means "skull or forehead." In the synonym compound 額顱 *ngv̄k - *luo, it means "the forehead;" in 顱頭 *luo - *d̄au, it means "the skull." As for the TH word, it occurs only in the term ผาก [na:] C1 - [pha:k] D1 "the forehead."

IV.2.5.j. *1 : th[th] < *thl

犁 *lji : ไถ thai [thai] A1 *thl- "to plough; plough"

IV.3. Dental Affricates and Fricatives

IV.3.1.a. *ts : c[c]

呷 ts̄ap : ฟู cup [cup] D1 "to suck gently, suckle (as of infants)"

佐 *tsâ- : 𠵿 cma [cma] A1' "to aid, assist"¹⁶
 浸 *tsjēm- : 𠵿 cim [cim] C1 *c- "to dip into"

As for the last example, [cim] C1, the tonal correspondence is irregular. TH has one other word, for which the final correspondence is not regular, but for which the tone is perfect:
 𠵿 cum [cum] B1 *c- "to dip into, to immerse, soak." The voiceless initial form [cum] B1 has a cognate which carries a voiced initial 𠵿 jum [chum] B2 "soaked, soaking wet," probably corresponding to 沈 *diem- "sink, submerged." Altogether we have 8 examples of MC *ts corresponding to TH c[c].

IV.3.1.b. *ts : ʃ[ch]

憎 *tsəŋ : 𠵿 ʃaŋ [chaŋ] A2 *ʃ- "to hate, detest"
 早 *tsâu/ : 𠵿 ʃau [chau] C2 *ʃ- "early, in the morning"¹⁷

IV.3.1.c. *ts : s[s]

尖 *tsjäm : 𠵿 siam [siam] C1 *s- "to sharpen"

MC *ts corresponding to TH [ch] and s[s] is irregular.

However, alternation of such initial sounds are common in TH where initial dental affricates and fricatives sometimes alternate among themselves and also sometimes with dental stops:

𠵿 cə:ʔd [cə:t] D1 ~ 𠵿 chə:ʔd [chə:t] D1 ~ 𠵿 ʃə:ʔd [chə:t] D2 "beautiful"

𠵿 c-duŋ [ca-thuŋ] A2 ~ 𠵿 ch-duŋ [cha-thuŋ] A2 ~
 𠵿 ʃ-duŋ [cha-thuŋ] A2 ~ 𠵿 s-duŋ [sa-thuŋ] A2 "river"
 𠵿 ʃi: [chi:] B2 𠵿 si: [si:] C1 "ancient black tooth-paste made of the exudation from burning wood used to blacken the teeth."

𠵿 ʃæʔ [chæʔ] D2 ~ 𠵿 chæʔ [chæʔ] D1 "wet, damp, muddy"

ขอน จว:n [chɔ:n] A2 ~ ขอน จว:n [sɔ:n] A2 "to make a serpentine or curved underground passage"

ข้อน จว:n [chɔ:n] C2 ~ ขอน จว:n [sɔ:n] B2 ~ ท้อน ตว:n [tɔ:n] C1 "to catch fish by using a fish-trap placed across a water-way"

ฉลาย ch-la:y [cha-la:i] A1 ~ สลาย s-la:y [sa-la:i] A1 ~ ฉลาย th-la:y [tha-la:i] A1 "to be split, cracked, fractured"

ตั้ง can [can] C1 ~ ตั้ง tan [tan] C1 "to set up"

จิ้ม cim [cim] C1 ~ จิ้ม dim [thim] B2 "to poke (with a finger)"

ฉลุ ch-luai [cha-luei] A1 ~ สลุ s-luai [sa-luei] A1 "graceful, sleek"

ส้น sn [son] C1 ~ ส้น zn [son] B2 "the heel"

Alternations within the initial consonants as cited above are fairly common in TH. This phenomenon will probably explain the exceptional cases of TH initials corresponding to MC dental affricates and fricatives.

IV.3.1.d. *ts : sw[sa-w]

金鑽 *tsuân : สว่าน swa:n [sa-wa:n] B1 "a drill"

The initial correspondence here is unusual. However, the regularity in all other aspects between the two forms, i.e., the final, tone, and meaning, makes it very plausible that they were related. A tentative interpretation is that there might have been a cluster, namely *tsw- or *sw- in the proto-language. Later the sound was lost; the Chinese considering the -w- as part of the vowel pronounced it as medial -u-, whereas the Thais, considering it as a consonant kept it as such. Since the

cluster sw- is phonetically impossible in Thai, an unaccented vowel a is inserted in between the initial sw in reading : [sa-w], which is similar to the case of ml [ma-l] (cf. IV.1. - 4.b.)

IV.3.2.a. *tsh : ch[ch]

餐 *tshân : ชัน chan [chan] A1 "(of a monk) to eat"

倉 *tshâng : ฅาง cha:ŋ [cha:ŋ] A1 "granary"

IV.3.2.b. *tsh : ɟ[ɟ]

慼 *tshiem : ฅำ jam [cham] C2 "grieved"

悞 *tshuo : ฅา ja: [cha:] A2 "dull, numb"

憾 *tshiek : ฅอก ɟɔ:k [chɔ:k] D2 "grieved, pained"

IV.3.2.3. *tsh : c[c]

七 *tshjět : ฅึก ce?d [cet] D1 *c- "seven"

IV.3.2.e. *tsh : d[th]

猜 *tshâi : ฅาย da:y [tha:i] A2 "to guess"

IV.3.2.f. *tsh : t[t]

淺 *tshjăn/ : ฅื้น tu:n [tu:n] C1 "shallow"

IV.3.3.a. *dz : ɟ[ɟ]

粗 *dzuo/¹⁸ : ฅำ ja: [cha:] C2 *ɟ- "coarse, gross, rude"

漬 *dzię- : ฅำ jæ:[chæ:] B2 "to steep, soak"

字 *dzi- : ฅื่อ ɟu: [chu:] B2 *ɟ- "name"

There are altogether 6 pairs of MC *dz corresponding regularly to TH ɟ[ɟ].

IV.3.3.b. *dz : s[s]

錢 *dzjăn : สิน sin [sin] A1 "money, wealth"

盡 *dzjěn/ : สิน sin [sin] C1 "to come to an end"

The word สิน [sin] C1 "to come to an end" has a variant

for which the initial consonant makes a perfect fit for the Chinese form, but its tonal correspondence then is irregular

: 𡗗 jin [chin] B2. It is an Old Thai word.

IV.3.4.a. *s : s[s]

鋤 *sjäm : เสียม si:am [siam] A1 "hoe"

繰 *sâu : สาว sa:w [sa:u] A1 "reel off a thread"

送 *sung- : ส่ง sŋ [soŋ] B1 *s- "to send, escort"

The examples of regular correspondence between MC *s and TH s[s] altogether comes to 11 pairs.

IV.3.4.b. *s : z[s]

索 *sâk : ซัก zak [sak] D2 "to inquire, ask"

鎖 *suâ/ : โซ zo: [so:] B2 "chain"

滑 *sjəu : ทา za:w [sa:u] A2 "to wash (rice)"

散 *sân- : าน za:n [sa:n] B2 "to be scattered"

Here the discrepancy of voicing between MC and TH might have been due, in a certain case, to the development within TH itself. The initial consonant of the last example has been reconstructed by Li (MS) as voiceless *s- in PT since all other Tai dialects have tone B1 for this word, for example, Lungchow and Poai have ta:n B1. The TH spelling is spurious; it should have been written with voiceless s[s] and tone C1.

IV.3.4.c. *s : ch[ch]

削 *sjak : ฉีก chi:k [chi:k] D1 "to tear apart, pare, destroy"¹⁹

IV.3.5.a. *z : ɟ[ch]

緒 *zjwo/ : เชื้อ ɟua [chu:a] C2 "line of succession"

象 *zjang/ : ช้าง ɟa:ŋ [cha:ŋ] C2 *ɟ- "elephant"

The OC readings of these two characters as reconstructed by Karlgren are **dzjo and **dzjang, respectively. According to Li's OC system (1971), initial 邪 zj- evolved from OC **r- followed by third division medial -j-. His rule of MC *zj- evolving from OC **r- + -j- is corroborated by the fact that initial *zj- often alternated with dental stops and initial 喻 ji-, for example 象 *zjang/, 像 dāng/, and 勳 jiang/. Following Li's OC reconstruction of 象 **rjangx and 緒 **rjagx, we might be able to match two other TH forms to these two characters: 𠂔 ra:ŋ [ra:ŋ] B2 "figure, shape; to sketch, draft" for 象 **rjangx > *zjang/ "figure, appearance, shape; depict, imitate, pictured," and 𠂔 ru:a [ru:a] C2 "continued, lasting a long time" for 緒 **rjagx > *zjwo/ "continue; the remains."

IV.3.5.b. *z : d[th]

誦 *zjwong- : 誦 dɔ:ŋ [thɔ:ŋ] B2 "to recite"

IV.3.5.c. *z : z[s]

頌 *zjwong- : 頌 zɔ:ŋ [sɔ:ŋ] B2 "to eulogize, praise"

IV.3.5.d. *z : s[s]

襲 *zjěp : 襲 sm:ʔb [sm:p] D1 "to inherit"

隨 *z(j)wie : 隨 sɔ:y [sɔ:i] A1 "to follow closely"²⁰

IV.4. Supradental Stops and Nasals

IV.4.1.a. *ṭ : t[t]

蜚 *ṭjät : 蜚 tɔ:ʔd [tɔ:t] D1 "to sting (bee), nibble (fish)"

築 *ṭjuk : 築 tɔ:k [tɔ:k] D1 "to pound, hammer down"

竹 *ṭjuk : 竹 tɔ:k [tɔ:k] D1 *pr- "bamboo strips"

We have only 5 examples of MC *ṭ corresponding to TH t[t].

IV.4.1.b. *t̚ : tr[tr]

- 畫 *t̚jəu- < **trjəgwh : 𠵿 tru: [tru:] B1 "early morning"
 中 *t̚jung/ < **trjəngwx : 𠵿 tr̥ [tr̥] A1' "hit the point"
 忠 *t̚jung < **trjəngw : 𠵿 tr̥ [tr̥] A1' "faithful, loyal"

The correspondence of MC *t̚ to TH tr [tr] here is a strong corroboration for Li's OC reconstruction. Li (1971) believed that the MC supradental initials were followed by medial -r- causing retroflexion of the preceding simple dental initials, and as a result yielding the changes of OC *tr-, *thr-, *dr-, and *nr- into MC t̚-, t̚h-, d̚- and n̚-, respectively.

The three TH forms cited above all show the initial cluster tr [tr] and are common words in the language. The term [tru:] B1 always appears in the synonym compound 𠵿𠵿 jəu [chau] C2 ("early, in the morning") - [tru:] B1 "the break of day, early morning." The term [tr̥] A1' in TH has several meanings, two of which fall into the meanings of 中 and 忠. The phrase 𠵿𠵿 [yɪŋ] A2 - [tr̥] A1' - [pau] C1 means "hit the target in shooting." To say that someone is 𠵿𠵿 [khon] A2 - [tr̥] A1' means he is "straightforward" (i.e. hitting precisely at the subject matter). And, to speak of someone as being 𠵿𠵿 [khon] A2 - [su:] B2 - [tr̥] A1' means that he is "true and faithful."

IV.4.1.c. *t̚ : c[c]

- 知 *t̚iɛ : 𠵿 ci: [ci:] B1 "to know; intimate"
 忠 *t̚jung : 𠵿 c̥ [c̥] A1' "loyalty, loyal"

The term [coŋ] Al' in this sense occurs only in the expression จงรักภักดี [coŋ] Al' - [rak] D2 - [phak] D2 - [di:] Al' "loyalty, loyal;" the last two syllables come from a Sanskrit word meaning "loyalty." Here, it is noted that TH has a double correspondence for the Chinese character 忠 (cf. IV.4.1.b. above). It is possible that the original cluster tr- in TH is simplified in some cases into c[c], for example ครัวเรือน [tra] D1 - [wet] D1 ~ เจริญ [ca] D1 - [wet] D1 "an image of the household god." Moreover, initial consonants c[c] and t[t] often alternate with each other, as in ตะขาบ [ta] D1 - [kha:p] D1 and จระเข้ [ca] D1 - [kha:p] D1 "centipede," ต๋องเต [tɔ:ŋ] Cl - [te:] Al' and จ้องเต [cɔ:ŋ] Cl - [te:] Al' "a children's game."

IV.4.1.d. *t̚ : ɟ[ch]

答 *t̚ap : चुप ju?b [chup] D2 "to write with ink"

The Chinese word here means "document." However, the meanings of the two forms must be related; whatever is written with ink is a document.

The initial correspondence, though irregular, is not uncommon since dental affricates can alternate with dental stops in TH as noted above in section IV.3.1.

IV.4.1.e. *t̚ : h[h]

磔 *t̚ək : หัก hak [hak] D1 *thr- "to break, broken (stick)"

The reconstructed PT initial *thr- of this word seems to correspond well with Li's (1971) OC reading of the character **trak.

IV.4.2.a. *th : thl[tha-l]

偵 *thjäŋ < **thrjing : แทง thlæ:ŋ [tha-læ:ŋ] Al "to

verify, declare"

抽 *thjəu < **thrjəgw : nan thlk [tha-lok] D1 "to pull up"²¹

Both these forms in TH might have had an initial cluster *thl which now does not exist, but normally PT *thl is simplified to th [th] in TH (cf. III.2.1.2). The split of a consonant cluster into two separate consonants by inserting an unaccented vowel a in between the consonant cluster is another device used in TH in pronouncing initial clusters that have become phonetically impossible in the language, e.g. PT *ml > TH ml [ma-l].

IV.4.2.b. *th : j[ch]

冲 *thjung : 冲 jŋ [choŋ] A2 "to infuse (tea)"

IV.4.3.a. *d : d[th]

滞 *djäi- < **drjadh : 滞 dɔːʔd [thɔːt] D2 "to discard, neglect"

遲 *di < **drjid : 滞 dɔːʔd [thɔːt] D2 "slow, long"

持 *di < **drjəg : 持 dɔːk [thɔːk] D2 "to hold, grasp"

弛 *die/ < **drjarx : 弛 deː [theː] A2 "slope, sloping, tilted"

疇 *djəu < **drjəgw : 疇 duːak [thuak] D2 "ploughed field"

The TH words in this set all require comment. The word [thɔːt] D2 normally appears in the synonym compound 滞 [thɔːt] D2 - [thiŋ] C2 "discard." Only in a couple of expressions does this term occur by itself in this sense: 滞 [thɔːt] D2 - [thu-ra?] D2 "discard all obligation, neglect one's business," and 滞 [thɔːt] D2 - [heːt] D1 "discard or drop

issues of disagreement (as in controversial matters)."

The TH word in the second set of correspondences is also read [thɔ:t] D2 but has a different meaning. The expressions in which this word appears are namely: ทอดเวลา [thɔ:t] D2 - [we:-la:] A2 "to prolong the time," ทอดน่อง [thɔ:t] D2 [nɔŋ] B2 "walk slowly or leisurely," and ทอดเสียง [thɔ:t] D2 - [siaŋ] A1 "prolong the voice (as in speaking or singing), speak slowly."

As for the ST word in the third set [thə:k] D2, it is an old Thai form and is not currently used. It is now replaced by the word ถือ [thu:] A1 "to hold, grasp, carry" which is probably also related to 持 *dī.

The term [the:] A2 "sloping, tilting" is an old Thai word, the current form now is เหน้ de: [the:] B2. The word [the:] B2, however, always occurs in the phrase กระเ้ [kra?] D1 - [the:] B2 - [re:] B2 "sloping, tilted," which in turn is becoming obsolete. The phrase [kra?] D1 - [the:] B2 - [re:] B2 in present day Thai is coupled with เอียง [?iaŋ] A1' "to slant; tilting," forming a synonym compound [?iaŋ] A1' - [kra?] D1 - [the:] B2 - [re:] B2. The word [re:] B2 in this expression contains no meaning in itself and is simply taken as an empty reduplicated syllable; but reduplication of initials d[th] - r[r] - does not exist in any other expression. It is possible that [re:] B2 originally might mean "sloping, tilted." If so, the doublet [the:] B2 and [re:] B2 might imply an initial cluster *dr-, i.e. PT *dr- might have given d- in some words, and r- in the others, thus supporting Li's (1971) reconstruction of **dr- for MC *d (cf. IV.4.1.b. above).

The term [thuak] D2 "ploughed field" is an old Thai word and now is found used in this sense only among some elderly Thai people in the country.

IV.4.3.b. *d̥ : r[r]

宅 *d̥ək < *drak : เรือน ru:ak [ruak] D2 (see below for meaning)

趑 *d̥iɛ < **drig : รี ri: [ri:] A2 "hesitate"

躑 *d̥ju < **drjug : รจ rɔ: [rɔ:] A2 "walk hesitatingly, undecided"

澄 *d̥jəŋ < **drjəŋ : เรือง ru:əŋ [ruəŋ] A2 "limpid, clear"

召 *d̥jäu < *drjagwh : เรียก ri:ak [riak] A2 "summon, call"

廛 *d̥jän < **drjan : เรือน ru:an [ruan] A2 *r- "dwelling place, shed, shop, shelter"

The reconstructed PT initials for these words, except for the last one, are not known yet. The voiced r [r]- in TH in some cases comes from *dr- (see III.2.1.2.); some of the words cited above might go back to PT *dr-. For instance, the term [ruak] D2 in the expression เรือนสวนไร่นา [ruak] D2 - [suan] A1 - [rai] B2 - [na:] A2 "fields and orchards in general," might have come from the same initial as the word du:ak [thuak] D2 "ploughed field" (cited in the previous section). That is, both forms might have been from the initial cluster *dr in PT, which gives d [th] to one form and r [r] in the other. This suggested link of [ruak] D2 with [thuak] D2 is made here because [ruak] D2 has become a word with no significance of its own. All dictionaries, including the authentic Thai Royal Institute

dictionary, list it with [suan] A1 "garden, orchard, plantation" as [ruak] A2 - [suan] A1 "orchard, plantation." I believe that the word originally had a meaning which has been completely lost, but has left its form in the expression [ruak] D2 - [suan] A1 - [rai] B2 - [na:] A2 "fields and orchards." A person who has "fields and orchard" in an agricultural country like Thailand is considered a person of wealth and property whose security is insured. The word [ruak] D2 might be related to 宅 **drak "a place for settlement or inhabit, residence" or to 疇 *drjəgw "ploughed field, territory." If this is so, then each of the four syllables in the above expression will have a full meaning of its own; to have [ruak] D2 - [suan] A1 - [rai] B2 - [na:] A2 means having [ruak] D2 a place for settlement or ploughed field or territory, [suan] A1 orchard, [rai] B2, plantation on which are grown crops other than lowland rice cultivation and [na:] A2 paddy fields.

As for the word in the second and third sets of correspondence [ri:] A2 "hesitate" and [rɔ:] A2 "walk hesitatingly, undecided," they always go together in TH, [ri:] A2 - [rɔ:] A2 "hesitate, undecided" or [ri:] A2 - [ri:] A2 - [rɔ:] A2 - [rɔ:] A2 "hesitate, loiter, dilly-dally."

IV.4.3.c. *d̥ : l[l]

擇 *d̥ək < **drak : เลือก luak [luak] D2 "to choose"

IV.4.3.d. *d̥ : dr[s]

定 *d̥vŋg < **drang : 訂定 drj [soŋ] A2 "maintain, sustain"

Normally, words written with dr [s] in TH are considered loans from either Sanskrit or Khmer. However, there are a few

words of native origin that have been written with dr [s], for example วรรณ druaʔd [suat] D2 "subside," ทราย dra:y [sa:i] A2 "sand," and วรรณ drɔ: [sɔ:] A2 "two-stringed fiddle."

IV.4.3.e. *ɖ : thl[tha-l]

瞪 *ɖjəŋ < **drjəŋ²² : 瞪 thlɯŋ [tha-lɯŋ] A1 "fierce stare; to stare hard at"

Here, the initial correspondence is similar to that of the previous section. But it is irregular, because the Chinese form has a voiced initial, whereas the TH form has a voiceless one. The case is listed for further consideration because aside from the discrepancy of voicing, all other aspects show regular correspondences.

IV.4.3.f. *ɖ : ʃ[ch]

茶 ɖa : 茶 ʃa: [cha:] *ʃ- A2 "tea"

IV.4.4.a. *ŋ : n[n]

撓 *ŋau/ : 撓 na:w [na:u] C2 "to bend; to arch (a bow)"

Only one example is found for the correspondence of MC *ŋ to TH n [n]. However, the simple nasal dental n- in the TH form seems to corroborate Li's idea (1971) that in OC initial 娘 n- was not distinguished from 泥 n-, but that the retroflexion of the nasal by the MC time was evolved from the medial -r- after n- in second and third division.

IV.4.4.b. *ŋ : hy[y]

躐 *ŋjəp : 躐 hyi:aʔb [yiap] D1 "to trample"

In hsiéh-shēng series, this character has contacts with initials *ś- and *ts-, e.g. 攝 *śjəp "catch, hold, grasp," and 懾 *tsjəp "despondent, to fear."

IV.5. Supradental Affricates and Fricatives

IV.5.1.a. *tʂ : c [c]

盞 *tʂǎn/ : ʂ cun [cun] C1 "shallow bowls used as saucers"

抓 *tʂau- : ʂ cau [cau] B1 "(of a bird) grasp, perch, sit"

筴 *tʂau- : ʂ ca: [ca:] B1 "wooden ladles or skimmers"

The first of the TH forms listed here [cun] C1 is an old Thai word and has become obsolete. Thai now features a three-syllable term for "saucers" จานรองถ้วย [ca:n] A1' - [rɔ:ŋ] A2 - [thuai] C1 "dish placed under a cup."

The word [cau] B1 appears in the synonym compound จับเท้า [cap] D1 - [cau] B1 "to perch or sit still as a bird or monkey on the limb of a tree." Now the compound is frequently used in its figurative sense of "to sit still, remain quietly, sit silently or dejectedly."

As for the last example cited [ca:] B1, it is now preceded with the syllable ក្រា [kra?] D1, an empty prefix added to some monosyllabic words, e.g. [do:t] and [kra?] D1 - [do:t] "to jump," [cu:] C1 and [kra?] D1 - [cu:] C1 "a bottle-shaped eel trap made of woven bamboo strips," [thuŋ] C2 and [kra?] D1 - [thuŋ] "to pound, tamp in tightly or firmly," [phum] B2 and [kra?] D1 - phum] B2 "a floral piece made in the shape of a lotus bud," etc.

IV.5.1.b. *tʂ : t[t]

裝 *tʂjang-²³ : ʂ ta:ŋ [ta:ŋ] B1 "load (a boat), pack-saddle"

妝 *tɕjang : ʔ tæ:ŋ [tæ:ŋ] B1 "to dress, adorn oneself"

Bearing in mind the fact that in TH initial c [c] often alternates with t [t] (cf. IV.3.1.), the correspondence of MC *tɕ to ST t [t] is not too irregular.

c) tɕ : ʔ [ch]

爭 *tɕəŋ : ʔ jɪŋ [chiŋ] A2 "fight for; take by force"

We have only one example of MC voiceless affricate corresponding irregularly to a voiced one in TH. However, this word in CT and NT groups has forms with tonal class 1 indicating a voiceless initial *c in PT, e.g. Lungchow has ce:ŋ A1, Poai še:ŋ A1, and Dioi chen B1 (Li MS).

IV.5.2.a. *tɕh : ch [ch]

勦, 勦 *tɕhau < **tshragw : ʔ ch [chok] D1 "snatch"

幘 *tɕhək : ʔ chək [chək] D1 "toothed (as a leaf), serrated"

IV.5.2.b. *tɕh : ʔ [ch]

差 *tɕhaɪ : ʔ jɛɪ [chai] C2 "to send (on an errand), employ (a servant)"

The initial correspondence here is not regular. However, this word in the Northern Tai dialects has forms indicating a PT voiceless initial consonant, e.g. Poai has ti: C1 and Saek sai B1.

IV.5.3.a. *dz : ʔ [ch]

助 *dzjwo- : ʔ juay [chuei] B2 "aid, help"

IV.5.3.b. *dz : r [r]

儕 *dzǎi < **dzrid : ʔ ra:y [ra:i] A2 "set, category, list"

棧 *dʒan/ < **dzranx : 𦵇 ra:n [ra:n] C2 "machan, booth, stall, shop"

狀 *dʒjang- < **dzrjangh : 𦵇 ra:ŋ [ra:ŋ] B2 "form, shape"

The initial consonant r[r] in TH seems to make a good corroboration for Li's belief (1971) that the MC supradental affricates and fricatives which occurred only before second division finals simply evolved from OC dental affricates and fricatives following medial -r-. His rule of change is **tsr-, **tshr-, **dzr-, **sr > *tʃ-, *tʃh-, *dʒ-, *ʃ-, respectively.

IV.5.4.a. *ʃ : s[s]

瑟 *sjet : 𦵇 sʔd [sot] D1 "bright, fresh-looking, pure"

森 *sʃəm : 𦵇 sum [sum] A1 "grove, thicket"²⁵

雙 *sʃaŋ : 𦵇 sɔ:ŋ [sɔ:ŋ] A1 "two"²⁶

醪 *sʃam/ : 𦵇 sm [som] C1 "sour"²⁷

The regular correspondence of MC *ʃ in TH is s[s].

IV.5.4.b. *ʃ : z[s]

鯊 *ʃa : 𦵇 za: [sa:] B2 "a kind of small fresh-water fish"

度 *sʃəu < **srjəgw : 𦵇 zɔ:k [sɔ:k] D2 "conceal, hide"

IV.5.4.c. *ʃ : r[r]

虱 *sʃjet < **srjit : 𦵇 ru:aʔd [ruat] D2 "bed bug"

IV.5.4.d. *ʃ : hr[r]

蟀 *sʃjuət < **srjət : 𦵇 hri:ʔd [ri:t] D1 "cricket"

The correspondence here is not regular, but initial s- and h- are often related, e.g. the words for "six" and "a cast-net"

have initial h- in TH, and s- in Chienyang (cf. IV.2.5.d.).

Thus, we may assume that there might have been some kind of relationship between the two words here. And on the basis of the OC form, we may further assume that initial hr [r] in the TH form is derived from *sr-. The word for "cricket" in TH is a binom จิ้งหรีด [ciŋ] Cl - [rit] Dl, or จิ้งหรีด [caŋ] Al' - [rit] Dl.

MC has two sets of affricates and fricatives, i.e. a dental and a supradental set. TH, on the contrary, has only one set of affricates and fricatives, i.e., the palatal set. As a result, both MC supradental and dental affricates and fricatives, as illustrated in this section and in section IV.4., have the same correspondence in TH.

IV.6. Palatals

IV.6.1.a. *tś : t[t]

折	*tśjät < **tjat	:	ตัด	taʔd [tat] Dl "to sever, decide"
勺	*tśjak < **tjakw	:	ลัก	tak [tak] Dl *t- "to ladle"
舟	*tśjau < **tjəgw	:	ทูล	tu:k [tu:k] Dl "boat"
抵	*tśie/ < **tjigx	:	ตี	ti: [ti:] Al' "to beat"
祇	*tśie < **tjig	:	แต่	tæ: [tæ:] Bl "only, but"

The dental stop initial in the TH forms as cited above makes a strong corroboration for Li's (1971) OC reconstruction of MC palatals. Li hypothesized that MC *tś-, *tśh-, *dź-, *ś-, *ź-, and *ńź- which appeared only in third division with medial -j- originated from the palatalization of dentals. Consequently, he assumed the rule of change that OC dentals **t-, etc. when followed by -j- developed into **tj-, etc. and then became MC

*tśj-, etc.

The TH word in the first example has two meanings. When it occurs alone it has usually the meaning "to sever, cut loose from, break." But in the sense of "to decide," it always appears in the binom [tat] D1-[sin] A1; [sin] A1 is an old Thai word meaning "to sever, cut (true to a square)."

The word [tu:k] D1 "boat" cited above is an old Thai term, but it has always been identified as coming from the Khmer word du:k (Thai Royal Institute 1950). In my opinion, it seems to correspond better with the Chinese character 舟 **tjəgw. If the Thais borrowed it from Khmer, they should have used voiced dental d- for it, since Thai has also voiced initial d-. Moreover, the regular rendering of khmer d- in TH is d [th]. Possibly, the Khmers borrowed this word from either Chinese or Thai.

IV.6.1.b. *tś : th[th]

証 *tśjäŋ- < **tjingh : ญ thia:ŋ [thiaŋ] A1
 "to remonstrate, debate,
 dispute"

織 *tśjäk < **tjək : ัก thak [thak] D1 "to weave (a
 basket)"

IV.6.1.c. *tś : d[th]

正 *tśjäŋ- < **tjingh : ญ di:ŋ [thiaŋ] B2
 "to be straight, correct,
 true, impartial"

IV.6.1.d. *tś : c[c]

正 *tśjäŋ : ๑๗ ci:aŋ [ciaŋ] A1' "first month of the year"

摺 *tśjäp : ๑๗ ci:b [ci:p] D1 *c- "to fold, plait"

執 *tśjēp : ๑๗ ca:b [cap] D1 *c- "to catch, hold, grasp"

主 *tśju/ : ๑๗ cau [cau] C2 *c- "master, lord"²⁸

MC palatals correspond not only to TH dental stops, but also to TH palatal affricates and fricatives as illustrated in the four sections above. The occurrence of double correspondence in TH may, perhaps, suggest that MC palatals came from two different sources. An alternate possible solution is to assume that those TH words with dental stop initial corresponding to MC palatals are old forms suggesting possibly genetic relation, whereas those with palatal affricate and fricative initials in TH are loans from Chinese into Thai from MC.

IV.6.1.e. *tś : ɟ[ch]

指 *tśi/ : ๑๗ ji: [chi:] C2 * - "to point, indicate"

IV.6.1.f. *tś : s[s]

震 *tśjēn- : ๑๗ san [san] B1 "to shake, tremble"

IV.6.1.g. *tś : k, kh[k, kh]

鍼 *tśjəm < **skjəm : ๑๗ khem [khem] A1 "kh- "needle"

枝 *tśiē < **skjig : ๑๗ ke: [ke:] A1' "go astray"

枝 *tśiē- < **skjigh : ๑๗๗ ke:k [ke:k] D1 "wicked, perverted"²⁹

MC palatals, besides showing close connections with dentals as demonstrated in IV.6.1.a. above, also have hsiéh-shēng connections with velars in several cases. To account for this, Tung (1948) reconstructed a set of palato-velars $\hat{k}$, $\hat{k}'$, $\hat{g}$, $\hat{g}'$, $\acute{x}$. But as Pulleyblank (1962) pointed out, Tung's hypothesis was unnecessary. Pulleyblank hypothesized that velar stops, similar to dental stops, were palatalized, but under more restricted circumstances; that is, only in "those rhymes where there is the distinction between Division III and Division IV, i.e., where the head vowel is e or i" (Pulleyblank 1962:98). Examples of cases of palatalization of velars are as follows:

枝 *tśie "branch off; go astray" and 歧 *gjie
"bifurcation"

指 *tśi/ "to point" and 鮓 *gji "pickled fish"

鍼 *tśjam "needle" and 緘 *kām "rope, to tie"

One other bit of evidence that corroborates the hypothesis that MC palatals evolved from velar stops is found in Min. The first two characters cited above, 枝 and 指, are pronounced with velar initial k- in Min.

IV.6.2.a. *tśh : th[th]

剗 *tśhjwong < **thjung : 𢵿 thɔ:ŋ [thɔ:ŋ] A1 "tamp
or jab (someone with the
elbow)"

觸 *tshjwok < **thjuk : 觸 thu:k [thu:k] D1 *th-
"to touch, knock against"

赤 *tshjäk < **thjiak : 赤 thuiak [thuak] D1 "red"

The word [thuak] D1 in present day Thai seems to have lost its original meaning. Thai dictionaries all gloss it as "all over (used only with 'red')." The binom แดงเกือก [dæ:ŋ] A1' - [thuak] D1 "red all over, brilliant red, firing red" is the only construction where this word normally appears nowadays. However, in Old Thai literature, the word occurs in a couple of other expressions, namely เกือกทินกร [thuak] D1 - [thin] A2 - [na] D1 - [kɔ:n] A1' (= the sun) which is interpreted as "brilliant red (as the sun's ray)" (McFarland 1954:392). I think the most appropriate meaning of the said expression would be "the sun is brilliant or fiery red." If we assume the meaning of [thuak] D1, based on its perfect correspondence with the Chinese form, to be "red or fiery red," then we can give full significance to each of the words in another expression found also in Old Thai literature: เกือกทอง [thuak] D1 - [thɔ:ŋ] B1. It is usually interpreted as "brilliant (as of the color red);" I think it means "brilliant (thɔ:ŋ B1) red (thuak D1)."

IV.6.2.b. *tsh : ch[ch]

出 *tshjuēt : 出 che:ʔd[che:t] D1 "drive out, expel"

IV.6.2.c. *tsh : s[s]

赤 (loan for) *tshjäk : 赤 suiak [swak] D1 "expel"

IV.6.2.d. *tsh : ʃ[ch]

稱, 秤 *tshjäŋg- : 秤 ʃjaŋ [chaŋ] B2 *ʃ- "weigh, steel-yard"

吹 *tshwīe : ขวบ juay [chuei] A2 "blow gently but steadily"

IV.6.2.e. *tsh : kh[kh]

齒 *tshī/ : เขี้ยว khi:aw [khiau] C1 "an eye tooth"

The initial correspondence here is similar to that under section IV.6.1.g.

IV.6.3. *dz' : ɟ[ɟ]

賁 *dz'ja- : ซื้อ ju:a [chue:] B2 "to buy on credit"

IV.6.4.a. *s' : s[s]

聲 *s'jäŋ : เสียง si:aŋ [siaŋ] A1 "sound"

稅 *s'jwäi- : ส่วย suay [suei] B1 "poll-tax"

書 *s'jwo : สือ suu [su:] A1 *s- "script, graph"³⁰

IV.6.4.b. *s' : hn[n]

攝 *s'jap < **hnjap : จับ hni:b [ni:p] *hn- "grasp (with pincers), pinch between"

This example in Chinese is one of the small number of words with initial *s'- which alternated with nasal initials in hsiéh-shēng series; for example 攝 *s'jap alternates with 聶 *njap "promise." Li (1971) concluded that this class of words evolved from a voiceless nasal initial before Division III -j-, but that the nasal element was lost comparatively early. The voiceless initial hn[n] in the TH form here corroborates Li's OC reconstruction of the word as **hnjap. This word in Thai has a related form จับ hnæ:b [næ:p] D1 "pincers, tweezers" (鑷 *njap, cf. section IV.2.4.).

IV.6.4.c. *ś : th[th]

少 *śjäu- : 𑖦𑖦 tha:w [tha:u] B1 "young, not yet having reached adolescence"

IV.6.4.d. *ś : c[c]

設 *śjät : 𑖦𑖦 ca?d [cat] D1 "arrange, prepare"

識 *śjək : 𑖦𑖦 cak [cak] D1 *c- "recognize, know"³¹

首 *śjäu/ < **skhjəgwx? : 𑖦𑖦 co:k [co:k] D1 "head, chief, principal"

IV.6.4.e. *ś : kh[kh]

𑖦𑖦 *śi/ : 𑖦𑖦 khi: [khi:] C1 "dung"

The close connections between MC palatals and velars (cf. IV.6.1.g.) is supported here by the TH correspondence and the alternate reading of this character: *xji (KY 1969:985).

IV.6.4.f. *ś : k[k]

收 *śjäu-³² : 𑖦𑖦 ki:aw [kiauw] B1 "to harvest"

The initial correspondence here is similar to that of the previous section. The initial k[k] in the TH form agrees with the fact that this character has contacts with initial 見 k- in the hsiéh-shēng series, e.g. 𑖦𑖦 *kjəu "to join, connect."

IV.6.5.a. *ź : d[th]

時 *źi < **djəg : 𑖦𑖦 di: [thi:] A2 "time, a favorable or fit occasion"

提 *źie < **djig : 𑖦𑖦 de: [the:] A2 "throw"

城 *źjäng < **djing : 𑖦𑖦 di:an [thian] A2 "wall"

Altogether we have 5 examples of MC *ź corresponding to TH d [th]. As illustrated above in section IV.6.3.a., MC *dź also corresponds to TH d[th]. The correspondence of both MC

*dź and *ź to TH d [th] supports Li's (1971) belief that initials *dź- and *ź- shared a common origin, i.e., OC **d- followed by medial -j- became MC *dź- or *ź-.

The word [the:] A2 in TH usually means "to pour off or out" or in the synonym compound ^๓ทิ้ง [the:] A2 - [thin] C2 "throw away." In one old Thai expression ^๓เทวณ [the:] A2 - [duat] D1, it means "to throw dice (duat D1)." The Chinese word 提 *zie is used in Shih Ching to mean also "in a flock." The Thais have an old expression ^๓เห็นไป [the:] A2 - [kan] A1' (together) - [pai] A1' (go), meaning "go in crowds, flocks or herds (as excited people or wild animals)."

The term [thian] A2 "wall" has now become obsolete in TH and is preserved only in the compound ^๓เพิงมา [thian] A2 - [pha:] A1 "stone wall" (Thai Royal Institute 1950:474).

IV.6.5.b. *ź : j[ch]

城 *źjäŋ : ^๓เชียง ji:an [chian] A2 "city"

是 *zie/ : ^๓ใช่ jai [chai] B2 *j- "to be so"

As shown in this section and the one preceding it, the character 城 *źjäŋ < **djing has double correspondence in TH. Neither form is currently used in TH. The word [chian] A2 "city" is found merely in names of a few provinces in the north, such as ^๓เชียงใหม่ [chian] A2 - [mai] B1 "Chianjmai (lit. the new city)."

IV.6.5.c. *ź : z[s]

市 *zi/ : ^๓ซื้อ zu: [su:] C2 *z- "to buy"

IV.6.5.d. *ʒ : dh[th]

壽

*ʒjəu- : 𠵹 dhau [thau] B2 "old, aged"

The initial correspondence here is not regular. The consonant dh [th] in TH is usually used to spell words of Pali and Sanskrit origins. The word for "old, aged" is the only TH word spelled with this letter. It also has a variant form 𠵹 thau [thau] C1 "old, aged," which agrees with the Lungchow form thau C1 (Li MS), but disagrees with the Chinese form much more than the form [thau] B2. That is the orthography dhau [thau] B2, when compared with the Chinese form shows irregularity only in the initial correspondence, whereas the orthography thau [thau] C1 shows irregularities not only in the initial but also in the tonal correspondence.

IV.6.5.e. *ʒ : s[s]

熟
十

*ʒjuk : 𠵹 suk [suk] D1 *s- "ripe, cooked"

*ʒjəp : 𠵹 siʔb [sip] D1 *s- "ten"

IV.6.6.a. *ńʒ : n[n]

肉

*ńʒjəu- < **njəgwh³³ : 𠵹 nua [nua] C2 *n-
"meat, flesh"

IV.6.6.b. *ńʒ : y[y]

仍

*ńʒjəng : 𠵹 yaŋ [yaŋ] A2 *ɲ- "still, yet"

染

*ńʒjäm/ : 𠵹 yɔ:m [yɔ:m] C2 *ɲ- "to dye"

𧈧

*ńʒjwän/ : 𠵹 yɔ:n [yɔ:n] A2 "to worm in"

二

**ńʒie- : 𠵹 yi:[yi:] B2 - *ɲ "two"

The last example [yi:] B2 has an older spelling, now regarded as obsolete 𠵹 ni: [yi:] B2. The word is not used for "two" in regular counting, but is applied to the "second"

lunar month, or as a nick-name for the "number two" child of the family.

IV.6.6.c. *ńź : hy[y]

餌 *ńzi- : เหยื่อ hyu:a [yua] B1 "bait, victim"

This character has contacts with initial *ś, namely 攝 *śjāp in hsiéh-shēng series (KY 1969:376). The assumption of a voiceless sonorant initial in OC can be based not only on the TH correspondence, but also on the fact that Proto-Min has a voiceless sonorant initial for this word (Norman 1973).

IV.7. Velars and Laryngeals

IV.7.1.a. *k : k[k]

舉 *kjwo/ : คุ ku: [ku:] C1 "to lift, raise"

甲 *kap : กาบ ka:ʔb [ka:p] D1 *k- "shell, husk"

艮 *kən- : กณ kn [kon] B1 "to be determined, perverse"

Cases of MC *k corresponding regularly to TH k[k] come in all to 29 cases. The word [ku:] C1 cited here is preserved only in the expression คุลอบ [ku:] C1 - [lɔ:p] D2 "to lift the fish-trap."

As for the last example [kon] B1 "to be determined, perverse," it is an Old Thai word and is used mainly in verse.

IV.7.1.b. *k : kl[kl]

The initial correspondence here can be divided into two groups: those of which a consonant cluster can be reconstructed for OC, and those for which evidence of a cluster for OC is lacking:

1) *k < **kr : kl [kl]

交 *kau < **kragw : เกลียว kli:aw [kliau] A1' *kl-
"entwine; twisted"

- 稼 *ka- < **kragh : 稼 kla: [kla:] C1 *kl- "rice seedlings"
- 揀 *kan- < **kranh : 揀 klan [klan] B1 "select (as jewels)"

The above examples all belong to Division II rimes where medial -r- has been reconstructed for OC (cf. IV.1.1.b.). The last one in the list also has contact with initial *l- in hsiéh-shəng series.

2) *k : kl [kl]

- 告 *kâu- : 告 kla:w [kla:u] B1 kl- "say, tell"
- 改 *kai/ : 改 kla:y [kla:i] A1' "vary, change"

The TH forms show velar cluster initial, but cluster cannot be reconstructed for OC for lack of internal evidence.

IV.7.1.c. *k : kr[kr]

- 驚 *kjung : 驚 kre:ŋ [kre:ŋ] A1' "to fear"

IV.7.1.d. *k : kh[kh]

- 擊 *kiek : 擊 khe:k [khe:k] D1 "to strike, knock (with the knuckles)"

- 肩 *kien : 肩 knæ:n [khæ:n] A1 *kh- "arm"

- 薑 *kjang : 薑 khiŋ [khiŋ] A1 *x- "ginger"

MC *k corresponding to TH *kh is somewhat irregular;

however, this takes place quite often. Altogether we have 11 such cases.

IV.7.1.e. *k : g[kh]

- 間 *kǎn- : 間 gan [khan] B2 "partition off (a room)"
- 根 *kən : 根 ngo:n [kho:n] A2 "base of a tree, foundation"

價 *ka- : 𠵿 ga: [kha:] B2 *g- "price"

The first two examples on the TH side have related forms spelled with voiceless k [k]. For [khan] B2, there are 𠵿 kan [kan] A1' and 𠵿 kan [kan] C1, both meaning "intercept, separate, put up something in between in order to make a partition." We also find a word related to these three forms, namely 𠵿 gan [khan] A2 "a low earth dyke built to separate a paddy field into smaller squares as a device for impounding water."

As for the word [kho:n] A2 "base, foundation," a related form occurred in the Old Thai word 𠵿 ko:n [ko:n] B1 "to dig or turn up the root or foundation, to root out, to cause destruction." Now this old form has become obsolete and has been replaced by 𠵿 go:n [kho:n] B2 "cause destruction, cut down (trees)."

The last TH word [kha:] B2 "price" is related to 𠵿 ga: [kha:] C2 "to trade, do business" (賈 *kuo/).

IV.7.1.f. *k : gr[khr]

搗 *kat < **krat : 𠵿 gra:ʔd [khra:t] D2 *gr- "to scrape, rake"

IV.7.1.g. *k : kw[kw]

館 *kuân/ < **kwanx : 𠵿 kwa:n [kwa:n] C1 "shed, house"
官 *kuân < **kwan : 𠵿 kwa:n [kwa:n] A1' "official, peer"

瓜 *kwa : 𠵿 kwa: [kwa:] A1' "small cucumber"

The labio-velar initial kw [kw] in the TH forms makes a good corroboration for the reconstruction of the labio-velar set **kw-, **khw-, etc. for OC by considering medial -u- or

-w- as part of the initial (Li 1971). Altogether, we have 6 cases of MC *k corresponding to TH kw[kw].

IV.7.2.a. *kh : kh[kh]

戡 *khâm : ขม khm [khom] B1 "suppress, subdue"
 科 *khuâ : ขา kha: [kha:] A1 "class, line, department"
 喀 *khək : ขก kha:k [kha:k] D1 "spit out"

There are altogether 14 cases of MC *kh corresponding to TH kh [kh]. The last example cited above deserves some remark. The character 喀 belongs to second division rime and consequently is reconstructed by Li (1971) as **khrak. The TH [kha:k] means merely "spit out," but for "to vomit" there is ขก ra:k [ra:k] D2 which nowadays seems to be limited to the expression ขกเลือด [ra:k] D2 - [luat] D2 "vomit or belch forth blood." The word [ra:k] D2 is also an old Thai word meaning "vomited matter." It is possible that both [kha:k] D1 and [ra:k] D2 came from an original form with cluster *khr- in PT and split into doublets because TH contains no khr- cluster.

IV.7.2.b. *kh : k[k]

殼 *khāk : กาก ka:k [ka:k] D1 "shell, chaff, mask"

IV.7.2.c. *kh : g[kh]

烤 *khâu/ : กว gua [khua] B2 "to roast (nuts)"

屈 *khjuət : กก g?d [khot] D2 "to bend; crooked"

The word [khot] D2 has a related form ขก kh?d [khot] D1 "coiled up; a coil." Also, we find a word กุ gu?d [khut] D2 "curved inwards, crooked; to crouch."

IV.7.2.d. *kh : ch[ch]

傾 *khjwäng : เขียง chi:ang [chian] A1 "slanting, inclined"

IV.7.3.a. *g : g[kh]

躑 *gjak : 𠂔 guk [khuk] D2 "vigorous, vivacious
(horses, etc.)"

渠 *gjwo : 𠂔 gu: [khu:] A2 "canal, moat"

嶠 *gjäu < **gjagw : 𠂔 go:k [kho:k] D2 "hill"

We have found 6 examples of MC *g corresponding to TH g [kh].

IV.7.3.b. *g : gr[khr]

臼 *gjäu/ < **gjagwx : 𠂔 grk [khrok] D2 *gr- "mortar"

In this case, the TH form shows an initial cluster but no cluster can be reconstructed for OC for lack of internal evidence.

IV.7.3.c. *g : kh[kh]

騎 *gjie : 𠂔 khi: [khi:] B1 *kh- "ride on horseback"

掘 *gjwæt : 𠂔 khu?d [khut] D1 *x- "dig, hollow out"

茄 *gjâ : 𠂔 khua: [khua] A1 *kh- "eggplant"

Examples of MC *g corresponding to TH kh [kh] come to 7 cases. The three TH forms cited here all have a voiceless initial. However, in the NT group, and in some cases in the CT group as well, these words have tone class 2 indicating an original voiced initial (see also section IV.2.). The word [khi:] B1 "ride on horse back" has tone B2 in the NT group suggesting PT *g-; this is also true of [khua] A1 "eggplant." The word for "eggplant" in the NT group has tone A2.

As for the word [khut] D1 "dig, hollow out," the CT group has tone D2S with voiced initial *ɣ-, while the NT group has voiced initial *g-, also in tone D2S. Thus, the irregularity of MC *g : TH kh [kh] might not be irregular, if those forms go

back to a voiced velar initial in PT.

IV.7.3.d. *g : k[k]

及 *gjəp : ǎp kaʔb [kap] D1 *k- "and, with"
 轎 *gjäu- : ǎu ki:aw [kiau] C1 "sedan chair"
 舊 *gjəu- : ǎu kau [kau] B1 *k- "old, ancient"

IV.7.4.a. *ng : ɲ[ɲ]

儻 *ngâm : ɲm ɲom [ɲom] A2 "stupid"³⁴
 月 *ngjwət : ɲwə tuaʔd [ɲuat] D2 "a recurring period
 (usually, every three
 months), period of time"

藕 *ngəu/ : ɲə ɲau [ɲau] B2 *ɲ- "lotus root"

TH has a different spelling for [ɲau] B2 with a voiceless nasal ɲəu [ɲəu] C1, yet the tone of neither form is a regular correspondence to the Chinese form. However, Thai stands alone in having either tone B2 or C1 for this word, all other Tai dialects having tone C2 (Li MS). Altogether we have 6 examples of MC *ng : TH ɲ [ɲ].

IV.7.4.b. *ng : h[h]

五 *nguo/ : ɲə ha: [ha:] C1 *h-, *hɲ- "five"

雁 *ngan- : ɲan ha:n [ha:n] B1 *hɲ- "goose"

Both forms in TH go back to PT *hɲ- which suggests **hng as a possible reconstruction for OC readings of these characters.

IV.7.4.c. *ng : y[y]

嚴 *ngjəm : ɲə yam [yam] A2 "to show respect for"

Here the initial correspondence is irregular in the light of our present knowledge. This word in TH always appears in the compound ɲəkreɲ [yam] A2 - [kre:ɲ] A1' "to show respect for."

IV.7.5.a. *x : hm[m]

煨	*xjwei/ < *hmjædx	: 煨 ^h hmai [mai] Cl "burn"
赫	*xa- < **hmragh?	: 赫 ^h hma: [ma:] Bl "scared" ³⁵
撫	*xju/ < **hmjagx	: 撫 ^h hma: [ma:] Cl "beautiful" ³⁶

Voiceless initial hm [m] in the TH forms here makes a strong corroboration for the hypothesis that MC *x in some cases evolved from OC **hm. Altogether we have 7 examples of such correspondences.

The problem of initial *x- alternating with *m- has been examined by Tung T'ung-ho (1948). In hsiéh-shēng series, initial *x- frequently shows contacts with *m-, for example 忽 *xuæt "careless, confused" and 勿 *mjuæt "negative imperative," etc. Karlgren (1940) in order to account for these instances reconstructed the cluster **xm-, whereas Pulleyblank (1962:135) proposed instead an aspirate **mh- by arguing that "as far as the phonological system is concerned, it is certainly preferable to associate the unvoiced nasals with the aspirates rather than with the unaspirated surds." Tung T'ung-ho (1948) who examined at great length this problem of initial *x- alternating with *m- considered the initials in those cases as having come from a voiceless nasal in OC and wrote it as **m̥-. Li (1971) adopted Tung's reconstruction and wrote this sound as **hm because he believed also that the voiceless nasal originally may have had a prefix which caused devoicing of the nasal element. Generally, OC **hm- became hó-k'ǒu *xu- or *xw- in MC; however, a few cases exist where it became k'āi-k'ǒu, such as the second example cited above.

The correspondence of *x- and *m- to TH *hm- (cf. section IV.1.4.) remains a problem which needs to be solved.

IV.7.5.b. *x : h[h]

- 訶 *xâ : 𐄢𐄣 ha: [ha:] A1 "scold, blame"
 漢 *xân- : 𐄢𐄣 ha:n [ha:n] A1 "brave"
 烘 *xung : 𐄢𐄣 hun [hun] A1 "to cook; refine (gold, oil)"
 許 *xjwo/ : 𐄢𐄣 hai [hai] C1 *h-, *hŋ- "give; have (someone do something)"

The character 許 belongs to the group of words where initial *x- alternated with *ng- and was posited as originating from OC **hng-, 訶 **hngjagx (Li 1971). As for the word [hai] C1 in TH, its initial consonant has been reconstructed as *h-, but Li (MS) stated that the ultimate origin of PT *h- may be a voiceless nasal because words with initial *h- usually alternated with ŋ- in dialects such as Sui. For instance, the word for "five" is ha: C1 in Thai, but no C2 in Sui, "goose" is haan B1 in Thai, but nan B2 in Sui, "to shut" is hap D1 or nap D2 in Thai, nap D2 in Sui, "to turn up the face, look up" is nae:n A1 (spelled with hŋ-) in Thai, but hen A1 in Shan, etc. If PT *h- does go back to *hŋ-, then the tendency in TH is to keep the voiceless h- and drop the nasal.

IV.7.5.c. *x : hy[y]

- 謔 *xjak : 𐄢𐄣 hy:k [yɔ:k] D1 "to jest, make fun of"

IV.7.5.d. *x : kh[kh]

- 秣 *xâu- : 𐄢𐄣 kha:u [kha:u] C1 *x- "rice, grain"

This word in Thai was written 𐄢𐄣 xau C1 in the stone inscription of King Ram Kamhaeng. The initial 𐄢 x [kh] which has

now become obsolete suggests that this syllable goes back to PT *x- as reconstructed by Li (MS).

IV.7.5.e. *x : gw[khw]

熏 *xjwən : ก๊วน gwan [khwan] A2 *ɣw- "smoke"

IV.7.5.f. *x : h[h]

休 *xjəu < **xjəgw : หู hu:k [huk] D2 "owl"

IV.7.6.a. *ɣ : g[kh]

挾 *ɣiep < **giap : เข็ม gi:ʔb [khi:p] D2 "to clasp, hold
(with forceps,
tongs, etc.)"

盍 *ɣâp < **gap : กาฬ ga:ʔb [kha:p] D2 "join, interlocking"

鹵咸 *ɣām < **grəm : เข็ม gem [khem] A2 *g- "salty"

Li (1971) suggested that MC *g- and *ɣ- originated from OC **g- because of the complementarity between these two initials in MC. That is, MC *g- occurred only before the third division finals, whereas *ɣ- occurred with the finals of the other three divisions but not those of the third division. To account for this complementarity, Li set up the rule of change that OC **g- when followed by medial -j- developed into MC *g-, otherwise it became MC *ɣ-. The fact that *g- and *ɣ- are complimentary is confirmed by the additional evidence from TH correspondence, i.e. both initials correspond to g [kh] in Thai. There are altogether 11 cases of MC *ɣ corresponding to TH g [kh].

IV.7.6.b. *ɣ : gr[khr]

毫 *ɣâu < **gəgw : เกรว grau [khrau] A2 "beard"

This word in Chinese means "hair, soft hairs on the body," whereas the meaning in Thai is restricted to "beard." No

cluster is reconstructed for the initial of the Chinese character because of lack of internal evidence.

IV.7.6.c. *ɣ : kh[kh]

脛 *ɣieng- : ມັງ khæ:ŋ [khæ:ŋ] Cl *ɣ- "shin"

The word in TH has an older spelling which is preserved in the stone inscriptions of the thirteenth century ມັງɣæ:ŋ B2. The old Thai orthography with tone B2 agrees with the word for "shin" in all other Tai dialects (Li MS). The current TH spelling is a secondary development since the letter ມັງ [kh] has become obsolete.

IV.7.6.d. *ɣ : khw[khw]

魂 *ɣuən : ຈັງ khwan [khwan] Al *xw- "spiritual soul"

懸 *ɣiwen : ມັງ khwæ:n [khwæ:n] Al *xw- "suspend, hang"

橫 *ɣwong : ຈັງ khwa:ŋ [khwa:ŋ] Al "crosswise"

The fact that the MC medial -u- and -w- correspond to a labio-velar initial combination in TH corroborates Li's (1971) OC reconstruction of **gw- for MC *ɣ + -w-.

IV.7.6.e. *ɣ : h[h]

闔 *ɣâp : ພັ haʔb [hap] D1 *h "shut, close"³⁷

紅 *ɣung : ພງ hŋ [hoŋ] Al "orange-red"

還 *ɣwan : ພວ huan [huan] Al "come back again"

We have 5 cases of "irregular" correspondence between MC *ɣ and TH h [h].

IV.7.6.f. *ɣ : r[r]

咸 *ɣām : ຈຳ rɔ:m [rɔ:m] A2 "gather together (all the different pieces or members)"

This word has a related form ພຳ hɔ:m [hɔ:m] Al, and

both words appear only in the synonym compound เก็บหอมรอมริบ [kep]
D1 - [hɔ:m] A1 - [rɔ:m] A2 - [rip] D1; each of the four words
means "to collect, gather together."

IV.7.6.g. *ɣ : w[w]

話 *ɣwaĩ- : ɿ wa: [wa:] B2 "to say, speak"

IV.7.7.a. *ʔ : ʔ[ʔ]

要 *ʔjäu : ɿ ʔau [ʔau] A1' "to want"

措 *ʔâm/ : ɿ ʔɔ:m [ʔɔ:m] C1 "to cover, encircle with the
arms"

屋 *ʔuk : ɿ ʔk [ʔok] D1 (see discussion below for
meaning)

Altogether we have 18 cases of MC *ʔ corresponding to TH
ʔ[ʔ]. The meaning "to cover" of the second example above has
been retained in the term ผ้าอ้อม [pha:] C1 - [ʔɔ:m] C1 "infant's
breech-cloth used to cover the baby's lower back."

The word [ʔok] D1 in the last example is an interesting
case. TH has the term อกไก่ [ʔok] D1 - kai [kai] B1 "the hori-
zontal line of a house roof top." The Thais always puzzle over
this binom. Since the word [ʔok] D1 in TH now has only the
meaning "breast" and [kai] B1 "chicken," the interpretation of
[ʔok] D1 - [kai] B1 is made that the ridge of a house has been
called "chicken breast" because of its resemblance to the breast-
bone of a fowl. Actually, the whole term might have been an
archaic form of which the significance was lost. I think that
this term may have been related to the Chinese 屋架 "framework
of a house," 屋 *ʔuk : [ʔok] D1 and 架 *ka- : [kai] B1.
Thus, the word [ʔok] D1 in TH may have originally meant "house"

and [kai] B1 "frame, framework; to lay on a frame."

IV.7.7.b. *? : ?y[y]

於 *?jwo : 𠵿 ?yu: [yu:] ?y- B1 "stay, be, at"

IV.7.7.c. *? : y[y]

幼 *?jëu- : 𠵿 yau [yau] A2 "young"

IV.7.7.d. *? : ?d[d]

飲 *?jəm- : 𠵿 ?du:m [du:m] B1 "to drink"

IV.7.7.e. *? : r[r]

蔭 *?jəm- : 𠵿 rm [rom] B1 *?dr- "shade, shady"

IV.7.8.a. *j : g[kh]

運 *juən- < **gwjanh : 𠵿 gwan [khwan] B2 "twirl or twist
(strands of cord together)"

迂 *ju < **gwjag : 𠵿 gɔ:k [khɔ:k] D2 "bend, distorted
(of arms)"

The correspondence here between TH gw- [khw-] or g- [kh-] and MC *j-³⁸ seems to corroborate the OC reconstruction of **gw- for MC *j-. The problem of complementarity between *g- and *j- has been examined by Li (1971). He agrees with Tung (1948) that initials *ɣ- and *j- are complementary; but he further states that both initials, in turn, are complimentary with *g-, whereas Tung reconstructs *g- as **gh-. Li regards *j- as evolving from a voiced labio-velar *gw + j and *g- from a non-labio-velar *g + j. His rules of change are that **g- before Divisions I, II, and IV evolved into *ɣ-; and before Division III, *gw + j became *jw; otherwise **gw- became *gjw- (see also sections IV.7.3. and IV.7.5.).

IV.7.8.b. *j : v[f]

運 *juən- : 運 van [fan] B2 "twirl, twist (strands of cord together)"

佑 *jəu- : 佑 vwa:a [fwa] B2 "assist, render assistance"³⁹

疣 *jəu- < **gwjəgh : 疣 vk [fok] D2 "swelling, swollen"

The TH word in the first example is a variant form of the TH word gwan [khwan] B2 "twirl or twist (strands of cord together)" in the preceding section. In Thai, words that are spelled with initial cluster gw- [khw-] sometimes are colloquially pronounced with the sound v- [f] instead, e.g. 𐄢𐄢𐄢 gwa:y [khwa:i] A2 ~ [fa:i] A2 "buffalo," 𐄢𐄢𐄢 gwa:m [khwa:m] A2 ~ [fa:m] A2 "subject, topic, lawsuit," 𐄢𐄢𐄢 gwan [khwan] A2 ~ [fan] A2 "smoke," etc. Normally, the colloquial pronunciations are considered those of unlettered men and are not acceptable. But the case of gwan [khwan] B2 and van [fan] B2 is an exception. In fact, the latter form has become current and is listed in dictionaries, while the former one is becoming obsolete and is found only in old dictionaries (MacFarland 1954).

It is possible that MC *j- which originally came from OC **gw- as suggested by Li (1971), might have become **v- at one point, probably some time before or around the Nan-Pei-ch'ao period.

IV.7.8.c. *j : w[w]

迂 *ju < *gwjag : 迂 wk [wok] D2 "to bend; deflected;

𪛗 *juən- < **gwjənh : 𪛗 wun [wun] B2 "ravelled, perplexing, in confusion"

圓 *jwiän < **gwjan : 圓 wi:an [wian] A2 "revolve, en-

circle; circle"

炎 *jäṃ < **gwjam : 𐄢𐄣 wæ:m [wæ:m] A2 "brilliant, glowing
(of fire)"

燁 *jäp < **gwjap : 𐄢𐄣 wæ:p [wæ:p] D2 "glittering,
flashing"

The correspondence of MC *j- to TH w[w] may derive from the possibility that the first consonant of the cluster **gw- was dropped, and only the rounded element **w- was kept.⁴⁰

The TH words in the last three examples above all have a variant form. The word [wian] A2 has as synonym 𐄢𐄣 [won] A2 "rotate, spin around," and the compound [won] A2 - [wian] A2 means "to circle, whirl, go round in a circle."

The word [wæ:m] A2 always occurs in the synonym compound 𐄢𐄣𐄢𐄣 [wɔ:m] A2 - [wæ:m] A2 "brilliant, glowing (of fire)." Similarly, the word [wæ:p] D2 normally occurs in the disyllabic compound 𐄢𐄣𐄢𐄣 [wæ:p] D2 - [wap] D2, meaning "glittering, flashing."

IV.7.9.a. *ji : r[r]

余 *jiwo < **rag : 𐄢𐄢 ra: [ra:] A2 *r- "we two"⁴¹

豫 *jiwo- < **ragh : 𐄢𐄢 ra: [ra:] B2 "joyful, cheerful,
merry"⁴²

移 *jiē < **rig : 𐄢𐄢 re: [re:] B2 "wander about, move,
changeable"⁴³

Li (1971) noted that Division IV initial *ji- was very similar to *zj- (< **rj-). It frequently alternated with dental stops and *zj-, for example 余 *jiwo alternated with 途 *duo "road" and 徐 *zjwo "walk slowly, slow, gently," etc. Moreover,

characters with initials *ji- sometimes have another reading with initial *zj-, such as 羊 *jang was also read *zjang, etc. Based on these facts and one other clue that initial *ji- used to represent l- in Han time transcriptions and is represented by r- in Proto-Tai (Li 1945), Li believed that *ji- was very close to r- or l-, and tentatively reconstructed MC *ji- as OC**r-.

The correspondence of MC *ji- to TH r[r] as cited above supports well Li's OC reconstruction. Altogether there are 7 cases of such correspondence.

IV.7.9.b. *ji : l[1]

羊 *jiang < **rang : เลียง li:ang [lian] A2 "goat, antelope"⁴⁴

逸 *jiēt < **rit : เล็ด le?d [let] D2 "escape artfully or adroitly"⁴⁵

延 *jiän- < **rjianh : เลื่อน lu:an [luan] B2 "delay, extend, postpone"

Altogether we have 7 examples of MC *ji- corresponding to TH l[1].

IV.7.9.c. *ji : hl[1]

餘 *jiwo < rag : เหลือ hlwa [lua] A1 *hl-"left over, surplus"
 酉 *jiəu/ < rəgwx : เหล้า hlau [lau] C1 "liquor"

The two characters above both have contacts with either initial *s' or ts-; thus, with the additional evidence of the voiceless hl[1] correspondence of the TH forms, these characters probably can be reconstructed as **hl- or **hr- in OC.

The last example above [lau] C1 "liquor" here is linked with 酉 which in the oracle inscription is the drawing of a wine

jug. It has been noted that 酉 was originally the word for "wine or liquor," and that 酒 *tsjəu/ is an alternate development from the etymon 酉. In Chou inscriptions, 酉 is used to mean "wine," e.g. shuài i yü yü 率肆于酉 "altogether profli-gated in wine" (Kuo 1957:9).

That 酉 *jiəu/ probably had an initial **l- or **r- has been ascertained from certain Han works in which this character is glossed 老 *lâu/ or 留 *ljəu (Li 1945), and also from the fact that this word was borrowed into Tai and Tai used initial r- to represent the initial of 酉 *jiəu/ (Li 1945).

IV.7.9.d. *ji : ?d[d]

融 *jiung < **rjəng : 𩰫 ?dɿ [dɿ] A1' "dry (rice) over a fire after having boiled it and drained off the water"

蟬 *jiě:n < **rin : 𧈧 ?duan [duan] A1' "earth-worm"⁴⁶

埏 *jiän < rjian : 𡗗 ?da:n [da:n] A1' "boundary, limit"

IV.7.9.e. *ji : y[y]

勇 *jiwong : 𧈧 yɿ [yɿ] A2 "brave"

蠅 *jiəng : 𧈧 yun [yun] A2 *n- "mosquito"

樣 *jiang- : 𧈧 yi:an [yian] B2 "pattern"⁴⁷

IV.7.9.f. *ji : hy[y]

藥 *jiak : 𧈧 hyu:k [yu:k] D1 "medicine"⁴⁸

IV.7.9.g. *ji : ?y[y]

欲 *jiwok : 𧈧 ?ya:k [ya:k] *?y- D1 "to desire"

IV.7.9.h. *ji : ?[?]

艷 *jiäm- : เข้ม ?i:am [?iam] B1 "glossy, new"

IV.7.9.g. *ji : j[ch]

鉛 *jiwän : จีน jin [chin] A2 *j- "lead (metal)"

The TH form is an old Thai word. The initial j[ch] in TH is similar to that developed in Mandarin chiēn.

FOOTNOTES

¹This information was obtained from Professor Fang-kuei Li through a personal communication.

²This Chinese word appears in 劫貝 *kjɔp *pâi-, a transcription for Sanskrit kārpāsa "cotton," and was often cited to confirm the hypothesis that MC ch'ü tone originally came from a final consonant *-s (Pulleyblank 1962-3).

³Benedict (1942:591) mentioned that in view of the correspondences for "chicken" and "goose," it is somewhat surprising to find distinctive roots for "duck." He made such a statement because he linked the Thai word for "duck" with the Chinese character 鴨 *?ap. But Chinese has another character, the one we cited here: 鴨 *phjət. This character appears in Yü-p'ien 玉篇, the earliest dictionary through which the fǎn-ch'ieh readings were preserved (c. 543 A.D.), and also in Chí Yün 集韻 (1037 A.D.), a revision of the Kwǎng Yün 廣韻, and is glossed 鴨也 "it means ducks."

⁴The word bu:n [phu:n] C2 meaning "angry" never occurs alone in present day Thai, but always appears in the binom [phu:n] C2 - [sia] A1 meaning "to get angry."

⁵This word never occurs alone in TH. It is always paired with 𑖦𑖩𑖪𑖫 brɔ:m [phrɔ:m] C2 "ready," thus [phrak] D2 - [phrɔ:m] C2 means "prepared, ready."

⁶The meaning "to like, love, desire" of this word in Th has become almost archaic. It is preserved only in certain expres-

sions, namely mak [mak] D2 - gun [khun] C2 "to like and be closely acquainted with," [mak] D2 - ma:k [ma:k] A2 "love to gain or crave for plenty," [mak] D2 - no:y [no:i] C2 "be satisfied with the little one has." Now the word is commonly used in its derived meaning "generally, usually repeatedly prone to, liable to."

⁷Thai has no initial cluster ml-. Words spelled with ml- are pronounced by inserting an unstressed vowel a after the consonant m-; thus, ml- is pronounced [ma-l-].

⁸This word never occurs alone in this context. It always appears in the binom [mok] D1 - [mun] B2 "to be absorbed or occupied (with some duty), or to devote oneself exclusively (to the execution of some task).

⁹The Chinese word means "silk pendants on ceremonial caps," while the Thai word is applied to pendants in general, anything hanging, especially for ornament.

¹⁰In a personal communication, Professor Jerry Norman pointed out that in Chienyang 賭 is pronounced lo³ and 單 is luen⁹ (for the phonetic values of the tones in Chienyang see Norman 1973). His reconstruction of *-t for Proto-Min means that there might have been some kind of onset before *-t.

¹¹This word in Chinese means "to swallow." In Thai it means "to drink" and is now used only in a couple of expressions, namely [thun] A1 - ya: [ya:] A2 "to drink a solution of a drug" and [thun] A1 - fin [fin] B1 "to drink opium dissolved in water."

¹²This word with tone A2 has become obsolete in TH, the current form is *daŋ* [thaŋ] C2. However, the form with tone A2 is preserved in the Thai inscriptions of the 13th century. All other Tai dialects also have the word with tone A2 (Li 1973). Thus, the form with tone C2 in TH is a late and secondary development.

¹³This word is pronounced by some native speakers as if it were spelled with a short vowel [thæu].

¹⁴There might be a possibility of a voiceless nasal initial for this character. In a personal communication, Professor Paul Serruys mentioned that the phonetic of this character is 𠂔 *ljək and that one might reconstruct initial **tl- for 𠂔 because the character was originally the picture of a plough. That the word for "plough" might have had an initial cluster in the proto-language is suggested by the corresponding TH form ໂ [thai] A1 "plough, to plough" which came from the PT initial *thl- (Li 1973).

¹⁵In a personal communication, Professor Paul Serruys pointed out to me that this character is an older form of 尿 *nieu-. The word 尿 appears only in Shuō-wén, but in all other pre-Han texts it was always 溺. Indeed, they are the same word having the same rime and the same reading.

¹⁶The word [cua] A1' appears only in the synonym compound 𠂔 [cun] A1' - [cua] A1' "to aid, assist."

¹⁷Some other Tai dialects, such as WT, BT and Shan, have initial *c- for this word (Li MS).

18 This character has two readings: *dzuo/ or *tshuo. The latter is more common, but we chose the former reading because it corresponds better to the TH form.

19 This word in TH has a related form ^๓ซึ zi:k [si:k] D2 "a piece, part, or half."

20 This word occurs in the synonym compound ^๓ทึตสอยห้อยตาม [tit] D1 - [so:i] A1 - [ho:i] C1 - [ta:m] A1' "to follow closely."

21 This word in TH has a cognate ^๓ท thk [thok] D1 "to pull up."

22 This character has two readings: one with p'ing tone and the other with ch'ü tone (KY 1969:270).

23 This character has also a reading with p'ing tone (KY 1969:589).

24 The Chinese character ^๓中 in Tsǒ Chuàn is used as loan for "regular fine teeth" (Karlgren 1957). This word in TH has a related form ^๓จัก cak [cak] D1 meaning "cut into teeth, produce serrations."

25 This word occurs only in the binom [sum] A1 - [thum] A2 "grove, thicket."

26 In the stone inscription of King Ram Kamhaeng, this word is spelled ^๓โสง so:ŋ [so:ŋ] A1.

27 This word in TH is used only in a few expressions, e.g. ^๓น้ำส้ม [na:m] C2 - [som] C1 "vinegar (lit. sour water)," ^๓แกงส้ม [kæ:ŋ] A1' - [som] C1 "a kind of sour soup," etc. The common word for "sour" is ^๓เปรี้ยว [priau] C1.

This Chinese character for "sour" is a rare word. It appears only in Chí Yùn, Kuǎng Yùn and Kuǎng Yǎ 廣雅 (Morahashi Vol. 11.391).

28 This word has an older form จ้าว ca:w [ca:u] C2 appearing in old Thai literature.

29 This word occurs in the expression เกลี้ยวเพี้ยน [ke:k] D1 - [ma] D2 - [re:k] D1 "wicked, perverted."

30 This word occurs only in the compounds ลายลือ [la:i] A2 - [su:] A1 "script" and พับลือ [naŋ] A1 - [su:] A1 "books, written documents."

31 This word appears in the synonym compound รุจัก [ru:] C2 - [cak] D1.

32 This character has two readings: with p'íng tone it means "to gather," with ch'ù tone it means "harvest" (Downer 1959:276).

The TH word has a cognate form เกี้ยว gi:aw [khiau] A2 "sickle."

33 This character has two readings: *ń'juk "meat, flesh," and ń'jəu- "fleshy" (Karlgren 1957:270). Here we chose the latter form because it corresponds well to the TH form.

34 This word appears only in the synonym compound งมงาย [nom] A2 - [nə?] D2 "stupid"

35 This word occurs only in the binom [pra?] D1 - [ma:] B1 "scared."

36 This is an old Thai word, used mainly in verse.

37 This word has a cognate in TH จัฏ ɲaʔb [ɲap] D2. In Sui

it is also nap D2 (Li MS). Thus, its initial might go back to a voiced consonant.

³⁸Following Li's (1971) modification of Karlgren's MC system, we write *j- for the third division 喻 yü and *ji- for the fourth division 喻 yü.

³⁹This word has become obsolete in TH. It is preserved in the inscriptions of the Sukhothai period (Coedès 1924) in the synonym compound ชวนเพ็ดเพ็ด [chuei] B2 - [nua] A1 - [fua] B2 - [ku:] C1 "render assistance."

⁴⁰In a personal communication, Professor Jerry Norman pointed out to me that Sino-Vietnamese represents MC *j- with v-, e.g. 袁 in Sino-Vietnamese was viên. He also remarked that MC *j- behaves like the labial sets; Li Jung's table (1952) shows that in those rimes that lack labial initials, MC *j- also cannot be found, e.g. rimes chih 之, yü 魚, etc. Thus, it is possible that MC *j- might have come from labials instead of a labio-velar as suggested by Li (1971).

⁴¹This is an old Thai word, now preserved in classical Thai poetry.

⁴²This appears in the synonym compound ร่าเริง [ra:] B2 - [rə:ŋ] A2 "joyful, cheerful, merry, jolly."

⁴³The meaning "changeable" appears in the expression ใจแปร [cai] A1' - [re:] B2 - [rɔ:n] B2 "changeable in disposition."

⁴⁴The word occurs in the binom ลิ้นจี่ [lian] A2 - [pha:] A1 "goat, antelope."

⁴⁵This word appears in the synonym compound เล็ดลอด [let] D2 - [lɔ:t] D2 "to escape artfully or adroitly."

⁴⁶As in the binom ไส้เดือน [sai] C1 - [dwan] A1' "earth-worm."

⁴⁷This word appears in the synonym compound เที่ยงอย่าง [yianɯ] B2 - [ya:ŋ] B1 "pattern, sample."

⁴⁸The word occurs in the synonym compound พญูษา [yu:k] D1 - [ya:] A2 "medicine."

CHAPTER V

FINAL CORRESPONDENCES

This chapter will present the Sino-Thai final correspondences. In studying these correspondences, we shall use the finals of MC rime groups as the basis of comparison.

Under each rime group, we shall first give the MC rimes with their traditional rime names in Chinese characters, followed by Karlgren's reconstruction, and their TH final correspondences. It should be noted, however, that we do not have examples for every rime, and for some rimes only one or two examples have been found.

V.1. Rime Group kuǒ 果

V.1.1.a. 歌 *a : a:[a:]

訶, 呵 *xâ : ɰa ha: [ha:] A1 "blame, accuse"¹

V.1.1.b. 歌 *a : ai, a:y[ai, a:i]

大 *dâ- < **darh : ɰai dai [thai] A2 "great"

那 *nâ < **nar : ɰai hnai [nai] A1 "how, which, where"

馱 *dâ < **dar : ɰai da:y [tha:i] A2 "to carry"³

舵 *dâ/ < **darx : ɰai da:y [tha:i] C2 "sternpost"⁴

Here it is possible that final -i in the TH form may have evolved from a final consonant, namely -r of OC rime 歌. In actuality, as Li (1971) pointed out, the 歌 group does contain words with final -i or -ï, e.g. 差 *t̚sha, *t̚shaï, *t̚shăi, 駟 *kwa, *kwai, 大 *tâ-, *tâi-, etc. Li suggested that, parallel to the evolution of final *-i from OC **-dh of rime group 祭, the -i or -ï words of 歌 may have developed from the final

consonant ***-r* which had long since been lost by the CY times.

Listed below are two cases of irregular final correspondences which we wish to keep for further consideration.

羅 *lâ : 𐀓 hæ: [hæ:] A1 "a cast-net"

佐 *tsâ- : 𐀓 cwa [cwa] A1' "aid, assist"⁵

V.1.2. 戈 *jâ : 𐀓 wa[wa]

茄 *gâ : 𐀓 khua [khua] A1 "eggplant"

This word in TH always appears in the term 𐀓 [ma?] D2 - [khua] A1 "eggplant." The syllable [ma?] D2 is a contracted form for 𐀓 hma:k [ma:k] D1 "the fruit of a tree," and generally is prefixed to the names of fruits of various kinds. This contracted form came into existence only after the thirteenth century A.D. In the stone inscription of King Ram Kamhaeng, it appears in front of fruit names in its full form [ma:k] D1.

The only example we have for this rime is also the only common word in this rime in Chinese. Therefore, the question of whether the correspondence here is regular is one that cannot be definitely answered.

V.1.3.a. 戈 *uâ : a:[a:]

坡 *phuâ : 𐀓 pha: [pha:] A1 "rocky hills, slope"

破 *phuâ- : 𐀓 pha: [pha:] B1 "split, cut"

科 *khuâ : 𐀓 kha: [kha:] A1 "class, group, line"

過 *kuâ- : 𐀓 kwa [kwa:] B1 "more, than"

The regular correspondence of MC *-uâ to TH [a:] confirms Li's (1971) belief that there existed no hó-k'ǒu medial during the OC period. He noted that rimes -uâ and -â were not distinguished as two separate rimes in the CY. This is here clearly

illustrated by the fact that MC -â and -uâ both correspond to [a:] in TH.

Actually, the majority of hó-k'ǒu syllables was derived from the influence of labial initials in combination with the following vowel on one hand, and from the changes in labio-velar initials on the other hand (Li 1971). The initial cluster kw- of the TH form in the last example cited above shows that the rounded element belongs to the velar initial, not to the vowel.

Final [a:] of the words [pha:] A1 and [pha:] B1 in TH points to the fact that k'āi-k'ǒu and hó-k'ǒu are not distinguished after labial initials in CY. Syllables with labial initials in rime -uâ are placed in CY under rime -â. Their fǎn-ch'ieh spellers in most cases have a k'āi-k'ǒu syllable for the second members; thus, these words are generally regarded as k'āi-k'ǒu (Li Jung 1952, Li 1971). The placing of these words in rime -uâ occurred only after the KY had substituted hó-k'ǒu syllables for the second members of the fǎn-ch'ieh spellers that were k'āi-k'ǒu. Since Karlgren based his MC system on KY, he then followed the classification of KY and reconstructed them as two separate rimes, namely -â and -uâ. Actually, the falling of these words into the hó-k'ǒu class was a comparatively late phenomenon (cf. section V.1.3.b. below).

V.1.3.b. 戈 *uâ : o: [o:]

磨 *muâ- : 𪛗¹ mo: [mo:] B2 "to grind"

鎖 *suâ/ : 𪛗¹ zo: [so:] B2 "chains, fetters"

We have two examples of MC *-uâ corresponding to TH -o: [o:]. These might be loans from Chinese into Thai from MC.

One of the two examples above has a labial initial and this seems to indicate the possibility that the rounded vowel evolved from the labial initials in combination with the following vowels, namely -u, -o, -ə (when -ə is not followed by -ng or -k), and â, â̂ (Li 1971). As for the case of -â and -â̂, the so-called rounded labials of the pre-CY period occurred only when -â and -â̂ were not followed by -ng, -k, or -u, e.g. **pâ > p^wâ > *puâ (rime 戈), **pâi > p^wâi > *puâi (rime 灰), etc. Also, a tendency toward rounding existed when labials occurred before medial -j- that was not followed by -i, except in the rime 宵 *-jäu.

V.2. Rime Group chia 假

V.2.1.a. 麻 *a : a: [a:]

牙 *nga : ɲa: [ɲa:] A2 "tusk; ivory"

馬 *ma/ : ̃ma: [ma:] C2 "horse"

價 *ka- : ɳga: [kha:] B2 "price"

Altogether we have found 9 examples (see also no. 48, 122, 189, 284, 323, and 454 in VII.2.) of MC *-a corresponding regularly to TH a: [a:]. Thus, the Division II rime 麻 -a has the same correspondence in TH as that of the Division I rime 歌 -â. This fact seems to corroborate Li's belief (1971) that the vowels of Divisions I and II rimes are the same, that in OC there existed no difference between the two divisions as thought by Karlgren and others. There should not have existed any vocalic distinction between the so-called lax and tense or long and short, or words from these two divisions would not have frequently rimed together in archaic riming. Consequently, Li

posited that Division II rimes differed from Division I in that Division II rimes had a medial -r- (cf. IV.1.1.b.).

V.2.1.b. 麻 *a : ai[ai]
 架 *ka- < **krarh < : 𠵿 kai [kai] B1 "ridge or framework of a house"

We have only one such correspondence; however, it is possible that final -i in the TH form here may have evolved from a final consonant, namely -r of OC rime (cf. V.1.1.b.).

V.2.2. 麻 *ja : 𠵿a[ua]
 賈 *dzja- : 𠵿 𠵿ua [chua] B2 "buy on credit"⁶
 V.2.3. 麻 *wa : a:[a:]

瓜 *kwa : 𠵿 𠵿wa : [kwa:] A1' "small cucumbers"

The cluster initial kw- in TH again illustrates that hó-k'ǒu was derived on one part from labio-velar initials (cf. the above V.1.3.a.).

V.3. Rime Group yü 遇

V.3.1.a. 模 *-uo : a:[a:]
 塗 *duo < **dag : 𠵿 da : [tha:] A2 "to paint, smear"
 五 *nguo/ < **ngagx : 𠵿 ha : [ha:] C1 "five"
 布 *puo < **pagh : 𠵿 pha : [pha:] C1 "cloth, clothing"

MC *-uo is a case in which the hó-k'ǒu was a subsequent development. This rime came originally from the k'āi-k'ǒu **ag of the OC 魚 category. As noted by Li (1971), the MC final in this rime was influenced by the final ending **g. In the Western Han (hereafter WH) period (206-24 B.C.), final **g had weakened phonetically, and by the Wei-Chin (hereafter WC) times (208-478 A.D.), the dropping of **g had already

begun, i.e. **ag changing to -aĩ had developed into WC -o, and finally became *-uo in the MC period (Ting 1972). The final correspondence [a:] in the TH forms for this rime reveals a very old date. It can be dated back to the stage when final **g was phonetically very weak, but before it had influenced the main vowel, probably some time during the Eastern Han (hereafter EH) period (25 B.C. - 207 A.D.). Altogether we have (see also no. 49, 50, 191, 202, 256, 309, 389, 390, 450, 544, 545, and 546 in VII.2.) found 15 examples of MC *-uo corresponding to TH [a:].

V.3.1.b. 模 *-uo : ak, a:k[ak, a:k]

慕 *muo- < **magh : 𪛗 mak [mak] D2 "to love, like"

顧 *luo < **blag : 𪛗 pha:k [pha:k] D1 "forehead"

Here the TH finals differ from those of the preceding section, because they correspond not to MC, but to OC. The consonant ending of the TH forms corresponds to the OC final **ag of this rime.

V.3.1.c. 模 *-uo : a?[a?]

補 *puo/ < **pagx : 𪛗 pa? [pa?] D1 "to mend"

The glottal stop ending of the TH final probably has to do with the shǎng tone (cf. the section on tone VI.2.1.e.).

V.3.1.d. 模 *-uo : o:[o:]

櫓 *luo/ : 𪛗 lo: [lo:] C2 "to row using an oar"

For the WC period, this rime was reconstructed by Ting (1972) as -o.

V.3.1.e. 模 *-uo : o.k[o:k]

祚 *dzuo- < **dzagh : 𪛗 jo:g [cho:k] D2 "luck, lot"

- V.3.1.f. 模 *-uo : ɔ:[ɔ:]
 訴 *suo- : ʃɔ sɔ:[sɔ:] B1 "accuse, slander"⁷
 V.3.2.a. 魚 *-jwo : a:[a:]
 驢 *ljwo < *ljag : ʌ la:[la:] A2 "ass"
 躊 *djwo < **drjag : ɾɾ ra:[ra:] A2 "undecided, pro-
 crastinate"
 豫 *jiwo- < **ragh : ɾɾ ra:[ra:] B2 "joyful, cheerful,
 merry"

The TH final [a:] in this correspondence reveals that MC *-jwo came from OC 魚 category for which the main vowel was *-a (Li 1971).

Interestingly, the five examples (see also No. 385 and 386 in VII.2.) we have of MC *-jwo to TH [a:] all have dental initial r- or l-. The fact that medial -j- here completely submerged might be a kind of assimilation since j- is phonetically close to r- or l-.

- V.3.2.b. 魚 *-jwo : u:[u:]
 渠 *gjwo : ŋ gu:[khn:] A2 "canal, moat"
 舉 *kjwo/ : ŋ ku:[ku:] C1 "left, raise"
 於 *?jwo : ɳɳ ?yu:[yu:] B1 "be at, stay"

Final [u:] as it is in the TH forms might have evolved from the effect of medial -j- on the vowel, i.e. -j- caused the vowel -o to move higher into -u or -u.

- V.3.2.c. 魚 *-jwo : ʉs[ʉs]
 書 *śjwo : ʃɳ su:[su:] A1 "script, graph"

Here the development of MC final into a simple vowel is similar to the situation in Cantonese. Chang Kun (1971:203-4)

noted that in Cantonese certain vowels plus medial -j- have developed into simple vowels, e.g. *-jwo > ø, *-jäm > im, *-jän > in, etc.

V.3.2.d. 魚 *-jwo : ɯsa[ɯa]
 緒 *zjwo/ : 緒 ɟɯsa [chɯa] C2 "line of succession"
 餘 *jiwo : 餘 hlɯsa [lɯa] A1 "be left over, surplus"

V.3.2.e. 魚 *-jwo : ɐi[ai]
 許 *xjwo/ < **hngjagx : 許 həi [hai] C1 "give, have
 someone do some-
 thing"

According to Li's (1971) assumption, OC -g was vocalized into -i and became -ɐi in a later stage. The TH final seems to reflect the stage when OC -g had already been vocalized.

In addition, we have a case of irregular final correspondence as follows:

助 *dzjwo- : 助 ɟɯay [chuei] B2 "help, assist"
 V.3.3.a. 虞 *-ju : a:[a:]
 扶 *bjju < **bjag : 扶 ba:[pha:] A2 "take along"
 撫 *xju/ < **hmjagx : 撫 hma:[ma:] C1 "beautiful"

The two characters belong to the part of MC rime -ju that came originally from OC -jag of the 魚 category. The TH correspondence [a:] reveals the lost k'äi-k'ou quality of these words.

V.3.3.b. 虞 *-ju : ua[ua]
 夫 *pju < **pjag : 夫 pua[pua] B1 "male, man"
 V.3.3.c. 虞 *-ju : ɯak[ɯak]
 膚 *pju < **pljag : 膚 plɯak [plɯak] D1 "bark, shell"

V.3.3.d. 虞 *-ju : ok[ok], ɔ:k[ɔ:k]

務 *mju- < **mjugh : 𠂔 hm̩k[mok] D1 "devote one's
attention exclusively
to"

霧 *mju- < **mjugh : 𠂔 hm̩ɔ:k [mɔ:k] D1 "fog"

It should be noted that the rounded vowels of the TH forms in this section are in contrast to the unrounded vowel of the TH word in the preceding section, i.e., [o] and [ɔ:] in contrast to [ua]. The difference in the TH finals seems to reflect the different origin of these Chinese words: 膚 came from OC 魚 -ag category, whereas 務 and 霧 were from OC 侯 -ug category.

V.3.3.e. 虞 *-ju : au[au]

主 *tsju/ : 𠂔 cau [cau] C1 "master, lord"

柱 *dju/ : 𠂔 dau [thau] C2 "a prop, support"⁸

These two words belong to that part of rime *-ju that came from OC 侯 -ug category. The OC -u vowel might explain the final -u in the TH forms.

V.3.3.f. 虞 *-ju : ɔ:[ɔ:]

巫 *mju : 𠂔 hm̩ɔ: [mɔ:] A1 "sorcerer, doctor"

甗 *mju/ : 𠂔 hm̩ɔ: [mɔ:] C1 "pots, jugs"

株 *tju : 𠂔 tɔ: [tɔ:] A1' "stump (of a tree)"

躑 *dju : 𠂔 rɔ: [rɔ:] A2 "walk hesitatingly, undecided"⁹

As previously mentioned (cf. V.3.3.d.), MC -ju has two origins in OC, i.e., 魚 -ag and 侯 -ug. The evolution of these two OC rimes into one MC rime was reconstructed by Ting (1972) as follows:

魚 OC -jag < WH -jag > WC (-jaï) -jo > NPC -juo > MC -ju, and

侯 OC -jug > WH -juag > WC (-juaĩ) -juo > NPC -juo > MC -ju.¹⁰

Of the examples above, the first two belong to OC 魚 category, whereas the last two belong to that of OC 侯. However, they all correspond to TH final [ɔ:], suggesting that they might have borrowed from Chinese into Thai some time during the Nán-Pěi-ch'áo (hereafter NPC) period (479-589 A.D.) when the two groups merged into NPC -juo.

V.3.3.g. 虞 *ju : iw[iu]

膚 *pju : ũ phiw [phiu] A1 "skin"

As previously discussed concerning the double correspondence of this character in TH (cf. IV.1.1.c.), we have decided that the TH form with final [wak] was probably of genetic relation, whereas the one with final [iu] as shown above was borrowed from Chinese into Thai from MC.

V.4. Rime category hsièh 蟹

V.4.1.a. 咍 *-âi : ai[ai]

鯨 *lâi : lwa hlai [lai] A1 "eel"

袋 *dâi- : lǎn thai [thai] C1 *B2 "sack, bag"¹¹

開 *khâi : lǎ khai [khai] A1 "to open"

The first two words come from OC 咍 -ag category, whereas the last one belongs to the OC 微 -ad category. These words from the two different rimes began to merge in the NPC period (Ting 1972). The fact that they have the same final correspondence in TH may indicate that these words were borrowed from Chinese into Thai sometime during the NPC or MC period.

V.4.1.b. 咍 *-âi : a:y[a:i]

猜 *tshâi : ɰu da:y [tha:i] A2 "guess"

改 *kâi/ : 𢆈𢆈 kla:y [kla:i] A1 "vary, change"

V.4.1.c. 𢆈 *âi : 𢆈𢆈 wak[wak]

代 *dâi- < **dəgh : 𢆈𢆈 du:ak [thuak] D2 "lineage"

Here the TH final corresponds to that of OC.

V.4.2.a. 泰 *âi : a:y[a:i]

蓋 *kâi- : 𢆈𢆈 ka:y [ka:i] B1 "to cover (the forehead)"

害 *ġâi- : 𢆈𢆈 ha:y [ha:i] A1 "damaged"

V.4.2.b. 泰 *âi : a?d[at], a:ʔd[a:t]

𢆈 *dâi- < **dadh : 𢆈𢆈 da?d [that] D1 "experienced"

沛 *phâi- < **phadh : 𢆈𢆈 pha:ʔd [pha:t] D1 "observed,
indistinct"

V.4.3.a. 𢆈 *ăi : a:y[a:i]

齊 *dzăi : 𢆈𢆈 ra:y [ra:i] A2 "set, category, list"

V.4.3.b. 𢆈 *ăi : a:ʔd[a:t]

芥 *kăi- < **kriadh : 𢆈𢆈 ka:ʔd [ka:t] D1 "a kind of mustard
plant, vegetable"

The consonant ending in the TH final reveals that the TH form can be dated back to the stage prior to the MC period because the final ending -d of this rime dropped out only after the NPC period (Ting 1972).

V.4.4.a. 佳 *-aĩ : æ: [æ:]

𢆈 *baĩ : 𢆈𢆈 bæ:[phæ:] A2 "raft"

𢆈 *phaĩ- : 𢆈𢆈 phæ:[phæ:] B1 "branch off, spread out"

解 *kaĩ/ : 𢆈𢆈 kæ:[kæ:] C1 "untie, solve, interpret"

The TH correspondence seems to suggest that the final in this rime has been lowered from its earlier -e to -ɛ or -æ through the influence of a lost medial -r- (cf. IV.1.1.b.).

V.4.4.b. 佳 *-ai : əi[ai]

差 *tshai : ɿ̥^v jəi [chai] C2 "send (on an errand)"

V.4.4.c. 佳 *-ai : ai[ai]

牌 *bai : ɿ̥^v bai [phai] B2 "playing cards"

V.4.4.d. 佳 *-ai : i:a[ia]

罷 *bai/ : ɿ̥^v pli:a [plia] C1 "tired, worn out"

The TH final projects back to the earlier stage of this rime in EH or WC which has been reconstructed by Ting (1972) as -riei.

V.4.5. 夬 *-ai : a:y[a:i]

敗 *bai : ɿ̥^v ba:y [pha:i] B2 "be defeated"

Karlgren (1954) did not distinguish MC rimes 夬 from 佳 and reconstructed both rimes as *-ai. Although we have only one TH example, the final differs from that of rime 佳. According to the TH final correspondences, MC rime 佳 seems to be a simple vowel, i.e., the vowel æ, while MC rime 夬 has a vowel cluster a:i, which then merges with rimes 泰 and 皆, indicating that the finals of all three of these MC rimes probably possessed a vowel cluster ending in -i.

V.4.6.a. 祭 *-jǎi : i:a[ia]

泄 *jiǎi- : ɿ̥^v ri:a [ria] B2 "dribble, drip, strew, scattered"¹²

V.4.6.b. 祭 *-jǎi : i?d[it]

蔽 *pjǎi- < **pjiadh : ɿ̥^v pi?d[pit] D1 "cover, keep in ignorance"

V.4.7.a. 齊 *-iei : i:[i:]

第 *diei- : ɿ̥^v di: [thi:] B2 "order, sequel"

洗 *siei/ : 𣎵 si: [si:] A1 "rub, polish"¹³

v.4.7.b. 齊 *-iei : ai[ai]

梯 *thiei : 𣎵 ?dai [dai] A1 "stairs, steps"

犁 *liei : 𣎵 thai [thai] A1 "to plough"

雞 *kiei : 𣎵 kai [kai] B1 "chicken"

v.4.7.c. 齊 *-iei : a:y[a:i]

犁 *liei : 𣎵 hla:y [la:i] A1 "numerous, all"¹⁴

v.4.7.d. 齊 *-iei : i?d [it], i:ʔd[i:t]

計 *kiei- < **kidh : 𣎵 gi?d [khit] D2 "calculate"

契 *khiei- < **khiadh : 𣎵 khi:ʔd [khi:t] D1 "to notch,
scratch"

These two characters came from two different OC categories,
the first was of OC 脂**id, the second 祭**iad.

v.4.7.f. 齊 *-iei : ə:y[ə:i]

批 *phiei : 𣎵 bæ:y [phə:i] A2 "a remark in
parenthesis"

孺 *niei/ : 𣎵 nə:y [nə:i] A2 "an oily substance obtained
from milk"

The TH final seems to correspond to the reconstructed EH or
WC -iəi of these words (Ting 1972).

v.4.8.a. 灰 *-uəi : ə:y[ɔ:i]

退 *thuəi- : 𣎵 tho:y [tho:i]¹⁵ A1 "retreat"

v.4.8.b. 灰 *-uəi : ai[ai]

推 *thuəi : 𣎵 thai [thai] A1 "to push (cart)"

In Li's (1971) OC system, there was no hó-k'ǒu medial -u-
or -w-. He concluded that the MC hó-k'ǒu element was derived
primarily from the labial and labio-velars initials, and second-

arily from certain k'āi-k'ǒu rimes (cf. V.1.3.a.).¹⁶

V.4.8.c. 灰 *-uâi : uay[ui]

儂 *luâi- : ləu luay [luai] B2 "tired, worn out"¹⁷

V.4.8.d. *-uâi : oʔd[ot]

退 *thuâi- < **thədh : ʔn thʔd [thot] D1 "retreat"

The double correspondence of 退 into TH [thot] D1 and [tho:i] A1 as cited in a. above might be interpreted that the TH form [thot] D1 was genetically related to the OC **thədh; whereas the form [tho:i] A1 (see section b. above) was borrowed into Thai from MC.

The word [thot] D1 in TH never occurs by itself. The common word for "retreat" is [tho:i] A1. Occasionally the two words are coupled together and [thot] D1 - [tho:i] A1 means "retreat, withdraw." This phenomenon shows that an old native word is often replaced by a later loan. In most cases, TH, being monosyllabic, is able to preserve the native form by pairing it with the new loanword into a synonym compound.

V.4.8.e. 灰 *-uâi : ɔ:k[ɔ:k]

晦 *xuâi- < **hməgh : ʔn hmo:k [mo:k] D1 "obscured, dark"

This word belongs to the part of MC *-uâi which comes from the OC 之 **-əg category.

V.4.8.f. 灰 *-uâi : a:k[a:k]

背 *puâi- < **pəgh : ʔn ʔbæ:k [bæ:k] D1 "carry on the back"

As previously mentioned (cf. V.1.3.a.), k'āi-k'ǒu and hó-k'ǒu actually were not distinguished following labial initials in the CY. Li (1971:28-30) noted that the hó-k'ǒu descendants of the OC 之 -əg category were developed through the influence

of labial and labio-velar initials. So they are considered as having come from **-əg. Actually, the distinction between k'āi-k'ǒu and hó-k'ǒu words of this rime was made only when the initial was a velar.

V.4.9. 泰 *-uāi : uaʔd[uat]
 酹 *luāi- < **luadh : 𐑦𐑦𐑦 kruaʔd [kruat] D1 "make a libation"

This word belongs to the part of the OC 祭 category which was reconstructed with the vowel cluster **-ua by Li (1971) in order to account for the hó-k'ǒu that occurred with dental initials.

V.4.10. 佳 *-wāi : uy[ui]
 邁 *mwāi- : 𐑦𐑦 mui [mui] B2 "frowning, displeased"

V.4.11. 夬 *-wai : a:[a:]
 話 *ɣwai- < **gwradh : 𐑦𐑦 wa: [wa:] B2 "say, speak"

V.4.12. 祭 *-jwāi : uay [uei]
 稅 *sjwāi- : 𐑦𐑦 suay [suei] B1 "poll-tax"

V.4.13. 廢 *-iwui : ɔ:ʔd[ɔ:t]
 肺 *phiwui- < **phjadh : 𐑦𐑦 pɔ:ʔd [pɔ:t] D1 "lungs"

We have only one example each for the last five rimes, but these MC hó-k'ǒu rimes do not contain many words in Chinese either.

V.5. Rime Group chih 止

V.5.1.a. 支 *-(j)ie : e:[e:]
 枝 *tsie : 𐑦𐑦 ke: [ke:] A1' "go astray"
 提 *zie : 𐑦𐑦 de: [the:] A2 "throw"
 弛 *die/ : 𐑦𐑦 de: [the:] A2 "sloping, tilted"

移 *jiē : ʌ re: [re:] B2 "wander about; move, changeable"

Altogether we have found 4 examples of MC *-ie corresponding to TH e: [e:].

V.5.1.b. 支 *-(j)ie : i:[i:]

離 *liē : ʌ li: [li:] A2 "far, far apart"

抵 *tsiē/ : ʌ ti: [ti:] A1' "to beat"

騎 *gjiē : ʌ khi: [khi:] B1 "to ride on horseback"¹⁸

We have found 6 examples (see also No. 22, 199, and 404 in VII.2.) of MC *-(j)ie corresponding to TH i: [i:].

V.5.1.c. 支 *-(j)ie : i:k[i:k]

撕 *siē < **sjig : ʌn chi:k [chi:k] D1 "tear apart"

V.5.1.d. 支 *-(j)ie : e:k[e:k]

伎 *tsiē- < **skjigh : ʌn ke:k [ke:k] D1 "wicked, perverted"

The TH finals in c. and d. here correspond to the OC period. Some time during the transitional stage from OC to WH, the vowel *-i of the 佳 *-ig category broke to ie. By WH, the consonant ending *-g changed to *-i forming the WH 支 jieī rime and began having contacts with OC 歌 rime (Ting 1972:430). Thus, we can conclude that TH [chi:k] D1 and [ke:k] D1 must have been related to Chinese prior to the WH period, and the relationship probably is a genetic one.

V.5.1.e. 支 *-(j)ie : i:a[ia]

疲 *bjie : ʌ phli:a [phlia] A2 "tired, exhausted"

This character belongs to the part of MC 支 that came from OC 歌 *-jiar. The TH final reflects the vowel cluster *-ia of this character in its early stage, probably during Han times.

Words of this rime that were borrowed into Sino-Vietnamese around Han times also have final -ia in Vietnamese.¹⁹

V.5.1.f. 支 $^{*-(j)ie}$: æ[æ:]
 漬 $^{*dzie-}$: ʌ̃ jæ:[chæ:] B2 "to steep, soak"
 祇 *tsie : ʌ̃ tæ:[tæ:] B1 "but, only"
 掎 $^{*kje/}$: ʌ̃ kæ:[kæ:] B1 "to drag"²⁰

V.5.1.g. $^{*-(j)ie}$: əi[ai]
 是 $^{*zie/}$: ʌ̃ jəi [chai] B2 "to be so"

The TH final probably reflects the pre-MC period before the final ending $^{*-i}$ or $^{*-i}$, which developed from OC $^{*-g}$ (Li 1971), dropped out.

Cited below is a case of irregular final correspondence.

籬 $^{*lje} < ^{*ljar}$: ʌ̃ rua [rua] C2 "fence, hedge"

V.5.2.a. $^{*-(j)i}$: i:[i:]
 四 $^{*si-}$: ʌ̃ si:[si:] B1 "four"
 二 $^{*nzi-}$: ʌ̃ yi:[yi:] B2 "two"
 屎 $^{*si/}$: ʌ̃ khi:[khi:] C1 "dung"

Altogether we have found 6 examples (see also No. 58, 562, and 586 in VII.2.) of MC* $^{-(j)i}$ corresponding to TH i: [i:].

V.5.2.b. 脂 $^{*-(j)i}$: ɔ:ʔd[ɔ:t]
 遲 $^{*di} < ^{*drjid}$: ʌ̃ ɔ:ʔd [thɔ:t] D2 "slow, long"

The vowel $^{*-i}$ in the OC $^{*-jid}$ of 脂 category had begun to change to the cluster ia by Han times or even earlier (Li 1971:48).

V.5.2.c. 脂 $^{*-(j)i}$: ak[ak]
 備 $^{*bji-} < ^{*bjiagh}$: ʌ̃ ɸrɪn brak [phrak] D2 "prepare, ready"

Here the TH final consonant ending -k seems to correspond to the OC final consonant *-g of this word.

- V.5.3.a. 之 *-i : u:a[ua]
 嗣 *zī- : 紹 ju:a [chua] C2 "lineage"²¹
 餌 *ńzi- : 餌 hyu:a [yu:a] B1 "bait, victim"

- V.5.3.b. 之 *-i : u:[u]
 字 *dzī- : 字 ju: [chu:] B2 "name"
 使 *sī- : 使 su: [su:] B1 "a liaison, a go-between"²²
 市 *zī/ : 市 zu: [su:] C2 "to buy"

The TH finals in a. and b. here differ from those of MC 脂 *(j)i in the previous section. Karlgren (1954) did not distinguish these two rimes and in both cases reconstructed their MC value as *(j)i. Viewed from TH final correspondences, it is possible to distinguish all the third division rimes of the MC 止 rime category; i.e., final e for 支, i for 脂, u or ua for 之, and ai for 微 (cf. V.5.4. below).

- V.5.3.c. 之 *-i : ə:k[ə:k]
 持 *dī < **drjæg : 持 dək [thək] D2 "hold, grasp"

- V.5.3.d. 之 *-i : i:[i:]
 時 *zī : 時 di: [thi:] A2 "time, a favorable or fit occasion"

- V.5.3.e. 之 *-i : i:aw [iau]
 齒 *tshī/ : 齒 khi:aw [khiau] C1 "an eye tooth (human or animal)"

The TH final here is difficult to explain. In analogy to the OC *-ag of the 魚 category changing to *-ai then to WC -o,²³ we can probably explain that the ST final developed as

follows: **-jæg > **-jǝi > *-jo > -iau.

V.5.4.a. 微 *-(j)ei : ai[ai]

機 *kj̥ei : 𑜁𑜨 kai [kai] A1' "catch or trigger"²⁴

V.5.4.b. 微 *-(j)ei : i:[i:]

幾 *kj̥ei/ : 𑜁 ki: [ki:] B1 "how many"

機 *kj̥ei : 𑜁 ki: [ki:] B1 "loom"

V.5.5.a. 支 *-(j)wi̯ : uay[uei]

吹 *tʃwi̯ : 𑜁𑜨 juay [chuei] A2 "blow gently but steadily"

V.5.5.b. 微 *-(j)wi̯ : i:a[ia]

墮 *xjwi̯ : 𑜁𑜨 si:a [sia] A1 "spoil, destroy"

The TH final probably reveals the stage prior to the NPC period when the distinction between k'āi-k'ǝu and hó-k'ǝu did not yet exist (cf. V.1.3.a.).

V.5.5.c. 微 *-(j)wi̯ : ɔ:y[ɔ:i]

隨 *zwi̯ < **zjuar : 𑜁𑜨 sɔ:y [sɔ:i] A1 "follow closely"

The TH final might be of a date earlier than EH, that is, before this part of OC 歌 changed from **-juar (> **-juai > **-juei) and became part of EH 支 -ei (Ting 1972:434).

V.5.6.a. 脂 *-(j)wi : uay[uei]

簋 *kjwi/ : 𑜁𑜨 kuay [kuei] A1' "basket"²⁵

愧 *kjwi : 𑜁𑜨 khuay [khuei] A1 "to feel bashful"

V.5.6.b. 脂 *-(j)wi : uay[ɰai]

巢 *ljwi/ : 𑜁𑜨 lɰay [lɰai] C2 "creepers; wind about"

The TH final probably corresponds to the EH or WC -ji̯ai (Ting 1972) of the OC 微 **-ji̯ad category.

V.5.7.a. 微 *-(j)wei : u?d[ut]

沸 *pjwei- < **pjadh : 𑜁𑜨 pu?d [put] D1 "bubbling"

V.5.7.b. 微 *-(j)wei : o?d[ot]

痺 *pjwei- < **pjədh : uŋ ph?d [phot] D1 "prickly heat"

V.5.7.c. 微 *-(j)wei : ai[ai]

徽 *xjwei : ɿw hmai [mai] A1 "thread"

煨 *xjwei/ : ɿw^h hmai [mai] C1 "burn"

Parallel to section b. above, the TH final seems to correspond to EH or WC -jəi < **-jəd. These final correspondences in TH again corroborate Li's theory of no hó-k'ǒu medial in OC (cf. V.1.3.a.).

V.5.7.d. 微 *-(j)wei : i:[i:]

肥 *bjwei : ɸ bi:[phi:] A2 "fat"

It is likely that the vowel **-ə (**-jəi) was dropped when flanked by the medial -j- and ending -i.

V.6. Rime Group hsiao 效

V.6.1.a. 豪 *-âu : a:w[a:u]

刀 *tâu : ɳa ta:w [ta:u] A1' "knife"

報 *pâu- : ɳa pa:w [pa:u] B1 "announce, report"

告 *kâu- : ɳa kla:w [kla:u] B1 "tell, say"

Altogether we have found 8 examples (see also no. 87, 155, 156, 423, and 610 in VII.2.) of MC *-âu corresponding regularly to TH [a:u].

V.6.1.b. 豪 *-âu : au[au]

陶 *dâu : ɳa tau [tau] A1' "kiln, stove"

牢 *lâu : ɳa lau [lau] C2 "pen, sty"

套 *thâu : ɳa thau [thau] A1 "set of articles that fit into each other"

There are 6 examples (see also no. 47, 214, and 469 in

VII.2.) of MC *-âu corresponding to TH [au].

V.6.1.c. 豪 *-âu : ə[ə:]

遭 *tsâu < **tsəgw : ɬəcə: [cə:] A1' "to meet with"

Here the vowel of the TH form seems to correspond to that of OC. The final consonant, however, is not reflected in the TH form.

V.6.1.d. 豪 *-âu : ok[ok]

保 *pâu/ < **pəgw : ɬŋ pk [pok] D1 "protect, cover"²⁶

倒 *tâu/ < tagwx : ʈŋ tk [tok] D1 "fall down"

到 *tâu- < tagwh : ʈŋ tk [tok] D1 "arrive at (a season)"

These words come from the OC yǔ 幽 and hxiào 宵 categories, both of which have a final labiovelar ending *-gw according to Li's OC system. This final ending *-gw usually caused rounding of the vowel (Li 1971). The rounded vowel in the TH final seems to have evolved thus.

V.6.1.e. 豪 *-âu : uak[uak]

帽 *mâu- < **məgwh : ɬwŋ hmuak [muak] D1 "hat"

V.6.2.a. 肴 *-au : a:w[a:u]

撓 *ṇau/ : ɬŋ na:w [na:u] C2 "bend, arch (a bow)"

膠 *kau : ʈŋ ka:w [ka:u] A1' "glue, gum"

V.6.2.b. 肴 *-au : au[au]

抓 *tṣau- or *tṣau : ɬŋ cau[cau] B1 "grasp, perch"

Karlgren (1957) distinguished the first division 豪 from second division 肴 by reconstructing a back â for the vowel of the first division and a low front a for the second division. However, as shown above, the two divisions both correspond to either TH a:w [a:u] or au [au]. They also merge into ao in

Sino-Vietnamese and in some of the Chinese dialects. Thus, it seems to support Li's belief that there existed no vocalic difference between the first and second divisions in OC (cf. V.2.1.-a.).

- V.6.2.c. 肴 *-au : a:[a:]
 𣎵 *t̚sau- : 𣎵 ca: [ca:] B1 "ladle"
 𣎵 *khau : 𣎵 kha: [kha:] A1 "leg"²⁷

These two characters come from the OC 宵 -agw category. The final correspondence [a:] of the TH forms reflects the original vowel *-a before it become *-au in MC.

- V.6.2.d. 肴 *-au : i:aw[iau]
 交 *kau < **kragw : 𣎵 kli:aw [kliaw] A1' "to twist (string); twisted"

- V.6.2.e. 肴 *-au : ok[ok]
 勦 *t̚shau < **tshragw : 𣎵 chk [chok] D1 "snatch"

- V.6.3.a. 宵 *-jäu : æw[æu]
 貓 *mjäu : 𣎵 mæ:w [mæ:u] A2 "cat"
 苗 *mjäu : 𣎵 mæ:w [mæ:u] C2 "hill tribe"
 標 *phjäu- : 𣎵 phæ:w [phæ:u] B1 "lightly, light"

- V.6.3.b. 宵 *-jäu : e:w[e:u]
 𣎵 *phjäu : 𣎵 ple:w [ple:u] A1' "a tongue of flame, a blaze"

- 腰 *?jäu : 𣎵 ?e:w [?e:u] A1' "waist"

- V.6.3.c. 宵 *-jäu : i:aw[iau]
 𣎵 *ljäu : 𣎵 ri:aw [riaw] A2 "tack for hauling a sail"
 𣎵 *gjäu- : 𣎵 ki:aw [kiauw] C1 "sedan chair"

- V.6.3.d. 宵 *-jäu : au, a:w[au, a:u]
 要 *?jäu : 𠵿?au [ʔau] A1 "to want"
 搖 *jiäu : 𠵿 dau [thau] A2 "shaking, shivering"
 少 *s'jäu- : 𠵿 tha:w [thau] B1 "young, youthful"²⁸

The situation here where the medial -j- disappeared is similar to that found in Go-on and Kan-on; MC *jäu was rendered as -o.

- V.6.3.e. 宵 *jäu : o:k[o:k]
 嶠 *gjäu < **gjiagw : 𠵿 go:k [kho:k] D2 "hill"
 V.6.3.f. 宵 *-jäu : i:ak[iak]
 召 *d'jäu- < **drjagwh : 𠵿 ri:ak [riak] D2 "summon, call"

The two examples cited above both have a consonant ending -k in TH, probably corresponding to the final ending *-g of OC as reconstructed by Li (1971).

- V.6.4.a. 蕭 *-ieu : i:aw[iau]
 佻 *dieu : 𠵿 di:aw [thiau] A2 "walk back and forth, going and coming"
 溺 *nieu- : 𠵿 yi:aw [yiau] B2 "urine, urinate"
 V.6.4.b. *-ieu : iw[iu]
 條 *dieu : 𠵿 diw [thiu] A2 "row, long line"
 V.6.4.c. *-ieu : æ:w[æu]
 了 *lieu/ : 𠵿 læ:w [læu] C2 "finished"
 V.6.4.d. *-ieu : ok[ok]
 凋 *tieu < **tiagw : 𠵿 tk [tok] D1 "become faded (of color)"
 釣 *tieu- < **tiagwh : 𠵿 tk [tok] D1 "to angle, fish with a hook and line"²⁹

The TH final seems to correspond to the OC forms. The rounded vowel probably resulted from the influence of the final ending ****gw** (see V.6.1.c. above).

V.7. Rime Group **liú 流**

V.7.1.a. 侯 ***-əu** : ua[ua]

頭 ***dəu** : 𩇛 tua [tua] A1 "classifier for animals"

豆 ***dəu-** : 𩇛 thua [thua] B1 < *B2 "beans"³⁰

漏 ***ləu-** : 𩇛 rua [rua] B2 "leak, leaky"

These three characters came from the OC 侯 -ug category.

According to Li (1971), the vowel ****u** had a tendency to break into the vowel cluster **ua** as attested in some dialects, such as Ch'ü. This phonetic change was a dialectal phenomenon which was wide spread in Han times. The TH forms here with the corresponding final -ua might have come into Thai from Chinese in Han times.

V.7.1.b. 侯 ***-əu** : ɔ:[ɔ:]

鬥 ***təu-** : 𩇛 tɔ: [tɔ:] B1 "fight, wrangle"

竇 ***dəu-** : 𩇛 dɔ: [thɔ:] B2 "a drain, pipe"

勾 ***kəu** : 𩇛 khɔ: [khɔ:] A1 "hook"

喉 ***ɣəu** : 𩇛 gɔ: [khɔ:] A2 "throat, neck"

V.7.1.c. 侯 ***-əu** : au[au]

藕 ***ngəu/** : 𩇛 ɲau [ɲau] B2 < *C2 "lotus root"

V.7.2.a. 尤 ***-jəu** : au[au]

丘 ***khjəu** : 𩇛 khau [khau] A1 "hill"

舊 ***gjəu-** : 𩇛 kau [kau] B1 "old, ancient"

九 ***kjəu/** : 𩇛 kau [kau] C1 "nine"

Here the development of MC ***-jəu** into TH [au] is similar

to the situation in Cantonese. Cantonese also has no medial and reads words from this rime with the vowel -au. Altogether we have found 6 such examples (see also no. 149, 255, and 542 in VII.2.).

V.7.2.b. 尤 *-jəu : a:w[a:u]

脩 *sɿəu : 𦵏 za:w [sa:u] A2 "to wash (rice)"

V.7.2.c. 尤 *-jəu : u:[u:]

晝 *tɿəu- : 𦵏 tru: [tru:] B1 "early morning"

V.7.2.d. 尤 *-jəu : ua[ua]

佑 *jəu- : 𦵏 vua [fua] B2 "assist, render assistance"

V.7.2.e. 尤 *-jəu : ua[ua]

牛 *ngjəu < **ngwjəg : 𦵏 ɲua[ɲua] A2 "cow"³¹

The vowel cluster [ua] in the TH form might have developed from the labio-velar initial **ngw-.

V.7.2.f. 尤 *jəu : ai[ai]

婦 *bjəu/ : 𦵏 bhəi [phai] C2 "daughter-in-law"

This character with labial initial comes from rime -jəg of the OC 之 category. Following Li (1971), we assume that the final **-g was vocalized into a vowel glide -ĩ and then -i. The phonetic change in this correspondence set is similar to that of OC **-jag to TH əi[ai] in section V.3.2.e.

V.7.2.g. 尤 *-jəu : i:aw[iau]

收 *sɿəu- : 𦵏 ki:aw [kia] B1 "to harvest"

溜 *lɿəu- : 𦵏 ri:aw [ria] B2 "vigorous, strong (as the current of a river)"

V.7.2.h. 尤 *-jəu : ok[ok]

抽 *tɿjəu < **thrjəgw : 𦵏 thk [thok] D1 "to pull up"

臼 *gǝu/ < **gǝgwx : 𠂔 grk [khrok] D2 "mortar"

痼 *ǝu- < **gwǝgh : 𠂔 vk [fok] D2 "swelling, swollen"

The TH finals from this section on seem to supply evidence for final ***-g* in OC. The rounded vowel of the TH form might have resulted from the influence of the labio-velar, either final or initial.

V.7.2.i. 尤 *-ǝu : o:k or ɔ:k [o:k or ɔ:k]

首 *sǝu/ < **skhǝgwx? : 𠂔 co:k [co:k] D1 "head, chief"

廋 *sǝu < **srǝgw : 𠂔 zɔ:k [sɔ:k] D2 "conceal"³²

V.7.2.j. 尤 *-ǝu : u:k [u:k]

舟 *tsǝu < **tǝgw : 𠂔 tu:k [tu:k] D1 "boat"

鵠 *xǝu < **xǝgw : 𠂔 hu:k [hu:k] D2 "owl"

V.7.2.k. 尤 *-ǝu : ɯak [ɯak]

疇 *dǝu < **drǝgw : 𠂔 du:ak [thuak] D2 "ploughed fields"

胄 *dǝu- < **drǝgwh : 𠂔 du:ak [thuak] D2 "lineage"

V.7.3. 幽 *-ǝu : au [au]

幼 *ǝu- : 𠂔 yau [yau] A2 "young, little"

We have discovered only one example, but this rime contains only a few words in Chinese.

V.8. Rime Group hsién 咸

Starting from this rime group, all of the MC rimes contain both yīn-type (syllables with final ending -m, -n, and -ng) and jù-type rimes (syllables with final ending -p, -t, and -k). For each heading, only the yīn-type finals is given and we shall let the yīn-type finals stand also for their corresponding jù-type finals, i.e., *-âm stands also for *-âp, *-am for *-ap,

etc. However, the jù-type finals will be cited in the headings whenever we have only the jù-type final correspondence of Thai and Chinese and those of the yīn-type are lacking.

V.8.1.a. 覃 *-âm : om[om]

噴 *thâm : ɲu thm [thom] A1 "numerous, abundant"

儂 *ngâm : ɲu ɲm [ɲom] A2 "stupid"³³

沓 *dâp : ɲu dʔb [thop] D2 "united, joined"³⁴

MC *-âm corresponds primarily to TH [-om] (see also no. 26, 129, 130, and 174 in VII.2.), but occasionally also to [-um] and [-ɔ:m]. It should be noted, however, that of the 18 TH words corresponding to MC *-âm, only 4 have unrounded vowels, the rest of them all have finals of the rounded varieties (see the immediately following sections). Thus, the TH final correspondences seem to supply evidence for the hypothesis that this rime had a rounded vowel in OC. Yakhontov (1959:68) proposed that the vowel for the OC 侵 **-əm and 緝 **-əp categories was originally ɤ but that it was later replaced by ə.

In addition to the TH final correspondences, evidence for the possibility of a reconstructed rounded vowel for the OC 侵 and 緝 categories can also be found in some Chinese dialects, such as Shang-hai, Wēn-chōu 温州, and Lín-ch'uan 臨川. For instance, 貪 is pronounced respectively as thə, thə, thom in the three dialects, and 感 as kɔ, ky, kom.

V.8.1.b. 覃 *-âm : um[um]

男 *nâm : ɲu hnum [num] B1 "young man"

統 *tâm/ : ɲu tum [tum] C1 "pendants"

坎 *khâm/ : ɲu khum [khum] A1 "pit, ditch"

哺 *tsâp : ฟู cu?b [cup] D1 "suck gently, suckle (as of infants)"

V.8.1.c. 罩 *-âm : วม [w:m]

措 *?âm/ : วม ?w:m [?w:m] C1 "cover, encircle with the arms"³⁵

答 *tâp : ทบ tɔw?b [tɔw:p] D1 "reply, answer"

V.8.1.d. 合 *-âp : ua?b[uap]

合 *yâp : ทว gua?b[khuap] D2 "combine"

V.8.1.e. 覃 *-âm : am[am]

揲 *tâm/ : ตำ tam [tam] A1' "pierce, pound"

惛 *tshâm/ : ชำ jam [cham] C2 "grieved"

暗 *?âm- : ดำ ?am [?am] B1 "dark, cloudy"

The unrounded vowel in the TH finals show a phonetic change similar to Mandarin and some other Chinese dialects, such as Hakka, Amoy, etc. These words, probably, were borrowed into Thai from Chinese after the originally rounded vowel of this rime had already become an unrounded vowel.

V.8.1f. 合 *-âp : æp [æp]

納 *nâp : นบ næw?b [næw:p] D2 "insert, enclose"

V.8.2.a. 談 *-âm : a:m[a:m]

纜 *lâm- : ลม la:m [la:m] B2 "to tie with rope or chain"

盍 *yâp : ทว ga:w?b [kha:w:p] D2 "connected, joined"³⁶

三 *sâm : สาม sa:m [sa:m] A1 "three"

We have found 6 examples of MC *-âm corresponding regularly to TH [a:m] (see also no. 154, 220 and 550 in VII.2.). It is interesting that Thai has sa:m for 三, showing that it comes from 談. In OC however, it belonged to the 侵 group, implying a

rounded vowel in Yakhontov's (1959) system (cf. Tibetan g-sum).

MC *-âm corresponds also to TH forms having not only a but also a and u (see the immediately following sections). The fact that MC *-âm corresponds only to TH forms with unrounded vowels corroborates the reconstruction of **am for this rime by Karlgren (1954), Li (1971) and others.

By late MC, this rime had merged with 覃 *-âm (see V.8.1.a.) and Karlgren in reconstructing the MC readings, reconstructed the difference in two rimes by saying that MC *-âm is shorter than *-âm. However, since TH has primarily rounded vowel forms corresponding to MC *-âm, and unrounded vowel forms corresponding to MC *-âm, we may be able to support a reinterpretation of Karlgren's length distinction in terms of vowel quality for MC *-âm and *-âm. Pulleyblank (1962-3) suggested *-əm for *-âm and *-am for *-âm. The other possible solution inferred from the TH final correspondences for these two MC rimes is to assume that MC *-âm was *-om and *-âm was *-am. The assumption that the true distinction between these two rimes was the rounded versus the unrounded quality of the vowels can be backed up by some Chinese dialects where the two rimes are usually distinguished.³⁷ For instance 貪 *thâm is pronounced in the Shànghǎi, Wēn-chōu, and Lín-chuān dialects as thə, thə, thəm, respectively, 添 *dzâm is zə, zə, tshom; but 擔 *tâm is pronounced in these same dialects as tɛ, ta, tam; and 三 *sâm as sɛ, sa, sam.

V.8.2.b. 盍 *-âp : aʔb[ap]

盍 *yâp : ǎu haʔb [hap] D1 "close, shut"

V.8.2.c. 盍 *-âp : u:ʔb[u:p]

蹋 *dâp : 𠵹 du:ʔb [thu:p] D2 "trample"³⁸

V.8.3.a. 咸 *-ẵm : em[em]

鹹 *rẵm : 𩇛 gem [khem] A2 "salty, salted"

V.8.3.b. 洽 *-ăp : æ:ʔb[æ:p]

狹 *răp : 𠵹 gæ:ʔb [khæ:p] D2 "narrow"

峽 *răp : 𠵹 gæ:ʔb [khæ:p] D2 "straits"

For this MC rime, Karlgren (1954) writes a low front vowel ă , but Tung (1948) and Li Jung (1952) write ɛ or æ . The TH final correspondences in a. and b. correlate better to Tung's and Li Jung's reconstruction.

V.8.3.c. 咸 *-ẵm : a:m[a:m]

斬 *tṣăm/ : 𠵹 că:m [ca:m] A1 "hew or hack (with an ax)"

If we take ɛ or æ as the MC value for this rime as discussed above, the TH final here then does not correspond to the MC stage. However, since this character came from OC 談 **am, the TH final might be regarded as corresponding properly with the OC reading.⁴⁰

V.8.3.d. 咸 *-ẵm : om, ɔ:m[om, ɔ:m]

𩇛 *ṣăm/ : 𩇛 sm [som] C1 "sour"

咸 *rẵm : 𩇛 rɔ:m [rɔ:m] A2 "gather together"

V.8.3.e. 咸 *-ẵm : um[um]

蘸 *tṣăm- : 𩇛 cum [cum] B1 "dip into, immerse"

𠵹 *tăp : 𩇛 uʔb [chup] D2 "to write with ink"⁴¹

The TH final correspondences in d. and e. look irregular; however, they might be explained as reflexes of OC. This MC rime corresponds in origin both to OC 談 **am and 侵 **əm;

and the words in e. and d. belong to the latter. If we based our above discussion on the hypothesis that the OC 侵 category had a rounded vowel, then the TH finals simply correspond to the OC form.

V.8.4.a. 銜 *-am : am, a:m[am, a:m]
 監 *kam : 𡇗 kam [kam] A1' "oversee, superintend"⁴²
 甲 *kap : 𡇗 ka:ʔb [ka:p] D1 "shell, husk"
 V.8.4.b. 狎 *-ap : oʔb[op]

狎 *ɣap : 𡇗 gʔb [khop] D2 "associate with"

The final correspondence here is irregular, yet cognate set is retained because the initial and tonal correspondences are perfect. We hope that further investigation will be done so that this irregularity can be accounted for.

V.8.5.a. 監 *-jäm : i:am[iam]
 𡇗 *sjäm : 𡇗 si:am [siam] A1 "hoe"
 𡇗 *jiäm- : 𡇗 ri:am [riam] B2 "beautiful"
 𡇗 *ɳjap : 𡇗 hyi:aʔb [yiap] D1 "trample"

There are altogether 8 examples (see also no. 238, 258, 428, 430, and 615 in VII.2.) of MC *-jäm corresponding regularly to TH [-iam].

V.8.5.b. 監 *-jäm : i:m[i:m]
 𡇗 *gjäm : 𡇗 gi:m [khi:m] A2 "tongs, pincers"
 𡇗 *tsjap : 𡇗 ci:ʔb [ci:p] D1 "to fold, plait"
 𡇗 *sjap : 𡇗 hni:ʔb [ni:p] D1 "grasp (with pincers)"

Here the development of the final *-jäm into TH [i:m] is similar to the situation in Cantonese where this MC final becomes -im (cf. V.3.2.c. above).

V.8.5.c. 監 *-jä̃m : im[im]

厭 *?jä̃m- : ʔim [ʔim] B1 "satiated, full"

In addition, we have three cases of irregularity in final correspondences that are listed for further considerations:

潛 *dzjä̃m : ʔjam [cham] A2 "to soak (a cutting)"

魘 &?jä̃m/ : ʔa ʔam [ʔam] A1' "the spirit causing nightmares"⁴³

染 *nɛ̃jä̃m : yam yɔ:m [yɔ:m] C2 "to dye"

V.8.6. 嚴 *-jɔ̃m : am[am]

嚴 *ngjɔ̃m : ʔa yam [yam] A2 "show respect for"⁴⁴

The only one example we have for this rime cannot be considered a regular final correspondence for MC *-jɔ̃m and requires further investigation.

V.8.7.a. 添 *-iem : æ̃m[æ̃m]

添 *thiem : ʔam thæ̃m [thæ̃m] A1 "add, increase"

蒹 *kiem : ʔam khæ̃m [khæ̃m] A1 "tall, perennial grass"

帖 *thiep : ʔam thæ̃?b [thæ̃:p] D1 "classifier for long, flat, narrow objects"

There are altogether 5 examples (see also no. 110 and 475 in VII.2.) of MC *-iem corresponding regularly to TH [æ̃m].

V.8.7.b. 帖 *-iep : i:ʔb[i:p]

挾 *ɣiep : ʔu gi:ʔb [khip] D2 "to clamp, clasp (e.g. with two fingers)"

V.8.7.c. 添 *-iem : ɔ̃m[ɔ̃m]

忝 *thiem-⁴⁵ : ʔam thɔ̃m [thɔ̃m] B1 "to humble (oneself)"

The final correspondence is the only element that seems irregular in this set. However, the rounded vowel in the TH

form might be linked with its origin from the OC 侵 category (cf. V.8.1.a.).

V.8.8. 乏 *-jwɔp : æ:ʔb[æ:p]

法 *pjwɔp : ɰɰ ʔbæ:ʔb [bæ:p] D1 "pattern, model"

The TH final correspondence seems to corroborate Pulleyblank's reconstruction (1962-3) of an unrounded vowel for this rime. He argued that Karlgren's reconstruction of medial -w- in this rime, which contains mainly words with labial initials, violates two principles: "(a) that this semivowel never occurs distinctively before labial endings, (b) that it never so occurs after labial initials" (Pulleyblank 1962:79). He then wrote *-jam for Karlgren's *-jwɔm. Li (1971) also came to the conclusion that the hó-k'óu in this rime evolved entirely from third division labials and reconstructed MC *-jwɔm as coming from OC **-jam.

V.9. Rime Group shēn 深

V.9.1.a 侵 *-jēm : im[im]

臨 *ljēm : ʔim rim [rim] A2 "nearby, at the side of"

琴 *gjēm : ʔim khim [khim] A1 "Chinese cymbalo"

浸 *tsjēm- : ʔim cim [cim] C1 "dip into"

十 *zjēp : ʔim siʔb [sip] D1 "ten"

V.9.1.b 侵 *-jēm : em[em]

鍼 *tsjēm : ʔim khem [khem] A1 "needle"

V.9.1.c 侵 *-jēm : ɰɰm[ɰɰm]

飲 *ʔjēm- : ʔim ʔɰɰm [ɰɰm] B1 "to drink"

襲 *zjēp : ʔim sɰɰʔb [sɰɰp] D1 "inherit"

The TH final might correspond to OC **-əm and **-əp.

- V.9.1.d. 侵 *-jěm : um[um]
 森 *sǰěm : 𪛗 sum [sum] A1 "grove, thicket"
 擒 *gǰěm : 𪛗 gum [khum] A2 "watch over, detain"

Similar to section V.8.7.c., the rounded vowel of the TH form might be linked with the OC forms.

In addition to the above correspondences, we have 3 cases of irregular correspondence between MC *-jěm and TH a:m or am [a:m or am]:

- 欽 *khjěm : 𪛗 kha:m [kha:m] A1 "respect"
 金 *kjěm : 𪛗 gam [kham] A2 "gold"⁴⁶
 執 *tsǰěp : 𪛗 ca?b [cap] D1 "hold, grasp"

V.10. Rime Group shān 山

- V.10.1.a. 寒 *-ân : a:n[a:n]
 炭 *thân- : 𪛗 tha:n [tha:n] B1 "charcoal"
 懶 *lân/ : 𪛗 gra:n [khra:n] C2 "lazy"
 秆 *kân/ : 𪛗 ka:n [ka:n] C1 "stem, stalk"

MC *-ân corresponds regularly to TH [a:n]. Altogether we have 11 examples of such correspondence (see also no. 86, 192, 232, 297, 455, 510, 607, and 608 in VII.2.).

- V.10.1.b. 寒 *-ân : an[an]
 餐 *tshân : 𪛗 chan [chan] A1 "eat (of a monk)"
 干 *kân : 𪛗 kan [kan] A1' "to shield, bar"
 擦 *tshât : 𪛗 kha?d [khat] D1 "polish, scour, scrub"

MC *-ân, besides corresponding to either [-a:n] or [-an] in TH, has some rather irregular final correspondences in TH.

These forms are:

- 灩 *lân-⁴⁷ : 𪛗 glw:n [khlw:n] B2 "waves"

- 捺 *nât : นวด nuaʔd [nuat] D2 "knead, massage"
 嘆 *thân : โอดу tho:n [tho:n] A1 "to sigh"
 單 *tân : โดด do:n [tho:n] A2 "single, alone"

It should be noted that the above examples with rounded-vowel correspondences in TH all have dental initials. In OC, these words belong to the categories in which hó-k'óu type finals frequently occurred after dental initials. To account for this, Li (1971) reconstructed the vowel cluster ua. It is possible that the three words above should have belonged to the group assigned under MC 桓 *-uân. An alternative solution attributes the vowel quality to the effect of the initial and final consonants; i.e. the rounded vowel in the TH form was secondarily developed, the unrounded vowel becoming rounded when it fell between two dentals.⁴⁸

- V.10.2.a. 山 *-ăn : an[an]
 間 *kăn- : คั้น gan [khan] B2 "partition off (a room)"
 揀 *kăn/ : คำน klan [klan] B1 "select"
 輥 *ʔăt : อัด ʔaʔd [ʔat] D1 "compress, crush"

- V.10.2.b. 山 *-ăn : a:n[a:n]
 閑 *ɣăn : ขน ga:n [kha:n] A2 "hinder, obstruct"
 淺 *tsăn/ : ขน ca:n [ca:n] A1' "shallow dish"

We have an old Thai word which is related to [ca:n] A1', i.e., ขุ cun [cun] C1 "shallow cups used as saucers." However, neither of them is a perfect fit for the Chinese word. As for the form [ca:n] A1', the tonal correspondence is irregular. The form [cun] C1, having regular tonal correspondence, has an irregular final.

V.10.2.c. 山 *-ǎn : æm

艱 *kǎn : unu kǎ:n [kǎ:n] A1' "hard-pressed, hard-up"

八 *pǎt : unu pǎ:t [pǎ:t] D1 "eight"

The TH final here reveals, probably an earlier date than those in sections a. and b. Tung (1948) reconstructed **-æn for this rime. Li (1971) wrote **-rian and stated that the vowel i later was changed to ɛ through the influence of medial -r-. Afterwards ɛ coalesced with the following a becoming ǎ, which took place some time after the CY. (See the next section for further discussion.)

V.10.3. 𪛗 *-an : a:n[a:n]

雁 *ngan- : unu ha:n [ha:n] B1 "goose"

棧 *dzan/ : unu ra:n [ra:n] C2 "booth, shed, stall, shop"

搗 *kat : unu gra:t [khra:t] D2 "to scrape"⁴⁹

Karlgren distinguished MC 𪛗 from 山 by saying that the former had a long a, and the latter a short one. MC correspondences with TH do not consistently support this hypothesis, for sometimes MC 山 corresponds to TH long vowels æ: and a:. Li (1971) suggested that the two second division rimes were distinguished on the basis of their relative heights. The fact that TH has æ: corresponding to MC 山 and a: for 𪛗 seems to corroborate Li's suggestion. Additional evidence can also be found in early Sino-Vietnamese where ɛ was used for rime 山 and a for 𪛗. The falling together of these two rimes in the rime tables was a phenomenon subsequent to the CY. This merging is reflected in late Sino-Vietnamese where the vowel a was used for the vowels of both rimes. TH, as shown above, also reflected

the merging of these two rimes, i.e., it also has [-an] or [-a:n] corresponding to both MC 山 and 刪.

Having decided that MC 山 should be reconstructed *-æn, and 刪 *-an, we can further recognize the fact that rime 刪 was similar to 寒 (cf. V.10.1.). MC 寒 corresponds primarily to TH [-a:n] and secondarily to [an]. We may decide that [-a:n] was the correspondence for this rime in OC, on the basis of Li's (1971) hypothesis that there existed no vocalic difference between the finals of first and second division rimes. Also we may assume that the rime 寒 was still *-an in MC, and was very close to the rime 刪. Actually they might even have possessed the same final. Evidence to support the assumption that both rimes 寒 and 刪 were *-an is found in Yùn-chí 韻集, one of the five riming dictionaries mentioned in the preface of the CY. The Yùn-chí does not distinguish the two rimes. Thus, the TH final correspondence [-a:n] for both rimes supplies one more bit of evidence that both rimes were not distinguished, and that both rimes, in turn, were distinguished from the rime 山. On the basis of the TH final correspondences, we may suggest that the rimes 寒 and 刪 be reconstructed as *-an, and 山 *-æn. The actual distinction between rimes 刪 and 山 lies in the relative heights of their vowels, certainly not in the length of the vowels as suggested by Karlgren (1957).

V.10.4.a. 仙 *-jän : i:an [ian]

剪	*tsjän/	:	เจ็ญ ci:an [cian] A1' "to cut, trim"
變	*pjän-	:	เป็ญ pli:an [plian] B1 "to change"
免	*mjän/	:	เม็ญ mi:an [mian] C2 "evade, hidden"

V.10.4.b.仙 *-jän : e:n[e:n or en]

偏 *phjiän : 𠂔 be:n [be:n] A1' "incline"

線 *sjän- : 𦉳 se:n [sen] C1 "filaments, threads"

V.10.4.c.仙 *-jän : æ:n[æ:n]

埏 *jiän : 𠂔 dæm [dæ:n] A1' "boundary, limit"

As shown in paragraphs a., b., and c. above, MC 仙 corresponds to TH [-ian], [-e:n] or [-æm]. The shifting of ia to e:n or æ:n in the TH finals seems to indicate that the vowel ia in this rime is phonetically close to e or æ. Pulleyblank (1962:75-6) established that the third division rimes, namely those which Karlgren (1957) wrote with *-ja- (rimes 仙, 宵, etc.) were phonemically related to the fourth division rimes. In his system, he wrote *-je-/-ye- for division III and *-e- for division IV (cf. V.10.5.). This he did on the basis of the fact that the two divisions are closely associated in the CY and in the rime tables; besides, they have also merged in most modern dialects. According to Pulleyblank, the merging of division III (*-je-/-ye-) and division IV (*-e-) was a process initiated by the breaking of the vowel -e- to -ye- in the T'ang dialects, probably around the eighth century. As will be seen below (cf. V.10.5.), both MC 仙 and 先 correspond to TH [-ian], [-e:n], and [-æ:n].

V.10.4.d.仙 *-jän : in[in]

漣 *ljän : 𦉳 rin [rin] A2 "trickle (tears, water)"

錢 *dzjän : 𦉳 sin [sin] A1 "money"

件 *gjän/ : 𦉳 jin [chin] C2 "piece, classifier for pieces"

The TH final correspondence [-in] differs from the three varieties in the preceding sections. These words may be loans from a Cantonese-type dialect, because MC *-jän did develop into -in in Cantonese (cf. V.3.2.c.).

V.10.4.e.	仙	*-jän	:	uan[uan]	
輦	*ljän/	:	leu lɯ:an [lɯan]	B2	"cart"
廛	*djän	:	leu rɯ:an [rɯan]	A2	"one's dwelling place"
延	*jiän-	:	leu lɯ:an [lɯan]	B2	"extend, postpone, delay"

All the examples have initials r- or l- in TH. We may assume that the centralizing of the vowel to become [-ua] came about under the influence of the initial.

V.10.4.f.	薛	*-jät	:	a?d[at]	
折	*tsjät	:	ñ ta?d [tat]	D1	"severe, decide"
設	*sjät	:	ñ ca?d [cat]	D1	"arrange"
別	*bjät	:	ñ bla?d [phlat]	D2	"be separated from" ⁵⁰

The final correspondence in TH is irregular. The fact that these forms all have final ending [-t] might suggest a different development for words which originally ended in *-t.

The word 別 *bjät, like the words 變 *pjän- and 免 *mjän/ (see V.10.4.a. above), is a third division word in the rime tables. The fact that MC *bjät corresponds to TH [-at] whereas *pjän- and *mjän/ correspond to TH [-ian], and 偏 *phjiän, a fourth division word in the rime tables, corresponds to TH [-en] shows that TH does not distinguish the third and fourth division "rime doublets." The distinction which caused certain words with labial, velar, and laryngeal initials of the rime 仙 and other third division "rime doublets," to be placed under

the fourth division in the rime tables might have been some other element rather than the vowel. Probably, the distinction between the third and fourth division words of the "rime doublets" was a liquid medial. TH forms have -l- not only for *pjän- and *pjät, but also for other third division "rime doublets," namely, 疲 *bjie, 備 *bjī- (TH has -r- instead of -l-), and 興 *pjäu (cf. V.5.1.e., V.5.2.c., and V.6.3.b., respectively.).

Listed below are a few cases of irregularity that might be worth further investigation in the future.

個	*mjiän/	:	𠵿 mən [mən] A2	"turn (the face) away from"
淺	*tshjän/	:	𠵿 tu:n [tu:n] C1	"shallow"
蛰	*tjät	:	𠵿 tɔ:ʔd [tɔ:t] D1	"to sting"
和	*sjän	:	𠵿 sa:r [sa:n] A1	"milled rice"
V.10.5.a. 先 *-ien : e:n or en[e:n or en]				
撚	*nien/	:	𠵿 ne:n [ne:n] C2	"press with the fingers"
牽	*khien	:	𠵿 khen [khen] A2	"draw, move forward by pushing and pulling"

The TH final correspondence with the vowel e corroborates well the writing of division IV with simply the head vowel *-e. It has been suggested that Karlgren's vocalic i for division IV be dropped from MC because the yodization of this division which led to their falling together with the corresponding division III rimes was a development subsequent to the CY (Li Jung 1952: 107, Pulleyblank 1962:70).

V.10.5.b. 先 *-ien : æ:n[æn]				
天	*thien	:	𠵿 thæn [thæn] A1	"supernatural beings"

片 *phien- : 𑖦𑖦 phæ:n [phæn] B1 "sheet, classifier"

肩 *kien : 𑖦𑖦 khæ:n [khæ:n] A1 "arm"

Altogether we have 6 cases of such correspondence (see also no. 233, 326, and 612 in VII.2.).

V.10.5.c. 先 *-ien : i:an[ian]

練 *lien- : 𑖦𑖦 ri:an [rian] A2 "to practice (in order to become proficient)"

棟 *lien- : 𑖦𑖦 kri:an [krian] A1' "melia azederach, a kind of tree"

V.10.5.d. 屑 *-iet : i?d[it]

閉 *piet : 𑖦𑖦 pi?d [pit] D1 "to shut, close"

Based on the distinction found in the TH final correspondences for the five MC rimes of rime group 山 and the order in which they are associated with one another in the CY and in the rime tables, we may write *-an, *-an, *-æn, *-en, and *-ien for MC rimes 寒, 刪, 山, 先, and 仙, respectively.

V.10.6.a. 桓 *uân : uan[uan]

括 *kuât : 𑖦𑖦 kua?d [kuat] D1 "twist tightly together"

緞 *duân- : 𑖦𑖦 tuan [tuan] B1 "satin"

官 *kuân : 𑖦𑖦 kuan [kuan] A1' "officials, peers"⁵¹

Altogether we have found 7 examples (see also no. 72, 272, 376, and 496 in VII.2.) of MC *-uân corresponding to TH [-uan].

V.10.6.b. 桓 *-uân : wa:n[wa:n]

官 *kuân : 𑖦𑖦 kwa:n [kwa:n] A1' "officials, peers"⁵¹

鑽 *tsuân- : 𑖦𑖦 swa:n [sa-wa:n] B1 "a drill"

館 *kuân/ : 𑖦𑖦 kwa:n [kwa:n] C2 "house, brick dwelling"⁵²

The double correspondence of 官 *kuân in TH is significant.

MC rime 桓 *-uân originally did not exist in the CY, but was added in the period between the CY and the KY. Karlgren, basing his MC reconstruction on the KY, took account of the rime as independent and wrote it with medial -u-, instead of -w- which he preserved for the non-independent hó-k'ǒu rimes. Actually, the phonetic change which led to the setting up of an independent rime took place after the CY, but up until the CY times, words of the rime 桓 *-uân were simply included together with the rime 寒 *-ân. A good corroboration of this fact is found in the TH final correspondences in section a. and b. above. Particularly, the double correspondence of the word 官 here supplies clear evidence that the rime 桓 *-uân was developed from a phonetic change, that is, from a strengthening of the labial medial -w- and a shortening of the main vowel as illustrated in [kwa:n] and [kuan]. Based on this hypothesis, we can further determine the date of the TH forms. The TH words with final [-wa:n] reveal a date no later than the CY, i.e., no later than 600 A.D.; whereas those with final [-uan] reflect the stage when this rime had already departed from its corresponding rime, i.e., around 1000 A.D. It is very likely that the TH words with final [-uan] in section a. above were borrowed into Thai from late MC.

V.10.6.c. 桓 *-uân : a:n[a:n]

盤 *buân < **ban : 𑖓𑖓 ba:n [pha:n] A2 "a tray supported on a pedestal"

叛 *buân- < **banh : 𑖓𑖓 ba:n [pha:n] B2 "be in a turmoil or in disorder"

幔 *muân- < **manh : 𑖓𑖓 ma:n [ma:n] B2 "curtain"

All these examples have a labial initial. The TH final [-a:n] supplies evidence for the theory that there was no primary hó-k'ǒu element in OC and that hó-k'ǒu and k'āi-k'ǒu were not distinguished after labial initials in the CY (Li 1971). The TH final correspondences in this section and in the preceding section (V.10.6.b.) further support Li's belief (1971) that the hó-k'ǒu *-ua- of rime 木 is derived from a k'āi-k'ǒu rime conditioned by the labial and labio-velar initials, on the one hand, and by the dental finals *-t and *-n (in words which have as initial a dental consonant as well), on the other hand (cf. V.10.1.b.).

V.10.6.d. 木 *-uân : an[an]

蟠 *buân : 𣎵 ban [phan] A2 "to coil up"
蔓 *muân : 𣎵 man [man] A2 "yam, potato"
半 *puân- : 𣎵 ?ban [ban] C1 "half"
剋 *tuât : 𣎵 ta?d [tat] D1 "to cut"

The first three examples in this section are parallel to those in the preceding section; they are words with labial initials.

V.10.6.e. 木 *-uân : u:n[u:n]

滿 *muân/ : 𣎵 mu:n [mu:n] A2 "over-abundant, ample"
將 *luât : 𣎵 ru:ʔd [ru:t] D2 "to scrape off"

V.10.6.f. 末 *-uât : o?d[ot]

豁 *xuât : 𣎵 hm?d [mot] D1 "having nothing remaining;
 empty"

The rounded vowel u and o in the TH finals seems irregular; however, the rounded vowels might not be a case of irregularity,

but a reflection of a much earlier stage. Yakhontov (1960) thought that this rime should be reconstructed with the vowel ****o-** in OC. But the Shih Ching rimes show that this rime could not have the vowel o because by that time it was already very close to those of rimes 寒 ***-ân** and 刪 ***-an**. Li's solution (1971) was that at the very least, it had, by Shih Ching times, already become ****uan**. We might posit that the pre-Shih Ching value of this rime was ****on** > ****un**; then followed the breaking of ****u-** to ****ua-** giving ****uan**. This suggestion is advanced here primarily on the basis of the TH forms in question, because the word [mu:n] A2 "over-abundant, ample" is obsolete and is kept only in the expression 𣎵𣎵 [mu:n] A2 - [mɔ:n] A2 "over-abundant, ample." The word [ru:t] D2 "to scrape off" is obsolete, too (cf. IV.2.5.b.). The word hm?d[mot] D1 "having nothing remaining, empty," on the contrary, is a common word, but the initial correspondence hm[m] to MC ***x-**, as discussed in the previous chapter (cf. IV.7.5.a.), reveals at least the OC stage.

V.10.6.g. 桓 ***-uân** : ɔ:n[ɔ:n]
 段 ***duân-** : 𣎵 dɔ:n[thɔ:n] B2 "piece, portion"
 脫 ***thuât** : 𣎵 thɔ:ʔd [thɔ:t] D1 "undress, take off
 (clothes)"

Cited below is an irregular case that we would like to list here in spite of its final and tonal irregular correspondences:

伴 ***buân/** : 𣎵 bu:an [phu:an] B2 "friend, comrade"
 V.10.7.a. 𣎵 ***-wat** : wa:ʔd[kwa:t]
 刮 ***kwat** : 𣎵 kwa:ʔd [kwa:t] D1 "rub, rub off"⁵³

V.10.7.b.冊] *-wan : uan[uan]

還 *ɣwan : ɣu huan [huan] A1 "return, come back again"

V.10.7.c.冊] *-wan : u:n, un[u:n,un]

頒 *pwan : ɸu pu:n [pu:n] A1' "bestow, confer upon"⁵⁴

慣 *kwan : ɸu gun [khun] C2 "be familiar with"

The rounded vowel correspondences in TH look irregular; however, these cases might be parallel to those in rime 桓 (cf. V.10.6.e. and f.).

V.10.8.a.仙 *-jwän : ɰ:n, on[ɰ:n, on]

蟬 *h'jwän : ɰu yɰ:n [yɰ:n] A2 "wriggle, worm in"

穿 *tshjwän : ɰu sn [sor.] A1 "bore through, thread (a needle)"⁵⁵

For the hó-k'ǒu of this rime, we could find only two examples in TH that contain a rounded vowel. The rest of the examples listed below all have open vowels, similar to those for the k'āi-k'ǒu part of this rime. The open vowels in the TH forms, thus, seem to indicate that there was no primary hó-k'ǒu element in OC as suggested by Li (1971). The various TH final correspondences for this rime are [-ian], [-e:n], and [-in]:

沿 *jiwän < **rjian : 廉 li:an [lian] A2 "imitate, follow"
圓 *jwän < **gwjan : 韋 wian [wian] A2 "revolve, encircle; circle"

𡵓 *jiwän < **rjian : 𡵓 le:n [le:n] A2 "marsh, mire"

鉛 *jiwän < **-jian : 𡵓 jin [chin] A2 "lead (metal)"

綴 *tjwät < **tjuat : 𡵓 ti?d [tit] D1 "sew; connect, continue"

V.10.9.a. 元 *-jwɔn : uan[uan]

幡 *phjwɔn : 幡 phuan [phuan] A1 "turn, changeable"⁵⁶

園 *jwɔn : 園 suan [suan] A1 "garden"

月 *ngjwɔt : 月 nuaʔd [nuat] D2 "a recurring period
(usually every three months)"⁵⁷

V.10.9.b. 元 *-jwɔn : u:n[u:n]

蕃 *bjwɔn : 蕃 bu:n [phu:n] A2 "increase; flourishing"

蕨 *kjwɔt : 蕨 ku:ʔd [ku:t] D1 "a kind of edible fern"⁵⁸

V.10.9.c. 月 *-jwɔt : oʔd[ot]

厥 *kjwɔt : 厥 gʔd [khot] D2 "a stone lodged in a tree"

V.10.9.d. 元 *-jwɔn : u:n[u:n]

萬 *mjwɔn- : 萬 hmu:n [mu:n] B1 "ten thousand"

All the above vowels in the TH final correspondences for rime 元 *-jwɔn are of back vowel varieties. Although, the final correspondences we could find are for the hó-k'óu words, and none for the k'ai-k'óu, still, the fact that this rime has correspondences only of the back vowel varieties indicates some significance. It favors the hypothesis that MC 元 *-jwɔn had a back vowel with some degree of rounding (Pulleyblank 1962: 82-3), not a mere low central vowel ɤ as reconstructed by Karlgren (1954). Other evidences supporting a back vowel for this rime, in addition to the TH final correspondences, are the preservation of a back vowel in Foochow (-ion) and Goon (-on), on the one hand, and the placing of rime 元 adjacent to rimes 魂 and 痕 in the CY, on the other hand. Like rime 元, rimes 魂 and 痕 both have back vowel reflexes in TH (cf. V.11.1. and 魂 and 痕).

V.11.5.).

V.10.10. 先 *-iwen : wæ:n[wæm]

懸 *ɣiwen : 𐀄𐀆𐀆 khwæ:n [khwæ:n] A1 "suspend, hang"

We have only one example for this rime, but this MC rime does not contain that many words in Chinese either.

V.11. Rime Group chēn 臻

V.11.1.a. 痕 *-ən : ɔn, ɔ:n[ɔn, ɔ:n]

艮 *kən- : 𐀄𐀆 kn [kon] B1 "to be determined"

根 *kən : 𐀄𐀆𐀆 go:n [kho:n] A2 "base of a tree, foundation"

V.11.1.b. 痕 *-ən : un[un]

吞 *thən : 𐀄𐀆 thun [thun] A1 "drink (a solution of a drug)"

The TH final correspondences in the three examples indicate a rounded back vowel for this rime. This possibility is also suggested by several dialects where a back rounded vowel is preserved; moreover, it is not distinguished from the hó-k'ǒu rime 魂, such as in Foochow (-oun), Amoy (-un), Go-on (-on), and Kan-on (-on).

V.11.2.a. 真 *-jěn : in[in]

鱗 *ljěn : 𐀄𐀆 lin [lin] B2 "pangolin"

密 *mjět : 𐀄𐀆 mi?d [mit] D2 "completely hidden, secret"

真 *tsjěn : 𐀄𐀆 criŋ [ciŋ] A1' "true, real"

盡 *dzjen/ : sin [sin] C1' "to come to an end"

The four examples (also No. 433 in VII.2.) of MC *-jěn corresponding to TH [-in] all come from OC **-jin and **-jit of the 真 and 脂 categories.⁵⁹

Karlgren (1954) reconstructed this rime as *-jěn which is very similar to his reading of *-ien for rime 先. As shown

above in section V.10.5., MC 先 corresponds mainly to TH [-en] and [-æ:n], and rime 真 in this section to TH [-in]. The reconstruction of this rime with the vowel *i* has been suggested by Pulleyblank (1962:81), who based his reconstruction on the fact that in Chinese transcriptions of foreign words dating from the Han period, the reflexes of this rime normally indicate clearly an *i* vocalism. The TH final correspondence [-in] here, then, adds one more evidence to justify Pulleyblank's reconstruction *-i̯in for this rime.

As for the last example [ciŋ] Al' "true, real," the consonant ending -ŋ of the TH form might reveal an older stage before -ŋ became -n. This is possible because this category in OC also contains words which are later classified under those rimes with final ending -ng in the CY, such as, the words 令 *ljäng-, 命 *mjong-, etc. Pulleyblank (1962:102) and Li (1971:48-50) explained this phenomenon in terms of assimilation of back consonant finals after front vowels; that is, in some dialects, such as that of the Shih Ching, *-ng after the vowel *-i was assimilated and fronted from *-ng > *-ń > *-n through the influence of the vowel. These words with final *-ng > *-n then merged with those of rime 文. Moreover, the same phonetic is used for words ending in either -n or -ng, e.g. 冥 *mieng "dark, hidden" and 瞑 *mien "shut the eyes," 真 *tsjěn "true, real" and 輶 *kheng "sound of a chariot," etc. Therefore, it is very likely that the word 真 *tsjěn had originally a consonant ending *-ng as is preserved in the TH form.

- V.11.2.b. 質 *-jět : e?d[et]
 七 *tshjět : 𠂔 ce?d [cet] D1 "seven"
 𩇑 *phjiět : 𠂔 pe?d [pet] D1 "duck"
 一 *?jiět : 𠂔 ?e?d [?et] D1 "one"⁶⁰
 逸 *jiět : 𠂔 le?d [let] D2 "escape artfully or adroitly"

These words all belong to the jù-shēng type. The vowel -e- probably evolved through the influence of the final ending -t.

- V.11.2.c. 真 *-jěn : an, a:n[an, a:n]
 震 *tsjěn- < **tjiənh : 𠂔 san [san] B1 "shake, tremble"
 𠂔 *mjěn/ < **mjiənx : 𠂔 hman [man] B1 "diligent"
 彬 *pjěn < **pjian : 𠂔 pa:n [pa:n] A1' "equal to, like"

All three examples have an origin different from those in sections a. and b. They come from the OC 文 category. The TH final seems to indicate that originally the 文 category has a vowel lower than that of the 真; i.e., the former had a low front vowel, and the latter a high front one.

- V.11.2.d. 真 *-jěn : æ:n[æ:n]
 𠂔 *ńjěn- : 𠂔 næ:n [næ:n] B2 "full, crowded
 (as a room)"

- V.11.2.e. 真 *-jěn : ən[ən]
 銀 *ngjěn : 𠂔 ɲən [ɲən] A2 "silver, money"

This word belongs also to the OC 文 category. TH has an older form 𠂔 ɲuan [ɲuan] A2 "silver, money" which is preserved in a thirteenth century inscription.

- V.11.2.f. 真 *-jěn : uan[uan]
 𧈧 *jiěn : 𠂔 ?duan [duan] A1' "earth-worm"

The final correspondence here is the same as that of

[ŋuan] A2 "silver" in the preceding section. The character 蟬*jiěn is a fourth division "rime doublet," whereas 銀*ngjěn is of the third division. The fact that both have the same correspondence in TH shows that TH does not distinguish all cases of the third and fourth division "rime doublets" (cf. V.10.4.).

V.11.3.a. 櫛 *-jɛt : ɯaʔd[ɯat]

蝨 *sʝɛt : ɿʔaŋ ruɯaʔd [ruat] D2 "bed bug"

For this rime, Karlgren (1954) used the vowel *-ɛ-, and thus distinguished it from the *-ě- of rime 真.質. Later Chao (1941) pointed out that rime 臻.櫛 which occurred only after supradental initials tʃ, tʃh, dʃ, and ʃ, was in complementary distribution with 真.櫛. Pulleyblank (1962:80-1) thought that there might exist some phonetic difference between rimes 真 and 臻 leading to the setting up of two separate rimes in the CY. His suggestion was the retraction of the main vowel of rime 臻 from i to ɨ under the influence of the retroflex initials. Based on the TH final correspondence, Pulleyblank's suggestion of having the vowel ɨ for rime 臻 is acceptable, but the vowel might not be merely a central one, but a back vowel, either ɯ or ɯa. The solution might be that during the CY period, rime 真 was primary -in, and 臻 -ɯn or -ɯan; the CY in its attempt to retain all the phonetic distinctions found in the current dialects at that time, consequently set rimes 真 and 臻 up as two separate rimes. However, it is doubtful that there was any phonemic distinction since a couple of words from rime 真, like 臻, also correspond to [-uan] in TH (cf. V.11.2.d. and e.).

Moreover, the two rimes later merged and the merging took place not long after the CY period, because in the sound glosses of 慧林 Hui-lín, a ninth-century work, they had already fallen together (Huang 1930).

V.11.3.b.臻 *-jɛn : on[on]

臻 *tɕjɛn : ɣu cn [con] A1' "until, reach"⁶¹

瑟 *ɕjɛt : ʃɳ sʔd [sot] D1 "bright, fresh-looking"

The TH final correspondence here is irregular for which no explanation can be given at the moment. For further investigation, however, one might take into account that the character 瑟 *ɕjɛt is used for "bright, fresh-looking" only in the Shih Ching and that its later occurrences in other texts are all quotes from the Shih Ching.⁶²

V.11.4.a.魂 *-uən : on[on]

噴 *phuən- : wu bn [phon] B2 "squirt, emit"

扣 *ɣuət : ʃɳ gʔd [khot] D2 "dig up, dip out"⁶³

V.11.4.b.魂 *-uən : ɔ:n[ɔ:n]

墩 *tuən : ʃɳ ʔdɔ:n [dɔ:n] A1' "rising ground, mound"

V.11.4.c.魂 *-uən : un, u:n[un, u:n]

悶 *muən- : ʃɳ mun [mun] B2 "to be unhappy"

沒 *muət : ʃɳ muʔd [mut] D2 "to dive (as fishes)"

艱 *buət : ʃɳ ʔbu:ʔd [bu:t] D1 "cross or annoyed looks"

V.11.4.d.魂 *-uən : uan[uan]

燁 *thuən : ʃɳ ʔthuan [thuan] C1 "complete"

This rime, unlike the rimes 桓 *-uân (cf. V.10.6.) and 諄 *-juěn (cf. V.11.5.), is a case of separate hó-k'ǒu rimes in the CY; consequently it is written by Karlgren (1954)

with medial -u-. The TH final correspondences in the above a, b, c, and d. all agree in having a rounded vowel, indicating that this rime must have possessed a rounded head vowel, either a simple vowel o, u or a diphthong ua. The rounded quality of the vowel made it impossible to identify the head vowel with any of the corresponding k'āi-k'ōu rimes, and therefore led to the introduction of a new rime in the CY.

Evidence favoring the hypothesis of a rounded vowel for this rime, in addition to the TH final correspondences, can be cited not only from the system of transcription, but also from modern Chinese dialects. Chinese transcription dating from the Han times used this rime to represent foreign -un (Pulleyblank 1962: 81). In some Chinese dialects, it is not distinguished from rime 痕 (cf. V.11.1.); for example, Foochow has -oun for both rimes and Amoy has -un.

V.11.4.e. 云鬼 *-uən : ə:n[ə:n]
 屯 *duən < **dən : 𪛗 dən [thə:n] A2 "knoll, hillock"
 訥 *nuət < **nət < **nəp : 𪛗 nətʔb [nə:p] D2
 "slow (speak)"

The TH finals correspond to the OC stage of this rime. The TH consonant ending [-p] in the second example reveals even an earlier date. The word 訥 belongs to the phonetic series 入 *nǝjəp, 納 *nəp, etc. (KY 1969:323-5). Based on this evidence, it is believed that this word had an ending **-p during the early OC period and that afterwards, at least by Shih Ching times, **-p changed to **-t (Li 1971:33).

V.11.4.f. 魂 *-uən : an[an]

魂 *ɣuən < **gwan : 𣎵 khwan [khwan] A1 "spiritual soul"
昏 *xuən < **hmən : 𣎵 hman [man] A1 "barren, sterile"⁶⁴

The TH final correspondence when compared with the OC readings, is not too irregular. The OC **-ə- here might have been very close to a short central a resulting from the effect of the initials. This correspondence set again shows that there was no hó-k'ǒu and k'āi-k'ǒu distinction in OC, that the majority of hó-k'ǒu cases were derived from changes in labial and labio-velar initials (cf. V.1.3.a.).

V.11.5. 諄 *-juěn

For this rime, we have found only two examples of the jù-shēng type as follows:

出 *tshjuēt : 𣎵 che:ʔd [che:t] D1 "drive out, expel"
蟀 *sjuēt : 𣎵 hri:ʔd [ri:t] D1 "cricket"

This rime, unlike rime 魂 in the preceding section, did not appear in the CY, but like rime 桓 (cf. V.10.6.) was added in the KY. Actually, the phonetic change which led to the setting up of an independent rime took place after the CY, and the earliest evidence is found only in the sound glosses of Huì-lín (Pulleyblank 1962:81-2).

The TH final correspondences [-e:t] and [-i:t] are similar to those of rime 真 (cf. V.11.2.a. and b.). This probably reveals an early date before the sound changes took place and consequently separated rime 諄 from 真.

V.11.6.a. 文 *-juən : un[un]

粉 *pjuən/ : 𣎵 fun [fun] B1 "powder"

員 *juən- : 員 wun [wun] B2 "ravelled, perplexing, in confusion"

鬱 *?juət : 鬱 ?u?d [?ut] D1 "to block up"

Parallel to rime 魂 (cf. V.11.4.), this rime already in the CY is a case of separate hó-k'ǒu. The TH regular final correspondence for this MC rime is [-un], altogether we have 6 examples (see no.179, 180, 222 in VII.2). It should be noted that the initial f- in the word [fun] B1 "powder" reflects the extensive dentilabialization of the post MC period and indicates that the word is a loan from Chinese and that the vowel -u- in this set is probably the value of this rime in the MC period.

V.11.6.b. 物 *-juət : ua?d[uat]

物 *mjuət : 物 hmua?d [muat] D1 "class, sort, division"

V.11.6.c. 文 *-juən : an[an]

分 *pjuən < **pjən : 分 pan [pan] A1' "divide into shares"

拂 *phjuət < **phjət : 拂 pa?d [pat] D1 "to dust, wipe"

運 *juən- < **gwjənh : 運 gwan [khwan] B2 "twist (strands or 運 van [fan] B2 of cord together)"

The TH final seems to correspond to the OC stage, which is true also for the initial correspondences (cf. IV.1.1.a. and IV.7.8.a.). The TH form [khwan] B2 alternating with [fan] B2 in the last example shows clearly that the labial medial -w- exists only after velars. It disappears when the initial is a labial, because the cluster of a labial + -w- is a phonetically impossible sequence in Thai. This is probably true within the phonological system of MC and this clarifies the phenomenon that hó-k'ǒu medial -w- does not exist after labial initials (cf. V. -

1.3.a.).

V.11.6.d. 文 *-juən : ʋən[ʋən]

忿 *bjuən/ < **bjənɣ : ฝุ bʋən [phʋən] C2 "to get angry"

V.12. Rime Group tàng 宕

V.12.1.a. 唐 *-âng : a:ŋ[a:ŋ]

唐 *dâng⁶⁵ : ທາŋ da:ŋ [tha:ŋ] A2 "path"

倉 *tshâng : ຈາŋ cha:ŋ [cha:ŋ] A1 "granary"

當 *tâng : ຕາŋ ta:ŋ [ta:ŋ] B1 "act as; in place of"

盎 *?âng : ວາŋ?a:ŋ [ʔa:ŋ] B1 "basin, bowl"

V.12.1.b. 唐 *-âng : aŋ[aŋ]

囊 *nâng : ນັ່ງ naŋ [naŋ] A2 "trailing collection of bags"⁶⁶

罔 *khâng- : ຈັ່ງ khaŋ [khaŋ] A1 "to hold (water), confine"

索 *sâk : ຈັກ zak [sak] D2 "inquire, ask"

MC 唐 *-âng corresponds regularly to either TH [-a:ŋ] or [-aŋ]. In addition, we have four rather irregular cases which we wish to keep for further investigation:

膊 *phâk : ບາ ?ba: [ba:] B1 "the shoulder"

櫟 *thâk : ທອກ thæ:k [thæ:k] D1 "pry open"

堂 *dâng : ໂທŋ tho:ŋ [tho:ŋ] A1 "hall"

烙 *lâk : ຄລອກ glo:k [khlɔ:k] D2 "burn"

V.12.2.a. 陽 *-jang : i:aŋ[iaŋ]

養 *jiang/ : ເລັ່ງ li:aŋ [liaŋ] C2 "feed, nourish"

樣 *jiang/ : ເຢັ່ງ yi:aŋ [yiaŋ] B2 "pattern"

娘 *njang : ເນັ່ງ ni:aŋ [niaŋ] A2 "lady, woman"

There are altogether 5 examples (see also no. 240 and 241 in VII.2.) of MC *-jang corresponding to TH [-iaŋ].

V.12.2.b. 陽 *-jang : a:ŋ[a:ŋ]

娘 *njang : 𠂔 na:ŋ [na:ŋ] A2 "lady, woman"

匠 *dzjang- : 𠂔 a:ŋ [cha:ŋ] B2 "artisan, mechanic"

狀 *dzjang- : 𠂔 ra:ŋ [ra:ŋ] B2 "form, shape"

The double correspondence of the word 娘 *njang in TH (see under a. and b. above) probably indicates two different stages of borrowing. The assumption that these forms for "lady, woman" are loan words from Chinese is based on the fact that the words exist only in the SW group, and not in either the NT or CT groups (Li MS). The TH form [nian] A2 might be the correspondence for the MC reading, whereas the form [na:ŋ] A2 is of an earlier date. Before the CY period, such as the Nan-Pei-ch'ao times, this rime was not distinguished from rime 唐 which corresponds to TH [-a:ŋ] or [a:ŋ] as shown in the preceding section. This does not mean that it lacked the -l- medial at that time, however.

V.12.2.c. 藥 *-jak : ak[ak]

掠 *ljak : 𠂔 lak [lak] D2 "steal"

着 *tjak : 𠂔 cak [cak] D1 "to be going to"

酌 *tsjak : 𠂔 tak [tak] D1 "dip up, ladle"

The following are correspondences for which the TH forms show a back vowel. However, they all belong to the OC 宵 category which was reconstructed by Li (1971) with a final labio-velar consonant *-kw. This final *-kw had a bearing on the vowels; i.e., it caused rounding of the vowels before *-kw was changed to *-k. The vowels in the TH forms listed below probably show the stage after the vowels had already been

affected by the final ending **kw.

雀 *tsjak < **tsjakw : ခန cɔ:k [cɔ:k] D1 "tree sparrow"

謔 *xjak < **hngjakw : ဟန hɔ:k [yɔ:k] D1 "jest, make
fun of"

藥 *jiak < **ngrjakw : ဟုန hyu:k [yu:k] D1 "medicine"

躑 *gjak < **gjakw : ဂန guk [khuuk] D2 "vigorous, vivacious
(horses, etc.)"

屨 *kjak < **kjakw : ကေန ku:ak [kuak] D1 "shoes, sandals"

In addition there are three cases of irregularity as follows:

薑 *kjang : ခ်န khiṇ [khiṇ] A1 "ginger"

強 *gjang : ကျံန khæṇ [khæṇ] A1 "strong"

妝 *tɕjang : တေ့န tæ:ṇ [tæ:ṇ] B1 "to dress, adorn
oneself"⁶⁷

The irregularity of the first example here might be due to the possibility that the word originated in South East Asia where this plant is commonly grown. The Chinese word might be a loan-word borrowed from Thai. Benedict (1967:216, 303) believed that this word is of Thai origin and that the Chinese, Burmese and other Tibeto-Burman forms were borrowed from Thai.

V.12.3. 唐 *-wâṅ : wa:ṇ [wa:ṇ]

廣 *kwâṅ/ : ကျံန kwa:ṇ [kwa:ṇ] C1 "wide"

V.12.4.a. 陽 *-jwang : uan [uan]

舫 *pjwang- : ပာန buan [phuan] B2 "pontoon, raft"

Here the TH final [-uan] has probably been influenced by the labial initial. In TH, -w- occurs after velar initials, but not after labials. For the two examples above, the labial initials,

thus, caused the medial -w- to become -u- giving rise to the diphthong -ua-.

- V.12.4.b. 陽 *-jwang : uŋ, u:ŋ[uŋ, u:ŋ]
 望 *mjwang- : ɰŋ mun [mun] B2 "aim at"
 網 *mjwang/ : ɰŋ mun [mun] C2 "mosquito nets"
 縛 *bjwak : ɰŋ phu:k [phu:k] D1 "bind, tie"

All three examples have a labial initial and the development of the TH final is similar to that in the preceding section. Instead of the diphthong -ua-, there came to be a simple rounded vowel.

- V.12.4.c. 陽 *-jwang : ɰŋ[ɰ:ŋ]
 罔 *mjwang/ : ɰŋ mɰ:ŋ [mɰ:ŋ] A2 "a kind of bag-net"
 V.12.4.d. 陽 *-jwang : a:n[a:n]
 亡 *mjwang : ɰŋ wa:ŋ [wa:ŋ] A2 "die, perish"

Judging from the TH initial [w-], which reflects the extensive dentalabialization of the post MC period, this word might have been borrowed into Thai from late MC or from some Chinese dialect, such as Peking where this word is read wáng.

V.13. Rime Group chiāng 江

- V.13.a. 江 *-ǎng : ɰŋ[ɰ:ŋ]
 雙 *sǎng : ɰŋ sɰ:ŋ [sɰ:ŋ] A1 "two"
 江 *kǎng : ɰŋ glɰ:ŋ [khlɰ:ŋ] A2 "a watercourse"
 棒 *bǎng/ : ɰŋ blɰ:ŋ [phlɰ:ŋ] A2 "a club, a cudgel"
 剥 *pak : ɰŋ pɰ:k [pɰ:k] D1 "to peel"

The TH final correspondence here agrees with the hypothesis that this rime originates from a back vowel, i.e. from the OC 東 and 侯 categories. Moreover, the TH final [-ɰ:ŋ] is the one

which corresponds also to rime 冬 and 鍾 (cf. V.16.2. and V.16.4.); and this correspondence corroborates the placing of rime 江 adjacent to 冬 and 鍾 in the CY and in the rime tables.

V.13.b. 覺 *-āk : o:k[o:k]

擗 *khāk : 𠵿n kho:k [kho:k] D1 "to knock"

V.13.c. 覺 *-āk : a:k[a:k]

殼 *khāk : 𠵿n ka:k [ka:k] D1 "shell, chaff, mask"

It is possible that the vowel of this rime later fronted to -a because it caused palatalization of velar initials, like other rimes with the vowel -a (Chao 1940, Pulleyblank 1962-3). If so, then we can determine that TH [-a:k] pertains to a date later than [-ɔ:k].

V.14. Rime Group tsēng 曾

V.14.1.a. 登 *-əng : aŋ[aŋ]

𡗗 *pəng : 𡗗 baŋ [phaŋ] A2 "tumble down"

憎 *tsəng : 𡗗 jaŋ [chaŋ] A2 "hate, detest"

登 *təng- : 𡗗 taŋ [taŋ] B1 "stool"

MC *-əng corresponds regularly to TH [-aŋ].

V.14.1.b. 德 *-ək : uk

墨 *mək : 𡗗 hmuk [muk] D1 "ink"

特 *dək : 𡗗 thuk [thuk] D1 "young male animal"

The TH final corresponds to the OC reading of this rime which was reconstructed as **-ək.

V.14.2.a. 蒸 *-jəng : iŋ[iŋ]

憑 *bjəng : 𡗗 biŋ [phiŋ] A2 "lean on, depend upon"

We have only one example of MC *-jəng corresponding to TH [-iŋ]. However, the TH final agrees with several Chinese

dialects in having the vowel *i* for this rime, e.g. Mandarin, Cantonese, Foochow, Wenchow, etc.

V.14.2.b. 蒸 *-jəŋg : ɯaŋ[ɯaŋ]

澄*ɖjəŋg : ɽiəŋ rɯaŋ [rɯaŋ] A2 "limpid, clear"

埴*ʒjək : ɽiəŋ duək [thuək] D2 "mud, mire"

V.14.2.c. 蒸 *-jəŋg : ɯŋ[ɯŋ]

瞪*ɖjəŋg⁶⁸ : ɽiəŋ thɯŋ [tha-luŋ] A1 "fierce, stare; to stare hard at"

The TH finals in c. and b. here seem to preserve the vowel **-ə- of these words in OC readings.

V.14.2.d. 蒸 *-jəŋg : aŋ[aŋ]

仍*ńjəŋg : ɽiəŋ yaŋ [yaŋ] A2 "still, yet"

擗*xjəŋg- : ɽiəŋ saŋ [saŋ] B1 "blow one's nose"⁶⁹

織*tsjək : ɽiəŋ cak [cak] D1 "weave (basket)"⁷⁰

Altogether we have found 5 examples (see also no. 9 and 46 in VII.2.) of MC *-jəŋg corresponding to TH [-aŋ]. The fact that the TH final correspondence here is the same as that for rime 登 (cf. V.14.1.a.) probably indicates that the date is approximately the time of KY when these two rimes began to rime together.

In addition, we have one case of irregularity:

蠅*jiəŋg : ɽiəŋ yuŋ [yuŋ] A2 "mosquito"

V.15. Rime Group kěŋg 梗

V.15.1.a. 庚 *-vŋg : æŋ [æŋ]

蟲*mŋg : ɽiəŋ mæŋ [mæŋ] A2 "insect"

羹*kŋg : ɽiəŋ kæŋ [kæŋ] A1' "soup"

客*khək : ɽiəŋ khæ:k [khæ:k] D1 "guest, stranger"

Karlgren reconstructed this rime with a low back vowel ɤ.

However, the fact that it occurs in the second division indicates that it came from an open front vowel (Chao 1941, Pulleyblank 1962-3). The TH final correspondence, thus, supplies evidence for an open front vowel.

V.15.1.b. 陌 *-ɔk : ak, a:k[ak, a:k]

𪔐 *tɔk : 𪔐 hak [hak] D1 "to break, broken (stick)"

𪔐 *khɔk : 𪔐 kha:k [kha:k] D1 "spit out"

Listed below are cases of irregularity:

𪔐 *ɖɔŋ : 𪔐 drɔŋ [sɔŋ] A2 "maintain, sustain"

白 *bɔk : 𪔐 phwɔk [phwɔk] D1 "white"

擇 *ɖɔk : 𪔐 lwɔk [lwɔk] D2 "choose"

V.15.2.a. 麥 *-ɛk : æ:k[æ:k]

𪔐 *tʃhɛk : 𪔐 chæ:k [chæ:k] D1 "toothed (as a leaf),
serrated"

𪔐 *ʔɛk : 𪔐 ʔæ:k [ʔæ:k] D1 "yoke"

V.15.2.b. 耕 *-ɛŋ : iŋ[iŋ]

𪔐 *tʃɛŋ : 𪔐 ʃiŋ [chiŋ] A2 "fight for, take by force"

The TH final correspondence reflects the OC stage of this rime for which the head vowel as reconstructed by Li (1971) was **-i-.

V.15.3. 庚 *-jɔŋ : e:ŋ, æ:ŋ[e:ŋ, æ:ŋ]

京 *kjɔŋ : 𪔐 ke:ŋ [ke:ŋ] A1' "city"

驚 *kjɔŋ : 𪔐 kre:ŋ [kre:ŋ] A1' "to fear"

競 *gjɔŋ- : 𪔐 khæ:ŋ [khæ:ŋ] B1 "compete"

As in section V.15.1., the TH final correspondences show an open front vowel, which corroborates the suggestion of an open front vowel for this rime, on the basis of its behavior in modern

Chinese dialects (Chao 1941, Pulleyblank 1962-3). Like other rimes with the vowel *-a, the final of this rime caused palatalization of velars, e.g. 京 *kjəŋ > Peking chīng. Moreover, like other rimes with front vowels, this rime did not cause dentilabialization.

V.15.4.a. 清 *-jäŋ : i:əŋ[iəŋ]

正 *tsjäŋ : 𠂔ci:əŋ [ciaŋ] A1 "first month"

城 *zjäŋ : 𠂔di:əŋ [thiaŋ] A2 "walls"

聲 *sjäŋ : 𠂔si:əŋ [siaŋ] A1 "sound"

Altogether we have found 5 examples (see also no. 517 and 556 in VII.2.) of MC *-jäŋ corresponding regularly to TH [-iaŋ].

V.15.4.b. 清 *-jäŋ : æŋ, əŋ[æŋ, əŋ]

聲 *sjäŋ : 𠂔sæŋ [sæŋ] A1 "sound"⁷¹

餅 *pjäŋ/ : 𠂔pæŋ [pæŋ] C1 "flour, cake, pastry"

偵 *thjäŋ : 𠂔th-læŋ [tha-læŋ] A1 "verify, declare"

勁 *kjäŋ- : 𠂔khæŋ [khæŋ] A1 "strong"

The double correspondence of the character 聲 *sjäŋ with TH [siaŋ] A1 (see a. above) and [sæŋ] A1 shows that final [-iaŋ] is phonetically close to [-æŋ] (cf. V.10.4.a. and c.).

V.15.4.c. 昔 *-jäk : i:k[i:k]

益 *?jäk < **?jik : 𠂔i:k [?i:k] D1 "more"

V.15.4.d. 音 *-jäk : ak[ak]

腋 *jiäk < **rak : 𠂔rak [rak] D2 "the arm-pits"⁷²

The TH finals in sections c. and d. correspond straightforwardly to the OC forms.

In addition, we have two examples in which the TH finals

contain the vowels a and ua. They all belong to the jù-shēng type. The irregular vowels might have been caused by the final velar consonant. The two sets are as follows:

開 *bjäk : 𐑯𐑦𐑦 bə:k [phə:k] D2 "to open"⁷³

赤 *tshjäk : 𐑯𐑦𐑦𐑦 thwak [thuak] D1 "red"

V.15.5.a. 青 *-ieng : e:ŋ[e:ŋ]

寧 *nieng- : 𐑯𐑦𐑦 ne:ŋ [ne:ŋ] B2 "to be quiet"

曆 *liek : 𐑯𐑦𐑦 le:kh [le:k] D2 "numbers"⁷⁴

擊 *kiek : 𐑯𐑦𐑦 khe:k [khe:k] D1 "strike, knock (with the knuckles)"

This rime is parallel to rime 先 (cf. V.10.5.); thus, the suggested final is *-eng. The TH final correspondence agrees in identifying the head vowel as -e-.

V.15.5.b. 青 *-ieng : æ:ŋ[æ:ŋ]

錠 *dieng- : 𐑯𐑦𐑦 dæ:ŋ [thæ:ŋ] B2 "ingot, bar, classifier"

脛 *ŋieng- : 𐑯𐑦𐑦 khæ:ŋ [khæ:ŋ] C1 "shin"

劈 *phiek : 𐑯𐑦𐑦 phæ:k [phæ:k] D1 "divided or broken up into sections"

This rime, as well as parts of the above four rimes in the rime group 梗 kěng, all have the same final correspondence [-æ:ŋ] in TH (cf. V.15.1.a., 15.2.a., 15.3. and 15.4.b.). Actually, in the period preceding the CY, i.e., the Nan-Pei-ch'ao, these rimes were not clearly distinguished from one another.

V.15.5.c. 青 *-ieng : i:ŋ[iaŋ]

並 *bieng/ : 𐑯𐑦𐑦 bi:ŋ [phiaŋ] C2 "equal to, on a par with"

茗 *mieng/ : 𐑯𐑦𐑦 mi:ŋ [miaŋ] B2 "tea leaves prepared for"

chewing"

定 *dieng- : ติ่ง di:əŋ [thiaŋ] B2 "certain"⁷⁵

The TH final reflects probably the value of this rime in the period after the CY (cf. V.10.5.c.).

V.15.5.d. 青 *-ieng : iŋ[iŋ]

寧 *nieng- : นิ่ง niŋ [niŋ] B2 "to be quiet"

疔 *tieng : ติ่ง tiŋ [tiŋ] B1 "excrescence"

The double correspondence of the character 寧 *nieng (see also under a. above) might indicate that the TH form [niŋ] B2, which corresponds to the OC reading, is related genetically to Chinese, whereas the form [neŋ] B2 is a loanword borrowed into Thai from MC.

Listed below are four sets of words for which the final correspondences are irregular:

挺 *dieng/ : ติ่ง duiŋ [thuiŋ] C2 "pull or pluck out forcibly"

蓐 *diek : ติ่น dak [thak] D2 "a kind of basket made of bamboo strips"

條 *diek : ติ่น thk [thok] D1 "denude, strip off"

憾 *tshiek : ติ่น ɰɔ:k [chɔ:k] D2 "grieved"

The last two examples come from OC **-iəkw of the category. It was probably the influence of the final labio-velar consonant which caused the rounding of the vowels in these two words.

V.15.6. 庚 *-wəŋ : wa:ŋ[wa:ŋ]

橫 *ɣwəŋ : ขวาง khwa:ŋ [khwa:ŋ] A1 "crosswise"

V.16. Rime Group t'ūng 通

V.16.1.a. 東 *-ung : oŋ[oŋ]

送 *sung- : sŋ [soŋ] B1 "send"

工 *kung : ŋ kŋ [koŋ] A1 "work, task"⁷⁶

紅 *yung : ɰ hŋ [hoŋ] A1 "red"

屋 *ʔuk : ʔŋ ʔk [ʔok] D1 "house"⁷⁷

V.16.1.b. 東 *-ung : o:ŋ[o:ŋ]

甕 *ʔung- : ʔŋ ʔo:ŋ [ʔo:ŋ] B1 "larged-size water jar"

籠 *lung : ʔŋ lo:ŋ [lo:ŋ] A2 "casket, coffin"

MC *-ung corresponds to either [-oŋ] or [-o:ŋ] in TH.

V.16.1.c. 東 *-ung : ɔ:ŋ[ɔ:ŋ]

銅 *dung : ɰŋ dɔ:ŋ [thɔ:ŋ] A2 "gold"⁷⁸

樞 *luk : ʔŋ rɔ:k [rɔ:k] D2 "pulley"

V.16.1.d. 東 *-ung : uŋ[uŋ]

烘 *xung : ɰŋ huŋ [huŋ] A1 "to cook (rice)"

The TH final corresponds to the OC reading *-ung of the

東 category.

V.16.1.e. 東 *-ung : aŋ[aŋ]

同 *dung : ɰŋ daŋ [thaŋ] D2 "together, assemble"

桶 *thung; : ɰŋ thaŋ [thaŋ] A1 "bucket, a capacity measure
(for rice, etc.)"

閔 *yung- : ɰŋ gaŋ [khaŋ] B2 "be in discord"

Altogether we have 5 examples of MC *-ung corresponding to TH [-aŋ] (see also no. 228 and 537 in VII.2.). The fact that TH has an open vowel matching the MC rounded vowel seems irregular; however, if one takes into account the fact that rime 東 occasionally rimed with rime 陽 which contained the

vowel a, then the irregularity here is not difficult to explain, Li (1971) concluded that the occurrence of rime 東 riming with 陽 were an Archaic dialectal phenomenon; i.e. in some dialects the breaking of *-u gave rise to *-ua and later a. This phonetic change may have started rather early because the compatibility of rimes 東 and 陽 existed already in the Shih Ching, though not frequently, and by Han times it was widespread.

The TH final [-aŋ] corresponding to MC *-ung thus shows a phonetic change similar to that of certain dialects in Han times. Some might think that these TH forms are later loanwords borrowed from Ch'áo-chōu, a Southern Min dialect spoken by the majority of the Chinese in Thailand, for in the Southern Min dialects, words from rime 東 are pronounced with a head vowel a. This is not plausible, because the word *daŋ* [thaŋ] A2 "together, assemble" appears already in the thirteenth-century inscription of King Ram Kamhaeng. If they are really loanwords from some Southern Min dialect, they must have been borrowed into Thai at an early date.

In addition to the above correspondences, we have one case of irregularity:

通 *thung : 通 thung [thung] A1 "reach to, attain"⁷⁹

V.16.2.a. 冬 -uong : 冬 [ɔ:ŋ]

彤 *duong : 彤 dɔ:ŋ [thɔ:ŋ] A2 "orange-red"⁸⁰

牯 *kuok : 牯 gɔ:k [khɔ:k] D2 "stable, pen"

膿 *nuong : 膿 hnɔ:ŋ [nɔ:ŋ] A1 "pus"

V.16.2.b. 沃 *-uok : 沃 ok[ok]

裸 *puok : 裸 pk [pok] D1 "collar"

This is a hó-k'ǒu rime and thus was reconstructed by Karlgren with medial -u-. However, the TH final correspondences having simply the vowel ɔ: or ɒ justify the suppression of *-u- in this rime on the basis that a rounded head vowel was itself considered a hó-k'ǒu (Li Jung 1952:134, Pulleyblank 1962:73).

V.16.3.a. 東 *-jung : on[on]

弓 *kjung : 𐄢 kɲ [kon] Al' "a bow (used for shredding cotton)"

六 *ljuk : 𐄢 hk [hok] D1 "six"

忠 *tjung : 𐄢 trɲ [tron] Al' "loyal, faithful"

Altogether we have 9 examples (see also no. 25, 59, 70, 374, 405, and 493 in VII.2.) of MC *-jung corresponding regularly to TH [-on].

V.16.3.b. 東 *-jung : o:ɲ[o:ɲ]

終 *tśjung : 𐄢 to:ɲ [to:ɲ] B1 "the end, finally"

V.16.3.c. 屋 *-juk : ɔ:k[ɔ:k]

竹 *tjuk : 𐄢 tɔ:k [tɔ:k] D1 "bamboo strips"

築 *tjuk : 𐄢 tɔ:k [tɔ:k] D1 "to pound, hammer down"

As shown in sections a., b., and c., of rimes *-ung (V.16.1.) and of *-jung here, both rimes have the same final correspondences in TH [-on], [o:ɲ], or [ɔ:ɲ]. Thus, the first and third division rimes 東 are not distinguished in TH.

V.16.3.d. 東 *-jung : uɲ, u:ɲ[uɲ, u:ɲ]

嵩 *sjung : 𐄢 su:ɲ [su:ɲ] Al' "high"

熟 *zjuk : 𐄢 suk [suk] D1 "ripe, cooked"

The TH finals reflect the vowel **u- of the 東 category in OC.

V.16.4.a. 鍾 *-jwong : ɔ:ŋ[ɔ:ŋ]

頌 *zjwong- : ʔɔ:ŋ [sɔ:ŋ] B2 "eulogize, praise"

勗 *tʃhjwong : ʔɔ:thɔ:ŋ [thɔ:ŋ] A1 "tamp, jab with an elbow"

誦 *zjwong- : ʔɔ:ɔ:ŋ [thɔ:ŋ] B2 "to recite"

錄 *ljwok : ʔɔ:ɔ:k [lɔ:k] D2 "copy down, transcribe"

The TH final correspondence for this rime is parallel to that for rime 冬 (V.16.2.a.). Actually, these two rimes were not distinguished in the period preceding the CY; and in the KY, they were classed as t'úng-yùng 同用

V.16.4.b. 鍾 *-jwong : ɔŋ[ɔŋ]

容 *jiwong : ʔɔ: ɪŋ [lɔŋ] B2 "feel at ease"⁸¹

勇 *jiwong : ʔɔ: yŋ [yɔŋ] A2 "brave"

V.16.4.c. 燭 *-jwok : u:k[u:k]

觸 *tʃhjwok < **thjuk : ʔu [thu:k] D1 "touch, knock against"

Here the TH final reflects the head vowel *-u- of the OC 侯 category. The final correspondence agrees with that of the initial which also shows the dental initial th-, the assumed value of this initial in OC before it was palatalized (cf. IV.4.6.1.a. and b.).

V.16.4.d. 燭 *-jwok : a:k[a:k]

欲 *jiwok : ʔa:ɪŋ [ya:k] D1 "to desire"

The vowel a in the TH form might be explained as resulting from the breaking of the vowel *-u- (cf. V.16.1.e.).

Paralleling the case of 通 *thung : thuŋ [thuŋ] A1 in rime 東 (V.16.1.), we have one case of rime 鍾 corresponding to TH [-uŋ]:

蜂 *phjwong : ʔu phuŋ [phuŋ] C1 "bees"

FOOTNOTES

¹This word normally occurs in the compound ¹กล่าวหา [kla:u] B1 = [ha:] A1 or ¹กล่าวหา [ha:] A1 - [wa:] B2 "to blame, accuse."

²In a phrase like [khon] A2 - [nai] A1, this word means "which?" In a sentence like [pai] A1' - [nai] A1, it means "where?" In a sentence like [thi:] B2 - [nai] A1 - [ca?] D1 - [tham] A2 - [dai] C1, it means "how?"

³This word is not currently used; it is found only in the classical poetry.

⁴This word occurs in the compound ¹นำพา [na:i] A2 - [tha:i] C2 "steersman."

⁵This form appears always in the synonym compound ¹ช่วย [cun] A1' - [cua] A1' "aid, assist."

⁶Chinese has another character 賒 *śja which is commonly used for "to buy or trade on credit."

⁷This word is an archaic term in TH and is preserved only in old literature (Thai Royal Institute 1950).

⁸The compound ¹เสาเข็ม [thau] C2 - [khæm] A1 means "a prop for awning, or supports for roof timbers." In the compound ¹ไม้เท้า [mai] C2 - [thau] C2, it means "a cane, staff." The word [thau] C2 as a verb means also "to lean against (as on a cane)."

⁹As in the synonym compound ¹รีรอ [ri:] A2 - [rɔ:] A2 "undecided, walk hesitatingly."

¹⁰The merging of OC **-jag was explained by Ting (1972) in terms of the breaking of the vowel y into vowel cluster ua as

suggested by Li (1971).

¹¹See the discussion on the tone of this word in section VI.3.2.f.

¹²This word appears in the binomes ¹เรี่ยราบ [ria] B2 - [ra:i] A2 "strewn, spread in all directions," and ¹เรี่ยราด [ria] B2 - [ra:t] D2 "drip, spill, dribble."

¹³This word occurs always in compounds, such as ¹ขัด [khat] D1 - [si:] A1 "rub, polish, cleanse," ¹สีฟัน [si:] A1 - [fan] A2 "to brush one's teeth," etc.

¹⁴In the binom [ma:k] D2 - [la:i] A1, the meaning is "numerous;" in the binom [thaŋ] C2 - [la:i] A1, it means "all."

¹⁵This word is pronounced by some native speakers as if it were spelled with a short vowel [thɔi] A1.

¹⁶This theory of Li was proved to be valid also in the WC period. Ting (1972) demonstrated that the WC rime words show no trace of distinction between the MC k'āi-k'ǒu and hó-k'ǒu words. His conclusion was that the hó-k'ǒu element must have arisen only by the NPC period.

¹⁷This word occurs in the synonym compound ¹เลื่อยล้า [lmai] B2 - [la:] C2 "tired, worn out."

¹⁸This character has a p'ing and a ch'ù tone reading in classical Chinese; the former means "to ride," and the latter "rider" (Downer 1959:272). The tonal alteration is discussed in section VI.1.1.c.

¹⁹This parallel situation in Thai and Sino-Vietnamese was pointed out to me in a personal communication with Professor Jerry Norman.

²⁰This word has become obsolete in TH; however, it is still current in the Northeast of Thailand where the expression ¹๒๓๔๕๖ [kæ:] B1 - [kwian] A1' "drag a bullock cart" is found.

²¹This word appears in the synonym compound [chua] C2 - [sa:i] A1 "lineage, line of succession."

²²This character has two readings in classical Chinese; one with a shǎng and one with a ch'ù tone, the former means "to use, cause" and the latter "ambassador; to send on a mission" (Downer 1959:285).

²³Ting (1972:441) explained that the WC -o arose as a result of the changing of *-g which affected the preceding vowel.

²⁴In addition to the meaning "trigger," this word in the compound ๒๓๔๕ [kon] A1' - [kai] A1' means "mechanism, mechanical device."

²⁵This character originally meant "a vessel used as food container," the present meaning "basket" probably came into existence in Han times. This word in Thai is currently used only in the Northeastern dialect.

²⁶This word usually appears in the synonym compound ๒๓๔๕ [pok] D1 - [pɔ:ŋ] C1 "protect."

²⁷The Chinese word *khau means "the bones of the leg." In the Min dialects, this is the usual word for "foot": Foochow

k'a' "foot."

²⁸This is an old Thai word; it is preserved in some classical texts.

²⁹This word appears only in a couple of expressions: ทอปลา [tok] D1 - [pla:] A1' (= fish) and ทอเบ็ด [tok] D1 - [bet] D1 (= fish-hook), both mean "to angle or fish with a baited hook and line."

³⁰For the tones of the TH and PT forms, see the discussion on tones in the following chapter (section VI.3.2.b.).

³¹This form is the colloquial reading; the standard pronunciation in Thai now is วัว wua [wua] A2 "cow."

³²This word appears in the synonym compound ซุกซ่อน [suk] D2 - [sɔ:k] D2 "conceal."

³³This word occurs in the synonym compound โงมโงมน [nom] A2 - [ŋə?] D2 "stupid."

³⁴This form appears in the synonym compound สวม [som] A1 - [thop] D2 which means "joined or united with." It also appears in an old Thai expression ทางสาม [tha:ŋ] A2 (= roads) - [thop] D2, which means "the junction of two roads." In Chinese, 香潮 t'à ch'áo means "a meeting place of two tides."

³⁵This word is commonly used for "encircle with the arms." The meaning "to cover, wrap up" is given also in the Thai Royal Institute's dictionary (1950), but this meaning is becoming obsolete.

³⁶This word normally appears in the synonym compound

กาวเกี่ยว [kha:p] D2 - [kiau] B1 "connected, joined, related."

³⁷This is pointed out to me by Professor Jerry Norman in a personal communication.

³⁸This word appears in the term กระพุ่ม [kra?] D1 - [thu:p] D2 "trample."

³⁹This word appears in the compound ช่องแคบ [chɔ:n] B2 - [khæ:p] D2 "straits." It is possible that the second syllable here originally meant "a strait" as indicated by the related Chinese word. But since the meaning was lost, it is linked with the word for "narrow," and the term is interpreted as [chɔ:n] B2 "a passage" [khæ:p] D2 "narrow," i.e., "straits" which does not sound too implausible either.

⁴⁰Being related to OC, this word probably is linked genetically to Chinese. If so, it then will solve the problem of the tone of the TH word which does not fit into the systematic correspondence of MC shǎng tone and tone class C in TH (see section VI.2.1.b.). This is, syllables that are not loanwords do not always have correspondences that are systematically regular in all three aspects (initials, finals, and tones).

⁴¹That is a very old Thai word and is not current any more.

⁴²This word occurs in the disyllabic expression กำกวม [kam] A1' - [kap] D1 "to oversee, superintend."

⁴³This word occurs in the disyllabic term ผีอำ [phi:] A1 - [ʔam] A1' "the spirit causing nightmares."

⁴⁴This form appears in the compound ยำแอม [yam] A2 - [kre:n]

Al' "to show respect for."

⁴⁵This character has two readings: one with shǎng tone, the other with ch'ù tone (KY 281).

⁴⁶Benedict (1967:291) explained the irregular correspondences of this set by postulating a borrowing on the part of Chinese.

⁴⁷This word in p'ing tone means "great waves;" in ch'ù tone it means "waves" (KY:99-100).

⁴⁸This is parallel to Li's solution of words like 突 **dat > *duət. He explained that when the vowel a fell between dental initials and finals, it became ua (Li 1971:35).

⁴⁹The word [khra:t] D2 has a related form ကာကရား?d [kra:t] D1 "a metal scraper or grater (used for scraping scurf off a horse)."

⁵⁰In some Min dialects such as Foochow, this character lacks a medial -j- (𪛗 | pei?₂).

⁵¹Both [kuan] Al' and [kwa:n] Al' are old Thai words and are found only in literary works, e.g. in 元 潘 𪛗 Yuan Phāi (c. 1435-1450 A.D.)

⁵²This word always appears in the synonym compound 𪛗 𪛗 [tuk] D1 - [kwa:n] C1 "brick buildings and houses."

⁵³This word is now commonly used for "sweep (the floor)." The meaning "rub" is retained in the expression 𪛗 𪛗 [kwa:t] D1 - [khɔ:] A2 "rub the throat (with a remedy)," or 𪛗 𪛗 [kwa:t] D1 - [ya:] A2 "rub (the throat) with a remedy." This is

a Thai treatment prescribed for patients with a sore throat. The treatment consists of introducing a medicament into the throat with a finger in an attempt to rub off or scrape off what is believed to be the diseased coating lining the throat.

⁵⁴This word now is retained only in the expression ปูนาแพน [pu:n] A1' - [bam] A1' - [net] D1 "grant special rewards (for services rendered)."

⁵⁵The expression สุนทะพวย [son] A1 - [ta-pha:i] A2 means "to pass a rope through the nostrils, as of cattle."

⁵⁶This word occurs in the synonym compound ผันวน [phan] A1 - [phan] A1 "changeable."

⁵⁷This is probably a loan from Chinese. The Chinese word means "month;" Thai means "a recurring period," usually every three months (McFarland 1954:221).

⁵⁸In Northern Thailand, the term [ku:t] D1 is applied to any kind of fern.

⁵⁹The word 密 is a third division "rime doublet." It evolved from OC 微, whereas the fourth division types evolved from OC 脂. But the word 密 is an exception. Li (1971) placed it in the 脂 category and noted that the conflicting development was due to the fact that the change of *-i- to *-iě- in 脂 occurred very early. Tung (1948) took account of this word as a third division and placed it in the 微 category instead.

⁶⁰This word never appears by itself. It is used only with

numbers above ten that end in "one," e.g. eleven, twenty-one, hundred and one, etc. For "one" in general, Thai has ^๑หนึ่ง ^๑หนึ่ [nuŋ] B1.

⁶¹This word for "reach" appears in the expression ^๑จมน ^๑จมน [con] A1' - [mum] A2 "to be cornered (lit. reach the corner)."

⁶²This fact was pointed out to me in a personal communication with Professor Paul Serruys.

⁶³This word is retained only in the expression ^๑กด ^๑กด [khot] D2 - [kha:u] C1 "to dip out cooked rice" by digging a spoon into the cooked rice and dipping it out of the boiling pot.

⁶⁴The character *xuən is used in the Shīh Chīng for "eunuch." The Thai word hman [man] A1 might be related to the Chinese word; a "eunuch" is a man who has been castrated and become sterile.

⁶⁵The character ^๑唐 *dang is used in the Shīh Chīng for "path in the temple" (Karlgren 1957:184).

⁶⁶This word appears in the expression ^๑วิ่ง ^๑วิ่ง [ʔi:] A1' - [run] A2 - [tuŋ] A1' - [naŋ] A2 "trailing collection of bags."

⁶⁷This word is pronounced by some native speakers as if it were spelled with a short vowel [təŋ] B1.

⁶⁸This character has one reading with p'ing tone and the other reading with ch'ü tone (KY 1969:270).

⁶⁹This word appears in the expression ^๑สั่ง ^๑สั่ง [saŋ] B1 - [na:m] C2 - [mu:k] D2 "to blow the nose."

⁷⁰This word occurs in the synonym compound จักสาน [cak] D1 - [sa:n] A1 "to weave (basket)."

⁷¹This word occurs in the term ศัพท์เสียง [sap] D1 - [sæ:n] A1 "words and sound, i.e. language."

⁷²This word appears in the binom รัศมี [rak] D2 - [ræ:] C2 "the arm-pits." Other Tai dialects, e.g. White Tai, Black Tai, and Sak, use only the equivalent of the second syllable for "the arm-pits."

⁷³The more commonly used form now is เปิด [bæ:k] D1 "to open, open up."

⁷⁴This word has usually identified with the Pali and Sanskrit lekha: "writing, letters" (Thai Royal Institute 1950). Actually it is better related to Chinese in all respects, including the meaning.

⁷⁵This word appears in the compound เพียงแน่ [thian] B2 - [thæ:] C2 "certain."

⁷⁶This word occurs in the synonym compound กองงาน [kon] A1' - [ka:n] A1' "work, task."

⁷⁷See section IV.7.7.a. for the discussion of the meaning.

⁷⁸This word means "copper" in all other Tai languages; Thai alone used it in the sense of "gold" (Li MS).

⁷⁹This usage of this word is similar to Chinese. The word means also "to have access to, to be in contact with," and "to cohabit, have intercourse (sexually)" such as in the expression

ถึงกัน [thwŋ] A1 - [kan] A1' (McFarland 1954:388).

⁸⁰This word for "orange-red" is given in the dictionary of the Thai Royal Institute (1950:450).

⁸¹This word has a variant form โลง [lo:ŋ] B2. The term โลงใจ [lo:ŋ] B2 - [cai] A1' means "to feel at ease."

CHAPTER VI

TONAL CORRESPONDENCES

The last component of the Chinese and Thai syllables to be considered in this study is the tone (cf. previous discussion on tones in sections III.2.3. and III.3.4.). In analyzing the tonal correspondences, each of the four Chinese tones, i.e. p'íng, shǎng, ch'ù, and jù, are divided into yīn and yáng types. The yīn or the upper-register type includes those syllables which occur with voiceless initials, and the yáng or the lower-register type those which occur with voiced initials. Paralleling the yīn and yáng types of MC, the four tonal classes in TH, i.e. A, B, C, and D, are divided also on the basis of the voiceless - voiced dichotomy into subclasses 1 and 2 (cf. III.2.3.).

In the field of Chinese and Tai, it is generally agreed that the tones between MC and Proto-Tai (PT) correspond in the following way: MC p'íng, shǎng, ch'ù, and jù corresponding to PT tonal classes A, C, B, and D, respectively (Wulff 1934). These correspondences between the tone classes of MC and Tai are maintained in various Tai dialects, such as in Wuming, Lungchow, Poai, etc., although the phonetic values in each language differ from one another (Li MS).

This Chapter will demonstrate that the tonal correspondences between MC and TH follow the above pattern of tonal correspondence;¹ and this comprises approximately 70 percent of the lexicon thus far compiled. As for the other 30 percent of which the tonal patterns are different, we shall try to give

some explanation to account for their irregularity. Not all cases, however, are explicable.

The irregular cases will be classified into types. Type I includes those irregular cases which occur most frequently. They are cases in which the MC and TH forms show a discrepancy in the upper and lower registers of the tone; these are the cases in which the TH tones, while disagreeing with the Chinese forms in the absence and presence of the voicing of the initials, have regular correspondences in the other Tai languages. That is, those words normally had either voiceless sonorants or initial clusters composed of a voiceless consonant and a liquid, in the proto-language. The assumption that these initials in the proto-language are the cause of the different treatment in tonal registers can be justified by internal evidence from both the Chinese and the Tai sides. For instance, the correspondences of MC words with *n- or *l- and of yáng-píng tone to TH words with *hn- [n-] or *hl- [l-] with tone A1 are traceable to the fact that these initials were originally voiceless sonorants. Internal evidence to support this can be cited from Proto-Min for which Norman (1973) has reconstructed *hl- for the word "cast-net" and *hn- for the word "pus" (cf. IV.2.4.b., and IV.2.5.c.).

There are, however, some cases for which we cannot find any explanation to account for the discrepancy of voicing in MC and Tai. Words such as 𣵿 ga:n [kha:n] A2 "pole to carry things" shows an original voiced initial with tone A2 in all Tai languages,² but MC has 𣵿 *kân with the upper-register

tone. On the contrary, words such as 𠵿 kau [kau] B1 "old, ancient" show an original voiceless initial with tone B1 in all Tai dialects, but MC has 舊 *gǰəu- with the lower-register tone. Since these words exist in all three groups of the Tai language, we might tentatively assume that they are real Tai words in the PT lexicon, and that their relationship to Chinese can only be genetic because we can see no reason why a voiced initial is substituted in Tai for the voiceless one in Chinese, and vice-versa, since PT also had those corresponding voiceless or voiced consonants. We shall follow Li (MS) that words showing such irregularities can only lamely be accepted as loans.

Type II includes words for which the tones in TH and MC show also a discrepancy of upper and lower registers, but they differ from those of type I in that the discrepancy of voicing exists also within the Tai groups. Sometimes, the Central (CT) and Northern (NT) groups while disagreeing with the Southwestern (SW) group, agree with MC. Sometimes, the CT agrees with the SW in showing irregular tonal correspondence with the NT and MC. Except in a few cases, the NT agrees with MC in having tones that indicate an original voiced initial, while the TH forms have tones indicating an earlier voiceless initial. There is no doubt that these Chinese and Tai words are related, but just why there seems to be a discrepancy of voicing is not known. We may tentatively assume that the CT and NT forms which agree in tonal register with MC are borrowed from Chinese. Or we may assume that the tone shared by the CT and NT, as well as MC was the original tone, and that the irregular tone is a

secondary development within the SW group. Another alternative solution is the assumption that there were doublets in the proto-language, showing a voiced and voiceless contrast, which are distributed geographically. As Li (1970 a.) has pointed out, such a solution is neither committal as to what the original tone was for those words, nor committal as to how such doublets arose. However, the system of the proto-language was obscured and complicated by a tendency to level out alternate forms by generalizing and then using only one form for different functions. Such a tendency then gives rise to irregularities in the various languages of the family. Indeed, the interpretation of consonant and tonal contrasts as morphophonemic processes in PT was given only recently by Li (1970 a.) and this question must await future study. In the field of Chinese historical phonology, scholars have commented for centuries on the problem of derivation by alternations of tones and consonants (Downer 1959). Derivation still poses complicated problems and much further work is needed.

For the time being, we can safely assume that initial and tone changes existed as morphophonemic processes by means of which words were derived in PT, although we are not yet clear about their functions. Moreover, it is difficult to determine whether both methods, i.e. initial contrast and tonal contrast were always used in the ancient language to form derived words since TH possesses pairs of cognate words that differ only in initials as well as those that differ only in tone. In addition, the problem is complicated by cases of triple forms such as:

พจน ด๖:n [th๖:n] A2 "to break up or divide into smaller pieces
or shorter lengths"

พจน ต๖:n [t๖:n] A1' "part, portion"

พจน ด๖:n [th๖:n] B2 "piece, part, portion"

These three words are certainly etymologically related.

However, it is beyond the limits of this study to try to settle this question and we shall simply cite Li's (1970 a.) conclusion that the morphological irregularities exhibited in the various Tai languages indicate possible morphophonemic alternation in PT.

The morphophonemic alternation that we shall apply to the tonal irregularities under type II here is that of the consonants. Alternations between voiced and voiceless consonant initials as such are found in Tai as well as in Chinese. The Tai languages have in TH ^ขเขี้ยว khi:aw [khiau] C1 "canine teeth," ^{เคี้ยว} gi:aw [khiau] C2 "to chew," and in Poai he:u C1 "tooth," ce:u C2 "to chew" (Li 1970 a.) Chinese has 見 *kien "to see," and *yien "to be seen, show," 背 *puâi- "the back," and *buâi- "to turn the back on," etc. (Downer 1959:263).

Type III includes those irregular cases either for which the MC forms have ch'ù tone or of which the TH forms have tonal class B, which normally corresponds to MC ch'ù tone. Such irregularity can be explained in terms of derivation by tone change. It has been observed since the beginning of the Christian era that MC ch'ù tone had a special function as a morphological device whereby derived words were created (Downer 1959). Chinese classics contain a large number of cognate words

showing a contrast between ch'ü tone in one member of the pair and one of the other three tones in the other member. Wang Li (1958) interpreted this phenomenon as a system of word-derivation with words in p'ing, shǎng, and jù tones as basic forms and the corresponding ch'ü tone words as derivatives. Downer (1959) followed up and noted that the fact that the ch'ü-tone readings had either dropped out or become obsolete suggests that they were special readings originating from a morphological device. He further speculated that those ch'ü-tone distinctions must have come into existence since the flourishing of late OC or of the Ch'in imperial house (255-207 B.C.) because the system of ch'ü-tone derivation was extensively used in Han times. Only in the seventh century A.D. did those readings become obsolescent. Thus, it is possible that the Chinese characters under type III once had cognate forms with ch'ü-tone, but they dropped out of the standard language, whereas TH retains the forms with tone B. Yet, traces of morphological process are found in several cases as illustrated in sections VI.1.1.c., 1.2.c., 2.1.d., etc. Again, we may say that the irregularity in the tonal correspondence was caused by the tendency to level out alternate forms in each language.

Type IV includes those cases for which the TH forms have tonal class D with final consonant -p, -t, or -k showing correspondence to the reconstructed OC final ending -b, -d, or -g, respectively. The TH forms while retaining the final consonant endings, devoiced them and thus gave rise to tone D. Such a change of OC **-b, **-d, or **-g to TH -p, -t, or -k was,

in fact, conditioned by the phonological system within the Thai language. In final positions, -p, -t, and -k do not contrast with -b, -d, and -g in TH, because only -p, -t, and -k (besides -ʔ, -m, -n, and -ŋ) are permissible for the final consonant of a syllable. Thus, the voiced stops in final position in Chinese syllables have developed into voiceless stops because it would otherwise create sequences of vowels followed by voiced stops, which are phonetically impossible in Thai.

In addition to the irregularities grouped under the four different types above, there are other irregular appearances in MC and TH tonal correspondences which have to be explained in other ways. Three more solutions may be offered to account for those cases:

Type V includes those irregular tonal correspondences for which the Chinese characters may be assumed originally to have had tones other than those assigned to them in the CY. This assumption is justified by a study of tonally incongruent rimes in classical rimed literature such as the Shih Ching. Based on internal evidence from the Kuó Fēng section, Mattos (1971) demonstrated that the tones of certain syllables were at odds with their CY listings. Some appear to have had tones in addition to those recorded in the CY, while some appear to have had different tones altogether. This shows that eleven or so centuries before the MC period, those syllables must have had either different tones or more tones than were registered in the CY, e.g. 信 *sjěŋ- and 命 *mjəŋg- in antiquity were originally pronounced in p'íng tone, rather than ch'ù tone, 居 *kjwo was

originally ch'ù, rather than p'íng; 予 *jiwo or *jiwo/ was read in shǎng tone only; 每 *xuâi- and 事 *dzī- were read in shǎng tone, etc. Further research along this line may reveal that some of the MC readings showing irregular tonal correspondences with the TH forms actually did have the tone now possessed by the TH forms.

Type VI includes those tonal irregularities which may be explained by the fact that they are probably loanwords into Thai from dialects other than that of the CY and that the irregularity is due to dialect mixture. We may cite as examples the mixing of MC p'íng and ch'ù tones, and that of MC yáng-shǎng and yáng-ch'ù tones. In the preface to the CY, Chōu Tsū-mó (1966) noted that in the areas of Liáng 梁 and Yì 益, the p'íng tone resembled the ch'ù tone. We may, thus, assume that words with tone B in TH, but tone A in MC were borrowed from Chinese through the dialects in the areas of Liáng and Yì, i.e. the modern Hupeh and Szechwan provinces, or assume that the same kind of shifting had occurred also in Thai. These assumptions can be applied also to account for the irregular correspondence of MC yáng-shǎng to TH B2, because the shifting of yáng-shǎng to yáng-ch'ù is a wide-spread phenomenon which occurred in the majority of Chinese dialects.

The last classification is type VII which includes those irregular tonal correspondences for which the irregularity is due to a shift of initial consonants and tones which took place in TH alone. The irregularity is restricted to TH, because all other Tai dialects, as well as those of the SW group have forms

with a tone that disagrees with the TH form, but agrees with that of the MC form.

Now let us proceed to analyze the tonal correspondences of MC and TH words. The analysis divided into four sections starts with the p'íng tone, then the shǎng and ch'ù tones, and ends with the jù tone.

VI.1. P'íng-shēng 平聲

VI.1.1. Yīn-p'íng 陰平

VI.1.1.a. Yīn-p'íng : A1

飛 *pjwei : ໂພຍ ?bo:y [bo:i] A1' "to fly"³

坡 *phuâ : ຟາ pha: [pha:] A1 "rocky hills, slopes"

餐 *tshân : ຈຸ chan [chan] A1 "eat (of a monk)"

MC yīn-p'íng corresponds regularly to TH A1. Altogether we have 85 such examples.

VI.1.1.b. Yīn-p'íng : A2

竿 *kân : ການ ga:n [kha:n] A2 "pole to carry things"

滑 *sjəu : ສາງ za:w [sa:u] A2 "to wash (rice)"

憎 *tsang : ຈິງ jaŋ [chan] A2 "hate, detest"

Altogether we have 14 examples of MC yīn-p'íng corresponding to TH A2 (see also no. 49, 57, 59, 62, 186, 189, 204, 210, 361, 547, and 564 in VII.2.). Some of the cases such as the three examples cited above can be explained as cases of type I described above. Some of the cases such as the words for "to take by force, fight for" (no. 57), "gold" (no. 186), and "base of a tree, foundation" (no. 210) can be explained in terms of type II, because the tones of the first two words in the CT and NT groups, while disagreeing with the SW group, show regular

correspondences with the MC forms. Li (MS) noted that the word for "gold" in the CT and NT groups, e.g. Tho kim A1, T'ien-pao kim A1, Po-ai cim A1, etc. are probably loanwords from Chinese. The SW forms with tone A2 indicating an original *ɣ- is undoubtedly related to Chinese, but the details of the etymology are uncertain.⁴ Here we may note that TH has a cognate word 𠂔 kam [kam] B1 "bright or striking (used describing pure gold)."

As to the word for "base of a tree, foundation" (no. 210) 根 *kən : 𠂔 go:n [kho:n] A2, the etymology is again uncertain. The word, while absent from the CT group,⁵ is found in the NT group with a different tone, e.g. Poai kən B1, Dioi kon B1 "base of a tree" (Li MS). We label the irregularity here as type II, because there exists in TH a cognate word 𠂔 ko:n [ko:n] B1 "to dig or turn up the root or foundation, to root out." In the NT dialects, Dioi has kon B1 "to cut off," and Poai kən B1 "broken (rope)" (Li MS). It should be noted that Dioi and Poai each has one identical form functioning both as noun and verb, whereas TH retains two different forms for two functions. This situation clearly illustrates the tendency to level out alternate forms by using only one form for different functions.

VI.1.1.c. Yīn-p'ing : B1

- 雞 *kiei : 𠂔 kai [kai] B1 "chicken"
 於 *?jwo : 𠂔 ?yu: [yu:] B1 "to stay, be at"
 戡 *khəm : 𠂔 khm [khom] B1 "suppress, subdue"

Altogether we have 11 examples of MC yīn-p'ing corresponding to TH B1 (see also no. 22, 120, 340, 471, 474, 476, 485,

and 609 in VII.2.)). Some of these examples such as the three cases cited above are cases of irregularity type I. Some may have belonged to type III, e.g. the words for "suppress, subdue" (no. 173), and "male, man" (no. 340). TH has a cognate for the latter, ผู้ phua [phua] A1 "a man who is married to a woman, husband." For the former, TH has the word กม km [kom] A1' "to restrain, catch hold of, hold in the hand," which has become obsolete, but is preserved in such classical literary works as เสียดอกำพัน Sua Khō Kham-Chan, a seventeenth century work.

In addition to types I and III, we may explain these irregular tonal appearances in terms of types V and VI.

VI.1.1.d. Yīn-p'íng : B2

鯿 *sa : ซา za: [sa:] B2 "a small fresh-water fish"

We have only one case of TH B2 corresponding to MC yīn-p'íng tone and we simply take it as an irregular case.

VI.1.1.e. Yīn-p'íng : C1

蜂 *phjwong : ผึ้ง phun [phun] C1 "bee"

尖 *tsjäm : เสี้ยน si:am [siam] C1 "to sharpen to a point"

脔 *thuan : ถวน thuan [thuan] C1 "complete"

The last example above is found in all Tai dialects with tone C1 (Li MS), thus, the tonal irregularity is similar to those under type I. As for the other two examples, they are not found in the NT group (Li MS) and are probably loanwords from Chinese. We simply have no explanation for the word for "bee," but the word for "to sharpen to a point" is a different matter. It may be of type II, because TH has a cognate word เสี้ยน si:am [siam] A1 "a pointed instrument, hoe."

VI.1.1.f. Yīn-p'íng : C2

差 *tʂhāi : ʔ̥ jəi [chai] C2 "to send (on an errand)"

Of the lexicon thus far compiled, we have found only one example showing such an irregular tonal correspondence. We may note that within the Tai languages themselves, this word shows tonal discrepancy. The SW and CT groups show tones corresponding to C2, but the NT forms have tones corresponding to C1 indicating PT *s- (Li MS).

VI.1.1.g. Yīn-p'íng : D1

膚 *pju < **pljag : ɲlɔŋ plɯ:ak [plɯak] D1 "bark, shell"
 撕 *sjie < **sjig : ɲn chi:k [chi:k] D1 "to tear"
 凋 *tieu < **tiəgw : ɲn tk [tok] D1 "become faded"

Altogether we have 7 such examples (see also no. 40, 341, 498, and 506 in VII.2.) which fall into our type IV.

VI.1.1.h. Yīn-p'íng : D2

度 *ʂjəu < **srjəgw : ɲn zɔ:k [sɔ:k] D2 "conceal, hide"
 鴞 *xjəu < **xjəgw : ɲn hu:k [hu:k] D2 "owl"

Paralleling the preceding section, the tonal correspondence here can be categorized under type IV. But the discrepancy in the voiced and voiceless initials cannot be explained. Both forms in TH have the so-called "low consonant" initials (cf. I.V.3.3.) and we may note that cases do exist where words spelled with a "low consonant" initial with tonal subclass 2 in TH have instead in other Tai languages tonal subclass 1 with an initial corresponding to TH "high consonants." At present, we simply have no way of checking these two words in other Tai languages in order to test the TH spellings.

VI.1.2. Yáng-p'íng 陽平V.I.2.a. Yáng-p'íng : A2

鉗 *gjä̃m : 𢶏 gi:m [khi:m] A2 "tongs, pincers"

塗 *duo : 𡿨 da: [tha:] A2 "to smear, paint"

蟠 *buân : 𢶏 ban [phan] A2 "to coil up"

MC yáng-p'íng tone corresponds regularly to TH A2. Altogether we have 76 such examples.

VI.1.2.b. Yáng-p'íng : A1

膿 *nuong : 𢶏 hno:ŋ [no:ŋ] A1 "pus"

羅 *lâ : 𢶏 hæ: [hæ:] A1 "a cast-net"

犁 *liei : 𢶏 thai [thai] A1 "to plough"

We have altogether 27 examples of MC yáng-p'íng tone corresponding to TH tone A1 (see also no. 69, 70, 73, 90, 91, 168, 182, 183, 184, 185, 254, 257, 259, 288, 308, 432, 442, 444, 468, 495, 507, 510, and 521 in VII.2.). At least 11 cases (no. 88, 181, 254, 257, 259, 288, 308, 312, 495, 501, and 507) including the three examples above cited, out of 27 cases can be explained in terms of irregularity type I.

VI.1.2.c. Yáng-p'íng : B2

牌 *bai : 𢶏 bai [phai] B2 "playing cards"

鱗 *ljěn : 𢶏 lin [lin] B2 "pangolin"

寧 *nieng : 𢶏 ne:ŋ [ne:ŋ] B2 "to be quiet"

We have altogether 7 examples of such tonal correspondence (see also no. 199, 245, 364, and 395 in VII.2.) which may be categorized under type III or type V. One positive bit of evidence to justify the classification of some cases here under

type III is the character 寧 *nieng, with p'ing tone it means "to be quiet," but with ch'ü tone, such as in 寧可 níng-k'ě, it means "rather."

VI.1.2.d. Yáng-p'ing : B1

男 *nām	:	𠂔 hnum [num] B1	"a young man"
廉 *ljām	:	𠂔 hli:am [liam] B1	"angle"
騎 *gjiē	:	𠂔 khi: [khi:] B1	"to ride"

The discrepancy of upper and lower registers between the TH and MC forms here can be explained in terms of type I. In addition, certain cases may be categorized also under type III (e.g. the word 騎) which have cognate forms showing tonal contrast. 騎 *gjiē with p'ing tone means "to ride," but with ch'ü tone it can be either a noun meaning "a rider" or an adjective meaning "mounted" as in 騎賊 *gjiē- *dzək "mounted bandits (Downer 1959:272, 289).

VI.1.2.e. Yáng-p'ing : C2

籬 *ljie	:	𠂔 rua [rua] C2	"fence, hedge"
苗 *mjäu	:	𠂔 mæ:w [mæ:u] C2	"hill tribe"
累 *ljwi	:	𠂔 lu:ay [luai] C2	"to wind about"
牢 *lâu	:	𠂔 lau [lau] C2	"pen, sty"

For the last example, the CT and NT forms have tone A2 and mean "prison" (Li MS). Thus, they agree in tonal correspondences with MC. In the meantime, we cannot offer any explanation to account for the irregular appearance of tone C2 for this word in TH and other SW dialects, nor can we explain the tonal irregularity in the other three words. However, we shall not rule out the possibility of categorizing these cases under our type V.

VI.1.2.f. Yáng-p'íng : C1

豪 *yâu : 𠵿 ha:w [ha:u] C1 "bold"

We have only one such example and shall simply regard it as an irregular case.

VI.1.2.g. Yáng-p'íng : D2

持 *di < **drj g : 𠵿 d :k [th :k] D2 "to hold, grasp"

嶠 *gjau < **gjagw : 𠵿 go:k [kho:k] D2 "hill"

疇 *dj u < **drj gw : 𠵿 d :ak [th ak] D2 "ploughed fields"

We have altogether 6 examples of such tonal correspondences (see also no. 213, 570, and 584 in VII.2.) which can be categorized under our type IV.

VI.1.2.h. Yáng-p'íng : D1

顙 *luo < **blag : 𠵿 pha:k [pha:k] D1 "the forehead"

Here the tonal correspondence is similar to that in the preceding section. As to the discrepancy in the upper and lower registers between TH and Chinese, it can be explained with the solution in type I.

VI.2. Shǎng-shēng 上聲VI.2.1. Yīn-shǎng 陰上VI.2.1.a. Yīn-shǎng : C1

秆 *kân/ : 𠵿 ka:n [ka:n] C1 "stem, stalk"

點 *tiem/ : 𠵿 tæ:m [tæ:m] C1 "mark, spot"

廣 *kwāng/ : 𠵿 kwa:ŋ [kwa:ŋ] C1 "wide"

MC yīn-shǎng tone corresponds regularly to TH tone C1. Altogether we have found 24 such examples.

VI.2.1.b. Yīn-shǎng : C2

- 賈 *kuo/ : 𠂔 ga: [kha:] C2 "to trade"
 惜 *tshâm/ : 𠂔 jam [cham] C2 "grieved"⁶
 指 *tsi/ : 𠂔 ji: [chi:] C2 "to point, show"

There are 5 examples (see also no. 47 and 546 in VII.2.) of such tonal correspondence. Here the discrepancy of the upper and lower registers of the tone in MC and TH may be explained by the solutions suggested in type I and type II for a certain case, namely the word for "to point, show." The SW and NT groups agree in having tone C2 for this word, but the CT forms show tone C1, e.g. Tho chi C1 "to point," but chi C2 "index finger" (Li MS). The possibility that this word may have had an etymologically related form with alternation of initial consonant is also supported by evidence from TH. The TH word [chi:] C2 means either "to point" or "index finger." In addition, TH has the form 𠂔 ci: [ci:] C1 "to point or poke a finger at." It is very likely that originally TH had two forms for two different functions, [ci:] C1 a verb and [chi:] C2 a noun. Later, due to the strong tendency to level out alternate forms, TH simply uses one form, namely [chi:] C2 for both noun and verb. The form [ci] C1, however, did not drop out entirely, but survives with a slightly different meaning.

VI.2.1.c. Yīn-shǎng : A1

- 皓 *kâu/ : 𠂔 kha:w [kha:u] A1 "white"
 攪 *tâm/ : 𠂔 tam [tam] A1' "to pound, pierce"
 斬 *tsăm/ : 𠂔 ca:m [ca:m] A1' "to hew or hack (with an ax)"

We have 14 cases of MC yīn-shǎng tone corresponding irregularly to TH tone A1 (see also no. 16, 18, 123, 136, 178, 435, 470, 480, 493, 508, and 602 in VII.2.). At present, we are unable to give any solid interpretation for such irregular correspondences. However, some of the cases may be explained by the solution suggested in type V. Mattos (1971:323) noted that in the Kuó Fēng odes, the character 皓 *kâu/ "white" appears in rime with syllables having other tones, such as p'íng and ch'ù. Thus, it seems likely that this word may have had other tones in addition to the shǎng tone assigned to it in the CY, probably, p'íng tone as indicated by its tonal correspondence in the TH form.

VI.2.1.d. Yīn-shǎng : B1

幾 *kjei/ : ǐ ki: [ki:] B1 "how many, several"
 拈 *kjiɛ/ : ǎn kǎ: [kǎ:] B1 "to drag"
 粉 *pjwǎn/ : ǔ fun [fun] B1 "powder"

Here the irregular tonal correspondence may be explained by the solution suggested in type III, except for the first example which falls into type VII. In the NT and CT groups, the word for "how many, several" has tones corresponding to C1; even in the SW group, TH alone has tone B1, other SW dialects all show tone C1, e.g. Lao ki: C1, Lü ki C1, Tay and Tho ki C1, etc. (Li MS).

As to the word for "powder," the tonal irregularity might have been due to the fact that it is a late MC loanword. Here, the treatment of MC yīn-shǎng tone as TH B1, i.e. as if it were

from MC yīn-ch'ü tone, is parallel to the situation in late Sino-Vietnamese. Chinese words with yīn-shǎng tone that were borrowed into Vietnamese in late T'ang times (around 800 A.D.) were rendered with the tone used for Chinese syllables with yīn-ch'ü tone in old Sino-Vietnamese. That is, in old Sino-Vietnamese, Chinese words with yīn-ch'ü tone corresponded to tone hỏi in Vietnamese, but in late Sino-Vietnamese, tone hỏi was then used to render Chinese loans with yīn-shǎng tone.

VI.2.1.e. Yīn-shǎng : B2

鎖 *suâ/ : 𠵹 zo: [so:] B2 "chains, fetters"

Of the lexicon thus far compiled, we have only one case of this irregular tonal correspondence.

VI.2.1.f. Yīn-shǎng : D1

保 *pâu/ < **pəgwx : 𠵹 pk [pok] D1 "to protect, cover"

倒 *tâu/ < **tagwx : 𠵹 tk [tok] D1 "to fall down"

首 *sjaü/ < **skhjägw : 𠵹 co:k [co:k] D1 "head, chief"

補 *puo/ : 𠵹 pa? [pa?] D1 "to mend"

Here, the tonal correspondence can be explained in terms of type IV. The last example, however, shows the TH form with a final glottal stop. Considering the hypothesis advanced by Pulleyblank (1962-3),⁷ MC shǎng tone may have evolved from a final glottal stop. In his system, the final glottal stop was reconstructed where MC had the shǎng tone.

VI.2.2. Yáng-shǎng 陽上

VI.2.2.a. Yáng-shǎng : C2

懶 *lân/ : 𠵹 gra:n [khra:n] C2 "lazy"

馬 *ma/ : 𠵹 ma: [ra:] C2 "horse"

市 *zí/ : 𠵿 zu: [su:] C2 "to buy"

MC yáng-shǎng tone corresponds regularly to TH tone C2.

Altogether we have found 24 such examples.

VI.2.2.b. Yáng-shǎng : C1

五 *nguo/ : 𠵿 ha: [ha:] C1 "five"

酉 *jiəu/ : 𠵿 hlau [lau] C1 "liquor"

弩 *nuo/ : 𠵿 hna: [na:] C1 "crossbow"

There are 6 examples (see also no. 289, 333, and 433 in VII.2.) of such tonal correspondence. Here the occurrence can be explained by the solution suggested under type I.

VI.2.2.c. Yáng-shǎng : A2

𠵿 *die/ : 𠵿 de: [the:] A2 "slope, sloping, tilted"

𧈧 *ńzjwǎn/ : 𧈧 yɔ:n [yɔ:n] A2 "wriggle, worm in"

棒 *bǎng/ : 𧈧 blɔ:ŋ [phlɔ:ŋ] A2 "a club, cudgel"⁸

We have 6 examples of such tonal correspondence (see also no. 271 and 306 in VII.2.), a phenomenon for which we have no explanation. One possibility is that these characters might belong to our type V.

VI.2.2.d. Yáng-shǎng : B2

藕 *ngəu/ : 𧈧 ɲau [ɲau] B2 "lotus root"

是 *zie/ : 𧈧 ɟai [chai] B2 "to be so"

伴 *buân/ : 𧈧 bu:an [phuan] B2 "friend, comrade"

We have found 6 examples of such irregular tonal correspondence (see also no. 253, 268, and 590 in VII.2.) which may be explained by the solutions suggested in either type III or type VI. The exception here is the word for "lotus root," which belongs instead to type VII. The occurrence of tone B2 for this

word is restricted to TH alone, other Tai dialects all have tone C2. However, the TH tone may indicate a different etymology. The Foochow dialect has yáng-ch'ù tone for this word ngau.⁹ It is possible that TH borrowed this word from a dialect like Foochow.

VI.2.2.e. Yáng-shǎng : B1

敏 *mjěŋ/ : 𑜋𑜂𑜆𑜂 hman [man] B1 "diligent"

This is the only irregular case where MC yáng-shǎng tone corresponds to TH B1.

VI.2.2.f. Yáng-shǎng : D2

臼 *gjaŋ/ < **gjaŋwx : 𑜋𑜂𑜆𑜂 grk [khrok] D2 "mortar"

The tonal correspondence here can be explained in terms of type IV.

VI.3. Ch'ù-shēng 去聲

VI.3.1. Yīn-ch'ù 陰去

VI.3.1.a. Yīn-ch'ù : B1

告 *kâu- : 𑜋𑜂𑜆𑜂 kla:w [kla:u] B1 "to say, tell"

破 *phuâ- : 𑜋𑜂𑜆𑜂 pha: [pha:] B1 "to split, cut"

𠂔 *si- : 𑜋𑜂𑜆𑜂 si: [si:] B1 "four"

MC yīn-ch'ù corresponds regularly to TH B1. Altogether we have found 41 such examples.

VI.3.1.b. Yīn-ch'ù : B2

價 *ka- : 𑜋𑜂𑜆𑜂 ga: [kha:] B2 "price"

秤 *tshjəŋ- : 𑜋𑜂𑜆𑜂 jaŋ [chaŋ] B2 "to weigh"

散 *sân- : 𑜋𑜂𑜆𑜂 za:n [sa:n] B2 "to be scattered"

We have altogether 8 examples of such irregular tonal correspondence (see also no. 187, 375, 378, 406, and 556 in VII.2.),

which in some cases, such as the first two examples above cited, may be explained by the suggestion in type I. The last example, however, belongs to type VII, because in all other Tai languages the forms have tone B1 (cf. IV.3.4.b.).

VI.3.1.c. Yīn-ch'ù : A1

去 *khjwo- : ໄຫຼ່ khi:aw [khiau] A1 "to go"¹⁰

退 *thuài- : ຫຼອ່ tho:y [tho:i] A1 "retreat"

佐 *tsâ- : ຈ້ອ່ cua:a [cua] A1' "aid, assist"

Altogether we have 7 such examples (see also no. 86, 146, 157, and 517 in VII.2.). Since the MC forms have a ch'ù tone, the irregularity in tonal correspondence here may be explained by the solution suggested in type III or type V, for some cases.

An alternative solution for MC ch'ù tone corresponding to TH tone class A is to explain it by the parallel situation in Sino-Vietnamese. In old Sino-Vietnamese, Chinese syllables with ch'ù tone were rendered by the tones hỏi-ngã, and Chinese syllables with p'íng tone by the tones bǎng-huyền. But during the period after old Sino-Vietnamese, i.e. from 250 to 800 A.D., the tones bǎng-huyền were used to render Chinese syllables with p'íng tone, as well as ch'ù tone.¹¹ Thus, the shifting of MC ch'ù tone to p'íng tone was not restricted to Thai alone, but took place also in Sino-Vietnamese.

VI.3.1.d. Yīn-ch'ù : A2

幼 *?jěu- : ຍາ່ yau [yau] A2 "young"

This is the only case of such irregularity. It might be simply irregular; or it might be that the word was borrowed from a Chinese dialect in which the merging of tones yīn-ch'ù

and yáng-p'íng had occurred. It has been noted (Chang Kun 1971: 194) that in the Kan dialect of Nán-ch'āng 南昌 words with MC yáng-p'íng and yīn-ch'ù tones are pronounced identically, which is also true of the Chièn-ōu 建甌 dialect in Fukien.¹²

VI.3.1.e. Yīn-ch'ù : C1

- 半 *puân- : 𠂔 ?ban [ban] C1 "a half, portion"
 到 *tāu- : 𠂔 tau [tau] C1 "to go"¹³
 布 *puo- : 𠂔 pha: [pha:] C1 "cloth, clothing"

We have altogether 7 examples of this irregular tonal correspondence (see also no. 20, 122, 156, and 426 in VII.2.) which may be explained by the suggestion in type III. The word for "a half, portion" has a cognate form in TH : 𠂔 ?ban [ban] B1 "to cut into short lengths," of which the tone shows regular correspondence with the MC word, but it functions as a verb, not a noun. The word for "to go" appears in some old Thai texts with tone A1 instead of C1, 𠂔 tau [tau] A1 "to go."

VI.3.1.f. Yīn-ch'ù : C2

- 慣 *kwan- : 𠂔 gun [khun] C2 "be familiar with"

This is the only case of the irregular correspondence.

VI.3.1.g. Yīn-ch'ù : D1

- 芥 *kǎi- < **kriadh : 𠂔 ka:ʔd [ka:t] D1 "a kind of mustard plant"

- 肺 *phjwɔi- < **phjadh : 𠂔 pɔ:ʔd [pɔ:t] D1 "lungs"

- 到 *tāu- < **tagwh : 𠂔 tk [tok] D1 "arrive at (a season)"

There are 12 cases (see also no. 3, 115, 172, 290, 331, 347, 353, 482, and 520 in VII.2.) of this tonal correspondence. Here

we may explain the TH tonal correspondence simply by the solution suggested in type IV. However, one other interpretation may be offered to account for such correspondences.

In OC, syllables with ch'ù and jù tones commonly rimed together. Tung (1954) explained this phenomenon by stating that both tones had a similar contour¹⁴ in addition to corresponding final consonants, such as *-g and *-k, or *-d and *-t.

Later, another theory was advanced for MC ch'ù tone. Haudricourt (1954) suggested that there might have been a final *-s in Chinese which was used originally as a suffix to form derived words and which has left its traces in ch'ù tone. He believed that the final *-s could occur after any other final, but by Han times, the final consonant preceding *-s had already been dropped, only *-s was retained and was subsequently replaced by *-h. Thus, final *-s and *-h were ultimately responsible for the development of MC ch'ù tone. Haudricourt's theory has been well supported by later scholars, e.g. Yakhontov (1959), and Pulleyblank (1962-3). Pulleyblank, following Haudricourt and basing himself on early Chinese transcriptions of foreign words, hypothesized that OC had no tones, that MC p'ing and jù tones were conditioned by final voiced and voiceless consonants, respectively. He agreed with Haudricourt that MC shǎng tone developed from a final glottal stop, and that ch'ù tone from a final consonant *-s.

In TH, the situation is different. TH has final consonants -p, -t, and -k. If we were to accept the hypothesis of Haudricourt and Pulleyblank, it would seem likely that in TH the *-s

or ***-h* dropped and the final stop consonant was kept instead:

$$\begin{array}{l} \text{(Chinese) ***-s* > ***-n* > ch'ü tone} \\ \text{***-ps, -ts, -ks* } \swarrow \searrow \\ \text{(Tai) *-p, -t, -k*} \end{array}$$

VI.3.1.h. Yin-ch'ü : D2

計 *kiei- < **kidh : 𠵿 gi?d [khit] D2 "calculate"

We have only one case of MC yin-ch'ü tone corresponding irregularly to TH D2.

VI.3.2. Yang-ch'ü 陽去

VI.3.2.a. Yang-ch'ü : B2

幔 *muân- : 𠵿 ma:n [ma:n] B2 "curtain"

敗 *bai- : 𠵿 ba:y [pha:i] B2 "to be defeated"

渡 *duo- : 𠵿 da: [tha:] B2 "wharf, ford"

MC yang-ch'ü tone corresponds regularly to TH B2. Altogether we have found 43 such examples.

VI.3.2.b. Yang-ch'ü : B1

雁 *ngan- : 𠵿 ha:n [ha:n] B1 "goose"

萬 *mjwɔn- : 𠵿 hmɔ:n [mɔ:n] B1 "ten thousand"

舊 *gjəu- : 𠵿 kau [kau] B1 "old, ancient"

Altogether we have seven examples of such irregular tonal correspondence (see also no. 161, 496, 527, and 602 in VII.2.) which can be explained by the suggestion in type I. Li noted that in Lung-chou, in addition to the word kau "old, ancient" with tone B1 showing regular correspondences with all other Tai languages, there exists the form kau "old, ancient" with tone B2 which agrees with MC. The difference in Lung-chou itself

is that the form with tone B2 is restricted to use in certain stereotyped Chinese phrases such as ji:n kau (仍舊) "as before." Li concluded that the Lungchou form with tone B2 was borrowed from Chinese, whereas the form with tone B1 belongs truly to the PT vocabulary and certainly is not a loan from Chinese.

VI.3.2.c. Yáng-ch'ù : A2

大 *dâ- : ไท dai [thai] A2 "great"

個 *mjian- : หมู mə:n [mə:n] A2 "turn (the face) away from)"

練 *lien- : เรียน ri:an [rian] A2 "to practice, learn"

亮 *ljang- : ราง ra:ŋ [ra:ŋ] A2 "brilliant, bright"¹⁵

Altogether we have four cases of MC yáng-ch'ù tone corresponding irregularly to TH A2. However, the situation may be parallel to that mentioned in section 3.1.c. above.

VI.3.2.d. Yáng-ch'ù : A1

害 *yâi- : ภัย ha:y [ha:i] A1 "damaged"

The etymology of this TH form is uncertain. Both the NT and CT groups have a form showing different initials and tones, e.g. Tay vai B2 "damaged," Poai vaai B2 "spoiled" (Li MS).

VI.3.2.e. Yáng-ch'ù : C2

累 *ljwi- : ไร ร๑:y [r๑:i] C2 "to string"

路 *luo- : ไร ra: [ra:] C2 "a kind of heron"

鶯 *luo- : กล้วย gla: [khla:] C2 "a kind of tree resembling rattan"

肉 *ńzjəu- : เนื้อ nu:a [nu:a] C2 "meat, flesh"

The irregularity in tones here may be explained by the solution suggested in type VI.

VI.3.2.f. Yáng-ch'ù : C1

袋 *dâi- : ໂ້ໂ້ thai [thai] C1 "sack, back"

脛 *yeng- : ພຸ່ນ khæ:ŋ [khæ:ŋ] C1 "shin"

Both words have tone B2 in all other Tai languages (cf. IV.-2.3.b. and IV.7.6.c.). Thus, the irregular tonal correspondence can be explained by the solution in type VII.

VI.3.2.g. Yáng-ch'ù : D2

慕 *muo- < **magh : ມັກ mak [mak] D2 "to love, like"

召 *dǎu- < **drjagwh : ເຊີນ ri:ak [riak] D2 "to summon, call"

痼 *jəu- < **gwjəgh : ພັກ vk [fok] D2 "swelling, swollen"

We have altogether 9 such examples (see also no. 60, 76, 376, 539, 571, and 574 in VII.2.) which can be explained by the solution in type IV.

VI.3.2.h. Yáng-ch'ù : D1

務 *mju- < **mjugh : ພັກ hmk [mok] D1 "to devote one's attention exclusively to"

霧 *mju- < **mjugh : ພັກ hmɔ:k [mɔ:k] D1 "fog"

帽 *mâu- < **mægwh : ພັກ hmuak [muak] D1 "hat"

酬 *luâi- < **luadh : ກຸ້າ kruaʔd [kruat] D1 "to make a libation"

The discrepancy in the upper and lower registers of the tone between Chinese and Thai may be explained by the solution suggested under type I, and the appearance of tone D1 in the

TH form by that in type IV.

VI.4. Jù-shēng 入聲

VI.4.1. Yīn-jù

VI.4.1.a. Yīn-jù : D1

七 *tshjět : ʔet [cet] D1 "seven"

擊 *kiek : ʔek khe:k [khe:k] D1 "strike, knock (with the knuckles)"

酌 *tsjak : ʔak tak [tak] D1 "to dip, ladle"

We have altogether 61 examples of MC yīn-jù tone corresponding regularly to Th D1.

VI.4.1.b. Yīn-jù : D2

索 *sāk : ʔak zak [sak] D2 "inquire, ask"

屈 *khjwət : ʔək g?d [khot] D2 "to bend; crooked"

厝 *kuok : ʔək gɔ:k [khɔ:k] D2 "stable, pen (for horses, oxen)"

The eight examples (see also no. 61, 64, 208, 217, and 417 in VII.2.) of MC yīn-jù tone corresponding to TH D2 instead of D1 may be explained by the solution suggested in type I, or for some cases by the suggestions made under type II. For instance, the word for "stable, pen (for horses, oxen)" show tonal discrepancy among the Tai groups; the SW group has tone D2, but the CT and NT groups, agree with MC in having tone D1 (Li MS).

VI.4.1.c. Yīn-jù : B1

膊 *phâk : ʔa ʔba: [ba:] B1 "the shoulder"

This is the only case we have found where the final consonant -k was dropped in TH. Here, MC jù tone corresponds to TH

tone B; thus, it is noteworthy because these two tones frequently rimed together in OC (cf. VI.3.1.g. above). The fact that this word exists in all Tai languages makes it implausible that it was borrowed from a certain modern Chinese dialects where final stop consonants were dropped.

VI.4.2. *Yáng-jù 陽入

VI.4.2.a. Yáng-jù : D2

掠 *ljak : ǎn lak [lak] D2 "to steal"

袂 *bjuk : ʷn bk [phok] D2 "a pouch pocket"¹⁶

密 *mjět : ɪn miʔd [mit] D2 "completely hidden; secret"

MC yáng-jù tone corresponds regularly to TH D2. Altogether we have found 34 such examples

VI.4.2.b. Yáng-jù : D1

鑷 *njäp : ʷʷʷ hnæp [næ:p] D1 "tweezers"

六 *ljuk : ʷn hk [hok] D1 "six"

十 *zjěp : ʷ siʔb [sip] D1 "ten"

Altogether we have 18 such examples (see also no. 7, 8, 81, 99, 130, 293, 294, 355, 356, 446, 452, 518, 532, 597, 598, and 601 in VII.2.) which may be explained by the suggestion under type I. Some cases such as those for "ten" and for "ripe, cooked" (no.446), however, seem to belong to type II. Both forms have the upper register in the SW and CT groups, but have the lower register in the NT group (Li MS) which agrees with the MC forms.

FOOTNOTES

¹Modern borrowings such as Swatow loanwords in TH do not follow this pattern of tonal correspondence (Egerod 1959).

²Li's Handbook for Proto-Tai (MS) is used here as a checklist for corresponding forms in various Tai dialects.

³This word appears in the synonym compound โบบิน [bo:i] Al' - [bin] Al' "to fly."

⁴Benedict (1967:291) believed that Chinese borrowed the word for "gold" from Austro-Thai, that the CT and NT forms are recent back loans from Chinese.

⁵A statement like "absent from the CT group" or "not found in the CT group" according to Li (MS) is simply an abbreviated way of saying that the word in question is not found in the CT dialect material available to him or that all CT dialects available to him use a different word.

⁶This word occurs in the expression ฟ้าใจ [cham] C2 - [cai] Al' "to feel grieved by a loss of some kind."

⁷Pulleyblank borrowed the idea from Haudricourt (1954) who proposed, on the basis of the development of the tones in Vietnamese, that the shǎng tone is the reflex of an earlier final glottal stop.

⁸This word appears in the compound โปผอง [mai] C2 - [phɯ:ŋ] A2 "a club, cudgel, or a weighted stick used as a weapon."

⁹This fact has been pointed out to me by Professor Jerry Norman in a personal communication.

¹⁰This is an old Thai word and is found only in classical texts.

¹¹In old Sino-Vietnamese, the four Chinese tones are rendered in the following way:

	平	上	去	入
清	◌̄	◌̅	◌̇	◌̈
濁	◌̚	◌̣	◌̤	◌̥

In Sino-Vietnamese of the period from 250-800 A.D., approximately, it is as follows:

	平	上	去	入
清	◌̄	◌̅	◌̇	◌̈
濁	◌̚	◌̣	◌̤	◌̥

¹²This shifting in Chien-ou was pointed out to me by Professor Jerry Norman in a personal communication.

¹³In other Tai dialects, this word means "to come" (Li MS).

¹⁴Tung's assumption that the ch'ü and jü tones in OC had the same contour may be justified by possible evidence from the Tai languages. It has been noted (Gedney 1970) that syllables with tone B in various Tai languages (i.e. MC ch'ü tone) always have the same contour as those for syllables with tone D and long vowels.

¹⁵This word appears in the synonym compound 𐄢𐄣𐄤 [ruŋ] B2 -

[ra:ŋ] A2 "bright, brilliant, shining."

¹⁶It is a pouch pocket formed by making a knot in the fold of the panung (a Thai-styled loincloth).

CHAPTER VII

CONCLUSION

The analysis of lexical correspondences between Chinese and Thai presented in the previous chapters consists of approximately 620 items. Scholars doing comparative work on Chinese and Thai have frequently remarked that it is quite difficult to discover systematic or regular correspondences between individual phonemes and morphemes of the two languages (Nishida 1960). However, this is not always the situation. The analysis of the initial, final, and tonal correspondences in this study has demonstrated that there are indeed regularities or systematic correspondences underlying the seeming irregularities between the two languages. Many of these irregularities have been explained in the preceding discussion. Nevertheless, a number of irregular cases still remain for which no explanation can now be offered. We hope that further study and investigation in this field, particularly along the lines suggested here, will provide additional information leading to more complete explanations.

VII.1. Classification of the Entry into Three Classes

In the following section (VII.2.), a lexicon of the 621 words studied in this dissertation will be tabulated with a final column indicating the regularity or irregularity of the phonological correspondences. Three classes, I, II, and III, are based on the degree of regularity in initial, final, and tonal correspondences:

Class I. This class includes those lexical items for which the correspondences between Chinese and Thai syllables show regularities in all three components, i.e. initial, final, and tone.

Class II. This class is used to designate those cases for which one out of the three components in the Chinese and Thai syllables shows an irregular correspondence.

Class III. This class includes those words for which only one feature of the syllable shows a regular correspondence. These are lexical items that are suspicious in the light of our present knowledge, but are listed for future consideration.

VII.2. Word List

This section will present the list of lexical items arranged in alphabetical order according to the phonemic transcription of the pronunciation of the TH syllables.¹ All items are numbered for convenient reference.

The first column of the list contains information on the TH syllables in the following sequence: pronunciation or phonemic transcription, spelling, transliteration of the actual spelling, Li's PT initials if possible, and meaning.² Certain TH words which have a different old spelling will be footnoted. The second column gives information on the Chinese characters in the following sequence: the Chinese character, Karlgren's MC reconstruction, Li's OC reconstruction when applicable, and meaning. When the meaning of the Chinese characters is the same as that of the TH forms, we shall simply write "id." When they differ,

a definition will also be given on the Chinese side.

The final column on the righthand side of the list shows the correspondences of the Chinese and TH syllables divided into initial (I), final (F), and tone (T), followed by an indicator of their class designation (see VII.1.). The mark / means that the correspondence is regular, whereas the mark X means that the correspondence is irregular. The question mark is used here to indicate a case where the regularity or irregularity of correspondence cannot be determined because there is only one example we could find for that case. The Roman numerals I, II, and III given under the section denoting "class" (CL), refer to the classification of the entry.

The lexical items presented in the list (see pages 303 to 356) do not by any means exhaust the number of cases to be found. Items in Chinese and Thai showing an irregular phonological correspondence or uncertain correspondence of meaning are excluded from the list, e.g.

沙	*sa	< **srar	:	ทราย	dra:y [sa:i]	A2 "sand"
搔	*sâu		:	เกา	kau [kau]	A1' "to scratch"
朝	*tjäu		:	พร้า	brau [phrau]	A2 "morning"
錐	*tswi		:	จี้	jai [chai]	A2 "to bore with an auger"
橋	*gjäu		:	ค้ำ	khua [khua]	A1 "bridge"
藥	*?ji		:	ยา	ya: [ya:]	A2 *?y- "potion"
搗	*khăt		:	ทุบ	khu:?d [khu:t]	D1 "to grate, scrape off"
圈	*khjwän		:	กวน	khan [khan]	A1 "to wind by turning around"
睥	*níi-		:	เหยียด	hyi:a?d [yiat]	D1 "to look on with contempt"

Standard Thai					Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL
1 ban Cl	บัน	?ban		a half, portion	半	puân-		id.	✓	✓	×	II
2 ba: Bl	บัน	?ba:		the shoulder	膊	phâk		id.	✓	?	?	III?
3 bæ:k Dl	บัน	?bæ:k		carry on the back	背	puài-	pəgh	id.	✓	✓	✓	I
4 bæ:p Dl	บัน	?bæ:p		pattern, model	法	pjwɔp		model	✓	?	✓	II
5 be:n Al	บัน	?be:n	?b	to incline	偏	phjiän		inclined to one side	✓	✓	✓	I
6 bo:i Al	บัน (บัน)	?bo:y		to fly	飛	pjwei		id.	✓	✓	✓	I?
7 bu:t Dl	บัน	?bu:d		cross or annoyed looks	靨	buət		id.	×	✓	✓	II
8 cak Dl	จัก	cak		to weave (basket)	織	tsjak		to weave	✓	✓	✓	I
9 cak Dl	จัก (จัก)	cak	c	to recognize, know	識	sjak		id.	✓	✓	✓	I
10 cap Dl	จัก	ca?b	c	to hold, grasp	執	tsjəp		id.	✓	×	✓	II
11 cat Dl	จัก	ca?d		to arrange	設	sjät		to place, arrange	✓	✓	✓	I?
12 cau Bl	จ้าว	cau		(of a bird) grasp, perch	抓	tʂau-		to grasp	✓	✓	✓	I

Standard Thai					Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL
13 cau Cl	เจ้า	cau	c	master, lord	主	tsju/		id.	✓	?	✓	II?
14 ca: Bl	จาน	ca:		wooden ladles	筴	tsau-		ladles	✓	✓?	✓	I?
15 ca:m Al	ขวาน	ca:m		hew or hack (with an ax)	斬	tsām/		to cut off, cut down	✓	✓?	x	II?
16 ca:n Al	จาน	ca:n		shallow dish	盪	tsān/		shallow cup	✓	✓	x	II
17 cet Dl	เจ็ด	ce?d	c	seven	七	tshjēt		id.	✓	✓	✓	I
18 cian Al	เจียน	ci:an		to cut, trim	剪	tsjān/		to cut, clip	✓	✓	x	II
19 cian Al	เจียน	ci:an		first month of the year	正	tsjāng		id.	✓	✓	✓	I
20 cim Cl	จุ่ม	cim	c	to dip into	浸	tsjēm-		id.	✓	✓	x	II
21 cin Al	จริง	crin		true, real	真	tsjěn		id.	✓	✓?	✓	I?
22 ci: Bl	รู้	ci:ʔ		to know	知	tiē		id.	✓	✓	x	II
23 ci:p Dl	จู่	ci:ʔb	c	to fold, plait	摺	tsjāp		to fold, double together	✓	✓	✓	I
24 con Al	จน	cn		until, reach	臻	tsjen		the utmost, to reach to	✓	x	✓	II
25 con Al	จง (จงกัณฑ์)	cn		loyal, loyalty	忠	tjung		id.	✓	✓	✓	I

Standard Thai					Chinese				Sino-Thai correspondences	
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F T CL
26 cop D1	๗	c?b		a round, circuit, time around	币	tsáp		id.	✓	I
27 co:k D1	โศก	co:k		head, chief	首	śjəu/	skhjəgw	id.	✓	III
28 cɔ:k D1	จอก	cɔ:k ⁴		tree sparrow	雀	tsjak	tsjakw	sparrow	✓	I?
29 cum B1	จุ่ม	cum	c	dip into	蘸	tsəm-		id.	✓	I?
30 cun C1	จุน	cun		shallow cups used as saucers	盞	tsǎn/		shallow cups	✓	II
31 cup D1	จุก	cup		suck gently, suckle (as of infants)	哺	tsáp		to suck	✓	I
32 cwa A1	จื่อ	cwa		aid, assist	佐	tsá-		id.	✓	III
33 cə: A1	เจอ	cə:		to meet with	遭	tsáu		id.	✓	II
34 chan A1	จัน	chan		(of a monk) to eat	餐	tshan		to eat; a meal	✓	I
35 cha:ŋ A1	จาง	cha:ŋ		granary	倉	tshâng		id.	✓	I
36 chæ:k D1	จั่น	chæ:k		toothed (as a leaf), serrated	幘	tshek		regular fine teeth	✓	I

Standard Thai					Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL
37 che:t D1	เช็ด	che:ʔd		drive out, expel	出	tshjuet		id.	✓	✓	✓	I?
38 chian A1	ชัน	chi:an		slanting, inclined	傾	khjwäng		id.	?	✓	✓	II?
39 chi:k D1	ฉีก	chi:k		tear apart, pare, destroy	削	sjak		id.	✓	?	✓	II?
40 chok D1	ฉก	chk		snatch	剽	tshau	tshragw	id.	✓	✓	x	II
41 chai B2	ไฉ่	jai	j	to be so	是	zie/		id.	✓	✓	x	II?
42 chai C2	ไฉ่	jai		send (on an errand)	差	tshai		id.	✓	✓	x	II
43 cham A2	ชำ	jam		to soak (a cutting before planting)	沓	uzjäm		to be at the bottom of water	✓	x	✓	II
44 cham C2	ฉ้ำ	jam		grieved	憾	tshäm/		id.	x	✓	✓	II
45 chan A2	ฉัง	jan	j	hate, detest	憎	tsäng		id.	x	✓	✓	II
46 chan B2	ชั่ง	jan	j	to weigh, steelyard	秤	tshjäng-		id.	✓	✓	✓	I
47 chau C2	เช้า	jau	j	early, in the morning	早	tsäu/		id.	x	✓	✓	II
48 cha: A2	ชา	ja:	j	tea	茶	da		id.	x	✓	✓	II

Standard Thai					Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL
49 cha: A2	ชา	ja:		dull, numb	粗	tshuo	tshag	dull	x	✓	✓	II
50 cha: C2	ชา	ja:	ʃ	rough, coarse, gross	粗	dzuo/	dzagx	id.	✓	✓	✓	II
51 cha:η B2	ชา	ja:η	ʃ	artisan, mechanic	匠	dzjang-		id.	✓	✓	✓	I
52 cha:η C2	ชา	ja:η		elephant	象	zjang/		id.	✓	✓	✓	I
53 chæ: B2	แช	jæ:		to steep, soak	漬	dzie-		id.	✓	✓	✓	I
54 chian A2	เชียน	ji:an		city	城	zjäng		id.	✓	✓	✓	I
55 chin A2	ชิน	jin	ʃ	lead (metal)	鉛	jiwän	jian	id.	✓	✓	✓	II
56 chin C2	ชิน	jin		piece, classifier	件	gjän/		id.	x	✓	✓	II
57 chin A2	ชิง	jinq	ʃ	fight for, take by force	爭	tşeng		strive, wrangle	x	✓	✓	II
58 chi: C2	ชี	ji:	ʃ	to point, show	指	tşi/		id.	x	✓	✓	II
59 chor A2	ชอ	chŋ		infuse (tea)	冲	thjung		id.	x	✓	✓	II
60 cho:k D2	โชค	jo:g		luck, lot	祚	dzuo-	dzagh	blessing	✓	✓	x	II
61 cho:k D2	ชอน	jo:k		grieved, pained	感	tshiek	tshiekw	id.	x	✓	✓	II

Standard Thai						Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL	
62 chuei A2	จวน	juay		blow gently but steadily	吹	tshwie		to blow	X	✓	✓	II	
63 chuei B2	จวน	juay		help, assist	助	dzjwo-		id.	✓	X	✓	II	
64 chup D2	จุน	ju:ʔb		to write with ink	答	täp		document	X	✓	✓	II?	
65 chwa B2	จวน	juw:a		buy on credit	買	dzja-		id.	✓	✓	✓	I?	
66 chwa C2	จวน	juw:a		line of succession	緒	zjwo/		id.	✓	✓	✓	I	
67 chu: B2	จวน	juw:	f	name	字	dzi-		adolescent's name	✓	✓	✓	I	
68 dai A1'	จวน ไท	?dai	?dl	stairs, steps	梯	thiei		id.	X	✓	✓	II	
69 dæ:n A1'	จวน	?dæ:n		boundary, limit	埏	jiän	rjian	id.	X	✓	✓	II	
70 don A1'	จวน	?don		to dry (rice) over a fire after having boiled it and drained off the water	融	jiung	rjeng	heat, hot air, steam	X	✓	✓	II	
71 dɔ:n A1'	จวน	?dɔ:n	?d	rising ground, mound	墩	tuen		mound	X	✓	✓	II	

Standard Thai					Chinese				Sino-Thai correspondences	
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F T CL
72 duan C1	短	?duan		to be shortened or curtailed	短	tuán/		short	✓	I
73 duan A1	(ไส้) เถียน	?duw:an		earth-worm	蟣	jiěn	rin	id.	×	III?
74 duw:m B1	ดื่ม	?duw:m		to drink	飲	?jəm-		id.	✓	II?
75 fun B1	ฝุ่น	fun		powder	粉	pjuən/		id.	✓	I
76 fak D2	ฟัก	vak		to hatch	伏	bjəu-	bjəgh	id.	✓	II
77 fok D2	ฟก	vk		swelling, swollen	疣	jəu-	gwjəgh	id.	✓	III?
78 fwa B2	พอ	vuw:a		assist, render assistance	佑	jəu-	gwjəgh	id.	✓	II?
79 hai C1	ให้	həi	h, hŋ	give, allow	許	xjwo/	hngjəgh	allow	✓	I?
80 hak D1	หัก	hak	thr	to break, broken (stick)	殊	tək	trak	break, rip open	✓	I?
81 hap D1	หุบ	ha?b	h, hŋ	close, shut	闔	yáp		id.	✓	II
82 ha: A1	หา	ha:		blame, accuse	呵	xá		accuse, scold	✓	I
83 ha: C1	ห้า	ha:	h, hŋ	five	五	nguo/	ngəgh	id.	✓	I

Standard Thai					Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL
84 ha:i A1	(เสื่อ) ๗๗	ha:y		damaged	害	yâi-		to damage	X	✓	X	III
85 ha:n B1	๗๗	ha:n	h, hŋ	goose	雁	ngan-		wild goose	✓	✓	✓	I
86 ha:n A1	๗๗	ha:n		brave	漢	xân-		id.	✓	✓	X	II
87 ha:u C1	๗๗	ha:w		bold	豪	hâu		brave, eminent	X	✓	X	III
88 hae: A1	๗๗	hæ:	xr	a cast-net	羅	lâ		a net	✓?	X	✓	II?
89 hok D1	๗๗	hk	xr	six	六	ljuk		id.	✓?	✓	✓	II?
90 hoŋ A1	๗๗	hŋ		orange-red	紅	ŋung		red	X	✓	✓	II
91 huan A1	๗๗	huan		return, come back again	還	ŋwan		return	X	✓	✓	II
92 huŋ A1	๗๗	huŋ		to cook (rice), refine (gold, oil)	烘	xung		to burn	✓	✓	✓	II
93 hu:k D2	๗๗	fu:k		owl	鴞	xjau	xjəgw	id.	X	✓?	X	III?
94 kai A1'	๗๗	kai		catch or trigger	機	kjei		id.	✓	✓	✓	I
95 kai B1	๗๗	kai	k	chicken	雞	kiei		fowl	✓	✓	X	II

Standard Thai					Chinese				Sino-Thai correspondences		
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T, CL
96 kai B1	(ก)ไก	kai		(ridge or framework of a house)	架	ka-	krarh	id.	✓	✓?	I?
97 kam A1	(ก)กัม	kam		oversee, superintend	監	kam		id.	✓	✓	I
98 kan A1	กัม	kan		to shield, bar	干	kân		shield	✓	✓	I
99 kap D1	กัป	ka?b	k	and, with	及	gjəp		and	✓	✓	II
100 kau B1	เกา	kau	k	ancient	舊	gjeu-		id.	✓	✓	I
101 kau C1	เกอ	kau	k	nine	九	kjeu/		id.	✓	✓	I
102 ka:i B1	เกอ	ka:y		to cover (the forehead)	蓋	kâi-		to cover	✓	✓	I
103 ka:k D1	กาก	ka:k		shell, chaff, mask	殼	khâk		id.	✓	✓?	II?
104 ka:n C1	กาน	ka:n	k	stem, stalk	秆	kân/		stalk of grain	✓	✓	I
105 ka:p D1	กอป	ka:?b	k	shell, husk	甲	kap		shell	✓	✓	I
106 ka:t D1	กาท	ka:?d	k	a kind of mustard plant	芥	kâi-	kriadh	mustard plant	✓	✓	II
107 ka:u A1	กาว	ka:w		glue, gum	膠	kau		id.	✓	✓	I

Standard Thai					Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL
108 kə: B1	un	kə:		to drag	掙	kjie/		id.	✓	✓	X	II
109 kə: C1	un	kə:		untie, solve, interpret	解	ka/		dissolve, explain	✓	✓	✓	I
110 kə:m A1	un	kə:m		mixed	兼	kiem		combine, together	✓	✓	✓	I
111 kə:m C1	un	kə:m	k	checks	臉	kjäm/		face	✓	✓	✓	I
112 kə:n A1	un	kə:n		hard-pressed, hard-up	艱	kān		id.	✓	✓	✓	I
113 kə:ŋ A1	un	kə:ŋ	k	soup	羹	kŋng		id.	✓	✓	✓	I
114 ke: A1	in	ke:		go astray	枝	tšie	skjig	id.	✓	✓	✓	I?
115 ke:k D1	in	ke:k		wicked, perverted	枝	tšie-	skjigh	id.	✓	✓	X	II?
116 keŋ A1	in	ke:ŋ		city	京	kjŋng		capital city	✓	✓	✓	I
117 kiau B1	ieu	ki:aw		to harvest	收	sjəu-		id.	✓	✓	✓	I?
118 kiau C1	ieu	ki:aw		sedan chair	轎	gjäu-		id.	X	✓	X	III
119 ki: B1	ĩ	ki:	k	several, how many	幾	kjei/		id.	✓	✓	✓	I
120 ki: B1	ĩ	ki:		loom	機	kjei		id.	✓	✓	X	II

Standard Thai						Chinese				Sino-Thai correspondences		
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL
121 klan B1	ก้าน	klan		to select (as jewels)	揀	kān-	kranh	select	✓	✓	✓	I
122 kla: C1	กล้า	kla:	kl	young rice plant, rice seedlings	稼	ka-	kragh	grain, to sow	✓	✓	✓	I
123 kla:i Al'	กลาย	kla:y		vary, change	改	kâi/		id.	x	✓	x	III
124 kla:u B1	กล่าว	kla:w	kl	tell, say	告	kâu-		announce, inform	x	✓	✓	II
125 kliau Al'	เกลียว	kli:aw	kl	entwine, twisted	交	kau	kragw	id.	✓	φ	✓	II?
126 kon B1	กวน	kn		to be determined, perverse	艮	kən-		id.	✓	✓	✓	I
127 koŋ Al'	กย	kŋ		a bow (used for shredding cotton)	弓	kjung		a bow	✓	✓	✓	I
128 koŋ Al' (ŋ)กย		kŋ		work, task	工	kung		id.	✓	✓	✓	I
129 kop D1	กบ	k?b		frogs	蛤	kâp		id.	✓	✓	✓	I
130 kop D1	กบ	k?b		to place two flat surfaces together	合	râp		to join, pair, shut	x	✓	✓	II

Standard Thai					Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL
131 kre:ŋ Al.	เกรง	kre:ŋ		to fear	敬馬	kjɒŋ		to be afraid	X	✓	✓	II
132 krian Al.	เกรียน	kri:an		melia azederach, a kind of tree	棟	lien-		id.	✓	✓	X	II
133 kroat D1	กรอก (กร)	krua?d		make a libation	斟	luái-	luadh	id.	✓	✓	X	II
134 kuan Al.	กวน	kuan		officials, peers	官	kuàn		id.	✓	✓	✓	I
135 kuat D1	กุก	kua?d		tie tightly, twist tightly together	括	kuát		id	✓	✓	✓	I
136 kuei Al.	กวย	kuay		basket	簋	kjwi/		a kind of food vessel, basket	✓	✓	X	II
137 ku: Cl	กู่(กวม)	ku:		lift, raise	舉	kjwo/		id.	✓	✓	✓	I
138 ku:t D1	กุก	ku:ʔd		a kind of edible fern	蕨	kjwɒt		fern	✓	✓	✓	I?
139 kwak D1	เกือก	kw:ak		shoes, sandals	屨	kjak	kjakw	straw sandal	✓	?	✓	II?

Standard Thai					Chinese				Sino-Thai correspondences		
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T, CL
140 kwa: A1	กัว	kwa:		small cucumbers	瓜	kwa		melon	✓	✓	I
141 kwa: B1	กัว	kwa:	kw	more, than	過	kuâ-	kwarh	pass, excess	✓	✓	I
142 kwa:n C1	กวน	kwa:n		house, brick buildings	館	kuân/	kwanx	lodging house	✓	✓	I
143 kwa:ŋ C1	กวาง	kwa:ŋ	kw	wide, broad	廣	kwâng/		id.	✓	✓	I
144 kwa:t D1	กวต	kwa:t	kw	to rub, rub off, to rake	刮	kwat		to scrape	✓	✓	I
145 khai A1	ไค	khai	x	to open	開	khâi		to open	✓	✓	I
146 khai A1	ไค	khai	khl	to hold (water), confine	園	khâng-		to store	✓	✓	II
147 khat D1	ไค	kha:t		polish, scour, scrub	擦	tshât		id.	✓	✓	II
148 khai A1	ไค	khai		hill	丘	khjâu		id.	✓	✓	I
149 khai A1	(un)ไค	khai	khrr, hr	dove	鳩	kjâu		id.	✓	✓	I
150 kha: A1	ไค	kha:		class, group, line	科	khúa		id.	✓	✓	I

Standard Thai					Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL
151 kha: A1	ก	kha:	kh	leg	跤	khau	khagw	the bones of the leg	✓	✓?	✓	I?
152 kha:k D1	ก	kha:k		spit out	喀	khək		spit out, vomit	✓	✓	✓	I
153 kha:m A1	ก	kha:m		respect	欽	khjēm		respectful	✓	x	✓	II
154 kha:m A1(ง)	ก	kha:m		tamarind	柑	kām		citrus nobilis	✓	✓	✓	I
155 kha:u A1	ก	kha:w		white	皓	kâu/		white, bright	✓	✓	x	II
156 kha:u C1	ก	kha:w	x	rice, grain	秬	xâu-		kind of millet	✓	✓	x	II
157 khæ:ŋ A1	ก	khæ:ŋ	kh1/r	strong	勁	kjäŋ-		id.	✓	✓	x	II
158 khæ:k D1	ก	khæ:k	x	guest, stranger	客	khək		id.	✓	✓	✓	I
159 khæ:m A1	ก	khæ:m ⁵		tall, perennial grass	蒹	kiem		rush, sedge	✓	✓	✓	I
160 khæ:n A1	ก	khæ:n	kh	arm	肩	kien		id.	✓	✓	✓	I
161 khæ:ŋ B1	ก	khæ:ŋ		compete	競	gjong-		contest	x	✓	✓	II
162 khæ:ŋ C1	ก	khæ:ŋ	γ B2	shin	脛	ŋieng-		id.	✓	✓	✓	I

Standard Thai					Chinese				Sino-Thai correspondences		
Pronunciation	Spelling	Transliteration	Li's initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T CL
163 khem A1	เขม	khem	kh	needle	鍼	tśjəm	skjəm	id.	✓	✓	I
164 khen A1	เขน	khen	x	draw, move forward by pushing and pulling	牽	khien		pull, drag	✓	✓	I
165 khe:k D1	เขน	khe:k		strike, knock (with the knuckles)	擊	kiek		strike	✓	✓	I
166 khiau A1	เขี้ยว	khi:aw		to go	去	khjwo-		to leave	✓	×	II
167 khiau C1	เขี้ยว	khi:aw		an eye tooth	齒	tshī/		eye	✓	✓	II
168 khim A1	خم	khim		Chinese cymbalo	琴	gǐēm		Chinese lute	✓	✓	I
169 khiŋ A1	خم	khiŋ	x	ginger	薑	kjang		id.	✓	×	II
170 khi: B1	ขี่	khi:	kh	to ride (on horseback, etc.)	騎	gǐe		id.	✓	✓	I
171 khi: C1	ขี่	khi:		dung	屎	śi/		id.	✓	✓	I
172 khi:t D1	ขี่	khi:ʔd		to notch, scratch	契	khiei-	khiadh	id.	✓	✓	I
173 khom B1	خم	khm		suppress, subdue	戡	khām		id.	✓	✓	II

Standard Thai					Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL
174 khot D1	ทก	kh?d	kh	coiled up, a coil	屈	khjuæt		to bend	✓	X	✓	II
175 kho:k D1	ไทก	kho:k		to knock	擗	khāk		id.	✓	✓	✓	I
176 khw: A1	ทข	khw:	x	hook	勾	kəu		id.	✓	✓	✓	I
177 khuei A1	ทว	khuay		to feel bashful	愧	kjwi		bashful, ashamed	✓	✓	✓	I
178 khum A1	ทุม	khum		pit, ditch	坎	khām/		id.	✓	✓	X	II
179 khun A1	ทุน	khun		leader, ruler	君	kjuan		lord, prince	✓	✓	✓	I
180 khut D1	ทฤ	khut?d	x	to dig, hollow out	掘	gjuæt		to dig out	X	✓	✓	II
181 khwa A1	เทื่อ	khwa:a	kh	eggplant	茄	gja		id.	X	✓?	✓	II?
182 khwan A1	ทัญ	khwap	xw	spiritual soul	魂	yuan	gwan	id.	X	✓?	✓	II?
183 khwa:ŋ A1	ทวง	khwa:ŋ		perverse, lunatic	狂	gjang		wild, mad	X	✓	✓	II
184 khwa:ŋ A1	ทวง	khwa:ŋ		crosswise	横	ywung		id.	X	✓	✓	II
185 khwæ:n A1	ทวน	khwæ:n	xw	suspend, hang	懸	yiwun		id.	X	✓?	✓	II?
186 kham A2	ทำ	gam		gold	金	kjēm		id.	X	X	✓	III

Standard Thai					Chinese				Sino-Thai correspondences	
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F T CL
187 khan B2	กั้น	gan		partition off (a room)	間	kān-		to separate	✓	I
188 khan B2	กั้น	gan		be in discord	閤	yung-		id.	✓	I
189 kha: A2	กา	ga:	g	cangue	加	ka		id.	✓	II
190 kha: B2	กา	ga:	g	price	價	ka-		id.	✓	II
191 kha: C2	กา	ga:	g	to trade	賈	kuo/	kagx	id.	✓	II
192 kha:n A2	กาน	ga:n	γ	pole to carry things	竿	kān		bamboo pole	✓	II
193 kha:n A2	กาน	ga:n		to hinder, obstruct	閑	yǎn		to obstruct; bar	✓	I
194 kha:p D2	กาน (เกี้ยว)	ga:ʔb		connected, joined	盪	yǎp		join, unite	✓	I
195 khæ:p D2	แคบ	gæ:ʔb	g	narrow	狹	yǎp		id.	✓	I
196 khæ:p D2 (ท่ง)	แคบ	gæ:ʔb		straits	峽	yǎp		id.	✓	I
197 khem A2	เค็ม	gem	g	salty, salted	鹹	yám		id.	✓	II?
198 khít D2	กิต	gi:ʔd		calculate, total number	計	kiei-	kidh	id.	✓	III
199 khi: B2	กิติ	gi:		odd (number)	奇	gjie		id.	✓	II

Standard Thai					Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL
200 khi:m A2	คัม	gi:m	g	tongs, pincers	鉗	gjä̃m		id.	✓	✓	✓	I
201 khi:p D2	คัม	gi:ʔb		to clamp, clasp (e.g. with two fingers)	挾	ɣiep		clasp under arm	✓	✓	✓	I
202 khla: C2	คล้า	gla:		a kind of tree resembling rattan	𣎵路	luo-	glagh	id.	✓		×	II
203 khla:k D2	คลก	glɔ:k	gl	to burn	烙	lâk	glak	id.	✓	×	✓	II
204 khla:ŋ A2	คลอง	glɔ:ŋ		a watercourse	江	kång		river	×	✓	✓	II
205 khlu:n B2	คลู่น	glu:n		waves	源	lân-	glan	id.	✓	×	✓	II
206 khop D2	คพ	gʔb		associate with	狎	ɣap		familiar with	✓	×	✓	II
207 khot D2	คค	gʔd		dig up, dip out	扣	ɣuət		dig up	✓	✓	✓	I
208 khot D2	คค	gʔd		a stone lodged in a tree	嵌	kjwət		stone	×	✓?	✓	II?
209 kho:k D2	โคโน	go:k		hill	峯	gjäu	gjiagw	peak of a mountain	✓	✓?	✓	I?

Standard Thai					Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL
210 kho:n A2	โฌ	go:n		base of a tree foundation	根	kən		id.	X	✓	✓	II
211 khɔ: A2	โฌ	gɔ:	ɣ	throat, neck	喉	ɣəu		throat	✓	✓	✓	I
212 khɔ:k D2	โฌ	gɔ:k		stable, pen (for horses, oxen)	牯	kuok		id.	X	✓	✓	II
213 khɔ:k D2	โฌ	gɔ:k		bend, distorted (of arms)	迂	ju	gwjag	to bend	✓	✓	X	II
214 khrau A2	โฌ	grau		beard	毫	ɣəu	gəgw	soft hairs on the body	X	✓	✓	II
215 khra:m A2	โฌ	gra:m	gr	indigo	藍	lām	glam	id.	✓	✓	✓	I
216 khra:n C2	โฌ	gra:n	gr	lazy	懶	lân/	glanx	id.	✓	✓	✓	I
217 khra:t D2	โฌ	gra:ʔd	gr-	to scrape, to rake	搗	kat	krat	scrape, grate	X	✓	✓	II
218 khrok D2	โฌ	grk	gr	mortar	臼	gjaɯ/	gjəgwɣ	id.	✓	✓	X	II
219 khuap D2	โฌ	guaʔb		combine, join	合	ɣəp		id.	✓	?	✓	II?
220 khum A2	โฌ	gum		watch over, detain	擒	gjem		capture	✓	✓	✓	I?

Standard Thai					Chinese				Sino-Thai correspondences		
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T, CL
221 khum C2	ขุม	gun		be familiar with	慣	kwan		id.	X	✓?	X
222 khut D2	คุ	gu?d		curved inwards, crooked, to crouch	屈	khjuət		to bend	X	✓	II
223 khu: A2	渠	u:		canal, moat	渠	gjwo		canal	✓	✓	I
224 khuk D2	駒	guk		vigorous, vivacious (horses, etc.)	駒	gjak	gjakw	strong-looking (horses, etc.)	✓	?	II?
225 khwan A2	ควัน	gwan	ɣw	smoke	熏	xjwən		id.	X	✓	II
226 khwan B2	คว้น	gwan		twirl or twist (strands of cord together)	運	juən-	gwjənh	revolve, turn around	✓	✓	I
227 lak D2	ลัก	lak		steal	掠	ljak		rob, plunder	✓	✓	I
228 laŋ A2	ลัง	laŋ		a crate	籠	lung		a cage	✓	✓	I
229 lau C2	เล้า	lau		pen, sty	牢	lâu		id.	✓	✓	II
230 la: A2	ลา	la:		ass	驢	ljwo	ljag	id.	✓	✓	I
231 la:m B2	ลำน	la:m		to tie with rope or chain	牽	lâm-		a rope	✓	✓	I

Standard Thai						Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL	
232 la:n B2	ลำน	la:n		soft, over-ripe (as of fruit)	爛	lân-		id.	✓	✓	✓	I	
233 læ:n B2	(น้ำ) แลน	læ:n		to unite or refine (metals)	鍊	lien-		to refine (metal)	✓	✓	✓	I	
234 læ:u C2	แลว	læ:w	l	finished	了	lieu/		id.	✓	✓	✓	I	
235 let D2	เล็ก	le?d		escape artfully or adroitly	逸	jiết	rit	id.	✓	✓	✓	I	
236 le:k D2	เลข	le:kh		numbers	曆	liek		id.	✓	✓	✓	I	
237 le:n A2	เลน	le:n		marsh, mire	𡵓	jiwän	rjian	a marsh at the foot of the hills	✓	✓?	✓	I?	
238 liam B2	เลียม	li:am		to plate, cover (with a thin film of metal, esp. gold or silver)	𡵓	ljäm-		to cover	✓	✓	✓	I	
239 lian A2	เลียน	li:an		imitate, follow	𡵓	jiwän	rjian	id.	✓	✓	✓	I	
240 lian A2	เลี้ยง	li:an		cool	涼	liang		chilly, cold	✓	✓	✓	I	
241 lian A2	เลี้ยง(น)	li:an		goat, antelope	羊	jiang	rang	sheep, goat	✓	✓	✓	I	

Standard Thai					Chinese			Sino-Thai correspondences				
Pronunciation-Spell- tion	ing	Trans- literation	Li's PT in- itial	Meaning	Cha- rac- ter	Karl- gren's MC	Li's OC	Meaning	I	F	T	CL
242 lian C2	เลี้ยง	li:an		feed, nourish	養	jiang/	rangx	id.	✓	✓	✓	I
243 lin B2	ลิน	lin	l	pangolin	鱗	ljěn		scales of fish or reptile	✓	✓	X	II
244 li: A2	ลี	li:		far, far apart	離	ljie		depart from	✓	✓	✓	I
245 loŋ B2	ลง	lŋ		feel at ease	容	jiwong		at ease, easy	✓	✓	X	II
246 lo: C2	โล	lo:		to row using an oar	櫓	luo/		an oar	✓	✓	✓	I
247 lo:ŋ A2	โลง	lo:ŋ		casket, coffin	籠	lung		a cage	✓	✓	✓	I
248 lɔ:k D2	ลอก	lɔ:k		copy down, transcribe	錄	ljwok		inscribe, record	✓	✓	✓	I
249 lwai B2	เลี้ยง (ลา)	lw:ai		tired, worn out	像	luài-		id.	✓	✓?	✓	I?
250 lwai C2	เลี้ยง	lw:ai		creepers, wind about	巢	ljwi/		creepers	✓	✓?	✓	I?
251 lwak D2	เลือก	lw:ak		choose	擇	ɖək	drak	id.	✓	X	✓	II
252 lwan B2	เลื่อน	lw:an		extend, postpone, delay	延	jiän-	rjiah	id.	✓	✓?	✓	I?
253 lwan B2	เลื่อน	lw:an		to push, slide; cart	牽	ljän/		id.	✓	✓?	✓	I?

Standard Thai							Chinese				Sino-Thai correspondences		
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL	
254 lai A1	ไล	hlai		eels	鯢	lâi		id.	✓	✓	✓	I	
255 lau C1	เล้า	hlau	xl	liquor	酒	jiâu/	rəgwx	id.	✓	✓	✓	I	
256 la: C1	ล้า	hla:		earth, land	土	thuô/	thagh	earth, soil	x	✓	✓	II	
257 la:i A1	ลาย	la:y		numerous, all	黎	liei		id.	x	✓	✓	II	
258 liam B1	เลี่ยม	hli:am		angle	廉	ljām		id.	✓	✓	x	II	
259 lua A1	เหลือ	hlw:a	hl	to be left over, surplus	餘	jiwo	rag	id.	?	✓	✓	II?	
260 mak D2	มัน	mak		to love, like	慕	muo-	magh	love, think longingly of	✓	✓	x	II	
261 man A2	มัน	man	m	yam, potato	蔓	muân		kind of turnip	✓	✓	✓	I	
262 ma: C2	ม้า	ma:	m	horse	馬	ma/		id.	✓	✓	✓	I	
263 ma:n B2	幔	ma:n		curtain	幔	muân-	manh	id.	✓	✓	✓	I	
264 mæ:nj A2	แมง	mæ:nj		insects	螻	mung	mrang	gadfly, horsefly	✓	✓	✓	I	
ma-læ:nj	แมว	mlæ:nj	ml/r	" "									
265 mæ:u A2	แมว	mæ:w	m	cat	貓	mjâu		id.	✓		✓	I	

Standard Thai					Chinese				Sino-Thai correspondences		
Pronunciation	Spelling	Transliteration	Li's initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T, CL
266 mæu C2	มั่ว	mæw		hill tribe	苗	mjäu		tribes-people	✓	✓	II
267 mian C2	면	mi:an		evade, hidden	免	mjän/		evade, avoid	✓	✓	I
268 mian B2	면	mi:an		tea leaves prepared for chewing	茗	mieng/		tea, tea plant	✓	✓	II
269 mit D2	민	mi?d		completely hidden, secret	密	mjët		id.	✓	✓	I
270 mo: B2	모	mo:		to grind	磨	muä-		id.	✓	✓	I
271 mɔ:ŋ A2	몽	mɔ:ŋ		a kind of bag-net for catching fish	罔網	mjwang/		net, to net (fish)	✓	✓?	II?
272 muan A2	만	mual		all	滿	muän/		the whole of, complete	✓	✓	II
273 mui B2	뮈	muy		frowning, displeased	邁	mwäi-		displeased	✓	✓?	I?
274 mun B2	뮈	mun		be unhappy, sad	悶	muən-		sad	✓	✓	I
275 mun B2	뮈	mun		aim at	望	mjwang-		hope, look towards	✓	?	II?
276 mun C2	뮈	mun		mosquito nets	網	mjwang/		nets	✓	?	III?

Standard Thai					Chinese				Sino-Thai correspondences	
Pronunciation	Spelling	Transliteration	Li's initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F T CL
277 mut D2	มู	mu?d		to dive (as fish)	没	muət		to dive	✓	I ✓
278 mu:n A2	มู	mu:n		over-abundant, ample	丰, 满	muán/		full	✓?	I? X
279 mə:n A2	เมืม	mə:n		turn (the face) away from	偏	mjian-		to turn from, abandon	✓	X III
280 mai A1	ไม	hmai		thread	线	xjwɛi.	hmjəd	rope	✓	I ✓
281 mai C1	ไม	hmai		burn	烧	xjwɛi./	hmjədɤ	id.	✓	I ✓
282 man A1	มึน	hman		barren, sterile	昏	xuən	hmən	castrated man	✓?	I? ✓
283 man B1	มึน	hman		diligent	勉	mjěn	mjiənɤ	id.	X	III ✓
284 ma: B1	(มึ)มัว	hma:		scared, tremble in fear	哆嗦	xa-	hmragh	scare	✓	I ✓
285 ma: C1	มัว	hma:		beautiful	美	xju/	hmjagx	id.	✓	I ✓
286 mok D1	มุก	hmk	hm	apply oneself to	务	mju-	mjəgwh	id.	X	III ✓
287 mot D1	มุก	hm?d		having nothing remaining, empty	空	xuāt		empty	✓?	I? ✓

Standard Thai					Chinese				Sino-Thai correspondences		
Pronunciation	Spelling	Transliteration	Li's initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T CL
288 mɔː A1	หมอ	hmɔː	hm	sorcerer, doctor	巫	mju		magician	×	✓	✓ II
289 mɔː C1	หม	hmɔː	hm	pots, jars	瓶	nju/		id.	✓	✓	✓ I
290 mɔːk D1	หมก	hmɔːk		obscure, dark	晦	xuài-	hməgh	id.	✓	✓	✓ II
291 mɔːk D1	หมก	hmɔːk	hm	fog, mist	霧	mju-	mjugh	id.	×	×	✓ III
292 muak D1	หมวก	hmua:k	hm	hat	帽	mâu-	məgh	id.	×	×	✓ III
293 muat D1	หมวต	hmuaʔd		class, sort, division	物	mjuet		id.	✓	✓	✓ I
294 muk D1	หมึก	hmuk	hm	ink	墨	mək		id.	✓	✓	✓ I
295 mɔːn B1	หมื่น	hmɔːn	hm	ten thousand	萬	mjwɔn-		id.	✓	✓	✓ I?
296 naŋ A2	(ฉิ่ง) หมิง	naŋ		trailing collection of bags	囊	nàng		sack, bag	✓	✓	✓ I
297 na:n A2	นาน	na:n		difficult	難	nán		id.	✓	✓	✓ I
298 na:ŋ A2	นาง	na:ŋ		lady, woman	娘	njang		lady	✓	✓	✓ I
299 na:u C2	นำ	na:w		to bend, arch (a bow)	撓	nau/		to bend	✓	✓	✓ I
300 næ:n B2	แน่น	næ:n		full, crowded (as a room)	撓	ínzjén-		full; stuffed full	✓	✓	✓ I?

Standard Thai						Chinese				Sino-Thai correspondences		
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL
301 næ:p D2	แนบ	næ:ʔb		insert,enclose	納	nâp		insert	✓	✓	✓	I
302 nen C2	แนบ	ne:n		to press with the fingers, countersink (a nail)	揸	nien/		id.	✓	✓	✓	I
303 niŋ B2	นิ่ง	niŋ		to be quiet	寧	nieng		id.	✓	✓	×	II
304 nuat D2	นวด	nua:ʔd	n	knead,massage	捺	nât		id.	✓	×	✓	II
305 nua C2	เนื้อ	nu:a	n	meat,flesh	肉	ńzjau-	njægwh	id.	✓	✓	✓	I
306 næ:i A2	นม	nə:y		an oily substance obtained from milk	奶	niei/		milk	✓	✓?	×	II?
307 nə:p D2	เนือ	nə:ʔb		slow (of speech)	訥	nuet	nət < nəp	slow of speech	✓	✓	✓	I
308 nai A1	ไหน	hnai	hn	how,which, where	那	nâ		id.	✓	✓	✓	I
309 na: C1	弩(ใน)	hna:	hn	crossbow	弩	nuo/	nagx	id.	✓	✓	✓	I
310 næ:p D1	นippers	hnæ:ʔb	hn	tweezers, pincers	鉗	njâp		id.	✓	✓	✓	I

Standard Thai						Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL	
311 ni:p D1	นิ้ว	hni:ʔb	hn	grasp (with pincers)	攝	śjāp	hnjap	id.	✓	✓	✓	I	
312 nɔ:ŋ A1	หนอง	hnɔ:ŋ	hn	pus	膿	nuong		id.	✓	✓	✓	I	
313 num B1	หนุ่ม	hnum	hn	young man	男	nām		man, male	×	✓	×	III	
314 ŋau B2	เงา	ŋau	ŋ	lotus root	藕	ngəu/		root-stock of the lotus	✓	✓	×	II	
315 ŋa: A2	งา	ŋa:	ŋ	tusk, ivory	牙	nga		tooth, ivory	✓	✓	✓	I	
316 ɲom A2	งอ	ŋm		stupid	係	ngām		id.	✓	✓	✓	I	
317 ŋua A2	งัว	ŋua	ŋ, ɲw	cow, ox	牛	ngjəu	ngwjəg	id.	✓	?	✓	II?	
318 ŋuat D2	งู	ŋuaʔd		a recurring period (usu. every three months)	月	ngjwət		moon, month	✓	✓	✓	I	
319 ɲən A2	เงิน	ɲə:n	ɲ	silver, money	銀	ngjen		silver	✓	✓?	✓	I?	
320 paʔ D1	ปะ	paʔ		to mend	補	puo/	pagx	id.	✓	✓	?	II?	
321 pan A1	ปัน	pan	p	divide into shares	分	pjuən	pjen	id.	✓	✓	✓	I	
322 pat D1	ปัด	paʔd		to dust, wipe off	拂	phjuət	phjət	id.	✓	✓	✓	I	

Standard Thai						Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL	
323 pa: Bl	ป๋	pa:	p	meadow	埧	pa-		flat valley	✓	✓	✓	I	
324 pa:n Al	ป๋น	pa:n		equal to, like	彬	pjěn	pjiən	of equal quality or quantity	✓	✓	✓	I	
325 pa:u Bl	ป๋	pa:w	p	announce, report	報	pâu-		id.	✓	✓	✓	I	
326 pæ:n Cl	ป๋น	pæ:n		thin and flat	扁	pien/		flat	✓	✓	✓	I	
327 pæ:ŋ Cl	ป๋ง	pæ:ŋ	p	flour, cake, pastry	餅	pjäŋ/		cake, pastry	✓	✓	✓	I	
328 pæ:t Dl	ป๋ท	pæ:ʔd	p	eight	八	păt		id.	✓	✓	✓	I	
329 pet Dl	เป๋	peʔd		duck	鴨	phjiết		id.	✓	✓	✓	I	
330 pit Dl	ปี๋	piʔd		to shut, close	閉	piet		id.	✓	✓	✓	I	
331 pit Dl	ปี๋	piʔd		cover, keep in ignorance	蔽	pjäi-	pjiadh	id.	✓	✓	×	II	
332 ple:u Al	เปลว	ple:w	pl	a tongue of flame, a blaze	焰	phjäu		leaping flames	×	✓	✓	II	
333 plia Cl	เปลว	pli:a		tired, wear out	罷	baĩ/		id.	×	✓	✓	II ⁹	
334 plian Bl	เปลว	pli:an	pl	to change	變	pjän-	pljiah	id.	✓	✓	✓	I	

Standard Thai						Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL	
335 plwak D1	ปลวก	plw:ak	pl	bark, shell	膚	pju	pljag	skin	✓	✓	X	II	
336 pok D1	ปล	pk		collar	裸	puok		embroidered collar of a coat	✓	✓	✓	I	
337 pok D1	ปลอก	pk	p	protect; cover	保	pâu/	pəgwx	protect	✓	✓	X	II	
338 pɔ:k D1	ปลอก	pɔ:k	p	to peel	剥	pâk		id.	✓	✓	✓	I	
339 pɔ:t D1	ปลอก	pɔ:ʔd	p	lungs	肺	phiwvi-	phjadh	id.	✓	✓?	X	II?	
340 pua B1	ปู้	pua		male, man	夫	pju	pjag	man	✓	?	X	III?	
341 put D1	ปุด	puʔd		bubbling	沸	pjwei	pjadh	bubble up	✓	✓?	X	II?	
342 pu:n A1	ปูน	pu:n		bestow, confer upon	頒	pwan		give in fief, bestow	✓	✓?	✓	I?	
343 pha: A1	ป่า	pha:	ph	rocky hills, slope	坡	phuà	phar	a slope	✓	✓	✓	I	
344 pha: B1	ป่า	pha:	ph	split, cut	破	phua-	pharh	split	✓	✓	✓	I	
345 pha: C1	ผ้า	pha:	ph	cloth, clothing	布	puo-	pagh	cloth	✓	✓	X	II	
346 pha:k D1	ปาก	pha:k	phl/r	forehead	盧	luo	blag	id.	X	✓	X	III	
347 pha:t D1	ปาก	pha:ʔd		obscured, indistinct	渾	phâi-	phadh	obscured	✓	✓	X	II	

Standard Thai					Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL
348 phæ: B1	uu	phæ:		branch off, spread out	派	phai-		branch off, distribute	✓	✓	✓	I
349 phæ:k D1	uun	phæ:k		divided or broken up into sections	劈	phiek		split into fragments	✓	✓	✓	I
350 phæ:n B1	uuu	phæ:n		sheet, classifier	片	phien-		id.	✓	✓	✓	I
351 phæ:u B1	uuw	phæ:w		lightly, light	漂	phjäu-		light (≠ heavy)	✓	✓	✓	I
352 phiu A1	ũw	phiw		skin, complexion	膚	pju		skin	✓	✓	✓	I
353 phot D1	un	ph?d		prickly heat	痱	pjwei-	pjædh	id.	✓	✓?	×	II?
354 phuan A1	ũu)uu	phuan		turn, changeable	幡	phjwun		id.	✓	✓	✓	I
355 phu:k D2	un	phu:k	bl/r	bind, tie	縛	bjwak		bind, wrap	×	✓	✓	II
356 phwak D1	ũan	phw:ak	phl/r	white	白	bøk	brak, briak	id.	×	?	✓	III?
357 phun C1	ũw	phun		bees	蜂	phjwong		id.	✓	×	×	III

Standard Thai					Chinese				Sino-Thai correspondences	
Pronunciation	Spelling	Transliteration	Li's initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F T CL
358 phai C2	ไห	bhəi	b	daughter-in-law, woman relative by marriage	媳	bjəu/	bjəgx	woman, wife	✓	✓ I?
359 phai B2	牌	bai		playing cards	牌	bai		placard	✓	II
360 phan A2	盘	əan		to coil up	盘	buān		id.	✓	I
361 phay A2	坍	baŋ		tumble down	坍	pəng		collapse, fall	✓	I
362 phaŋ A2 (-pha:i A2)	旁 (佻)	baŋ		a remark in parenthesis	旁	bang (-phiei)		id.	✓	I
363 pha: A2	扶	ba:	b	take along	扶	bju	bjaɡ	assist, support	✓	I
364 pha:i B2	败	pha:y		be defeated	败	bai		id.	✓	I
365 pha:n A2	盘	ba:n	b	a tray supported on a pedestal	盘	buān	ban	tray, dish	✓	I
366 pha:n B2	叛	ba:n		be in a turmoil or in disorder	叛	buān-	banh	id.	✓	I
367 phae: A2	筏	bæ:	b	raft	筏	bai		id.	✓	I

Standard Thai					Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL
368 phiaŋ C2	ฝูญ	bi: aŋ		equal to, on a par with	並	bieng/		side by side	✓	✓	✓	I
369 phiŋ A2	ฝิง	biŋ		lean on, depend upon	憑	bjəŋ		id.	✓	✓	✓	I
370 phi: A2	ฝี	bi:	b	fat	肥	bjwei		id.	✓	✓	✓	I?
371 phlat D2	พลัด	blaʔd	bl	be separated from	別	bjät		separate	X	✓	✓	II?
372 phlia A2	พลั่ว	bli:a		tired, exhausted	疲	bjiə		id.	✓	✓	✓	I
373 phlɔ:ŋ A2	(ไม้)พลอง	blɔ:ŋ		a club, cudgel	棒	bāŋ/		id.	✓	✓	X	II
374 phok D2	พก	bk		a pouch pocket	袂	bjuk		square of cloth for wrapping bundles	✓	✓	✓	I
375 phon B2	พุน	bn		squirt, emit	噴	phuan-		id.	✓	✓	✓	I
376 phrak D2	พริ่น (พริ่น)	brak		prepare, ready	備	bji-	bjiəŋ	id.	✓	✓	X	II?
377 phruan A2	(ลูก)พรวน	bruan		neck bells (for domestic animals)	鑾	luân	blwan	bells on horse trapping	✓	✓	✓	I
378 phuaŋ B2	พวง	buang		pontoon, raft	舢舨	pjwang-		boat	X	✓	✓	II

Standard Thai					Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL
379 phu:n A2	พู่	bu:n		increase, flourishing	蕃	bjwɔn		id.	✓	✓?	✓	I?
380 phuan B2	เพื่อน	bu:an		friend, comrade	伴	buân/		id.	✓	X	X	III
381 phuan C2	พู่	bu:n		to get angry	忿	bjuan/	bjənx	anger, angry	✓	✓?	✓	I?
382 phə:k D2	เพ็	bə:k		to open	開	bjäk		id.	✓	X	✓	II
383 rak D2	รัก(แ)	rak		the arm-pits	腋	jiäk	rak	id.	✓	✓	✓	I
384 ran A2	รัง(ัง)	ran		to measure	量	ljang		id.	✓	✓	✓	I
385 ra: A2	รา	ra:	r	we two	余	jiwo	rag	I, we	✓	✓	✓	I
386 ra: A2	(รณ)รา	ra:		vehicle	輿	jiwo	rag	id.	✓	✓	✓	I
387 ra: A2	รา	ra:		undecided, procrastinate	躊躇	djuo	drjag	id.	✓	✓	✓	I
388 ra: B2	รา(เวง)	ra:		joyful, merry	豫	jiwo-	ragh	joy	✓	✓	✓	I
389 ra: C2	(ลา)รา	ra:		preserved with salt	鹵	luo/	lagx	salty	✓	✓	✓	I
390 ra: C2	(นก)รา	ra:		a kind of heron	鷺	luo-	klagh	id.	✓	✓	X	II
391 ra:i A2	ราว	ra:y		set, category, list	儋	džai	dzrid	id.	✓	✓	✓	I

Standard Thai					Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL
392 ra:n C2	ร้าน	ra:n		booth, shed, stall, shop	棧	dzan/		id.	✓	✓	✓	I
393 ra:ŋ A2	亮 (亮)	ra:ŋ		brilliant, bright	亮	ljang-		id.	✓	✓	X	II
394 ra:ŋ B2	狀	ra:ŋ		body, shape, form	狀	dzjang-		id.	✓	✓	✓	I
395 re: B2	移	re:		wander about, move, changeable	移	jie	rig	move; change shift	✓	✓	X	II
396 ria B2	池 (池)	ri:a		dribble, drip, strew, scattered	池	jiäi-		id.	✓	✓	✓	I
397 riak D2	召	ri:ak		summon, call	召	djäu-	drjagwh	id.	✓	✓	X	II?
398 riam B2	練	ri:am		beautiful	練	jiäm-	rjiam	id.	✓	✓	✓	I
399 rian A2	練	ri:an		to practice (in order to become proficient)	練	lien-		to train, improve by training	✓	✓	X	II
400 riau A2	纜	ri:aw		tack for hauling a sail	纜	ljäu		lines for a sail	✓	✓	✓	I

Standard Thai					Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL
401 riau B2	รฺเวย	ri:aw		vigorous, strong (as the current of a river)	洑	ljəu-		gush forth	✓	✓	✓	I
402 rim A2	รฺม	rim		nearby, at the side of	臨	ljēm		id.	✓	✓	✓	I
403 rin A2	รฺน	rin		trickle (tears, water)	連	ljän		id.	✓	✓	✓	I
404 ri: A2	รฺ(รฺ)	ri:		hesitate	踌躇	diə	drjig	id.	✓	✓	×	II
405 rok D2	รฺก	rk		fibrous growth on branches	蓼	ljuk		luxuriant growth	✓	✓	✓	I
406 rom B2	รฺม	rm	?dr	shade, shady	蔭	?jəm-		shade	✓	✓	✓	II?
407 rɔ: A2	รฺ(รฺ)ɔ	rɔ:		walk hesitatingly, undecided	躊躇	dju	drjug	id.	✓	✓	✓	I
408 rɔ:i C2	รฺอว	rɔ:y		to string (as flowers), bind together	累	ljwi-		bind, strung together	✓	?	×	III?
409 rɔ:k D2	รฺก	rɔ:k		pulley	櫓	luk		id.	✓	✓	✓	I
410 rɔ:m A2	รฺม	rɔ:m		gather together	咸	ɣäm		unite, al-together	✓	✓	✓	II?

Standard Thai					Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL
411 rua B2	รั่ว	rua	r	leak, leaky	漏	làu-		id.	✓	✓	✓	I
412 rua C2	รั้ว	rua	r	fence, hedge	籬	ljie	ljar	id.	✓	×	×	III
413 ru:t D2	ถู	ru:ʔd		scrape off	拊	luət		id.	✓	✓	✓	I?
414 rwak D2	เรือน	rw:ak		a place for settlement	宅	ɖək	drak	id.	✓	?	✓	II?
415 rwan A2	เรือน	rw:an	r	one's dwelling	厝	djän	drjan	soil belonging to one peasant family	✓	✓	✓	I?
416 rwaŋ A2	เรือง	rwaŋ		limpid, clear	澄	djäŋ	drjäŋ	id.	✓	✓	✓	I
417 rwat D2	เหือก	rw:aʔd		bed bug	虱	sjet	drjit	flea, louse	✓	?	✓	II?
418 ri:t D1	(จิ้ง)เหิด	hri:ʔd		cricket	蟀	sjuət	srjət	id.	×	✓	✓	II?
419 san B1	สั่น	san		shake, tremble	震	tšjën-	tjjanh	id.	?	✓	✓	II?
420 saŋ B1	สัง	saŋ		blow one's nose	擤	xjäŋ-		id.	✓	✓	✓	I
421 sa:m A1	สาม	sa:m		three	三	sâm		id.	✓	✓	✓	I
422 sa:n A1	สาร	sa:r		(milled rice) husked rice	秈	sjän		common rice (≠ glutinous rice)	✓	×	✓	II

Standard Thai					Chinese				Sino-Thai correspondences	
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F T CL
423 sa:u Al	สาว (ทนาย)	sa:w		reel off a thread	線	sâu		id.	✓	I ✓
424 sa-wa:n Bl	สาว (ทนาย) - แสง	swa:n		a drill	鑽	tsuân-		id.	✓	II ✓
425 sœ:ŋ Al	เส้น	sœ:ŋ		sound	聲	śjäng		id.	✓	I ✓
426 sen Cl	เส้น	se:n		filaments, threads	線	sjän-		id.	✓	II X
427 sia Al	เสีย	si:a		spoil, destroy	墮	xjwiə		id.	✓?	I? ✓
428 siam Al	เสีย	si:am		Siam	暹	sjäm		id.	✓	I ✓
429 siam Al	เสีย	si:am		hoe	鋤	sjäm		id.	✓	III X
430 siam Cl	เสีย	si:am	s	sharpen to a point	尖	tsjäm		sharp, pointed	✓	III X
431 sian Al	เสียง	si:an		sound	聲	śjäng		id.	✓	I ✓
432 sin Al	สิน	sin		money	錢	dzjän		id.	✓	II ✓
433 sin Cl	สิน	sin		to come to an end	盡	dzjën/		to exhaust	✓	III X
434 sip Dl	สิบ	si?b	s	ten	十	zjöp		id.	✓	II ✓
435 si: Al	สี	si:		rub, polish	洗	siei/		wash	✓	II X

Standard Thai					Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karlgren's MC	Li's OC	Meaning	I	F	T	CL
436 si: Bl	สี่	si:		four	四	si-		id.	✓	✓	✓	I
437 som Cl	ส้ม	sm		sour	酸	sām/		id.	✓	✓	✓	I?
438 son Al	สวน	sn		bore through, thread (a needle)	穿	tshjwän		id.	✓	✓	✓	II?
439 son Bl	ส่ง	sn	s	send, escort	送	sung-		id.	✓	✓	✓	I
440 sot Dl	สด	s?d		bright, fresh-looking	瑩	sjet		id.	✓	×	✓	II
441 sw: Bl	สอ	sw:		accuse, slander	訐	suo-		accuse	✓	✓	✓	I?
442 sw:i Al (ศึก)สอย		sw:y		follow closely	訐	zwie	zjuar	follow	×	✓	✓	II?
443 sw:η Al	สอง	sw:η		two	隨	sång		a pair	✓	✓	✓	I
444 suan Al	สวน	suan		garden	雙	jwɔn		id.	✓	✓	✓	II?
445 suei Bl	สวน	suay		poll-tax	稅	śjwäi-		to tax	✓	✓	✓	I
446 suk Dl	สุก	suk	s	ripe, cooked	熟	zjuk		id.	×	✓	✓	II
447 sum Al (สุ่ม)หุ่ม		sum		grove, thicket	森	sjəm		id.	✓	✓	✓	I?
448 su:η Al	สูง	su:η	s	high	嵩	sjung		id.	✓	✓	✓	I
449 swak Dl (เสือ)		sw:ak		to expel	未	tshjäk		id.	✓	×	✓	III?

Standard Thai					Chinese				Sino-Thai correspondences	
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F T CL
450 sw: A1	สือ	sw:	s	script, graph	書	śjwo		id.	✓	I
451 sw: B1	สือ	sw:		a liaison, a go-between	使	śi-		ambassador	✓	I
452 sw: ɤ D1	สือ	sw: ʔb		inherit	襲	zjēp		id.	✓	I ⁹
453 sak D2	ซัก	zak		inquire, ask	索	sāk		id.	✓	II
454 sa: B2	ซา	za:		a kind of small fresh-water fish	沙	sa		id.	✓	III
455 sa:n B2	ซ่าน	za:n	s	to be scattered	散	sân-		to disperse	✓	II
456 sa:u A2	ซา (ซาว)	za:w		wash (rice)	滑	sjəu		id.	✓	II
457 soŋ A2	ซ่อง	drŋ		maintain, sustain	定	ḍəng	drang	serve as a support to	✓	II
458 so: B2	โซ่	zo:		chains, fetters	鎖	suâ/		id.	✓	III
459 sɔ:k D2	ซอก (ซอก)	zɔ:k		conceal, hide	鎖	sjəu	srjəgw	id.	✓	III
460 sɔ:ŋ B2	ซ่อง	zɔ:ŋ		eulogize, praise	頌	zjwong-		eulogy	✓	I
461 sw: C2	ซื่อ	zw:	z	to buy	市	ʔi/		to deal, trade	✓	I

Standard Thai					Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL
462 tai Cl	ไ้	tai	t	under, below	底	tiei/		id.	✓	✓	✓	I
463 tak Dl	ัก	tak	t	dip up, ladle	酌	tsjak	tjakw	id.	✓	✓	✓	I
464 tam Al'	ำ	tam		pierce, pound	枕	tâm/		pierce, beat	✓	✓	×	II
465 taŋ Bl	ำ	taŋ	t	stool	登	təŋ-		id.	✓	✓	✓	II
466 tat Dl	ัก	taʔd		severe, decide	折	tsjät	tjat	decide, break	✓	✓?	✓	I?
467 tat Dl	ัก	taʔd		to cut	戮	tuät		id.	✓	✓	✓	I
468 tau Al'	ៅ	tau		kiln, stove	陶	dâu		id.	×	✓	✓	II
469 tau Cl	ៅ	tau	t	to go	到	tâu-		to arrive	✓	✓	×	II
470 ta: Al'	າ	ta:	tr	eye	睹	tu-/	tagx	to see	✓	✓	×	II
471 ta:ŋ Bl	ำ	ta:ŋ		act as, in place of	当	tāŋ		id.	✓	✓	✓	I
472 ta:ŋ Bl	ำ	ta:ŋ		load (a boat), pack-saddle	装	tsjang-		to load, pack	✓	✓	✓	I
473 ta:u Al'	າ	ta:w		knife	刀	tâu		id.	✓	✓	✓	I
474 tæ: Bl	ဲ	tæ:		but, only	祇	tsie	tjie	id.	✓	✓	×	II
475 tæ:m Cl	မ်	tæ:m		mark, spot		tiem/		id.	✓	✓	✓	I

Standard Thai					Chinese				Sino-Thai correspondences		
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T CL
476 tæŋ B1	แต่ง	tæ:ŋ		to dress, adorn oneself	妝	tɕjaŋ		id.	✓	x	III
477 tem A1	เต็ม	tem	tl	filled up, full	添	thiem		fill up	✓	✓	I
478 tiŋ B1	กิ่ง	tiŋ		excrescence	疔	tieng		a boil, bubo	✓	x	II
479 tit D1	ทึท	tiʔd		sew, connect, continue	縫	tjwät	tjuat	id.	✓	?	II?
480 ti: A1	ตี	ti:		to beat	抵	tɕiɕ/	tjigx	id.	✓	✓	II
481 tok D1	ตก	tk		fall down	倒	täu/	tagwx	id.	✓	x	II
482 tok D1	ตก(ปลา)	tk		to angle, fish with a hook and line	釣	tieu-	tiagwh	id.	✓	x	II
483 tok D1	ตก	tk		arrive at (a season)	到	täu-	tagwh	arrive	✓	x	II
484 tok D1	(สี)ตก	tk		become faded (of color)	凋	tieu	tiagw	to fade	✓	✓	II
485 to:ŋ B1	โต้ง	to:ŋ		the end, finally	終	tɕjung		id.	✓	x	II
486 to: A1	ทอ	to:		stump (of a tree)	株	tju		id.	✓	✓	I

Standard Thai						Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL	
487 tɔː B1	ทอ(สู้)	tɔː		fight, wrangle	鬥	təu-		id.	✓	✓	✓	I	
488 tɔːk D1	ทอก	tɔːk		to pound, hammer down	築	tjuk		id.	✓	✓	✓	I	
489 tɔːk D1	ทอก	tɔːk	pr	bamboo strips	竹	tjuk		bamboo	✓	✓	✓	I	
490 tɔːp D1	ทอป	tɔː?p	t	reply, answer	答	tâp		id.	✓	✓	✓	I	
491 tɔːt D1	ทอก	tɔː?d		to sting (bee), nibble (fish)	蜇	tjät		to sting	✓	x	✓	II	
492 tronɰ A1	(ทอ)ทอง	tronɰ		loyal, faithful	忠	tjung	trjəŋw	id.	✓	✓	✓	I	
493 tronɰ A1	ทอง	tronɰ		hit the point	中	tjung/	trjəŋwx	id.	✓	✓	x	II	
494 truː B1	ทู่	truː		early morning	晝	tjəu-	trjəŋwh	id.	✓	?	✓	II?	
495 tua A1	ทัว	tua	d	classifier for animals	頭	dəu		head	✓	✓	✓	I	
496 tuan B1	ทวน	tuan		satin	緞	duân-		id.	✓	✓	✓	I	
497 tum C1	ตุ้ม	tum	t	pendants	統	tâm/		silk pendants on ceremonial caps	✓	✓	✓	I	
498 tuːk D1	ทุก	tuːk		boat	舟	tsjəu	tjəŋw	id.	✓	✓	x	II	

Standard Thai						Chinese				Sino-Thai correspondences		
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL
499 tu:p D1	(๗)ทุ	tu:ʔb		drooping (ear)	耷	tâp		ears hanging down	✓	X	✓	II
500 tu:n C1	ทุ	tu:n		shallow	浅	tshjăn/		id.	✓	X	✓	II
501 thai A1	ไถ	thai	thl	plough, to plough	犁	liei		id.	X	✓	✓	II
502 thai A1	ไถ	thai		to push (cart)	推	thuâi		to push	✓	✓	✓	I
503 thai C1	ไถ	thai	d B2	sack, bag	袋	dâi-		id.	✓	✓	X	II
504 thak D1	ถัก	thak		to weave (a basket)	織	tśjek	tjek	to weave	✓	✓	✓	I
505 tha-læŋ A1	แถลง	thlæŋ		verify, declare	偵	thjäng	thrjäng	verify	✓	✓	✓	I
506 tha-lok D1	ถลก	thlk		pull up	抽	thjəu	thrjəgw	id.	✓	✓	X	II
507 tha-luŋ	ถลุง	thluŋ		fierce stare, to stare hard at	瞪	djəng	drjəng	id.	X	✓	✓	II
508 thaŋ A1	ถัง	thaŋ		bucket, a capacity measure (for rice, etc.)	桶	thung/		a measure of capacity, bushel	✓	✓	✓	I

Standard Thai					Chinese				Sino-Thai correspondences		
Pronunciation	Spelling	Transliteration	Li's initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T CL
509 thau A1	๓๑	thau		set of articles that fit into each other	套	thâu		id.	✓	✓	I
510 tha:n A1	๓๒	tha:n		altar, base	壇	dân		altar	X	✓	II
511 tha:n B1	๓๓	tha:n	th	charcoal	炭	thân-		id.	✓	✓	I
512 tha:u B1	๓๔	tha:w		young, not yet having reached adolescent	少	śjäu-		young, junior	?	✓	II?
513 thæ:k D1	๓๕	thæ:k		pry open	撬	thâk		to open	✓	?	II?
514 thæ:m A1	๓๖	thæ:m		add, increase	添	thiem		id.	✓	✓	I
515 thæ:n A1	๓๗	thæ:n		supernatural beings	天	thien		sky, heaven	✓	✓	I
516 thæ:p D1	๓๘	thæ:ʔb		classifier for long, flat, narrow objects	帖	thiep		tablet	✓	✓	I
517 thia:ŋ A1	๓๙	thi:aŋ		to remonstrate, debate, dispute	証	tsjäng-	tjingh	id.	✓	✓	II
518 thok D1	๔๐	thk		denude, strip off	條	diək	diəkw	denuded	X	✓?	II?
519 thom A1	๔๑	thm		numerous	噴	thâm		id.	✓	✓	I

Standard Thai					Chinese			Sino-Thai correspondences				
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL
520 thot D1	ถ	th?d		retreat	退	thuài-	thədh	id.	✓	✓	×	II
521 tho:ŋ A1	โถ	tho:ŋ		hall	堂	dāng		id.	×	×	✓	I
522 tho:i A1	ถ	tho:y		retreat	退	thuài-		id.	✓	✓	×	II
523 tho:m B1	ถ	tho:m		to humble (oneself)	忝	thiem-or thiem		to disgrace (used in deprecatory phrases of oneself)	✓	✓?	✓	I?
524 tho:n A1	ถ (โถ)	tho:n		to sigh	嘆	thān		id.	✓	×	✓	II
525 tho:ŋ A1	ถ	tho:ŋ		tamp or jab (with an elbow)	刺	tshjwong	thjung	pierce	✓	✓	✓	I
526 tho:t D1	ถ	tho:ʔd		undress, take off (clothes)	脱	thuāt		id.	✓	✓	✓	I
527 thua B1	ถ	thua	d	beans	豆	dau-		id.	✓	✓	✓	I
528 thuan C1	ถ	thuan		complete	醇	thuan		id.	✓	✓	×	II
529 thun A1	ถ	thun		to drink (a solution of a drug)	吞	thān		to swallow	✓	✓	✓	I

Standard Thai					Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL
530 thu:k D1	ถูก	thu:k	th	touch, knock against	觸 (觸)	tshjwok	thjuk	knock against, butt	✓	✓	✓	I
531 thwak D1	塊	thw:ak		red	赤	tshjäk	thjiak	id.	✓	X	✓	II
532 thwak D1	犍	thwak	d	young male animal	特	dək		male animal	✓	✓	✓	I
533 thwaj A1	ถึง	thwaj		reach to, attain	通	thung		id.	✓	X	✓	II
534 thai A2	ไ้	dai		great	大	dâ-	darh	id.	✓	X	✓	II
535 thak D2	蓐	dak		a kind of basket made of bamboo strips	蓐	diek		id.	✓	X	✓	II
536 thaj A2	同	daj	d	together, assemble	同	dung		id.	✓	✓	✓	I
537 thaj A2	(堆) 堆	daj		a kind of tree	桐	dung		id.	✓	✓	✓	I
538 thap D2	疊	da?b		to pile up, lay one article on top of another (as boards into a pile)	疊	diep		id.	✓	✓	✓	I
539 that D2	(夙) 夙	da?d		experienced	夙	dâi-	dadh	id.	✓	✓	X	II

Standard Thai						Chinese				Sino-Thai correspondences		
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL
540 thau A2	๒๗	dau		shaking, shivering	搖	jiâu		shake	?	✓?	✓	II?
541 thau C2	๒๗	dau		a prop, support	柱	dju/		id.	✓	?	✓	II?
542 thau B2	๒๗	ḍhau		old, aged	壽	ʒjəu-	djəgwh	id.	X	✓	✓	II
543 tha: A2	๒๗	da:	d	to plaster, smear	塗	duo	dag	id.	✓	✓	✓	I
544 tha: B2	๒๗	da:	d	wharf, ford	渡	duo-	dagh	ford	✓	✓	✓	I
545 tha: B2	๒๗(๗)	da:		posture, bearing	度	duo-	dagh	id.	✓	✓	✓	I
546 tha: C2	๒๗	da:	d	to challenge	賭	tuo/	tagx	to bet, gamble	?	✓	✓	II?
547 tha:i A2	๒๗	da:y		guess	猜	tshâi		id.	X	✓	✓	II
548 tha:i A2	๒๗	da:y		to carry	載	dâ	dar	carry on the back	✓	✓	✓	I
549 tha:i C2	(๒๗) - ๒๗	da:y		sternpost, the stern	舵	dâ/	darx	rudder	✓	✓	✓	I
550 tha:m A2	(๒๗) ๒๗	da:m		to approach, sound	談	dâm		to converse, chat	✓	✓	✓	I
551 tha:ŋ A2	๒๗	da:ŋ		path	唐	dâng		path in the temple	✓	✓	✓	I

Standard Thai					Chinese				Sino-Thai correspondences	
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F T CL
552 thæ:ŋ B2	錠	dæ:ŋ		ingot, bar, classifier	錠	dieng-		id.	✓	✓ I
553 the: A2	提	de:		to throw	提	ziɛ	djig	id.	✓	✓ I
554 the: A2	地	de:		sloping	地	diɛ/		slop	✓	× II
555 thian A2	城	di:an		walls	城	zjäng	djing	city wall	✓	✓ I
556 thian B2	正	di:an		correct, true, impartial, straight	正	tsjäng-	tjingh	id.	×	✓ II
557 thian B2	定	dia:ŋ		certain	定	dieng-		id.	✓	✓ I
558 thiau A2	佻	di:aw		walk back and forth, going and coming	佻	diɛu		go and come	✓	✓ I
559 thiu A2	條	diw		row, long line	條	diɛu		id.	✓	✓ I
560 thi: A2	時	di:		time, a favorable or fit occasion	時	zi	djæg	time, season	×	✓ III?
561 thi: B2	第	di:		order, sequel	第	diei-		id.	✓	✓ I
562 thi: B2	地	di:	d	place, land, ground	地	d(j)i-		earth, ground	✓	✓ I

Standard Thai					Chinese				Sino-Thai correspondences	
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F T CL
563 thop D2	ทูป	d?b		united, joined	沓	dap		join, unite	✓	✓
564 tho:n A2	ทอน	do:n		single, alone	單	tân		id.	?	✓
565 thw: B2	ทว	dw:		a drain, pipe	管	dəu-		a drain	✓	✓
566 thw:n B2	ทวน	dw:n	d	piece, portion	段	duân-		id.	✓	✓
567 thw:ŋ A2	ทวง	dw:ŋ		orange-red	彤	duong		red	✓	✓
568 thw:ŋ A2	ทอง	dw:ŋ		gold	銅	dung		copper	✓	✓
569 thw:ŋ B2	ทอง	dw:ŋ		to recite	誦	zjwong-		id.	?	✓
570 thw:t D2	ทอง (เสียง)	dw:ʔd		slow, long	遲	di	drjid	id.	✓	✓
571 thw:t D2	ทอง (ทง)	dw:ʔd		to discard, neglect	滯	djăi-	drjadh	discard	✓	✓
572 thwak D2	เทือก	dw:ak		ploughed fields	田	djau	drjəgw	id.	✓	✓
573 thwak D2	เทือก	dw:ak		mud, mire	埴	zjak	djak	clay	✓	✓
574 thwak D2	เทือก (เกา)	dw:ak		lineage	埴	djau-	drjəgw	descendant	✓	✓
575 thwŋ C2	ทง	dwŋ		pull or pluck out forcibly	投	dieng/		id.	✓	✓
576 thw:p D2	(ทระ) ทุ่ม	dw:ʔb		trample	踹	dáp		trample, kick	✓	✓

Standard Thai					Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL
577 thək D2	เท็ก	dək		hold, grasp	持	dī	drjæg	id.	✓	✓	×	II
578 thə:n A2	เท็น	də:n		knoll, hillock	屯	duən	dən	hill	✓	✓	✓	I
579 wa: B2	วา	wa:		say, speak	話	ywai-	gwradh	id.	?	?	✓	I
580 wa:ŋ A2	วาง	wa:ŋ	w	die, perish	亡	mjwang		id.	✓	✓?	✓	I?
581 wæ:m A2	แวม	wæ:m		brilliant, glowing (of fire)	炎	jäm	gwjam	id.	?	✓	✓	II
582 wæ:p D2	แวป	wæ:ʔb		glittering, flashing	燁	jáp	gwjap	shine, gleam	?	✓	✓	II
583 wian A2	เว็ยน	wi:an		revolve, encircle; circle	圓	jwän	gwjan	id.	?	✓?	✓	II?
584 wok D2	ก	wk		to bend, deflected	迂	ju	gwjag	id.	?	✓	×	I
585 wun B2	เว็น	wun		ravelled, perplexing, in confusion	圓	juən-	gwjanh	id.	?	✓	✓	II
586 wi: A1	หวี	hwi:		comb	篋	b(j)i-		id.	×	✓	×	II
587 yam A2	ยาม	yam		show respect for	嚴	ngjom		respect	?	×	✓	III?

Standard Thai					Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL
588 yaŋ A2	ยัง	yaŋ	n	still, yet	仍	ńzjaŋ		id.	✓	✓	✓	I
589 yau A2	ยา	yau		young, little	幼	?jěu-		id.	✓?	✓?	×	II?
590 yiaŋ B2	ياء	yi:aŋ		pattern	樣	jiang/		id.	✓	✓	×	II
591 yiao B2	ياء	yi:aw	n	urine, urinate	溺	nieu-		id.	×	✓	✓	II
592 yi: B2	ยี่	yi:	n	two	二	ńzi-		id.	✓	✓	✓	I
593 yon A2	ยง	yŋ		brave	勇	jiwong		id.	✓	✓	✓	I
594 yɔ:m C2	ย้อม	yɔ:m	n	to dye	染	ńzjäm/		id.	✓	×	✓	II
595 yɔ:n A2	ยอน	yɔ:n		wriggle, worm in	蠕	ńzjwän/		id.	✓	✓	×	II
596 yuŋ A2	ยุง	yuŋ		mosquito	虻	jiəŋ		a fly	✓	×	✓	II
597 ya:k D1	อยาก	?ya:k	?y	to desire	欲	jiwok		id.	×	✓	✓	II
598 yiap D1	เหยียบ	hyi:a?bɯn		trample	躐	njäp		id.	✓	✓	✓	I
599 yɔ:k D1	พูด	hyɔ:k		jest, make fun of	詼	xjak	hngjakw?	jest, ridicule	?	✓?	✓	II?
600 yu: B1	อยู่	?yu:	?y	be at, stay	於	?jwo		at, in	✓?	✓	×	II?
601 yu:k D1	ยูน	hyu:k		medicine	藥	jiak	ngrjakw	id.	×	✓?	✓	II?

Standard Thai						Chinese				Sino-Thai correspondences			
Pronunciation	Spelling	Transliteration	Li's PT initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL	
602 yua B1	เหฺยอ	hyu:a		bait	餌	ńz(j)i-		id.	✓	✓		I	
603 ?am A1'	(เหฺย)อำ	?am		the spirit causing nightmares	厭	?jäm/		nightmare	✓	x	x	III	
604 ?am B1	ำ	?am		dark, cloudy	暗	?äm-		id.	✓			I	
605 ?at D1	อัด	?a?d		compress, crush	軋	?ăt		crush	✓	✓		I	
606 ?au A1'	เอา	?au	?	to want	要	?jäu		id.	✓			I	
607 ?a:n A1'	อาญ	?a:n	?	saddle	鞍	?ân		id.	✓	✓		I	
608 ?a:n B1	อ่าน	?a:n	?	to read, count	按	?ân-		to examine	✓	✓	✓	I	
609 ?a:ŋ B1	อ่าง	?a:ŋ	?	basin, bowl	盎	?âng		basin, dish	✓	✓	x	II	
610 ?a:u B1	อ่าว	?a:w		bay	澳	?âu-		id.	✓	✓		I	
611 ?æ:k D1	แอก	?æ:k	?	yoke	軋	?εk		id.	✓	✓	✓	I	
612 ?æ:n B1	แอน	?æ:n	?	a swallow	燕	?ien-		id.	✓	✓	✓	I	
613 ?et D1	เอ็ด	?et	?	one	一	?jiēt		id.	✓	✓	✓	I	
614 ?e:u A1'	เอว	?e:w	?	waist	腰	?jäu		id.	✓	✓	✓	I	
615 ?iam B1	เอี่ยม	?i:am		glossy, new	艷	jiäm-		brilliant	✓	✓	✓	I	

Standard Thai						Chinese				Sino-Thai correspondences		
Pronunciation	Spelling	Transliteration	Li's initial	Meaning	Character	Karl-gren's MC	Li's OC	Meaning	I	F	T	CL
616 ?im B1	อิ่ม	?im	?	satiated, full	厭	?jám-		id.	✓	✓		I
617 ?i:k D1	อีก	?i:k		more	益	?jäk	?jik	more, increase	✓	✓		I
618 ?ok D1	อก(ไก)	?k		(house)	屋	?uk		house, roof	✓	✓		I
619 ?o:ŋ B1	โอง	?o:ŋ		larger-size water jar	雍	?ung-		water jar	✓	✓		I
620 ?ɔ:m C1	อม	?ɔ:m		cover, encircle with the arms	扞	?âm/		id.	✓	✓		I
621 ?ut D1	อุ	?u?d		to block up	扞	?juət		id.	✓	✓		I

- 舐*dzie/ : เลีย li:a [lia] A2 "to lick"
 仰*ngjang- : แหงน hŋæ:n [ŋæ:n] A1 "to look up, face upwards"
 環*ɣwan : แหวน hwæ:n [wæ:n] A1 "ring, circle"
 宴*?ien- : เล่น le:n [len] B2 "to have pleasure, play"
 含*ɣâm : วม ?om [?om] A1' "to hold in the mouth"
 饗*xjang- : เลี้ยง li:an [lian] C2 "to offer or give a banquet"
 子*tsi/ < **tsjagx : เด็ก ?dek [dek] D1 "child"
 王*jwang : หลวง hluan [luan] A1 "royal, pertaining to the king"
 燒*śjäu : เจียว ci:aw [ciau] A1' "to fry until burnt"⁶

VII.3. Significance

The significance of this study is that the TH forms, be they loans or not, throw additional light on the reconstruction and phonology of MC, as well as of OC, and this new light reveals the need for revision and modification of the presently available systems of reconstruction. In addition, the Chinese forms, be they MC or OC, provide useful data for reconstructing earlier stages of TH and the other Tai⁷ languages.

VII.3.1. Remarks on the MC reconstruction

As for the reconstruction of MC, the TH correspondences supply evidence and grounds for revising some of Karlgren's reconstructions. These we have already mentioned in the main text. Here we shall again sum up our conclusions:

1) Karlgren did not distinguish the following rimes from one another: 佳*-ai and 夬*-ai, 脂*-(j)i and 之*-(j)i. The

TH final correspondences indicate that they should in fact be distinguished with respect to vowel quality, with something like a simple vowel æ: for rime 佳, a vowel cluster a:i for rime 夬, a front vowel i: for rime 脂, and a back vowel u: for rime 之.

2) Certain rimes were distinguished by Karlgren simply by the length of the vowels, for example rimes 覃 *-â^hm and 談 *-â^hm, rimes 山 *-ă^hn and 刪 *-an. For the first set, based on TH final correspondences of primary rounded vowels for rime 覃 and unrounded vowels for rime 談, we support a reinterpretation of Karlgren's length distinction and argue for differentiating the forms in terms of vowel quality. The TH correspondences, in this case, point to a vowel quality something like a rounded final -om for rime 覃 and an unrounded final -am for rime 談.

For rimes 山 and 刪, the TH final correspondences support the reinterpretation that these two rimes were distinguished on the basis of their relative heights. Here we suggest -æn for 山 and -an for 刪.

3) Some of the MC rimes have finals that are very similar in Karlgren's system, such as 先 *-ien and 真 *-jĕn. On the basis of the TH final correspondences, we can suggest a much clearer contrast between these two MC rimes, with something like -en for 先, and -in for 真.

4) Some rimes have been reconstructed by Karlgren with a central head vowel, such as 痕 *-ən and 魂 *-uən. However, on the basis of the TH equivalents, we may assume a rounded head vowel, such as o for 痕 and u for 魂.

VII.3.2. Remarks on the OC system

As for OC, the TH correspondences give additional grounds for the reconstruction of some OC forms. In several cases, the TH equivalents supply evidence for Li's recently proposed system (1971). Here we shall not repeat all the remarks concerning the OC system since detailed discussion was presented in the previous chapters. This conclusion will mention again a few of the most significant points and examples:

1) The fact that MC hó-k'ǒu and k'āi-k'ǒu have the same correspondence in TH, e.g. rimes *-uân and *-ân corresponding to TH [-an], confirms Li's theory that there existed no hó-k'ǒu medial during the OC period.

2) The first and second division rimes normally have the same final correspondence in TH; e.g. MC *-â and *-a correspond to TH [-a:], and MC *-au and *-au to either TH [-au] or [-a:u]. Again, this phenomenon confirms Li's theory that the vowels of the first and second division rimes were the same. That is, in OC there existed no qualitative difference between the two divisions as thought by Karlgren and others.

3) We can suppose that MC sonorant initials, e.g. *m-, *n-, *ng-, etc. each has two origins, i.e. voiced and voiceless variants. This is well supported by the fact that these MC initials correspond to TH voiced and voiceless sonorants. Also we have support for this from the Chinese side in the hsiéh-shēng contacts and in the Min dialects. These bits of evidence together seem to suggest that the phonological possibilities, not only of OC but also of MC, should be widened to include voiceless

sonorant initials.

4) On the basis of the TH equivalents, we may assume that MC *l- comes from two origins: **r- and **l-, though we have no direct support for this from Chinese. At present we cannot explain under what conditions **r- and **l- fell together in MC. Or if we assume that MC *l- has only one origin, then we are unable to explain under what condition *l- split into r- and l- in TH.

VII.3.3. Remarks on the PT reconstruction

In comparing TH and MC, there are several cases where the Chinese forms provide grounds on which to reconstruct the earlier stages of TH and the other Tai languages as well. A couple of cases will be recalled as examples:

1) The initial correspondences shown in Chapter IV indicate that some initials, such as the voiceless stops, in TH may have more than one origin. For instance, initial kl may have come from *k- and *g-.⁸ Words such as that for "nine" (no. 101) show a voiceless initial both in Thai and Chinese and it undoubtedly comes from *k-. But words such as that for "old, ancient" (no. 100) show a voiceless initial in Thai but a voiced one in MC and OC, indicating *g-.

2) Some finals in Thai may also have more than one origin. For instance, the words for "horse" (no. 262), "tusk" (no. 315) and "price" (no. 190) all have vowel a in both Chinese and Thai, whereas "wharf, ford" (no. 543) have a: in Thai, but *-uo < **-ag in Chinese.

Undoubtedly these words in Chinese and Thai derived from the

same etymons; thus, we may safely assume that Thai k- has two origins, and Thai -a: two origins also.

VII.3.4. Remarks on Standard Thai

In addition to giving data useful for reconstructing the earlier stages of TH, the comparison of Chinese and Thai has helped recover several of the lost meanings of some TH words, e.g. "framework of a house" (cf. IV.7.7.a.), "fields and orchards" (cf. IV.4.3.b.), "sloping, tilted" (cf. IV.4.3.a.), etc. These are cases of disyllabic or multi-syllabic expressions in TH of which definitions can only be given when the syllables stay together in the set expressions. We are sure that future researches along this line will reveal more such cases and that the significance of each syllable may be fully recovered on the basis of Chinese comparisons.

VII.4. Hypothesis and Suggestions

As previously stated, this study does not intend to prove or disprove the hypothesis that Chinese and Tai are related genetically. The more that is learned about Chinese and Tai, the more it appears that the two main hypotheses, i.e. that of a genetic relation and that of a relation through borrowing are both correct. It seems likely that there is more than one explanation for the Sino-Thai relationship. Based on our examination of the Chinese and TH lexical correspondences, we would like here to offer some hypotheses that may assist in future investigations of the relationship between Chinese and Tai. The various

hypotheses in this study suggest strongly that some correspondences point to genetic relationship, and some point to different levels of borrowing -- from pre-MC, MC, late MC, certain Chinese dialects, and a few to borrowings by both Chinese and Tai from other languages. A brief discussion of four hypotheses follows.

VII.4.1. Hypothesis one

In cases of lexical items for which a PT source is posited, the view about the relationship between Tai and Chinese generally would be assumed to be genetic. Here we include lexical items in TH which are truly reflexes of PT (those cited with Li's reconstructed PT initials in the word list under VII.2.), because they show the same phonological developments that other Tai language show, but nevertheless they have a definite affinity to Chinese, especially to OC, e.g. the words for "bark, shell" (no. 335), "to make a libation" (no. 133), "old, ancient" (no. 100), "to change" (no. 334), "six" (no. 89), "five" (no. 83), "rocky hill" (no. 343), "to split open" (no. 344), "to burn" (no. 281), etc. If these words are borrowed, we must assume the borrowing to have taken place in PT and that these forms have followed the same developments as other real Tai forms since they show regular correspondences in all Tai languages. Let us cite Li's (MS a.) comments:

We have as yet...no criteria to judge what are loans and what are not. Some words which are extremely similar in meaning, such as the numerals (included here), etc., show irregular correspondences with Chinese. For example, why has the numeral '5' an initial h- (< *hn-?) which is regular throughout all the Tai languages instead of ŋ- as in Chinese and Tibetan? Why has the numeral '6' an initial h- or

r- (< *xr-) in Tai languages instead of l- (< *gwl-) as in Chinese?...These can hardly be construed as sound substitutions in borrowing, as the modern Tai languages, as well as the Proto-Tai, have ŋ-, l-, etc. Loans such as Swatow loan words in Siamese, studied by Egerod (1959), show much more phonological regularity than is the case of numerals in Tai.

Several cases remain for which the correspondences reveal various irregularities that cannot yet be clearly explained in the light of our present knowledge of either PT or OC; e.g. some of the numerals, and the words for "pole for carrying things," (no. 192), "mortar" (no. 218), "to say, tell" (no. 124), etc. Here we simply suggest the hypothesis that Chinese and Tai belong, at some remote period, to the same linguistic family.

Some argue that certain Chinese and Tai forms do not share common roots. Such arguments are often difficult to sustain. Haudricourt (1948) stated that Tai vocabulary for parts of the body is derived from stems other than Chinese by saying that they have few similarities. He concluded that words in Tai that can be related to Chinese are limited to words of certain semantic or cultural areas and are all susceptible to borrowing; thus, he inferred that the two languages belong to different families. But our lexicon shows that the items contain numerous common nouns and verbs in addition to a number of vocabulary items for parts of the body. Similarities have been found in almost 20 words denoting several basic parts of the body: "leg" (no. 151), "shin" (no. 162), "waist" (no. 614), "shoulder" (no. 2), "arm" (no. 160), "neck" (no. 211), "cheek" (no. 111), "eye" (no. 470), "forehead" (no. 346), "head" (no. 27), "body, shape"

(no. 394), "skin, bark, shell" (no. 335), "flesh" (no. 305), "canine teeth, eye tooth, tooth" (no. 167),⁹ "beard" (no. 214) and "lung" (no. 339). The affinity of these words in Chinese and Tai cannot be entirely accidental; indeed, it appears that they are cognate words derived from the same stems rather than from loanwords. It seems implausible that Tai had to borrow that many items of such common vocabulary from Chinese. In addition, there are other very common vocabulary items, such as the words for "urine" (no. 591) and "dung" (no. 171) which are connected also with Chinese.

Other sets of vocabulary, such as agricultural items, and other common nouns and verbs could be raised. These combined with the vocabulary referring to body parts offered above lend sufficient weight to the hypothesis of a genetic relationship between Chinese and Tai.

VII.4.2. Hypothesis two

Some correspondences point to borrowing, such as from MC into TH. The forms differ from those under "hypothesis one" in two significant ways: a) they are words that normally exist only in TH or in the SW dialects, and cannot be found in either the NT or the CT groups, and b) they usually correspond straightforwardly to the Chinese forms in all three aspects when aligned with the MC readings. The Sino-Thai correspondences that can be explained in terms of borrowing are, for example: "to row, swing" (no. 246), "skin, complexion" (no. 352), "first month of the year" (no. 19), "city" (no. 54), etc. In comparison

with the vocabulary for parts of the body mentioned above, these words show perfect regularities with the MC forms, whereas the lexical items that we hypothesize to be of genetic relation, e.g. those for parts of the body, would show at least one irregular phonological correspondence with the Chinese forms. Thus, the possibility is strongly indicated that the TH words which correspond to the Chinese forms in all aspects when aligned with the MC readings are loanwords from MC.

But not all loanwords are of MC origin. TH contains several lexical items which can be dated, from the standpoint of Chinese historical phonology, to periods either earlier or later than MC. Our examination of the initial, final, and tonal correspondences makes it clear that there exists more than one layer of loanwords. That is, they were not all borrowed from one source. Hence, a complicated picture emerges. In an attempt to elucidate this multi-layered borrowing, we may state that there are at least four different layers as follows:

- 1) Loanwords of pre-MC origin. This includes lexical items which, from the standpoint of Chinese historical phonology, can be dated back to a date earlier than MC. That is, they exhibit features which are not found generally in modern Chinese dialects but which are well known to have existed in the past. For instance, the words for "rough, coarse" (no. 50) and "posture, bearing" (no. 545) may have been borrowed as early as the Eastern Han period. The words for "classifier for animals" (no. 495) and "leaky, to leak" (no. 411) might have been borrowed

from Chinese in Han times. The words for "pots, jugs" (no. 289) and "stump" (no. 486) date back to the Nan-Pei-ch'ao period.

2) Loanwords of MC origin. This group includes words which show clear affinities with MC, such as the four examples mentioned in the previous paragraph: "to row, swing" (no. 246), "skin" (no. 352), etc.

3) Loanwords of late MC. This includes the lexical items for which the TH forms exhibit certain phonological features which are considered to have developed from phonetic changes which took place after the CY period. For instance, the word for "powder, dust" (no. 75) reflects the extensive dentilabialization which took place after the CY. The word "official, peer" (no. 134) reflects the date when MC rime 桓 had already departed from its corresponding rime 寒 which took place around 1000 A.D.

4) Loanwords from certain Chinese dialects. In this group the words show phonological indications of borrowing from particular dialects of Chinese; that is, the TH forms show the same particular developments as those found in certain Chinese dialects, enabling us to pinpoint the origin of the forms. One example is the development apparently peculiar to Cantonese where the palatalization in certain words was lost, e.g. 疊
*diep : TH 𠵿 da?b [thap] D2 "to pile up." In colloquial Cantonese this word is pronounced ta:p.¹⁰ Other examples comprise those words from MC rime 山 *-jän, in which the TH forms with final -in (see no. 56, 403, 432, and 433) show parallel development to Cantonese, and thus may be loans from a Cantonese-type

dialect. In some cases, the TH forms show affinities with other dialects of Chinese, e.g. [su:] A1 "script, graph" (no. 450) shows close affinity with some Min dialects, and [so:] B2 "chain" (no. 458) with Hakka. The recognition of a relationship between these lexical items and those in the Chinese dialects mentioned does not always mean that those words were borrowed into Thai from those dialects. It may merely mean that one can find readings closely akin to those TH syllables in those dialects.

VII.4.3. Hypothesis three

We also hypothesize a borrowing in a direction opposite from that in the preceding hypothesis. That is, in some cases, the borrowing might have been from Tai into Chinese, instead of from Chinese into Tai. Benedict (1967) has discussed this hypothesis extensively. He believed that the early Chinese had borrowed several lexical items from their Tai neighbors to the south. Here we shall cite one of the cases suggested by Benedict which seems more plausible than most of his other suggestions.

The correspondence 藍 *lâm < **glam : กรณ gra:m [khra:m] A2 *ɣr- "indigo" shows a likely borrowing by the Chinese side. Based on the phonological data of Chinese and Tai, Benedict stated that the Chinese initial **g (**gr- > **gl- > *l-) in this word is a simple substitution for Tai *ɣ-, a non-Chinese sound at that time. He then further dated this loan to a period antedating the **gr- to **gl- shift in Chinese.

VII.4.4. Hypothesis four

The last hypothesis is that the Chinese and Thai words might have been borrowed from a third language. That is, some lexical items might be of an origin other than Thai and Chinese. For instance, words like that for "sour" (no. 437) might be of Indonesian origin, e.g. Taba-Batak 'asom, Javanese 'asēm, and Malay 'asam "sour." Benedict (1942:596) cited this word in Indonesian, Malay, and Thai as evidence to support his belief in the Tai-Indonesian relationship. But this form is not a common word for "sour" in Thai (see note no. 27 in Chapter IV); also it has a cognate in Chinese 酸 *sām/. Evidence that the word for "sour" might have been borrowed by both Chinese and Thai may be found in the fact that Chinese has another word which is commonly used for "sour" 酸 is *suân; the same is true also of Thai where the common word for 'sour' is ปริ้ว pri:aw [priau] Cl "sour."

The four approaches presented above are simply offered as possible working hypotheses. It is premature to speak definitely concerning the relationship of Chinese and Tai, since we lack enough evidence to make the crucial decisions. A clear and specific answer to the question of whether the Tai languages belong to the same language family as that of Chinese requires extensive further examination of the Chinese and Tai lexicons. Continued study of Chinese and Tai dialects and of other language families in Asia, particularly Austronesian and Austroasiatic, are crucial in approaching the larger phonological and linguistic issues of family and of borrowing.

VII.4.5. Suggestions

The comparison of Chinese and Thai we made here opened up complicated problems at the core of Asian linguistic study. Previous students have argued that no symmetrical systematic correspondences exist between Chinese and Thai, but they have never made the reasons for this explicit. The application of one or more of the above four hypotheses may help to uncover these reasons. The reasons for the lack of straight systematic correspondences may lie, as we discussed earlier (cf. IV.1.2.b.), in derivational processes in the earlier stages of Chinese and Tai development which contributed to their inner complications and mutually distinct differentiations. Moreover, words that were borrowed into Thai have been incorporated into the Thai language because of the similarities of Chinese and Thai syllable structure. Thus, loanwords from one language into the other followed the same process of development as the native words followed. These facts taken together complicate the work of comparison between the two languages.

We have demonstrated the lines along which explanations can be offered for many of these complications and irregular cases. Yet numerous unexplained forms and correspondences remain to challenge future researchers. We deeply hope that researchers will persist in overcoming the complications in the comparative study of Chinese and Tai. Their efforts may well expose new layers of related Chinese and Tai words as well as answers to

central questions about family classification and borrowing processes. The data and hypotheses of this study, the author hopes, will assist research scholars and students in pondering the mysterious relationships between these two great Asian languages.

FOOTNOTES

¹For the convenience of Chinese readers, a supplemental index has been compiled (see appendix), and it is arranged according to the number of strokes of the Chinese characters.

²The meaning of the lexicon cited in this dissertation must be considered merely to be a group of labels convenient for identifying words. No extensive definitions are given. Many items exist only in compounds, and these frequently are mentioned in the next (for reference see the Index).

³This word always appears in the synonym compound [ru:] C2 - [cak] D1 - [mak] D2 - [ci:] B1 "to know."

⁴In TH, the names of birds normally are compounded with the generic word "bird." Here the generic element of the compound is omitted in the citations.

⁵Similar to the names of birds, the names of plants in TH are frequently compounded with the generic word "tree." Here the word "tree" is omitted in citations.

⁶Here the Chinese character means "to burn." The Thai word means "to fry until burnt," such as in making lard by frying pork fat.

⁷For the variations in the spelling of "Tai" and "Thai," see note no. 1 in Chapter I.

⁸Nishida (1960) suggested that Tai k- has three origins: *k-, *g-, and *s-.

⁹The word [khiau] Cl "eye tooth, canine teeth" in TH can mean "tooth" in general, such as in the expression "tooth of the Buddha."

¹⁰Amoy does not have the palatalization for this word either: thah "to pile up."

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Abbreviation of Titles

AA	American Anthropologist, Journal of the American Anthropological Association, Washington, D. C.
AL	Anthropological Linguistics, Bloomington.
AM	Asia Major, A British Journal of Far Eastern Studies, London.
AO	Acta Orientalia, Budapest.
BEFEO	Bulletin de l'École Française d'Extreme-Orient, Saigon.
BIHP	Bulletin of the Institute of History and Philology, Academia Sinica, Taipei.
BMFEA	Bulletin of the Museum of Far Eastern Antiquities, Stockholm.
BSLP	Bulletin de la Société de Linguistique de Paris, Paris.
BSOAS	Bulletin of the School of Oriental and African Studies, London
CYYY	Bulletin of the National Research Institute of History and Philology, Academia Sinica, Peiping.
HJAS	Harvard Journal of Asiatic Studies, Cambridge.
IJAL	International Journal of American Linguistics, Bloomington.
JA	Journal Asiatique, Paris.
JAS	Journal of Asian Studies, New Haven.

JAOS	Journal of American Oriental Society, New Haven.
JASB	Journal of the Asiatic Society of Bengal, Bengal.
JCL	Journal of Chinese Linguistics, Berkeley.
JICCHK	The Journal of the Institute of Chinese Studies of the Chinese University of Hong Kong, Hong Kong.
JRAS	Journal of the Royal Asiatic Society of Great Bri- tain and Ireland, London.
JSS	Journal of the Siam Society, Bangkok.
Lg	Language, Austin.
Orbis	Orbis, Bulletin International de Documentation Lin- guistique, Louvain.
TAPA	Transactions of the American Philological Associa- tion, Boston.
TP	T'oung Pao, Leiden.

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