

A Phonological Study in the 'Phags-pa Script and the Meng-ku Tzu-yün

Miyoko Nakano



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ACKNOWLEDGEMENTS

THIS paper is a preliminary to an intended *Study in Middle Chinese Phonology*, which I hope to complete within the next few years and which has for some time formed the major topic of my research. Generally speaking, the study of Middle Chinese still lags behind that of Ancient Chinese, which has been rapidly advanced by Professor B. Karlgren and other scholars, although even in Ancient Chinese studies there are still wide gaps.

The index to the whole body of characters in the *Meng-ku Tzu-yün* will be published separately in the near future, and it will include a table of the phonetic values of each character in comparison with Ancient Chinese and the *Chung-yüan Yin-yün*. This will, I hope, complement the *Analytic Dictionary of Chinese and Sino-Japanese* (Paris, 1923) compiled by Professor Karlgren, which deals very little with Middle Chinese.

In the course of this research, I have been much indebted to Professor E. G. Pulleyblank of the Department of Asian Studies of the University of British Columbia, who has given me a number of valuable suggestions and has encouraged me to publish this paper.

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M. Nakano

The Australian National University, Canberra.
4 April 1968.

ABBREVIATIONS

- AA* = Acta Asiatica (=Bulletin of the Institute of Eastern Culture) (Tokyo)
- AM* = Asia Major (Leipzig, later new series in London)
- AO* = Acta Orientalia (Leiden, later Copenhagen)
- AOH* = Acta Orientalia Academiae Scientiarum Hungaricae (Budapest)
- AS* = Bulletin of Academia Sinica (=Chung-yang Yen-chiu-yüan Li-shih Yü-yen Yen-chiu-so Chi-k'an 中央研究院歷史語言研究所集刊) (Peking, Shanghai, later Taipei)
- BA* = *The Blue Annals* (= *Deb-ther sñon-po*) tr. by G. N. de Roerich.
- BEFEO* = Bulletin de l'École Française d'Extrême-Orient (Hanoi, later Paris)
- BSO(A)S* = Bulletin of the School of Oriental (and African) Studies (London)
- Bulletin* = Bulletin de la Classe des Sciences Historiques, Philologiques et Politiques de l'Académie Impériale des Sciences de Saint-Petersbourg (St Petersburg)
- CAJ* = Central Asiatic Journal (The Hague/Wiesbaden)
- CG* = Chūgoku Gogaku 中國語學 (Tokyo)
- CGKR* = Chūgoku Gogaku Kenkyūkai Ronshū 中國語學研究會論集 (Tokyo)
- CKRS* = Chūgoku Kankei Ronsetsu Shiryō Bungaku, Gogaku, Geijutsu 中國關係論說資料 文學, 語學, 藝術 (Tokyo: Hokushin Shoten)
- CYYY* = *Chung-yüan Yin-yün* 中原音韻 by Chou Te-ch'ing.
- CTT* = *Ching-yu T'ien-chu Tzu-yüan* 景祐天竺字源 by Wei-ching.
- EYT* = *Erdeni-yin Tobči* by Saγan Sečen Qong Tayiji.
- FJHC* = Fu- jen Hsüeh-chih 輔仁學誌 (Peking)
- FLT* = *Fo-tsu Li-tai T'ung-tsai* 佛祖歷代通載 by Nien-ch'ang.
- FSK* = *Fa-shu-k'ao* 法書考 by Sheng Hsi-ming.
- GK* = Gengo Kenkyū 言語研究 (Tokyo)

- HC* = *Hsing-chuang* 行狀 by Wang P'an.
HCCS = *Huang-chi Ching-shih T'ien-sheng Ti-yin T'u* 皇極經世天
 聲地音圖 by Shao Yung.
HDGGK = Hokkaidō Daigaku Gaikokugo Gaikokubungaku Kenkyū
 北海道大學外國語外國文學研究 (Sapporo)
HJAS = Harvard Journal of Asiatic Studies (Cambridge, Mass.)
HYHP = *Hsin-ya Hsüeh-pao* 新亞學報 (Hong Kong: New Asia
 College 新亞書院, Chinese University of Hong Kong)
HYS = *Hsin Yüan-shih* 新元史 by K'o Shao-min.
IAN = Izvestija Akademii Nauk SSSR (Moscow)
IBK = Indogaku Bukkyōgaku Kenkyū 印度學佛教學研究 (Tokyo)
JA = Journal Asiatique (Paris)
JAOS = Journal of the American Oriental Society (Boston/ New
 Haven/New York)
JASB = Journal of the Asiatic Society of Bengal (Calcutta)
JOS = Journal of Oriental Studies (Hong Kong)
JRAS = Journal of the Royal Asiatic Society (London)
JSFOu = Journal de la Société Finno-Ougrienne (Helsinki)
KSz = Keleti Szemle (=Revue Orientale pour les Études Ouralo-
 Altaïques) (Budapest)
MASB = Memoirs of the Asiatic Society of Bengal (Calcutta)
MIO = Mitteilungen des Instituts für Orientforschung (Berlin)
MKJI = *Mōko Jiin* 蒙古字韻, a facsimile edition of the *Meng-ku*
Tzu-yün published by Kansai University.
MKTY = *Meng-ku Tzu-yün* 蒙古字韻 by Chu Tsung-wen.
MS = Monumenta Serica (Peking, later Nagoya and Los Angeles)
MSOS = Mitteilungen des Seminars für orientalische Sprache an
 der Friedrich-Wilhelm-Universität zu Berlin (Berlin)
NCGH = Nihon Chūgoku Gakkai hō 日本中國學會報 (Tokyo)
NDBKR = Nagoya Daigaku Bungakubu Kenkyū Ronshū 名古屋大學
 文學部研究論集 (Nagoya)
NSTH = Nü-shih Ta-hsüeh Hsüeh-shu Chi-k'an 女師大學學術季刊
 (Peking)

- OJDJK* =Ochanomizu Joshi Daigaku Jinbun Kagaku Kiyō お茶の水女子大學人文科學紀要 (Tokyo)
ODKN =Ōtani Daigaku Kenkyū Nenpō 大谷大學研究年報 (Kyoto)
PCH =*Po-chia-hsing* 百家姓.
PCTH =Pei-ching Ta-hsüeh Kuo-hsüeh Chi-k'an 北京大學國學季刊 (Peking)
PPTSK =Pei-p'ing T'u-shu-kuan Kuan-k'an 北平圖書館館刊 (Peking)
PSPT =*Pa-ssu-pa-tzu yü Yüan-tai Han-yü* 八思巴字與元代漢語 (資料彙編) edited by Lo Ch'ang-p'ei and Ts'ai Mei-piao.
RA =*The Red Annals* (= *Hu-lan deb-ther/Deb-ther dmar-po*) (=The Lineage of the Sa skya pa. A Chapter of the Red Annals.) tr. by S. Inaba.
RO =Rocznik Orientalistyczny (Lwów)
SO =Studia Orientalia (Helsinki)
SSHY =*Shu-shih Hui-yao* 書史會要 by T'ao Tsung-i.
SZ =Shigaku Zasshi 史學雜誌 (Tokyo)
Taishō =*Taishō Shinshū Daizōkyō* 大正新修大藏經 (The Tripiṭaka in Chinese) edited by J. Takakusu and K. Watanabe.
THG =Tōhōgaku 東方學 (Tokyo)
Tōhoku =*Chibetto Senjutsu Butten Mokuroku* 西藏撰述佛典目錄 (=A Catalogue of the Tōhoku University Collection of Tibetan Works on Buddhism) (Sendai, 1953)
TP =T'oung Pao (Leiden)
TPS =*Tibetan Painted Scrolls* by G. Tucci.
TSNP =*Ti-shih Nieh-p'an* 帝師涅槃 by Te-hui ch'an-shih.
TSTP =*Ti-shih Tien-pei* 帝師殿碑 by Shih-yüan tsung-chu.
TVOIRAO =Trudy Vostočnago Otdelenija Imperatorskago Russkago Arxeologičeskago Obščestva (St Petersburg)
TYGH =Tōyō Gakuhō 東洋學報 (Tōkyō)
VDL =*The Fifth Dalai Lama's Chronicle*.
WW(TK) =Wen-wu (Ts'an-k'ao Tzu-liao) 文物(參考資料) (Peking)
WZKM =Wiener Zeitschrift für die Kunde des Morgenlandes (Vienna)

<i>YCHP</i>	=Yen-ching Hsüeh-pao 燕京學報 (Peking)
<i>YS</i>	= <i>Yüan-shih</i> 元史 by Sung Lien and others.
<i>YSLP</i>	= <i>Yüan-shih Lei-pien</i> 元史類編 by Shao Yüan-p'ing.
<i>ZDMG</i>	=Zeitschrift der deutschen morgenländischen Gesellschaft (Leipzig, later Wiesbaden)
<i>ZIAN</i>	=Zapiski Amperotorskoj Akademii Nauk' (St Petersburg)
<i>ZKM</i>	=Zeitschrift für die Kunde des Morgenlandes (Göttingen)
<i>ŽMVD</i>	=Žurnal' Ministerstva Vnuternnix' del' (St Petersburg)
<i>ZSOIRGO</i>	=Zapiski Sibirskago otdelenija Imperatorskago Russkago Geografičeskago obščestva (St Petersburg)
<i>ZSPANO</i>	=Zapiski Sankt'-Peterburgskago Arxeologičeskago i Numiz- matičeskago Obščestva (St Petersburg)
<i>ZY</i>	=Zhongguo Yuwen(=Chung-kuo Yü-wen)中國語文(Peking)

General (mainly used in tables)

abbr.	=abbreviation(s), abbreviated.
AC	=Ancient Chinese.
Bibl.	=Bibliography in this paper.
c	= <i>ch'ü-sheng</i> 去聲 (=falling-tone).
Ch(in).	=Chinese.
E(group)	=cerebral group. <i>See</i> Table 1.
F(group)	=supradental and affricated alveolo-palatal group. <i>See</i> Table 1.
fasc.	=fascicle(s).
fol(s).	=folio(s).
G(group)	=sibilant group. <i>See</i> Table 1.
h.k.	= <i>ho-k'ou</i> 合口 (=rounded-mouth sounds).
I./init.	=initial consonant(s).
j	= <i>ju-sheng</i> 入聲 (=entering-tone).
k.k.	= <i>k'ai-k'ou</i> 開口 (=open-mouth sounds).
MC	=Middle Chinese.
M./med.	=medial(s).
Mong.	=Mongolian.
N./nuc.	=nucleus(-clei).

OM	=Old Mandarin.
p	= <i>p'ing-sheng</i> 平聲 (=level-tone).
Pek.	=Pekinese.
'Pgs.	= 'Phags-pa (script, alphabet).
repr.	=reprint, reprinted.
rev.	=revised.
s	= <i>shang-sheng</i> 上聲 (=the falling-rising-tone).
Skt.	=Sanskrit.
Tib.	=Tibetan.
tr.	=translation, translated.
trsc.	=transcription, transcribed.
Ugr.	=Uighur.
Wu	=Wu dialects.

INTRODUCTION

THE 'Phags-pa script was invented by Bla-ma 'Phags-pa and was officially used by the Mongol Empire. The original plan of this script, mentioned in the Imperial decree that promulgated it in 1269, was to transcribe Mongolian and other neighbouring languages. As the time that the 'Phags-pa script was in official use was limited to the Mongol Empire, 'Phags-pa material at our disposal is extremely limited, and the only available material in the script is written in Mongolian, Chinese, and Tibetan.

The Mongolian documents in the 'Phags-pa script are mostly inscriptions, and in conjunction with documents in the Uighur script, which was adopted by the Mongols after 1204,¹ they are very important material for the study of the Mongolian language in the thirteenth and fourteenth centuries.

The period of the Yüan dynasty (the Mongol Empire) can be regarded as a new stage in the history of the Chinese language, which had undergone great phonological changes since the late T'ang dynasty, and the phonetic system of Chinese in the Yüan dynasty should be strictly distinguished from Ancient Chinese. The 'Phags-pa documents are most important materials for the study of Chinese in the Yüan dynasty because they represent each Chinese character with a phonetic symbol. These documents show the features of Middle Chinese phonology more accurately than the rhyme dictionaries such as the *Chung-yüan Yin-yün* 中原音韻 (abbr. CYYY)(1324). During the T'ang dynasty, the Chinese language was transcribed by the Uighur and Tibetan scripts,² but the 'Phags-pa

¹ See J.P. Abel-Rémusat, 'Tha-tha-toung-'a, Ministre ouïgour', *Nouveaux mélanges asiatiques*, II (Paris, 1829), pp. 61-3; B. Laufer, 'Skizze der mongolischen Literatur', *KSz*, VIII (1907), p. 183.

² See B. Csongor, 'Chinese in the Uighur script of the T'ang-period', *AOH*, II (1952), pp. 73-121; T. Haneda, 'Kan-Ban taion Senjimon no dankan', *TYGH*, XIII, 3 (1923), pp. 390-410; F.W. Thomas and G.L.M. Clauson, 'A Chinese Buddhist text in Tibetan writing', *JRAS*, 1926, pp. 508-26, and 'A second Chinese Buddhist text in Tibetan characters', *JRAS*, 1927, pp. 281-306, 858-60; F.W. Thomas, S. Miyamoto, and G.L.M. Clauson, 'A Chinese *Mahāyāna* catechism in Tibetan and Chinese characters', *JRAS*, 1929, pp. 37-76; Lo Ch'ang-p'ei, *T'ang Wu-tai Hsi-pei Fang-yin* (Shanghai, 1933), 223 pp.; W. Simon, 'A note on Chinese texts in Tibetan trans-

transcription of Chinese in the Yüan dynasty provides much more systematic material.

Tibetan materials, mostly seals, in the 'Phags-pa script were produced after the fall of the Yüan dynasty, much later than the Mongolian and Chinese materials. From the Tibetan viewpoint, the 'Phags-pa script was very probably a variant of Tibetan script, or simply seal-characters. As I will discuss later, some Tibetologists regard the 'Phags-pa script as Tibetan seal-characters or as Tibeto-Mongol characters, and it is difficult to decide whether the Tibetans, in using 'Phags-pa script for seals, had any great knowledge of the script. Even if the Tibetans had invented a seal-script based on the Tibetan *dbu-can* (printing characters), this would naturally resemble the 'Phags-pa script, which was also derived from the *dbu-can*. In this paper, however, Tibetan seal-characters will be regarded as a form of the 'Phags-pa script.

A brief history of 'Phags-pa studies is as follows.

The first systematic reference to 'Phags-pa studies was made by H. C. von der Gabelentz in 1839,³ although a few scholars had touched upon it earlier.⁴ Von der Gabelentz dealt with the epigraph of *The Edict of Buyantu Qan 1314*, which he reproduced from the *Shih-mo Chüan-hua* 石墨鞏華 (1618) by Chao Han.⁵ In that text the 'Phags-pa inscription is written in the Chinese way, by vertical columns from right to left. Von der Gabelentz first transcribed it in this way, then rearranged it correctly in the Mongolian way, in vertical columns from left to right. He also gave a romanisation of the parallel Chinese inscription, with a German translation and some commentaries. As the reproduction of the

cription', *BSOAS*, XXI (1958), pp. 334-43; B. Csongor, 'Some Chinese texts in Tibetan script from Tun-huang', *AOH*, X (1960), pp. 97-140.

³ 'Versuch über eine alte mongolische Inschrift', *ZKM*, II, 1 (1839), pp. 1-21+3 tables.

⁴ For example, P. S. Pallas, *Sammlungen historischer Nachrichten über die mongolischen Völkerschaften*, vol. II, p. 358, plate 22, and *Catalogue des manuscrits chinois et mandchoux de la Bibliothèque royale de Berlin*; J. Klaproth, *Abhandlung über die Sprache und Schrift der Uiguren*; J. P. Abel-Rémusat, *Recherches sur les langues tartares* ..., I, pp. 197-214, and 'Tha-tha-toung-'o, ...', p. 63.

⁵ *Chih-pu-tsu-chai Ts'ung-shu* edition ser. 3, vol. 6, pp. 11b-14b, or *Ts'ung-shu Chich'eng* edition (based on the above) (No. 1607). pp. 77-82.

'Phags-pa inscription in the *Shih-mo Chüan-hua* was not sufficiently clear, von der Gabelentz could not reconstruct the correct phonetic value of some letters. For example, he did not make any distinction between *g*, *q* and *·* (intervocalic sign) but transcribed them all as *g*.⁶

In 1857 a Mongolian coin with the 'Phags-pa script was discovered by E. Netscher in Surabaya, in Java, and it was described and discussed by G. Pauthier.⁷ In 1862 Pauthier described a Chinese inscription in the 'Phags-pa script.⁸ His approach to 'Phags-pa orthography in Chinese documents was first to translate into French a biography of Bla-ma 'Phags-pa from the *Yüan-shih* 元史 and another passage concerning 'Phags-pa script in the *Shu-shih Hui-yao* 書史會要 (abbr. *SSHY*). He then demonstrated the phonetic value of each letter in comparison with the Tibetan, Sanskrit, and Mongolian alphabets. His comment on the disappearance of the final consonants of the entering-tone is very likely the first reference to Middle Chinese phonology by a Western scholar.⁹

In 1871 six parallel inscriptions on the Wall of Chü-yung-kuan 居庸關 were described by A. Wylie.¹⁰ These inscriptions were of the [*Sarva-durgati-pariśodhani-juṣṇiṣa-vijaya-nāma-dhāraṇi*] (cf. *Taishō*, Nos.967-71) on the east wall, and the *Samanta-mukha-pravéśa-raśmi-vimaloṣṇiṣa-prabhāsa-sarva-tathāgata-hṛdaya-samaya-vilokita-nāma-dhāraṇi* (cf. *Taishō*, No. 1025) on the west wall, and were written in Sanskrit (Lañtsha), Tibetan, Mongolian ('Phags-pa), Uighur, Hsi-hsia and Chinese.¹¹ Wylie translated the Sanskrit inscription on the east wall and reproduced the original texts in the six scripts. In 1894-5 reports appeared after the lesser Chinese,

⁶ For example, *kiesen* (read *ihe-en*), *erkegud* (read *èrk'e-ud*), *iruger* (read *hiru-er*), etc. But he corrected this point in his 'Nachtrag zur Erklärung der altmongolischen Inschrift', *ZKM*, III (1840), pp. 22-57.

⁷ 'Rapport sur deux médailles en cuivre jaune trouvées à Sourabaya, ...', *JA*, V, 15 (1860), pp. 321-37+3 illustr. Two coins introduced in this article have Arabic and 'Phags-pa inscriptions. The 'Phags-pa inscription was deciphered as *Ta-Yüan t'ung-pao* 大元通寶 by Pauthier.

⁸ 'De l'alphabet de Pa'sse-pa, ...', *JA*, V, 19 (1862), pp. 5-47.

⁹ *Ibid.*, p. 39.

¹⁰ 'On an ancient Buddhist inscription at Keu-yung kwan, in North China', *JRAS*, n. s. V, 1 (1870), pp. 14-44+restoration of the Keu-yung-kwan Inscription.

¹¹ Wylie (*ibid.*) gives a full account of 'Phags-pa studies until his time. He also (p. 26, n. 3) gives a specimen of 'Phags-pa script which he reproduced from a pillar

Tibetan, Uighur, and Mongolian inscriptions of both walls had been deciphered.¹² In 1835 R. Bonaparte published photo-reproductions of the wall inscriptions of Chü-yung-kuan and some other 'Phags-pa documents such as *The Edict of Buyantu Qan 1314*, which von der Gabelentz and Wylie had already reproduced from Chinese sources.¹³ The publication of the Chü-yung-kuan inscriptions was an epoch-making event in oriental palaeographical studies. Until then, for example, the Hsi-hsia script had been completely unknown.¹⁴ G. Devéria, who provided many reproductions of Chü-yung-kuan inscriptions to Bonaparte, also contributed to the decipherment of some 'Phags-pa inscriptions.¹⁵

Besides inscriptions of epigraphs in the 'Phags-pa script, some silver tablets (*p'ai-tzu*) had been found in Siberia, inscribed in Mongolian in the 'Phags-pa script.¹⁶ D. Banzarov successfully identified the Minusinsk *p'ai-tzu* inscription as the 'Phags-pa script,¹⁷ although it had earlier been

of Yung-ho-kung, Peking. According to Wylie, Pallas (op. cit., vol. II, plate 22) also gives a similar specimen to his own. The 'Phags-pa alphabet in this specimen is arranged in the Tibetan alphabetical order, i.e., *om, a, ā, ...k, kh, ...*, and it is most interesting that this specimen lacks voiced consonants, i.e. the *g, d, b, ...* series. But some of the letters are indecipherable either because the reproduction was inadequate or because the original was illegible. As regards other inscriptions, he mistakenly identified the Hsi-hsia script as Neuchih (Jurchen) script. For further details, see E. Teramoto, 'Kyoyōkan no hekibun oyobi sono chōkoku bijutsu ni tsuite', *SZ, XX* (1910), pp. 351-64, 609-17, 1514-16; J. Murata (ed.), *Kyoyōkan*, 2 vols.

¹² 'Note préliminaire sur l'inscription de Kiu-yong koan': E. Chavannes, 'Première partie. Les inscriptions chinoises et mongoles', *JA*, IX, 4 (1894), pp. 354-68; S. Lévi, 'Deuxième partie. Les inscriptions tibétaines', *ibid.*, pp. 369-73; W. Radloff, 'Troisième partie. Les inscriptions ouigoures', *ibid.*, pp. 546-50; G. Huth, 'Quatrième partie. Les inscriptions mongoles', *ibid.*, IX, 5 (1895), pp. 351-60.

¹³ *Documents de l'époque mongole des XIII^e et XIV^e siècles...*, II+5 pp+15 plates.

¹⁴ After Wylie identified the Hsi-hsia script as the Jurchen (op. cit., pp. 36-44), Devéria corrected Wylie's mistaken assumption in his 'L'écriture du royaume de Sihia ou Tangout', *Mémoires présentés par divers savants à l'Académie des Inscriptions et Belles-Lettres de l'Institut de France*, sér. I, tome XI (1901), pp. 147-75. As to the history of deciphering the Hsi-hsia script, see T. Nishida, *Seikago no kenkyū*, vol. I (Tokyo: Zauhō Kankōkai, 1964), pp. 1-14.

¹⁵ 'Notes d'épigraphie mongole-chinoise', *JA*, IX, 7, 8 (1896), pp. 94-128, 395-443.

¹⁶ In 1846 a *p'ai-tzu* was discovered in Minusinsk and introduced for the first time in H. Yule (tr. and ed.), *The Book of Ser Marco Polo*, I, Book VII, plate facing p. 352.

¹⁷ 'Über zwei mittelasiatische Alphabete...', *Bulletin*, V, 4 (1848), Sp. 49-57; 'Erklä-

believed to be the Hsi-hsia script.¹⁸

The first scholar to study the 'Phags-pa script from the Tibetan sources was B. H. Hodgson (1828).¹⁹ He provided a 'Phags-pa specimen among his plates, to which an explanation written in *dbu-med* (Tibetan cursive script) letters is added.²⁰ S. C. Das also gives a full account of various ornamental characters in which three 'Phags-pa specimens are included (1888).²¹ However, Das did not identify these specimens as the 'Phags-pa script but regarded them as Khoñ-señ, Śin-tu brjod-pa, and Yurgur (Uighur) characters.²² Apparently he had no knowledge of the Uighur script, which continued to be used by the Mongols even after the invention of the 'Phags-pa script.

In 1905 two seals of the Dalai Lama were reproduced by L. A. Waddell.²³ One of these is a Lañtsha monogram²⁴ and the other is in the

rung einer mongolischen Inschrift ...', *ibid.*, V, 9 (1848), Sp. 129-39; 'Pajze, ili metalličeskija došččki s' povelénijami' mongol'skix xanov', *ZSPANO*, II, 1 (1850), pp. 72-97.

¹⁸ For example, V. Grigor'eev, 'Ob'jasnanie drevnej mongol'skoj nadpisi, najdennoj v' Sibiri', *ZMVD*, XVI (1846), pp. 126-49; *Otvet' akademiku Šmidt na zamečanija ego o mongol'skoj nadpisi vremen' Möngke-xana, najdennoj v' Sibiri, Otečestvennyja Zapiski* (St Petersburg, 1846), pp. 114-20. Grigor'eev suggested that the invention of the 'Phags-pa script was not made during Qubilai's reign but in the eleventh century by Li Yüan-hao 李元昊 of Tangut. Since on this *p'ai-tzu* there are the words 'Möngke Qan' Grigor'eev maintained that this script must have been used before Qubilai's reign. I. J. Schmidt opposed Grigor'eev's view and rendered the word 'Möngke' as an adjective 'eternal' ('Über eine mongolische Quadratin-schrift aus der Regierungszeit der mongolischen Dynastie Jüan in China', *Bulletin*, IV, 9 (1848), Sp. 129-41). But Banzarov advanced on these interpretations by Schmidt and Avvakum ('O nadpisi, naxodjaščej na skale u Mangutskoj peščery', *ZSOIRGO*, II (1865), pp. 87-8) and concluded that the words 'Möngke Qan' on this *p'ai-zu* were a copy in 'Phags-pa of an original in Uighur script written in Möngke Qan's reign.

¹⁹ 'Notices of the Languages, Literature, and Religion of the Baudhdhas of Nepal and Bhot', *Asiatic Researches*, XVI, (1828), Article No. XII, pp. 409-49, esp. see the third plate after p. 420.

²⁰ This explanation can be read 'di-yañ hor-yig rigs gcig luñ' ('This is also a kind of authorized *Hor-yig*'). *Hor-yig* means the letters (*yig*) used in Mongolia (*hor*).

²¹ 'The sacred and ornamental characters of Tibet', *JASB*, LVII (1888), pp. 41-8 + 9 plates.

²² *Ibid.*, pp. 45-6, plates V(b) (Khoñ-señ), (e) (Śin-tu brjod-pa), plate VII, No. 1 (Uighur).

²³ *Lhasa and its Mysteries*, p. 448.

²⁴ Cf. Hodgson, *op. cit.*, the fifth plate after p. 420; Das, *op. cit.*, p. 47, plate V(d).

'Phags-pa script. S.W. Bushell gave a reading of the 'Phags-pa seal,²⁵ of which A.H. Francke and Waddell both gave different interpretations.²⁶ Francke also published some other Tibetan seals²⁷ and E.H. Walsh gave many further examples.²⁸ In these Tibetan pieces, some letters are slightly different in shape from those in Mongolian and Chinese materials.²⁹

This period, from the second half of the nineteenth century to the early part of the twentieth, was thus the discovery period for materials in the 'Phags-pa script from Mongolian, Chinese, and Tibetan sources. However, while the two former sources have been dealt with by scholars of Mongolian and Chinese in collaboration, the Tibetan sources have always been treated only by students of Tibetan.

²⁵ Bushell reads: '*Talai bLamzi...Thamka rgyalva* [*ta-la'i bla-ma'i...tham-ka rgyal-ba*] ('The royal seal of the Dalai Lama') (review of Waddell, op. cit., *JRAS*, 1906, p. 478). Bushell states: 'The inscription seems to be rather an archaic form of the Tibetan script, and is to be read in vertical columns, passing from left to right, like the Bashpa script of the thirteenth century'. W.H. Walsh ('The coinage of Tibet', *MASB*, II, 2(1907), p. 17) also gives a short comment on this seal, but apparently he did not consult Bushell's review. Walsh states: 'This character of the Dalai Lama's seal is called in Tibetan *Shintu-Jod-pa* [*Šin-tu brjod-pa*] or "perfectly finished" and resembles the Uighur characters, known in Tibet as *Gyaser Yige* [*rgya-ser yi-ge*] or "Great golden letters", and is found in almost all old seals of Tibet.'

²⁶ Francke ('Note of the Dalai Lama's seal and the Tibeto-Mongolian characters', *JRAS*, 1910, p. 1206) reads: '*talai blamai ru thamka rgyal* [*ta-la'i bla-ma'i ru tham-ka rgyal*] ('Standard seal of the Dalai Lama, bene!')'. But Waddell ('Seal of the Dalai Lama', *JRAS*, 1911, pp. 204-6) opposed this reading and gave another version as '*Om ta-lai bla-mai rtsa t'amka rgyal-va* [*Om ta-la'i bla-ma'i rtsa-tham-ka rgyal-ba*] ('Om! The original seal of the Talai Lama, the *Jina*')'. Francke ('The Dalai Lama's seal', *JRAS*, 1911, pp. 523-30), however, did not accept Waddell's criticism.

²⁷ 'Ein Siegel in tibeto-mongolischer Schrift von Bhutan', *ZDMG*, LXIV (1910), pp. 553-4; 'Another version of the Dalai Lama's seal', *JRAS*, 1912, pp. 746-8.

²⁸ 'Seal of Dalai Lama', *JRAS*, 1911, pp. 206-7; 'Examples of Tibetan seals', *JRAS*, 1915, pp. 1-15; 'Examples of Tibetan seals: Supplementary note', *ibid.*, pp. 465-70.

²⁹ For example, the letters which are equivalent to the Tibetan *ph*, *ts*, *tsh*, *dz*, etc. Cf. Francke, 'Note on the Dalai Lama's seal...', pp. 1211-12 (comparative table of *Hor-yig*, *Koñ-señ*, and *Šin-tu brjod-pa*).

At almost the same time another great problem arose, concerning the inventor of this script. According to the *Yüan-shih* (1370), Bla-ma 'Phags-pa invented a new Mongolian script and offered it to the throne in 1269, and this statement has been followed by many Chinese sources. However, the famous Tibetan chronicles, *Hu-lan deb-ther* (*The Red Annals*) (1346) and the *Deb-ther sñon-po* (*The Blue Annals*) (1476-8), make no mention of this.³⁰ The *Sñin-tshil* (Mong. *Jirüken-ü Tolta*), which is said to have been written by Chos-kyi 'Od-zer, a monk of the Yüan dynasty, and which was translated into Mongolian between 1723 and 1735,³¹ states that while Sa-skya paṇḍita was staying in Liang-chou (1247-51), intending to confer the benefit of a script upon the Mongolians, he fell one night into a fit of abstraction. In the early morning a woman appeared with a notched-stick for tanning leather. Sa-skya paṇḍita responded to this apparition by creating a Mongolian script in the shape of the notched-stick, embodying masculine, feminine and neuter genders as follows:

a	e	i
na	ne	ni
ba	be	bi
qa	ke	ki
ṛa	ge	gi
ma	me	mi
la	le	li
ra	re	ri
sa	se	ši
da	de	di
ta	te	ti
ya	ye	yi
ča	če	či
ja	je	ji
va	ve	...

³⁰ See Chapter I.

³¹ See H. Okada, 'Mōko shiryō ni mieru shoki no Mō-Zō kankei', *THG*, 23 (1962), p. 105.

But, as the time was not yet ripe, Mongolian translations of Buddhist texts in this script did not appear.³²

The *Bolor Erike* (1774-5) copies this passage of the *Jirüken-ü Tolta*,³³ the *Hor-chos-byuñ* by Jigs-med rig-pa'i rdo-rje (1819),³⁴ also copies this passage and adds the fact that Chos-kyi 'Od-zer revised the new Mongolian script invented by Sa-skya paṇḍita.³⁵ The accounts in the above sources have been adopted by Klaproth, de Lacouperie, Koeppen, Francke, Teramoto, and Krause,³⁶ although their interpretations often differ. The Mongolian script referred to by these sources is generally supposed to be the Uighur script which the Mongols began to use no later than 1230.³⁷ Probably the Mongolian sources mentioned above ascribe the invention of the Mongolian script to Sa-skya paṇḍita because of their respect for him as the person who first introduced Buddhism to Mongolia. The reason these sources make no mention of the 'Phags-pa script was

³² See I.J. Schmidt, *Geschichte der Ost-Mongolen und ihres Fürstenhauses*, pp. 392-4; Okada, *ibid.*, pp. 105-7.

³³ *Bolor Erike, Mongolian Chronicle* (= *Scripta Mongolica*, III) (Cambridge, Mass., 1959), Part I, pp. 171-2; Part IV, pp. 121-2; Okada, *ibid.*, p. 103.

³⁴ The name of the author of the *Hor-chos-byuñ* was mistakenly believed to be Jigs-med nam-mka' until G. N. de Roerich ('The author of the *Hor-chos-hbyuñ*', *JRAS*, 1946, pp. 192-6) assigned it to Jigs-med rig-pa'i rdo-rje.

³⁵ See G. Huth, *Geschichte des Buddhismus in der Mongolei...*, pp. 133-4, 162-3.

³⁶ J. Klaproth, 'De l'écriture ouigoure', *Archives Paléographiques*, I (1872), p. 87; T. de Lacouperie, *Beginnings of Writing in Central and Eastern Asia*, ..., pp. 88-90; C.F. Koeppen, *Die lamaische Hierarchie und Kirche*, pp. 96-100; Francke, 'Note on the Dalai Lama's seal...', p. 1208; E. Teramoto, 'Pakupa Rama no shin Mōko moji', *Bukkyō Shigaku*, I, 11(1912), pp. 917-34, *ibid.*, II, 2 (1912), pp. 108-27, and *Chibettogo Bunpō*, pp. 6-7; F.E.A. Krause, *Ju-Tao-Fo*, ..., p. 585, nn.291-2 (cf. P. Pelliot's review, *TP*, XXIII (1924), p. 62).

³⁷ The earliest Mongolian document in the Uighur script is the so-called 'Stone of Činggis Qan' which was found in the Nerchinsk area near the River Onon. See Schmidt, 'Bericht über eine Inschrift aus der ältesten Zeit der Mongolen-Herrschaft', *Mémoires de l'Académie des Sciences de St.-Petersbourg*, sér. VI, vol. II (1834), pp. 243-56; von der Gabelentz, *op. cit.*, pp. 18-21 ('Nachschrift'); Banzarov, 'Ob'jasnenie mongol'skoj nadpisi na namjatnike kniazja Isunke plemjannika Čingis-Xana', *Sbornik Černaja V'ra* (ed. by G.N. de Potanin) (St Petersburg, 1891), pp. 88-105; Laufer, *op. cit.*, pp. 191-2; S. Murayama, 'Jingisu-Kan sekibun no Kaidoku', *Tōyōgo Kenkyū*, 4 (1948), pp. 59-95. Schmidt puts the date of this stone between 1219 and 1220, but Banzarov places it between 1224 and 1230. The letter to

probably because after the fall of the Mongol Empire it was no longer officially used and therefore Tibetan and Mongolian sources ignored it.

P. Pelliot demonstrates that Chos-kyi 'Od-zer corresponds to Shuo-ssu-chi-yüeh-chi-erh 朔思吉月郎兒 in the *Yüan-tai Hua-so-chi* 元代畫塑記 or Shuo-ssu-chi-o-chieh-erh-pa-ha-shih 朔思吉斡節兒八哈失 in the *Yüan-shih* (fasc. 99), but these Chinese sources do not mention his revision of the Mongolian script. Pelliot instances a story that Tatatunga, a Naiman minister, taught the Uighur script to Cinggis Qan's princes and that the first Mongolian chronicle *Monᡔol-un ni'uča tobči'an* (*The Secret History of the Mongols*) was written in the Uighur script in 1240,³⁸ and he then notes that:

...Mais par là les deux lamas [Sa-skya paṇḍita and Chos-kyi 'Od-zer], formés à la grammaire tibétaine inspirée elle-même de la grammaire hindoue, ont fait oeuvre de phonéticiens exerçant leurs facultés d'analyse sur un système d'écriture qui existait déjà. Ils n'ont rien inventé, et si leurs noms doivent être retenus peut-être dans l'histoire de la grammaire mongole, l'écriture mongole elle-même, à mon sens, ne leur doit rien.³⁹

Points made by Pelliot are now regarded as self-evident, but they were not clearly grasped until Pelliot's deductions. Before Pelliot, B. Laufer had already concluded that Bla-ma 'Phags-pa invented the 'Phags-pa script but he also believed that the revision of the Uighur script was made by Chos-kyi 'Od-zer between 1307 and 1311.⁴⁰ M. Ishida also contributed

Philippe le Bel (see Bonaparte, op. cit., plate XIV, No. 1) from Činggis Qan can be also regarded as one of the earliest Mongolian documents in the Uigur script.

³⁸ 'Les systèmes d'écriture en usage chez les anciens mongols', *AM*, II (1925), pp. 284-9. The most recent researches suggest a much earlier date for the writing of the *Secret History of the Mongols* than Pelliot ascribes. For example, I. de Rachewiltz ('Some remarks on the dating of the *Secret History of the Mongols*', *MS*, XXIV (1965), pp. 185-206) proposes it as exactly one year after the death of Činggis Qan, in the seventh month of the year of the Rat (1228). Also see G. Doerfer, 'Zur Datierung der Geheimen Geschichte der Mongolen', *ZDMG*, 113 (1963), pp. 87-111; P. Ratchnevsky, 'Šigi-qutuqu, ein mongolischer Gefolgsmann im 12.-13. Jahrhundert', *CAJ*, X (1965), pp. 87-120.

³⁹ Pelliot, op. cit., p. 289.

⁴⁰ Laufer, op. cit., pp. 183-6.

to this problem from the same viewpoint as Pelliot.⁴¹ G.N. de Roerich, following V. Vladimircov⁴² and Pelliot on Chos-kyi 'Od-zer, suggested that he lived somewhat earlier (-1292?) than the date given in the *Yüan-shih* (-1321?).⁴³

Until this time, most scholars of 'Phags-pa studies had dealt with Mongolian and Chinese epigraphs and Tibetan seals. Very rarely, discoveries of 'Phags-pa specimens in block-prints or printings were also noted. In the Chinese block-print *Rgya-dkar-nag rgya-ser ka-smi-ra bal bod hor-gyi yi-ge dan dpe-ris rnam-graṅs man-ba*, there are three 'Phags-pa specimens, which were described by O. Böhtlingk⁴⁴ and A. Schiefner.⁴⁵ As their descriptions were too cursory, it is regrettable that Das, who also dealt with this text, did not identify them as 'Phags-pa script.⁴⁶

The so-called Mannerheim fragment, discovered by the C.G. Mannerheim expedition (1906-8) to Eastern Turkestan, was first described by G.J. Ramstedt.⁴⁷ Later P. Aalto identified this as part of a Mongolian transcription of the *Subhāṣitaratnanidhi*.⁴⁸ These discoveries in block-print or printing stimulated the new idea that the 'Phags-pa script had been

⁴¹ 'Mōko moji no kigen to enkaku', *Tōa*, III, 12 (1930), pp. 84-92.

⁴² *Sravnitel'naja Grammatika Mongol'skogo Pis'mennogo jazyka i Xalxaskogo Narečija. Vvedenie i fonetika* (Leningrad, 1929), pp. 23-36.

⁴³ 'Mun-mkhyen Čhos-kyi hod-zer and the origin of the Mongolian alphabet', *JASB*, XI, 1 (1945), pp. 52-8.

⁴⁴ 'Ueber einige Sanskrit-Werke in der Bibliothek des Asiatischen Departements', *Bulletin*, II, 22 (1845), Sp. 342-4 (catalogue Nos. 574, 590).

⁴⁵ 'Nachträge zu den von O. Böhtlingk und I.J. Schmidt verfassten Verzeichnissen der auf Indien und Tibet bezüglichen Handschriften und Holzdrucke im Asiatischen Museum der Kais. Akademie der Wissenschaften', *Bulletin*, V, 10 (1848), Sp. 147 (No. 125aaa), n. 1.

⁴⁶ The nine specimens in Das's plate V are exactly the same as those in this text, fols. 13b-14b. As regards this text, see A. Yuyama, *Indic Manuscripts and Chinese Blockprints (non-Chinese Texts) of the Oriental Collection of the Australian National University Library, Canberra*, pp. 84-100; Nakano, 'The *Rgya-dkar-nag* ...and some remarks on the 'Phags-pa script', *Indo-Asian Studies*, III (1971), pp. 1-16.

⁴⁷ 'Ein Fragment mongolischer Quadratschrift', *JSFOu*, XXVII, 3 (1911), pp. 1-4.

⁴⁸ 'Altaistica I. The Mannerheim fragment of Mongolian "Quadratic" script', *SO*, XXII, 7 (1952), pp. 1-9. In 1925 T.F. Carter provided a fragment similar to the Mannerheim fragment in his *The Invention of Printing in China and its Spread*

used not only in epigraphs and seals but also in printing.

Although many scholars such as Maspero, Karlgren, and Simon had steadily advanced Archaic and Ancient Chinese studies,⁴⁹ studies of Middle Chinese had been ignored until A. Dragunov and H. Oshibuchi produced parallel contributions in 1930.⁵⁰ Dragunov referred to about 700 Chinese characters and their 'Phags-pa equivalents which had been found in epigraphs, and discussed some peculiarities of Middle Chinese phonology. Oshibuchi also chose a matching number of Chinese characters in the CYYY to those in 'Phags-pa inscriptions, and assigned their phonetic value. The works of Dragunov and Oshibuchi provided a form of material on Middle Chinese sounds and a realistic methodology for dealing with Chinese documents in the 'Phags-pa script. At this stage M. Lewicki systematised almost all the Mongolian 'Phags-pa inscriptions ever found,⁵¹ and W. Kotwicz also clarified some problems regarding Mongolian transcription of Buddhist texts and some initial formulae in Mongolian inscriptions, especially edicts.⁵²

The new stage of 'Phags-pa studies begins with two significant contributions by N.N. Poppe and S. Hattori.

Westward, plate facing p. 120, and Aalto again identified this fragment in his 'A second fragment of the Subhāṣitaratnanidhi in Mongolian quadratic script', *JSFOu*, LVII, 5(1954), pp. 1-6 and 'Frangmente des mongolischen Subhāṣitaratnanidhi in Quadratschrift', *MIO*, III(1955), pp. 279-90. As to Carter's book, Pelliot gives a full account of critical and additional study (*Les débuts de l'imprimerie en Chine*) (= *Oeuvres posthumes de Paul Pelliot*, IV) (Paris: Librairie d'Amérique et d'Orient, 1953), viii+120 pp. + 'Appendice' by P. Demiéville (pp. 121-38)), but Pelliot gives no mention of this fragment.

⁴⁹ For example, see H. Maspero, 'Le dialecte de Tch'ang-ngan sous les T'ang', *BEFEO*, XX, 2 (1920), pp. 1-124; B. Karlgren, *Études sur la phonologie chinoise* (= *Archives d'Études Orientales*, vol. 15); W. Simon, 'Zur Rekonstruktion der altchinesischen Endkonsonanten', *MSOS*, XXX (1927), pp. 147-67, *ibid.*, XXXI (1928), pp. 175-204.

⁵⁰ A. Dragunov, 'The hPhags-pa script and Ancient Mandarin', *IAN*, VII (1930), pp. 627-47, 775-97; H. Oshibuchi, 'Chagen On'in chū no Pasupaji nite utsusare-taru Kanjion ni tsuite', *Ogawa Hakushi Kanreki Kinen Shigaku Chirigaku Ron-sō*, pp. 601-41.

⁵¹ *Les inscriptions mongoles inédites en écriture carrée* (= *Collectanea Orientalia*, 12).

⁵² 'Quelques données nouvelles sur les relations entre les Mongols et les Ouïgours', *RO*, II (1919/1924), pp. 240-7; 'Formules initiales des documents mongoles aux XIII-e et XIV-e ss.', *RO*, X (1934), pp. 131-57.

Poppe's work was first written in Russian and then translated into Japanese. According to Poppe's preface to the Japanese edition, the original Russian text was published a few days after the beginning of Russo-German War in 1941, and he had fortunately retained one copy of the Russian edition. The Japanese edition, however, lacks the main part of his book, the texts of the inscriptions and the translations. In 1957 J.R. Krueger translated the whole text into English and, under Poppe's supervision, added some new materials to the new edition. This English edition includes thirteen 'Phags-pa texts and their transliterations, transcriptions, and translations, with exhaustive commentaries.⁵³ Although most of the 'Phags-pa documents in Poppe's book had been studied since von der Gabelentz, it can be said that Poppe was the first to give a full account of these materials. He has also produced some articles on the 'Phags-pa script.⁵⁴

Hattori's book was also damaged during the war. Two-thirds of his draft was destroyed by fire, and only the remainder was published in 1946.⁵⁵ This book was intended as an approach to the Mongolian language of the *Secret History of the Mongols* through the Chinese transcription of Mongolian. As the first step in this attempt he tried to clarify the sound system of Chinese in the period between the Yüan and the early Ming dynasties, when the original text and the Chinese translation of this text were composed. In particular, description and analysis of the *Mengku Tzu-yün* 蒙古字韻 (abbr. *MKTY*) was made by Hattori for the first time. He concluded that the sound system employed in the *MKTY* was the Pien-ching 汴京 dialect transplanted to Lin-an 臨安 by the transfer

⁵³ *Istoriia Mongol'skoj pis'mennosti. vol. I. Kvadratnaja pis'mennosti* (Moscow/Leningrad, 1941), 167 pp. Translated by S. Murayama and T. Yamazaki as 'Hōkeiji' *Nihon Bunka*, 35 (1955), pp. 236-187 (1-50), with Poppe's preface to the Japanese translation dated 2 April 1954. Translated by J. R. Krueger as *The Mongolian Monuments in ḥP'ags-pa script* (=Göttinger Asiatische Forschungen, 8).

⁵⁴ 'Popravka k čteniju odnogo mesta edikta vdovy Darmabala', *Sbornik 'Pamjati akademiku N. Ja. Marra'* (Moscow/Leningrad, 1939), pp. 239-43; 'Zolotoordynskaja rykopis' na bereste', *Sovetskoe Vostokovedenie*, II (1941), pp. 81-136; 'Die Sprache der mongolischen Quadratschrift und das Yüan-ch'ao pi-shi', *AM*, n.s. I, 1 (1944), pp. 97-115; 'The groups *u_ɣa and *u_ɣe in Mongol languages', *SO*, XIV, 8 (1950), pp. 1-15.

⁵⁵ *Genchōhishi no Mōkogo o arawasu Kanji no Kenkyū*.

of the capital.⁵⁶ The *CYYY*, the famous rhyme dictionary composed at almost the same time as the *MKTY*, represented the sound system of the North, which is one source of modern Mandarin. In his analysis of the *MKTY*, Hattori made an important contribution to Middle Chinese studies. Furthermore, his tentative romanisation of the 'Phags-pa alphabet is more accurate for dealing with Chinese documents in the 'Phags-pa script than any other romanisation which had ever been tried (see Table 1).

As to the Chinese transcription of the Mongolian language, Lewicki adopted Dragunov's method by using the *Hua-i I-yü* 華夷譯語.⁵⁷ These attempts to relate 'Phags-pa transcriptions of the Chinese language and Chinese transcriptions of Mongolian and 'Phags-pa script have been successfully adopted by L. Ligeti.

Ligeti's first work, written in Hungarian,⁵⁸ was never in general distribution, but his article on the *Po-chia-hsing* 百家姓 (abbr. *PCH*) in the 'Phags-pa script was an advance upon the achievements of Dragunov, Oshibuchi, and Lewicki and enriched the body of Chinese material in the 'Phags-pa script.⁵⁹ Also, in another article, Ligeti gives a full account of three difficult problems concerning 'Phags-pa orthography in Mongolian and Chinese documents.⁶⁰

Since the 1950s, more authentic and concrete materials such as the *MKTY* and *PCH* have been available for research. In 1956 the *MKTY* based on a manuscript held in the British Museum was published in Japan.⁶¹ Also, in 1959 two texts of the *PCH* were published in China: one based on the Chih-yüan 至元 edition and the other on the Genroku 元祿 edition (originally based on the T'ai-ting 泰定 edition) with a reproduction of the *MKTY* in the British Museum.⁶² Comprehensive introduc-

⁵⁶ Ibid., pp. 36-58, 66-75.

⁵⁷ *La langue mongole des transcriptions chinoises du XIV^e siècle ...*, I (=Prace Wroławskiego Towarzystwa Naukowego A 29).

⁵⁸ 'A 'phags-pa írásos nyelvmélekek', *Emlékkönyv Melich János hetvenedik születésnapjára*, pp. 222-37.

⁵⁹ 'Le *Po kia sing* en écriture 'phags-pa', *AOH*, VI (1956), pp. 1-52.

⁶⁰ 'Trois notes sur l'écriture 'phags-pa', *AOH*, XIII (1961), pp. 201-37.

⁶¹ Kansai Daigaku Tōzai Gakujutsu Kenkyūjo (ed.), *Eiin Daiei Hakubutsukan zō Kyushōhon Mōkojin*.

⁶² Lo ch'ang-p'ei and Ts'ai Mei-piao (ed.), *Pa-ssu-pa-tsu yü Yüan-tai Han-yü*.

tions and commentaries on these texts and some more materials in the 'Phags-pa script, such as epigraphs held in the Peking University, coins, *p'ai-tzu*, seals, etc., some of which were unknown, are given by Lo Ch'ang-p'ei and Ts'ai Mei-piao in this Chinese edition.

E.R. Hope's monograph in an attempt to criticise Karlgren and his followers deals in great detail with the existence of the glottal stop initial in Ancient Chinese.⁶³ Hope's argument begins with the assumption that the *ying* initial 影母 is a clear null pitch and that the *yü* initial 喻母 is a muddy null pitch, both being vocalic anlaut with differences of tone pitch. He gives schedules to indicate how in 'Phags-pa transcriptions an alternation occurred between the *k, t, p*, ... series and the *g, d, b*, ... series. It is extremely difficult to summarise Hope's discussions,⁶⁴ but this problem will be discussed later. As P.L.M. Serruys maintains,⁶⁵ it is difficult to accept Hope's argument that Ancient Chinese had no glottal stop initial: he tries to deal with an extraordinarily wide field, from the Indic, Tibetan, Mongolian, and Chinese to Japanese with few references,⁶⁶ so that his hypothetical conclusions lack any evident consistency.

Hope also discusses the problem of shapes in other scripts which are supposed to have been influenced by 'Phags-pa script; that is, the problem of Korean Önmun, Tibetan seal-characters, a certain variation of Manchurian script. As to the Korean Önmun, it has long been recognised that the letter shape of Önmun was influenced by the 'Phags-pa script,⁶⁷ and Hope again pointed out this fact, using the theory of

⁶³ *Karlgren's Glottal Stop Initial in Ancient Chinese*, ...

⁶⁴ See K. Whinnom, review of this book, *JOS*, II (1955), pp. 158-72, which is rather a summary of Hope's work.

⁶⁵ See *Oriens*, VIII (1955), pp. 135-41.

⁶⁶ For instance, Hope does not use important reference by Pauthier, Chavannes, Francke, Walsh, Oshibuchi, Hattori, Lewicki, etc. mentioned above. He ought especially to have referred to Hattori's work in which the *MKTY* and its initial consonantal system are discussed.

⁶⁷ See J.S. Gale, 'The Korean alphabet', *Transactions of the Asiatic Society of Korea*, IV (1912), pp. 13-61; K. Shiratori, 'Chōsen moji (Onmon) no kōzō ni tsuite', *SZ*, XLIII, 7 (1932), pp. 931-3; M. Courant, 'Systèmes d'écriture en corée', *ibid.*, XXIII (1934), pp. 5-23; Hattori, *op. cit.*, p. 137.

dichotomy between muddy and clear pitch sounds which he had sought to prove in his previous work.⁶⁸

Li Te-ch'i presented some materials on Manchurian sigillary letters which seem to me to have been influenced by the 'Phags-pa script.⁶⁹ Even after the fall of the Mongol Empire, the 'Phags-pa script was used in lamaist monasteries in Tibet and Mongolia for seals, so it is not surprising that the Manchurians who adopted the Uighur script with some modifications created sigillary letters by making their script square, and that the seal script would naturally resemble the 'Phags-pa script.⁷⁰

As far as seals are concerned, most of the 'Phags-pa seals recently discovered are written in either Chinese or Tibetan,⁷¹ but the silver seal of *Qan Olan-a ergügdegsen*, which was introduced by Rintchen,⁷² and which

⁶⁸ 'Letter shapes in Korean Önmun and Mongolian hPhagspa alphabet', *Oriens*, X (1957), pp. 150-9. Hope suggests that some letters of the Önmun alphabet such as *l*, *m*, *n*, etc. might have been modelled on the Tibetan *dbu-med* series rather than the *dbu-can* series.

⁶⁹ See Li Te-ch'i, 'Man-chou wen-tzu chih lai-yüan chi ch'i yen-pien', *PPTSK*, V, 6 (1931), plate 9 (= *lakiyaxa ulmengge fukjingga xergen* 懸針篆), plate 11 (= seal of of *Xan i boobai*) and plate 12 (= seal of *Forgon be badarambure boobai*).

⁷⁰ See Li Te-ch'i, *ibid*; L. Ligeti, 'A Propos de l'écriture mandchoue', *AOH*, II (1952), pp. 235-301. Besides, the official seal of the Dalai Lama shown in Walsh, 'Examples of Tibetan seals', pp. 5-4 is supposed to be a variant of the Uighur script, whose letter shape was made square, although this seal inscription is indecipherable.

⁷¹ On the seals in Chinese see W. Simon, 'A hPhags-pa seal of 1295', *AM*, n.s. VI (1958), pp. 203-5; E. Haarh, 'L'écriture 'phags-pa vraiment carrée des sceaux chinois des Yüan', *AO*, XXIV, 1-2 (1959), pp. 59-64; Ts'ai Mei-piao, 'Yung-chia fa-hsien Yüan-tai Meng-wen-yin k'ao-shih', *WWTK*, 89 (1958), pp. 42-3; S. Hasumi, 'Liang K'ai hitsu *Li Po Yin-hsing t'u* no Pasupa moji "Ta-ssu-t'u-yin" to A-ni-ko ni tsuite', *THG*, 35 (1968), pp. 83-97. On the seals in Tibetan see Francké, 'Ein Siegel in tibeto-mongolischer Schrift von Bhutan', 'Note on the Dalai Lama's seal', and 'Another version of Dalai Lama's seal'; Walsh, 'Examples of Tibetan seals' and 'Examples of Tibetan seals: Supplementary note'. The reproduction of two seals from a bank-note of the Ming dynasty shown in Walsh, 'Examples ...', p. 13, and another example from a bank-note which is illustrated in H. B. Morse, *Trade and Administration of Chinese Empire* (London: Ketly and Walsh, 1908), plate facing p. 141 are not written in 'Phags-pa (or Tibetan seal-) script but in Chinese characters, although Walsh suggests they are written in the Tibetan seal-script.

⁷² 'A propos de la sigillographie mongole...', *AOH*, III (1953), pp. 25-31, esp. see p. 30 (= plate of this seal). The 'Phags-pa part of this seal is also written in Tibetan (*Bstan-srid zun-'brel 'dzin-byed ñi-'od-can rje-rgyal-po'i tha-ma-ka*).

is written in the Soyombo,⁷³ Uighur and 'Phags-pa scripts, is worthy of note.

G.L.M. Clauson, who had already contributed to this field in collaboration with S. Yoshitake,⁷⁴ clarified the phonetic value of each letter of the 'Phags-pa script in Chinese documents by using the thirty-six *tsu-mu* (initials) and some Mongolian inscriptions.⁷⁵ P. B. Denlinger also tries to clarify the phonetic value of each letter of the 'Phags-pa script in the *MKTY* in comparison with Ligeti's treatment of the *PCH*.⁷⁶ Some mistakes in both Clauson and Denlinger's articles will be discussed later.

The most recent contributions have been made by Y. Ozaki, P. Aalto, T. Keiya, Cheng Tsai-fa, and myself and, except for Aalto, all have dealt with the *MKTY* from the viewpoint of Chinese historical phonology. Ozaki maintained that the manuscript of the *MKTY* held in the British Museum was written during the Ch'ien-lung reign (1736-95), basing his argument on the evidence of tabu characters, a Chinese philological tradition to prevent identification with emperors' names. Ozaki then mainly discussed the meaning of a certain passage in Chu Tsung-wen's preface to the *MKTY*, and suggested that in the thirteenth century the *ki*-series had already undergone palatalisation.⁷⁷

As far as I know, no 'Phags-pa seal written in Mongolian has been found except two Tibeto-Mongol seals. See G. L. M. Clauson, 'A Mongolo-Tibetan seal', *JRAS*, 1929, pp. 117-19.; J. R. Krueger, 'Three Oirat-Mongolian Diplomatic Documents of 1691', *CAJ*, XII, 4 (1969), pp. 286-95.

⁷³ On the Soyombo script, see Rintchen, op. cit. and 'Zwei unbekannte mongolische Alphabete aus dem XVII. Jahrhundert', *AOH*, II (1952), pp. 63-7+1 table+ 1 plate; G. Kara, 'Un texte mongole en écriture *soyombo*', *AOH*, IX (1959), pp. 1-38; Yuyama, op. cit., p. 87.

⁷⁴ 'On the phonetic value of the Tibetan characters 𑖦 and 𑖧 and the equivalent characters in the *hPhags-pa* alphabet', *JRAS*, 1929, pp. 843-62 (cf. Hope, *Karlgren's Glottal Stop Initial*....., pp. 50-2, xi).

⁷⁵ 'The *hPhags-pa* alphabet', *BSOAS*, XXII (1959), pp. 300-23.

⁷⁶ 'Chinese in *hPhags-pa* script', *MS*, XXII (1963), pp. 407-33.

⁷⁷ 'Daiei Hakubutsukan-bon Mōkojiin sakki', *Jinbun*, VIII (1962), pp. 162-80. In this article Ozaki criticises A. Tōdō's hypothesis on palatalisation ('*Ki*-to *tsi*-no kondō wa 18 seiki ni hajimaru', *CG*, 94 (1960), pp. 1-3, 12). For further details on palatalisation in Chinese, see Tōdō, 'Development of Mandarin from 14c. to

Aalto, who discussed the Mongolian translation of the *Subhāṣitarat-nanidhi*, produced a brief but accurate sketch of the 'Phags-pa script in the Mongolian documents.⁷⁸

Keiya deals in great detail with the process of the extinction of the final consonants *-k*, *-t*, *-p* of the entering-tone in the *MKTY*.⁷⁹ An outline of his successful argument will be introduced later.

Cheng Tsai-fa gave a full account of textual criticism of the *Ku-chin Yün-hui Chü-yao* [古今韻會舉要] and *MKTY*.⁸⁰ He also provides useful materials for 'Phags-pa transcription, mainly textual criticism of 'Phags-pa spellings, in Chinese documents.⁸¹

I also have treated the sound system employed in the *MKTY*,⁸² but I have abandoned some ideas and developed others here.

The history of 'Phags-pa studies can thus be divided into three periods: the 1830s to the 1920s, the 1930s to the 1940s, and the 1940s to the present. When 'Phags-pa studies began in the last century, the three aspects in the Mongolian, Chinese, and Tibetan languages were completely confused, but they have been treated separately since the 1920s. In the future, however, as our studies progress, they should again be synthesised. It may be hoped, moreover, that materials for 'Phags-pa studies, epigraphs, seals, coins, etc. in Mongolian, Chinese, and Tibetan will be discovered and introduced. We may yet discover the original manuscript of the *MKTY*, or some other, hitherto unknown, rhyme dictionary.

19c.', AA, VI (1964), pp. 38-46.

⁷⁸ 'Quadrat-Inschriften', *Mongolistik* (= *Handbuch der Orientalistik*, Band V, Abschnitt II) (Leiden/Köln, 1964), pp. 104-7. Also see his 'Zu den Berliner Turfan-Fragmenten T III D 322', *JSFOu*, LXI, 6 (1959), pp. 3-21.

⁷⁹ 'Nisshō inbi shōshitsu no katei ni tsuite no ichi kasetsu, ...', *NDBKR*, XXXVII (1965), pp. 1-37.

⁸⁰ *Meng-ku Tzu-yün ken ken Pa-ssu-pa-tzu yu-kuan te yün-shu* (= *Kuo-li T'ai-wan Ta-hsüeh Wen-shih Ts'ung-k'an*, 15).

⁸¹ 'Pa-ssu-pa-tzu piao-chu Han-yü ts'ai-liao chiao-k'an-chi', *Symposium in Honor of Dr. Li Chi on his Seventieth Birthday*, Part II, pp. 933-1003+6 plates.

⁸² 'Mōkojiin no kenkyū, ...', *HDGGK*, XI (1964), pp. 15-37.

I
A BIOGRAPHY OF BLA-MA 'PHAGS-PA

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Edition: *Erh-shih-wu-shih* 二十五史 (Shanghai: K'ai-ming Shu-tien, 1936-7), vol. 8, pp. 454-5
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Author: Shao Yüan-p'ing 邵遠平
Date: 1720s.
Edition: .Sao-yeh Shan-fang 掃葉山房, 1795 ed., pp. 15a-b
3. *Hsin Yüan-shih* 新元史, fasc. 140, 'Shih-Lao chuan 釋老傳' (abbr. HYS)
Author: K'o Shao-min 柯劭忞
Date: 1919
Edition: *Erh-shih-wu-shih*, vol. 8, pp. 461-2
4. *Fo-tsu Li-tai T'ung-tsai* 佛祖歷代通載 (abbr. FLT), fasc. 21, 'Fa-ssu-pa] Hsing-chuang [發思八] 行狀' (abbr. HC)
Authors: Wang P'an 王磐 and others
Date: 1280(?)
Edition: *Taishō*, No. 2036, vol. XLIX, pp. 707b-c
5. Ibid., fasc. 22, 'Ti-shih tien-pei 帝師殿碑' (abbr. TSTP)
Author: Shih-yüan Tsung-chu 釋源宗主
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 Date : 1346
 Edition : *The Red Annals*, Part I (Gangtok : Namgyal Institute of Tibetology, 1961), fol. 22a
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 (2) Japanese : S. Inaba and H. Satō, *Hu-lan deb-ther—Chibetto Nendaiki* フウラン・テプテル——チベット年代記 (Kyoto : Hō-zōkan, 1964), pp. 117-9, 129-33
10. *Bod-kyi yul-du chos dañ cho-smra-ba ji-ltar byuñ-ba'i rim-pa deb-ther sñon-po*, short title *Deb-ther sñon-po* (*The Blue Annals*) (*Tōhoku*, No. 7036)
 Author : 'Gos-lo-tsa Gñon-nu-dpal
 Date : 1476-8
 Translation : G. N. de Roerich, *The Blue Annals*, Part I (= *Mono-graph Series of the Royal Asiatic Society of Bengal*, vol. VII) (Calcutta : The Society, 1949), pp. 210-12 (abbr. BA)
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Author : Nag-dbañ blo-bzañ rgya-mtsho (The Fifth Dalai Lama)

Date : 1643

Translation : G. Tucci, 'From the Fifth Dalai Lama's Chronicles', *Tibetan Painted Scrolls* (abbr. *TPS*), II (Roma : La Libreria dello Stato, 1949), pp. 625-51

12. *Dbus-gtsaṅ-gi gnas-rten rags-rim-gyi mtshan-byañ mdor-bsdus dad-pa'i sa-bon*

Author : Dge-bśes karma bkra-śis chos-'phel

Date : 1892

Translation : A. Ferrari, *Mk'yen brtse's Guide to the Holy Places of Central Tibet* (= *Serie Orientale Roma*, XVI) (Roma : Istituto Italiano per il Medio ed Estremo Oriente, 1958), text, pp. 1-33 ; translation, pp. 37-76

C. MONGOLIAN SOURCES

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Author : Saṅan Sečen Qong Tayiji

Date : 1662

Translations :

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- Author : Chos-kyi 'Od-zer
- Date of Mongolian tr. : 1723-35

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Author: Rasipungsur

Date: 1774-5

Text: *Bolor Erike* (= *Scripta Mongolica*, III) (Cambridge, Mass.: Harvard University Press, 1959), Part I, pp. 171-2; Part IV, pp. 121-2

16. *Hor-chos-byun*

Author: 'Jigs-med rig-pa'i rdo-rje

Date: 1819

Translation: G. Huth, *Geschichte des Buddhismus in der Mongolei. Mit einer Einleitung: Politische Geschichte der Mongolen*, II (Strasbourg: K.J. Trübner, 1896), pp. 118-36

§ 2. Sa-skya-pa—Ancestors of Bla-ma 'Phags-pa

Bla-ma 'Phags-pa was descended from the Sa-skya-pa clan of Tibet.¹ According to Tibetan chronicles, the earliest ancestor of this clan was Jo-bo 'Khon-par skyes ('The Lord Born Amidst Quarrels')² who was a son of gYa'-spañ skyes-gcig of Yar-klun-śar by Si-li-ma. 'Khon dpal-po-che, a son of Jo-bo 'Khon-par skyes, was appointed 'Confidential Minister' (*nañ-blon*) to King Khri-sroñ lde-btsan.³ He had four sons: Khri-mdzes lha-legs, Tshe-la dbañ-phyug, 'Khon klu'i dbañ-po bsrub-ba, and Tshe-'dzin.

¹ The Sa-skya-pa is one of the four largest Buddhist clans of Tibet (Rñiñ-ma-pa, Bka'-brgyud-pa, Dge-lugs-pa, and Sa-skya-pa) and occupied the south-west part of Gzís-ka-rtse. This clan was founded by Dkon-mchog rgyal-po in Sa-skya, west of Bkra-śis Lhun-po, in 1072. For further details, see *TPS*, I, pp. 81-93, 'The Sects'. On the geography of Tibet, see A. Ferrari, *op. cit.*, Map. A.

² *RA*, p. 170; *BA*, p. 210.

³ This passage perhaps corresponds to the following passage in Chinese sources; *TSTP* says: 'In ancient Tibet, there lived a "National Preceptor" (*kuo-shih*) Ch'an-heng-lo-chi-ta 禪恒羅吉達 (*HC*, Ch'an-t'a-lo-chi-ta 禪恒羅乞答), who gained an accurate knowledge [of Buddhism] and had miraculous powers. Each generation [of his descendants] has successively conducted itself in the correct [Buddhist] way. The kings [of Tibet] have for generations respected them as preceptors.' Ch'an-heng (or t'a)-lo-chi-ta in the Chinese sources cannot be identified. Prior to the above passage, these sources state: 'After about seventeen generations, [his

The descendants of Rdo-rje rin-po-che,⁴ a son of Tshe-'dzin, were Śes-rab yon-tan, Yon-tan 'byuñ-gnas, Tshul-khrims rgyal-po, Rdo-rje gtsug-tor, Dge-skyabs, Dge-mthoñ, Bal-po, and Śākya blo-gros. They were all well versed in the Old Tantric texts. Śākya blo-gros had two sons: the elder, Śes-rab tshul-khrims, became a monk; the younger, Dkon-mchog rgyal-po, who was born in the year Wood-Male-Dog (*śin-pho-khyi*, i.e. 1034),⁵ founded the monastery of Sa-skya in the year Water-Male-Mouse (*chu-pho-byi-ba*, i.e. 1072).⁶ Dkon-mchog rgyal-po's son, Sa-chen Kun-dga' sniñ-po, was born in the year Water-Male-Ape (*chu-pho-spre'u*, i.e. 1092), and learned the doctrine from 'Jam-dbyaṅs (Skt. Mañjuṣa), Bir-wa (Skt. Virūpa) and others.⁷ Sa-chen had four sons: in order of age, Kun-dga' 'bar,⁸ Slob-dpon rin-po-che Bsod-nams rtse-mo, Rje-btsun Grags-pa rgyal-mtshan, and Dpal-chen 'od-po.

Of the sons of this last, the eldest was Sa-skya paṇḍita Kun-dga' rgyal-mtshan dpal-bzañ-po,⁹ who was born in the year Water-Male-Tiger

family] arrived at Sa-ssu-chia-wa 薩斯加哇 (Sa-skya paṇḍita).' But reckoning seventeen generations backwards from Sa-skya paṇḍita, we find no trace of his ancestors in the Tibetan chronicles.

⁴ YS states: 'Legend says that more than ten generations ago, ['Phags-pa's] ancestor To-li-ch'ih 朵栗赤 helped the kings [of Tibet] to conquer the West (Tibet) by the [Buddhist] law.' To-li-ch'ih in the above quotation must be identified as Rdo-rje [rin-po-che].

⁵ As to the Tibetan and Mongolian chronology, see K. Grønbech and J. R. Krueger, *An Introduction to Classical (Literary) Mongolian* (Wiesbaden: O. Harrassowitz, 1955), pp. 102-6; P. Poucha, 'Mongolische Miszellen. VII: Innerasiatische Chronologie', *CAJ*, VII (1962), pp. 192-204; C. Vogel, 'On Tibetan Chronology', *CAJ*, IX (1964), pp. 224-38; L. Petech, 'The Dalai-Lamas and Regents of Tibet: A Chronological Study', *TP*, XLVII (1959), pp. 368-94.

⁶ BA (p. 210) states that this was in the year Water-Female-Ox (*chu-mo-glañ*, i.e. 1073).

⁷ BA makes no mention of this.

⁸ BA (p. 211) states: 'Kun-dga' 'bar went to India, was a learned man, and died in India at the age of 22.'

⁹ BA mentions his name as Sa-skya paṇ-chen (Kun-dga'-rgyal-mtshan). *FLT*, fasc. 22 (*Taishō*, No. 2036, vol. XLIX, p. 725c) states: 'When Shih-tsu 世祖 (Qubilai) was still in the Heir Apparent's Palace, hearing about Ch'o-li-che-wa 綽理哲瓦 (Tib. Chos-rje-ba) in the West (Tibet).' *Hor-chos-byuñ* mentions his name as Dharma-svāmin ('Master of the Law') which corresponds to the Tibetan Chos-

(*chu-pho-stag*, i.e. 1182).¹⁰ He learned the five *vidyās*¹¹ under the guidance of Paṇ-chen Śākyaśrībhaddra and many other learned men.¹² Having given Bla-brañ śar-pa to Śer-'byuñ, he founded Bži-thog and lived there.¹³ Prince Godan of Mongolia, who was suffering from leprosy, dispatched an envoy named Doorda Darqan¹⁴ and requested him to come to

rje-ba (Huth, p. 141) (cf. *Mahāvvyutpatti*, No. 18). According to *VDL*, 'he (Sa-skyapaṇḍita) received the rules of perfect investiture with the great Kashmiri paṇḍita Śākyaśrībhaddra, and adding the abbot's title to his name of Kun-dga' rgyal-mtshan, he puts: dpal-bzañ-po (=śrī-bhaddra) after his name.' (*TPS*, II, p. 626a)

¹⁰ In his translation of the *Hor-chos-byuñ* Huth (p. 118) miscalculates the year of Sa-skyapaṇḍita's birth as A.D. 1181, which is now to be amended to A.D. 1182. See P. Pelliot, 'Le cycle sexagénaire dans la chronologie tibétaine', *JA*, mai-juin, 1913, pp. 633-67, esp. 655-7.

¹¹ See *Mahāvvyutpatti*, Nos. 1554-9, i.e. *Śabda-vidyā* (*sheng-ming* 聲明 = phonology), *hetu-vidyā* (*in-ming* 因明 = logics), *adhyātma-vidyā* (*nei-ming* 內明 = philosophy), *cikitsā-vidyā* (*i-ming* 醫明 = medicine), and *śilpa-(kasma-)sthāna-vidyā* (*kung-(ch'iao)ming* 工(巧)明 = arts). The Mongolian source *EYT* also mentions this as *tabun uqa;an* (Schmidt, p. 110, line 14), which is translated as 'fünf Wissenschaften' (Schmidt, p. 111), '*wu-shih* 五識' (*Chien-cheng*, vol. 4, p. 172), and '*gorui no gaku* 五類の學' (Gē, p. 70). *YS* states: '[Phags-pa] was very intelligent and comprehended the *wu-ming* 五明 (five *vidyās*, cf. *Mahāvvyutpatti*, No. 1554) from childhood; so thus he was also called Pan-mi-t'a 班彌怛.' This passage in the *YS* is very likely a mistaken account of Sa-skyapaṇḍita taken from Tibetan chronicles or legends. Pan-mi-t'a, which seems to correspond to the Skt. paṇḍita, is not 'Phags-pa's title but that of Sa-skya Kun-dga' rgyal-mtshan. G. Pauthier takes Pan-mi-t'a in the *YS* as equivalent to the Skt. pāramita ('De l'alphabet de Pa'sse-pa, ...', p. 10, n. 2). There have been some cases of confusion between Sa-skyapaṇḍita and 'Phags-pa, which have probably arisen on account of this passage in the *YS*; for example an annotation added to the *Chien-cheng* (vol. 4, p. 172, 6-9) mistakenly declares a biography of Sa-ska paṇḍita in the *TSNP* to be that of 'Phags-pa, and gives Sa-skyapaṇḍita's title as Pa-ke-pa Pa-la-mi-t'e 帕克巴巴喇密特 ('Phags-pa pāramita). 巴喇密特 can only be taken as pāramita-, but it seems to be a confusion of paṇḍita- with pāramita- made by the Chinese, as shown in pan-mi-t'a (paṇḍita-/pāramita-).

¹² *EYT* states that Sa-skyapaṇḍita went to India (Mong. *Eneckege*) to study under Paṇ-chen Śākyaśrībhaddra. But, in fact, he did not go to India. In 1208 he became a student of Paṇ-chen Śākyaśrībhaddra, who was in Tibet between 1204 and 1214 (see n. 9). For further details, see Okada, op. cit., p. 101.

¹³ See *RA*, p. 108; Ferrari, op. cit., p. 150, n. 500.

¹⁴ See Schmidt, p. 111; *TPS*, I. p. 9a-b. His Tibetan name is Rdo-rta-nag, and he attacked Tibet in 1240.

Mongolia.¹⁵ This was just as had been previously prophesied by Rje-btsun Grags-pa rgyal-mtshan, who said:

At some later age, from the North, a man whose language is different, wearing a hat which looks like a falcon flying and putting on shoes like the nose of a hog, will issue an invitation and render service to the teaching.¹⁶

When Sa-skyā paṇḍita was aged sixty-three, in the year Wood-Male-Dragon (*sin-pho-'brug*, i.e. 1244),¹⁷ he started towards the North with his two nephews, 'Phags-pa and Phyag-na.¹⁸ They reached Liang-chou 涼州 in the Horse year (*ria*, i.e. 1246).¹⁹ Prince Godan returning from the 'Great Conference' (Mong. *quriltai*) and the Coronation of Güyük Qan (Tib. Go-yug),²⁰ met Sa-skyā paṇḍita in the Sheep year (1247).²¹ He carved an image of Avalokiteśvara Bodhisattva Siṃhanādin²² and gave a

¹⁵ See Schmidt, p. 111. This passage suggests the Prince Godan cordially invited Sa-skyā paṇḍita. But in fact, the Mongolian court threatend Sa-skyā paṇḍita saying that if he did not go to Mongolia, the Mongols would have to attack Tibet. See *TPS*, I. p. 9; Okada, op. cit., pp. 97-9.

¹⁶ *RA*, p. 108. This episode is also mentioned in *EYT*, *Bolor Erkike* and *Jirüken-ü Tolta*. See Okada, *ibid.*, pp. 100-6.

¹⁷ *BA* (p. 211) states: 'At the age of 63 in the year Wood-Male-Dragon (1244) he visited the Emperor (i.e. Godan in Kan-su)'.

¹⁸ *RA*, p. 109; *BA*, p. 212. Chinese sources do not mention Phyag-na.

¹⁹ *EYT* mentions the years of Sa-skyā paṇḍita's departure from Tibet and meeting with Godan, but does not record the year of his arrival in Mongolia. On Liang-chou, see n. 32.

²⁰ See 'Ting-tsung pen-chi 定宗本紀' of *YS*; i.e. 'In the first year [of Ting-tsung] (1246), autumn, seventh month, [Ting-tsung] mounted the Imperial throne.' Ting-tsung corresponds to Güyük Qan. *EYT* makes a miscalculation, ascribing the reigns of each Qan as follows:

<i>EYT</i>		real reign
1189-1227	Činggis Qan	1206-1227
—	Tului (Prince Regent)	1228
1227-1233	Ögedei Qan	1229-1241
—	(Queen of Ögedei)	1242-1245
1233	Güyük Qan	1246-1248
1234-1251 (Godan Qan)	(Queen of Güyük)	1249-1250
1252-1260	Möngke Qan	1251-1260
1260-1294	Qubilai Qan	1260-1294

²¹ This accords with the description in *EYT*. *BA* gives no mention of this.

²² *EYT* (Schmidt, p. 113). In Schmidt's text, this is mentioned as *Arslan*

consecration to Prince Godan. Sa-skya paṇḍita gained the highest rank of the servants of Heaven, and propagated Buddhism throughout Mongolia.²³ At the age of seventy, in the year Iron-Female-Hog (*lcags-mo-phag*, i.e. 1251), he passed away in the North.²⁴

§ 3. Bla-ma 'Phags-pa

Sa-skya paṇḍita's youngest brother was Zaṅs-tsha bsod-nams rgyal-mtshan,²⁵ born in the year Wood-Male-Dragon (*śiñ-pho-'brug*, i.e. 1184). He had two sons by his wife Jo-mo dkon-mchog-skyid; 'Gro-mgon 'Phags-pa Blo-gros rgyal-mtshan and Mña'-bdag phyag-na rdo-rje. He also had a daughter Slob-dpon-ma mdo-sde and a son Slob-dpon Rin-chen rgyal-mtshan by another wife Jo-mo 'bro.²⁶ Zaṅs-tsha died at the age of fifty-six in the year Earth-Female-Hog (*sa-mo-phag*, i.e. 1239).

'Phags-pa was born in the year Wood-Female-Sheep (*śniñ-mo-lug*, i.e. 1235).²⁷ When he was seven years old, he was already able to recite a few hundred thousand words of scriptures and to understand their con-

Daquda Qomsim Bodhisatu, in which *Qomsim* is a Mongolian corruption of Chinese *kuan-shih-yin* 觀世音 (the character 音 was pronounced *yim* in the Yüan period) [In Mongolian, the final *m* sometimes alternates with *n*. See N. N. Poppe, *Introduction to Mongolian Comparative Studies* (= *Suomalaise-Ugrilaisen Seuran Toimituksia*, 110) (Helsinki: Société Finno-Ougrienne, 1955), p. 101.]. The *Chien-cheng* (p. 173, line 10) translates this as 獅吼觀音 which corresponds to the Skt. original term, but Schmidt does not transcribe the whole Mongolian term but only *Chongschim Bodhisatwa* (p. 113). Cf. *Mahāvīyutpatti*, No. 685.

²³ Sa-skya paṇḍita is said in the *Hor-chos-byun* to have created a new Mongolian script between 1247 and 1251 (Huth, pp. 133-4). See 'Introduction'.

²⁴ *VDL* states the place of his death as Sprul-pa'i-sde (*TPS*, II, p. 626a). *BA* (p. 511) says that Sprul-pa'i-sde is one of the four monasteries in the vicinity of Liang-chou. According to Roerich ('Mun-mkhyen Čhos-kyi *hod-zer* and the origin of the Mongolian alphabet', p. 54), Sprul-pa'i-sde was situated east of Liang-chou, and the *stapa* (*sku-gduñ mchod-rten*) containing his mortal remains is still preserved in the semi-ruined monastery.

²⁵ His name is mentioned in *TSNP* as So-nan-kan-tsang 峻南紺藏 which corresponds to [Zaṅs-tsha] bsod-nams rgyal-mtshan. (The character 南 was pronounced as *nam* in the Yüan period.)

²⁶ *BA* makes no mention of his wives and daughter.

²⁷ *YS* and *HC* do not state the year of his birth. But *TSNP* says: '[he] was born on the thirteenth day of the fourth month in the year of *Chi-hai* 己亥 (1239)', and this accords with the following passages; *YS*, 'In the year *Kuei-ch'ou* 癸丑 (1253),

tent.²⁸ People called him an infant genius, so he was named 'Phags-pa.²⁹ He was also called Pan-mi-t'a 班彌怛.³⁰

In 1244, at the age of ten,³¹ he and his younger brother Phyag-na followed their uncle, Sa-skya paṇḍita, in his journey to the North. They reached Liang-chou 涼州.³² Since Sa-skya paṇḍita met Prince Godan in 1247 and became a monk of the highest rank, 'Phags-pa is supposed to have remained in Liang-chou even after the death of his uncle in 1251.

when he was fifteen years old, ...'; *HC*, 'In the year *Keng-shen* 庚申 (1260), he was twenty-two years old, ...' According to Chinese sources, the year of 'Phags-pa's birth was very likely 1239. Inaba follows this (*RA*, p. 116, n.38 'Gen no teishi ni kansuru kenkyū, ...', *ODKN*, XVII (1964), p. 102). However, according to the *RA* and *BA*, Zaṅs-tsha bsod-nams rgyal-mtshan, 'Phags-pa's father, died in 1239. Moreover, Mṅa'-bdag Phyag-na rdo-rje and Slob-dpon Rin-chen rgyal-mtshan, 'Phags-pa's younger brothers, were born in 1239 and 1238 respectively. If only Chinese sources are followed, the years given for his father's death and his brothers' births would lack consistency, unless 'Phags-pa and Phyag-na were twins and Rin-chen was elder-step-brother of 'Phags-pa. Therefore I prefer to follow the Tibetan sources. *EYT* also gives the year of his birth as 1235 (Schmidt, p. 115).

²⁸ See *YS*. *TSNP* states: '[When he was] seven years old, [his] comprehension of the [Buddhist] laws and expansion of [Buddhist] knowledge had [already been] completed.'

²⁹ In the Chinese sources, the name 'Phags-pa is transcribed as Pa-ssu-pa 八思巴 (*YS*), Pa-ho-ssu-pa 八合斯八 (*YS*, 'Shih-tsu pen-chi 世祖本紀'), Fa-ssu-pa 發思八 (*HC*, *Shih-chien Chi-ku-lueh hsu-chi*), Pa-ssu-fa 拔思發 (*TSTP*), Pa-ho-ssu-pa 拔合斯八 (*TSNP*), etc. The word 'Phags-pa originally means the 'distinguished', 'excellent', 'glorious' and refers to 'holy persons, things, places, etc; title of saints, and teachers of religion' (H. A. Jäschke, *A Tibetan-English Dictionary*, p. 355b), which corresponds to the Skt. *ārya*-. See n. 11.

³⁰ *YS*. This is supposed to correspond to the Skt. *paṇḍita*. See n. 11.

³¹ *BA*, p. 212. *RA* (p. 108) states: 'At the age of 9, he proceeded to the North in the retinue of his uncle.' 'Phags-pa was born in 1235; therefore in 1244 he should have been in his tenth calendar year.

³² *Hor-chos-byun* (Huth, p. 133) states: 'Er (Sa-skya paṇḍita) begab sich daher im 65. Lebensjahre, (männlichen) Feuer-Pferde-Jahre (1245) [read 1246], nach dem grossen Palaste Lan ju.' But Roerich (op. cit., p. 53) states: '... Tibetan transcriptions Lan-ju ~ Lañ-gru (pron. Lan-d'u) ~ Lyañ-ju stand for Liang-chou in Kansu, in the vicinity of which still stands the ruined monastery of Sprul-pa'i-sde, the former residence of the Sa-skya paṇḍita.' Moreover, *FLT*, fasc. 22 (*Taishō*, XLIX, p. 725c, line 23ff.) states: 'When Shih-tsu (Qubilai) was still in the Heir Apparent's Palace, hearing about Ch'o-li-cho-wa 綽理哲瓦 (Tib. Chos-rje-ba) in the West (Tibet), ... he dispatched an envoy to Hsi-liang 西涼 (=Liang-chou), where the King Godan was

In 1253, when 'Phags-pa was aged nineteen,³³ Prince Qubilai dispatched an envoy to Prince Godan in Liang-chou, and asked to see Sa-skya paṇḍita. As Sa-skya paṇḍita had already passed away, Prince Godan recommended 'Phags-pa to Qubilai.³⁴ Prince Qubilai sent an escort of one hundred Mongolian cavalymen to Liang-chou.³⁵ Thus, 'Phags-pa was received in audience by Prince Qubilai at his Palace in Lu-pa'i-śan.³⁶ From that time on, Prince Qubilai and 'Phags-pa were closely associated, the one as material patron, the other as spiritual guide and refuge (*mchod*). He gave the consecration of *Kei Vačir* to Qubilai.³⁷ In the year Wu-wu 戊午(1258), when 'Phags-pa was twenty-four years old, he attended a big conference between Buddhists and Taoists to engage in polemical discussion of the books *Hua-hu-ching* 化胡經 and some others.

living.' Sa-skya paṇḍita is supposed to have stayed with Godan after meeting him. Therefore, Lan-ju in the *Hor-chos-byun* is probably a mistake for Liang-chou.

³³ YS states: 'In the year *Kuei-ch'ou* 癸丑 (1253), when ['Phags-pa] was fifteen years old, [he] was received in audience by Shih-tsu (Qubilai).' If the year of his birth was 1235, he should have been in his nineteenth calendar year. BA gives his age in 1253 as eighteen.

³⁴ See FLT, fasc. 22 (*Taishō*, XLIX, p. 725c, line 25ff.).

³⁵ See RA, p. 108.

³⁶ Inaba does not identify this place name in the RA or in his Japanese translation (in collaboration with H. Satō). This is supposed to be a Tibetan corruption of Liu-p'an-shan 六盤山, southwest of Ku-yüan 固原 prefecture in Kansu province. The 'Shih-tsu pen-chi' in the YS (*Erh-shih-wu-shih* ed. vol. 8, p. 11d) states: 'In the year of Chia-yen 甲寅 (1254), on the date *Keng-tzu* 庚子 of the fifth month, [Qubilai] stayed at Liu-p'an-shan.' In the Tibetan documents, the Chinese character 六 is normally transcribed as *lug* which corresponds to the AC *liuk*. So it is possible that the Tibetans transcribed this character as *lu* after dropping the final consonant *-k* in Mandarin. *Pa'i* is a genitive form of *pa*. It is supposed to have been influenced by the Tibetan nominal or verbal suffix *-pa* (*-ba*) or by the north-western dialect of Chinese *p'an*. See B. Csongor, 'Some Chinese texts in Tibetan script from Tun-huang', AOH, X (1960), No. 304 in 'Index' (喚, AC *xuan*; Tib. trsc. *hwan*, *hwa*). (But it is difficult to be sure whether this accords with 'Lu-pe śan (Liu-pin shan)' (BA, II, p. 505).

³⁷ According to the EYT, the first meeting was not very friendly; in 1264 Qubilai's queen, Qubilga Čambui Gooa, suggested to Qubilai Qan that Mati Dhuvajwa (see n. 52) (Skt. *Mati-dhvaja*) should succeed to the post of Bla-ma (Mong. *bogda*), and that the Qan should receive the *Kei vačir-u abisig* (=Skt. *hevajrābhiṣeka*); Mong. *kei-vačir*=Skt. *he-vajra*-[Tib. *kye-rdo-rje*, or *dgyes*°]: Mong. *kei*, Tib. *kye*, *dgyes* =Skt. *he* '(interj.) oh!' *vačir*=Skt. *vajra*-[Tib. *rdo-rje*] 'thunderbolt' [*hevajra*.,

Möngke Qan commanded 'Phags-pa to analyse the discrimination of right or wrong laid down in those books. The Taoists could not continue the argument and were eventually defeated.³⁸

In the first year of the Chung-t'ung 中統 reign (1260), Qubilai Qan ascended the throne. 'Phags-pa was appointed *kuo-shih* 國師 (National Preceptor) and was invested with a jade-seal.³⁹ Thus, 'Phags-pa formally

name of a Tāntric deity or a work] ; Mong. *abisig*=Skt. *abhiṣeka*. 'consecration' [Tib. *dbaṅ-bskur-ba*] (cf. *Mahāvvyutpatti*, No. 4306 金剛灌戒(金剛灌頂); also F.D. Lessing, *Mongolian-English Dictionary*, pp. 4b and 1174a). The Qan agreed with her, but objected to sitting under 'Phags-pa to receive this consecration, but finally consented to do so. Furthermore, when the Qan and 'Phags-pa discussed the *tantra* of *Kei-vačir* (*hevajra-tantra*, see above), 'Phags-pa could not understand the words of the Qan, who kept the only scroll of it. In the night Mahākāla's apparition (see *Mahāvvyutpatti*, No. 3162) brought this scroll to 'Phags-pa. On the next day, the Qan could not equal him in argument. Thus Qubilai Qan came to respect him. For further details, see Schmidt, pp. 114-7.

³⁸ See *HC* which states: 'In the year of *Wu-wu* (1258), when he was twenty [read twenty-four] years old, Buddhists and Taoists discussed on the *Hua-hu-ching*. Hsien-tsung 憲宗 (Möngke Qan) commanded them to analyse the right or wrong [of this book]. The Taoists could not reply.' For this argument between Buddhists and Taoists, details are given in the *Pien-wei lu* by Hsiang-mai. In 1222 Činggis Qan invited to his court Ch'ang-ch'un chen-jen 長春真人 (Ch'i'u Ch'u-chi 丘處機, 1148-1227), a famous patriarch of the Ch'üan-chen 全真 sect of Taoism. Therefore, the Taoists, mainly followers of Ch'ang-ch'un chen-jen, had continuously attacked the Buddhists; destroying nearly five hundred Buddhist monasteries and changing them into Taoist shrines. Conversely, the Buddhists also burnt Taoist apocrypha and recaptured monasteries occupied by the Taoists. Möngke Qan issued an edict prohibiting the Taoists' subversive activities against Buddhism, but it was of no effect. According to the *Pien-wei lu*, in the year of *Ting-ssu* 丁巳 (1256), Möngke Qan convened several hundred representatives of the Buddhists, Confucians, and Taoists in the Palace. 'Phags-pa also attended this conference (*Taishō*, LII, 771a, line 7ff.) and asked the Taoists to explain the essence of Taoism and its miracles (*Taishō*, LII, 771c, line 16-772a, line 3). After the conference, Möngke Qan again issued an edict saying that Taoists apocrypha such as the *Hua-hu-ching*, *Pa-shih-i-hua-t'u* 八十一化圖, etc. should be burnt. For further details, see, for example, the following works: Li Chih-ch'ang 李志常 *Ch'ang-ch'un chen-jen Hsi-yu-chi* 長春真人西遊記 (1228) (Wang Kuo-wei 王國維, *Hai-ning Wang Ching-an hsien-sheng I-shu* 海寧王靜安先生遺書, fasc. 39); Yeh-lü Ch'u-ts'ai 耶律楚材, *Hsi-yu-lu* 西遊錄 (1228) (Lo Chen-yü 羅振玉 ed. based on the Kanda Ki-ichirō 神田喜一郎 ed., 1927); Ts'ai Mei-piao, *Yüan-tai Pai-hua-pei Chi-lu* (Peking, 1955), pp. 101-6; S. Nogami, 'Gendai Dō-Butsu nikyō no kakushitsu', *ODKN*, II (1943), pp. 213-75.

³⁹ *YS* ('Shih-tsu pen-chi') states: 'On the twelfth month of the first year of Chung-

started to control Buddhism in Mongolia. In 1265 he returned to Tibet,⁴⁰ but in 1268, he was again invited to Mongolia.⁴¹ Having been commanded by Qubilai, 'Phags-pa invented a Mongolian script and presented it to the throne.⁴² This new script was promulgated by Imperial decree in

t'ung, ... Shih-tsu (Qubilai) appointed the Tibetan priest Pa-ho-ssu-pa 八合思八 ('Phags-pa) to [the position of] *ti-shih* 帝師.' *Ti-shih* in this quotation should be corrected to *kuo-shih*. The *RA* (p. 108) gives no accurate account of the years of his appointments to *kuo-shih* and *ti-shih*. The *BA* (p. 212) also mistakenly states: 'when Se-chen (Qubilai) had ascended the imperial throne, he ('Phags-pa) became Imperial Preceptor', and the *VDL* (*TPS*, II, p. 626b) follows this. *HC* and *TSNP* state: '[Qubilai who] respected ['Phags-pa] appointed him *kuo-shih*, and invested him with a jade-seal. [Also Qubilai] appointed him *Chung-yüan fa-chu* 中原法主.' This title, *Chung-yüan fa-chu*, probably corresponds to the Tibetan *rgyal-khams-kyi bdag-po* (*RA*, Namgyal Institute ed. fol. 22a, line 5; *RA*, p. 108 translates this as the Chief Preceptor of the Kingdom). *EYT* states that Qubilai, who received four consecrations from 'Phags-pa, gave him the title *Sang sing tai wang kuosiri* (Chin. *San-hsing ta-wang kuo-shih* 三省大王國師; Tib. *kham-gsum chos-rje rgyal-po bla-ma 'phags-pa*; Mong. *Gurban gajar daki nom-u gayang ulemji blama*) (Schmidt, pp. 116-17; Gō, p. 74; Krueger, p. 76. Krueger's *hsing hsing tai wang kuo-shiri* must be corrected to *san hsing*...). The presents which 'Phags-pa received from Qubilai listed in the *EYT* accord with those in *VDL* (*TPS*, II, p. 626b).

⁴⁰ See *BA*, p. 212. *HC* gives no accurate account of the year of his return to Tibet.

⁴¹ See *BA*, p. 212.

⁴² It is difficult to ascertain the year in which the 'Phags-pa script was invented. *YS* states: 'In the first year of the Chung-t'ung reign (1260), ...Qubilai appointed him *kuo-shih*, ...[Qubilai] commanded 'Phags-pa to invent a new script. He did so and presented it to the throne. This script includes about a thousand words and consists of forty-one [alphabetical] signs....In the sixth year of the Chih-yüan reign (1269), [this new script] was promulgated by Imperial decree.' On the other hand, *HC* and *TSNP* state: 'In the seventh year of the Chih-yüan reign (1270), [Qubilai] commanded him to invent a Mongolian script. He was absorbed in tracing lines, [and after a few days (*TSNP*)] he completed it. [This script] satisfied [Qubilai's] intention, and was immediately promulgated by Imperial decree.' The date of the promulgation of the 'Phags-pa script was possibly the second month of the year *Chi-ssu* 己巳 (March/April, 1269) as *YS* ('Shih-tsu pen-chi') and *FLT*, 21 (*Taishō*, XLIX, 705b, lines 3-4) state. Ts'ai Mei-piao (*Yüan-tai Pai-hua-pei Chi-lu*, pp. 23-4, n. 1; *Pa-ssu-pa-tzu yü Yüan-tai Han-yü*, p. 9) maintains that this script is supposed to have been tentatively used in 1268, because *The Edict of Chou-chih Ch'ung-yang Wan-shou-kung* 整屋重陽萬壽宮聖旨碑 in the 'Phags-pa script is dated the year of Dragon, which corresponds to 1268. But this cannot be cited as evidence because it is quite possible that the epigraph dated 1268 was actually carved after 1269. *VDL* states: 'He ('Phags-pa) returned to the imperial

1269.⁴³ 'Phags-pa was promoted to *ti-shih* 帝師 (Imperial Preceptor) and was given a title of *ta-pao fa-wang* 大寶法王.⁴⁴ Qubilai again invested him with a jade-seal.

Then he again returned to Tibet,⁴⁵ and in the eleventh year of Chih-yüan reign (1274), Qubilai dispatched an ambassador to invite him. At the end of this year, 'Phags-pa arrived at the capital. In the year Fire-Male-Mouse (*me-pho-byi-ba*, i.e. 1276), he again returned to his monastery.⁴⁶ In 1277 he held a religious assembly at Chu-mig, and rendered perfect religious service to about hundred thousand men.⁴⁷ In the year Iron-Male-Dragon (*lcags-pho-'brug*, i. e. 1280),⁴⁸ on the twenty-second day

palace and since he had submitted a specimen of an alphabet representing a new method of learning the Mongolian writing, the king conferred upon him the supreme diploma of "*ban-de* progeny of Manu (*sed-skyes*)" (TPS, II, p. 626a). This passage in the VDL is the only Tibetan source for assigning the invention of the Mongolian script to 'Phags-pa.

⁴³ The French and English translations of this decree quoted in the YS are given by Pauthier (op. cit., pp. 12-15) and Poppe (*The Mongolian Monuments*, ...p.5).

⁴⁴ His promotion to *ti-shih* is supposed to have taken place just after the promulgation of the new Mongolian script. YS gives no mention of this title.

⁴⁵ No account of the year of his returning to Tibet at this time is given in the sources.

⁴⁶ HC states: 'In the year of *Chia-shu* 甲戌 (1274), he was thirty-six [read forty] years old. This year was in the eleventh year of the Chih-yüan reign. The Emperor [Qubilai] dispatched an ambassador to invite him. At the end of this year, he arrived at the capital.' TSNP also follows this. But YS states: 'In the eleventh year [of the Chih-yüan] (1274), 'Phags-pa petitioned [the throne] for sanction to return to the West (Tibet). [Qubilai] urged him to stay [at his post], however, he refused [Qubilai's request].' It is difficult to conclude when he finally returned to Tibet, because BA ascribes the date for this as 1276. If we follow both the Chinese and Tibetan sources (e.g. BA, p. 212), 'Phags-pa returned to Tibet some time after 1270, and came to Mongolia in 1274, again returning to Tibet in 1276. In addition, EYT gives the date of his return to Tibet as 1280 (Schmidt, p. 119), but this is evidently incorrect.

⁴⁷ BA, p. 212; VDL (TPS, II, p. 627a). As to Chu-mig, Ferrari, op. cit. (p. 62) states: 'Near Snar-thaṅ is Chu-mig rin-mo of Gtsaṅ, which formerly was reckoned in the series of the great Bka'-gdams-pa monasteries; it is the place where 'Phags-pa Rin-po-che assembled a great council. But nowadays it is a village of laymen.'

⁴⁸ Only the YS gives the year of his death as the sixteenth year of Chih-yüan reign (1279). Other Chinese sources accord with the Tibetan sources.

of the eleventh month,⁴⁹ 'Phags-pa passed away aged forty-six⁵⁰ in the Lha-khañ bla-brañ.⁵¹

Qubilai Qan, being informed of his death, was deeply grieved, providing his burial expenses and granting him a posthumous title.⁵² Qubilai also built a great *stūpa* dedicated to 'Phags-pa in the capital to enshrine his relics.⁵³

During the Chih-chih 至治 reign (1321-3), Gegen Qan issued an Imperial edict that shrines should be dedicated to 'Phags-pa in each district and prefecture. In the first year of the T'ai-ting 泰定 reign (1324), Yesün-temur Qan further commanded that eleven portraits of 'Phags-pa should be distributed to each province in his honour.⁵⁴

⁴⁹ See *HC* and *TSNP*.

⁵⁰ *HC* naturally gives the age of his death as forty-two. See n. 27.

⁵¹ See *VDL* (*TPS*, II, p. 627a).

⁵² His posthumous title is '皇天之下，一人之上，開教宣文，輔治大聖，至德普覺，眞智佑國，如意大寶法王，西天佛子，大元帝師，[班彌坦 *HC*] 八思巴' (*YS*). This seems to correspond to the title in *VDL* (*TPS*, II, p. 627a): 'divine son (Devaputra) of India below the sky and upon the earth, inventor of the alphabet, incarnated Buddha, maintainer of the kingdom's prosperity, source of rhetoric, Pañḍita 'Phags-pa, master of the Emperor.' According to *FLT*, fasc. 22 (*Taishō*, XLIX, 732c, lines 12-5), Ying-tsung 英宗 (Gegen Qan) granted 'Phags-pa this posthumous title. *Cho-keng-lu* 輟耕錄 by T'ao Tsung-i 陶宗儀 also mentions this title (*Ch'in-tai Pi-shu* 津逮秘書 ed. vol. 12, p. 17a). Besides, the *TSNP* gives his sacred name as Hui-ch'uang hsien chi-hsiang 惠幢賢吉祥, which consists of 慧幢 (惠 is supposed by later scholars to be a mistransliteration of 慧 because of its identical sound) corresponding to the Skt. *mati-dhvaja* (*mati*='intelligence'; *dhvaja*='a banner, flag, standard'), 賢 corresponding to the Skt. *pañḍita* ('wise man') and 吉祥 corresponding to the Skt. *śrī* and Tib. *dpal* ('holy, glorious'). In the *EYT*, 'Phags-pa's name appears as Mati Dhuvajwa which exactly corresponds to the Skt. *mati-dhvaja*. P. Ratchnevsky gives 'Phags-pa's sacred name as Blo-gros rgyal-mtshan dpal bzañ-po (Skt. Ārya Matidhvaja śrībhadrā) ('Die mongolischen Grosskhane und die buddhistische Kirche'. *Asiatica. Festschrift für Friedrich Weller zum 65. Geburtstag*, p. 492, n. 29). In the *Tsao-hsiang-liang-tu-ching yin* 造像量度經引 (= 'Introduction to the *Buddha-pratimā-lakṣaṇa*') (cf. *Taishō*, No. 1419, XXI, p. 939a), Gombojab (Tib. Mgon-po skyabs) (1690-1750?) gives 'Phags-pa's name as Lo-chui-chien-ts'an 洛追建燦 which is supposed to be Chinese transcription of his Tibetan name Blo-gros rgyal-mtshan.

⁵³ *HC* and *TSNP*.

⁵⁴ *YS*. In addition, Ferrari (op., cit. p. 64, cf. pp. 150-1) states: 'In its (Gái-thog Bla-brañ) lower part there is the universe-conquering (*kham-gsum-zil-gnon*) chair of 'Phags-pa Rin-po-che.

The following books are believed to have been written by 'Phags-pa.

- (1) *Chang-so-chih lun* 彰所知論, 2 vols. (*Taishō*, No. 1645)
- (2) *Ken-pen-shuo i-ch'ieh yu-pu ch'u-chia-shou-chin yüan-chieh-mo i-fan* 根本說一切有部出家授近圓羯磨儀範, 1 vol. (*Taishō*, No. 1904)
- (3) *Ken-pen-shuo i-ch'ieh yu-pu pi-ch'u hsi-hsüeh lüeh-fa* 根本說一切有部苾芻習學略法, 1 vol. (*Taishō*, No. 1905)

The Tibetan texts of his complete works will appear in the near future.⁵⁵

⁵⁵ *The Complete Works of Chos rgyal 'Phags-pa* (= *The Complete Works of the Great Masters of the Sa Skya Sect of the Tibetan Buddhism*, vols. 6, 7) (Tokyo: The Tōyō Bunko, 1968-).

II THE 'PHAGS-PA ALPHABET

§ 1. The Invention of the 'Phags-pa Script

According to the *YS*, there were forty-one letters in the 'Phags-pa alphabet when it was invented by Bla-ma 'Phags-pa in 1269. In both the *YSLP* and *HYS* the editors give commentaries quoted from the *SSHY* written by T'ao Tsung-i, which follows almost identically the description in the *FSK* written by Sheng Hsi-ming in the Yüan dynasty. The *FSK* states:

There are forty-one letters :¹ No. 1. 𐎊, 葛; 2. 𐎋, 渴; 3. 𐎌, 啞; 4. 𐎍, 誡; 5. 𐎎, 者; 6. 𐎏, 車; 7. 𐎐, 遮; 8. 𐎑, 倪; 9. 𐎒, 恒; 10. 𐎓, 撻; 11. 𐎔, 達; 12. 𐎕, 那; 13. 𐎖, 鉢; 14. 𐎗, 發; 15. 𐎘, 末; 16. 𐎙, 麻; 17. 𐎚, 撈; 18. 𐎛, 撻; 19. 𐎜, 惹; 20. 𐎝, 縛; 21. 𐎞, 若; 22. 𐎟, 薩; 23. 𐎠, 阿; 24. 𐎡, 耶; 25. 𐎢, 囉; 26. 𐎣, 羅; 27. 𐎤, 設; 28. 𐎥, 沙; 29. 𐎦, 訶; 30. 𐎧, 啞; 31. 𐎨, 伊; 32. 𐎩, 郎; 33. 𐎪, 翳; 34. 𐎫, 汚; 35. 𐎬, 遄 (light-expiration); 36. 𐎭, 霞; 37. 𐎮, 法; 38. 𐎯, 惡; 39. 𐎰, 也; 40. 𐎱, 尙; 41. 𐎲, 耶, (light-expiration).

The above letters are represented by their Chinese phonetic equivalents. They are pronounced with an open-mouth.² Among them three letters, Nos. 25, 35, and 38, have been omitted and four letters, Nos. 42. 𐎴, 43. 𐎵, 44. 𐎶, and 45. 𐎷, have been added instead. The spelling is mostly based upon the Sanskrit rules.³

In the *FSK*, the Chinese transcription of the initial consonants of 'Phags-pa script follows that in the *Ching-yu T'ien-chu Tzu-yüan* 景祐天竺字源

¹ According to the *FSK* (*Ssu-k'u Ch'üan-shu* 四庫全書 ed.) and *SSHY*, 'there are forty-three letters' notwithstanding that the actual number of letters is forty-one. But the *FSK* (*Ssu-pu Ts'ung-k'an hsü-pien* 四部叢刊續編 ed.) and *YSLP* based on the *SSHY* mention forty-one letters, the same as the description in the *YS*, so I follow the *FSK* (*Ssu-pu Ts'ung-k'an hsü-pien* ed.) and the table of the *SSHY*.

² This passage means that to the pronunciation of each letter the vowel *a* must be attached because the letter *a* is not included, in accordance with the Tibetan and Sanskrit rules. See Krueger's 'Supplementary Remarks' added to Poppe's *The Mongolian Monuments...*, p. 146.

³ This quotation from the *SSHY* is also translated into English in Poppe, *ibid.*, p. 14. Clauson also gives a translation of this passage in the *FSK* ('The *h*'Phags-pa alphabet', pp. 302-3). Pauthier translates this passage in the *SSHY* into French ('De l'alphabet de Pa'sse-pa, ...', pp. 24-31).

(abbr. *CTT*) which was written by Wei-ching 惟淨 in 1035.⁴ This transcription of the Sanskrit alphabet seen in the *CTT* had itself been derived from the traditional way of transcribing Sanskrit since Fa-hsien 法顯, T'an-wu-ch'an 曇無讖 (Skt. Dharmakṣema?), etc.⁵ Since the T'ang dynasty, however, Chinese transcription had been partly influenced by the north-western dialects of China, in which certain phonetic changes occurred at that time. Therefore, characters which are used in the *CTT* are mostly identical with transcriptions used by Pu-k'ung 不空 (Skt. Amoghavajra) and his followers.⁶

⁴ According to R. H. van Gulik, *Siddham, ... (=Sarasvati-Vihara Series, 36)*, pp. 91-2, 'this book, in seven chapters, was translated from the Sanskrit by an Indian monk called Dharmarakṣa, and the text was edited by the Chinese monk Wei-ching.' But it is still doubtful whether Dharmarakṣa really translated this book from Sanskrit or not. Moreover, the most recent study indicates that Dharmarakṣa (Chin. Fa-hu 法護) should be corrected to Dharmapāla (see Jan Yün-hua, 'Buddhist relations between India and Sung China', *History of Religions* (Chicago), VI, 1 (1966), pp. 39-41). Therefore, I do not follow van Gulik, but simply state the editor or compiler of the *CTT* to be Wei-ching. This text was published in a facsimile edition by Lo Chen-yü in 1916 based on the text held in the Tōkyō Imperial Museum.

⁵ For example, *Wen-tzu-p'in* 文字品 in the *Ta-pan-ni-huan-ching* 大般泥洹經 (Skt. *Mahāparinirvāṇasūtra*) (*Taishō*, No. 376), tr. (A. D. 417) by Fa-hsien 法顯; *Ju-lai-hsing-p'in* 如來性品 in the *Ta-pan-nieh-p'an-ching* 大般涅槃經 (Skt. *Mahāparinirvāṇasūtra*?) (*Taishō*, No. 7), tr. (414-21) by T'an-wu-ch'an 曇無讖 (Skt. Dharmakṣema?),; *Tzu-mu-p'in* 字母品 in the *Wen-shu-shih-li-wen-ching* 文殊師利問經 (Skt. *Mañjuśrīpariṣcchā*) (*Taishō*, No. 468) tr. (518) by Seng-chia-p' o-lo 僧伽婆羅 (Skt. Saṃghabhaṛa?), *Fo-pen-hsing-chi-ching* 佛本行集經 (Skt. *Abhinīṣkramāṇasūtra*?) (*Taishō*, No. 190), tr. (589-92) by She-na-chüeh-to 闍那崛多 (Skt. Jñānagupta); *Shih-shu-p'in* 示書品 in the *Fang-kuang-ta-chuang-yen-ching* 方廣大莊嚴經 (Skt. *Lalitavistara*) (*Taishō*, No. 187), tr. (685) by Ti-p' o-ho-lo 地婆訶羅 (Skt. Divākara); *Hsi-t' an Tzu-chi* 悉曇字記 (*Taishō*, No. 2132) (780-804) by Chih-kuang 智廣. For further detail see Lo Ch'ang-p'ei, 'Fan-wen o-yin wu-mu te Tsang-Han tui-yin yen-chiu', *AS*, III, 2 (1931), pp. 263-76. However, it is still doubtful whether the Chinese Buddhist texts were directly translated from Sanskrit or not. It is quite possible that the original Sanskrit Buddhist texts were first translated into the Tocharian, Sogdian, or other languages, and then translated into Chinese. Here, I simply follow the alphabetical tables of Sanskrit in the Chinese Buddhist texts regardless of the possibility of the existence of intermediary languages. This is because the rules for transcribing Sanskrit in the Chinese Buddhist texts had already been fixed, and it is impossible to estimate the influence of intermediary languages. See T. Haneda, 'Kanyaku no Butten ni tsuite', repr. in *Haneda Hakushi Shigaku Ronbunshū*, II, pp. 348-57.

⁶ For example, *Yu-chia-chin-kang-ling-ching Shi-tzu-mu-p'in* 瑜伽金剛頂經釋字母品

The forty-one letters in the *FSK* are arranged in *Table 1* with the hypothetical transcriptions given by various scholars.

Nos. 1-41 in this table are mentioned both in the *FSK* and *SSHY*, and they are supposed to be the letters invented by Bla-ma 'Phags-pa. Nos. 25, 35 and 38 were omitted later and Nos. 42-45 were added instead as a result of the needs of transcribing.

It should not be surprising that there are five letters (Nos. 42-45) in the *MKTY*, which the *FSK* mentions. It is supposed that these five letters were added by Chu Tsung-wen, a compiler of the *MKTY*, as a result of transcribing the Chinese (non-Mandarin) sounds.

After the invention of the 'Phags-pa script, the Mongolian government tried to enforce the use of this new script; to establish Meng-ku Tzu-hsüeh 蒙古字學 (schools for the Mongolian script) in each province,⁷ to write edicts, epigraphs, codes, and rhyme dictionaries in the 'Phags-pa script.⁸ It remained in general use throughout the Yüan dynasty;⁹ but, after the Yüan dynasty fell it was no longer used and disappeared. Nevertheless, the 'Phags-pa script has occasionally continued in use as seal-script by the Tibetans, by whom it is known as one of the *Hor-yig*.

(Skt. ?) (*Taishō*, No. 880) and *Wen-shu-wen-ching Tzu-mu-p' in* 文殊問經字母品 (*Taishō*, No. 469), both tr. (771) by Pu-k'ung 不空 (Skt. Amoghavajra); *Pien Wen-tzu Kung-te chi Ch'u-sheng Tz'u-ti-pien* 辨文字功德及出生次第篇 in the *I-ch'ieh-ching Yin-i-hih. Sa-pan-nieh-p' an-ching*—一切經音義釋大般涅槃經 (*Taishō*, No. 2128) (788-810) by Hui-lin 慧琳; *Shittan Jibo Shakugi* 悉曇字母釋義 (806-35) by Kūkai 空海; *CTT* by Wei-ching. For further details, also see Lo Ch'ang-p'ei, *ibid.*, especially his 'Comparative table of Chinese characters used in transcribing the forty-nine letters of the Sanskrit alphabet in sutras'.

⁷ See the *FLT* (*Taishō*, XLIX, p. 705c), which states that the establishment of Mongolian schools took place in the seventh year of the Chih-yüan reign (1270), probably after the eleventh month of this year.

⁸ On the enforcement of the 'Phags-pa script in the Yüan dynasty, see Lo Ch'ang-p'ei and Ts'ai Mei-piao, *PSPT*, pp. 1-30. On the rhyme dictionaries in the 'Phags-pa script, see Cheng Tsai-fa, *MKTY ken ken Pa-ssu-pa-tzu yu-kuan te yün-shu*, pp. 15-77. According to Cheng Tsai-fa, at least the two rhyme dictionaries, the *Meng-ku Yün-lüeh* 蒙古韻略 and *Meng-ku Yün-pien* 蒙古韻編, are known to have existed before the *MKTY* was compiled. Also the *MKTY* is very likely based on these books, or is rather a revision of the *Meng-ku Yün-lüeh*.

⁹ Even in the Yüan dynasty, however, the Uighur script was occasionally used in official documents. For example, see A. Mostaert and F.W. Cleaves, 'Trois docu-

§ 2. The Phonetic Value of Individual Letters

The letters in *Table 1* are divided into eleven groups mainly, in accordance with the traditional Chinese classification except groups J and K, as follows, and will be discussed in this order :

- A : Velar group (牙音)
- B : Bilabial group (重唇音)
- C : Labio-dental group (輕唇音)
- D : Plosive dental group (舌音)
- E : Cerebral group (舌上音)
- F : Supradental (齒上音) and Affricated alveolo-palatal (正齒音) groups
- G : Sibilant group (齒擦音)
- H : Laryngeal group (喉音)
- I : Liquid (=Laterals+Vibrant retroflex) group (半舌音)
- J : Vowels
- K : Miscellanea

A : Velar group

The characters Nos. 1-4 refer to the Sanskrit alphabet *ka*, *kha*, *ga*, *ṇa* respectively. In the *CTT*, or the other Chinese Buddhist texts, the character 竭 is added from the necessity of transcribing the Sanskrit *gha*, which does not exist in the Chinese language.¹⁰ Similarly, in the *FSK* no other initial group has a character for the Sanskrit aspirated voiced initials.

No. 3 is represented by the character 𑖦 which has an initial *ɣ*,¹¹

ments mongols des archives secrètes Vaticanes', *HJAS*, XV (1952), pp. 419-506 + 8 plates [especially see plate II (Letter of Argun to Nicolas IV dated 1290) and plate V (Letter of Öljeitü to Philippe le Bel dated 1305)].

¹⁰ Karlgren proposes that Ancient Chinese voiced initials had an aspiration, but this is still doubtful. However, the fact that no character has been used to transcribe the Sanskrit *gha*, *dha*, *bha*, ... series cannot be cited as evidence against Karlgren's hypothesis, because in Ancient Chinese voiced initials there was phonological opposition between aspirate and non-aspirate as in Sanskrit.

¹¹ This character gives trouble to Clauson (op. cit., p. 309, n. 1). Because 'the character used is not in *Grammata Serica Recensa* nor in Giles' dictionary,' he

Table 1-a

	No.	'Pgs.	Tib. equivalent	FSK	MKTY	Gabelentz, 1839	pauthier 1862	Dragunov 1930
A	1	𑍑	𑍑 ka	葛 k	群 g	ko	k	k
	2	𑍒	𑍒 kha	渴 k'	溪 k'	kho	kh	k'
	3	𑍓	𑍓 ga	𑍓 g	見 k	ko	g	g
	4	𑍔	𑍔 na	𑍔 g	疑 g	ngo	ng	ŋ
B	13	𑍕	𑍕 pa	鉢 p	並 b	po	p	p
	14	𑍖	𑍖 pha	發 p'	滂 p'	pho	ph, p	p'
	15	𑍗	𑍗 ba	末 m	幫 p	mo	b, v	b
	16	𑍘	𑍘 ma	麻 m	明 m	ma	m	m
C	37	𑍙	- -	法 f	非 f	fa	ha, f	-
	46	𑍚	- -	- -	敷 f	-	-	-
	42	𑍛	- -	- -	奉 v	-	-	-
	20	𑍜	𑍜 wa	縛 w	微 w	fo	vō; aō, o	w
D	9	𑍝	𑍝 ta	怛 t	定 d	ta	t	t
	10	𑍞	𑍞 tha	𑍞 t'	透 t'	tha	th, t	t'
	11	𑍟	𑍟 da	達 d	端 t	ta	d	d
	12	𑍠	𑍠 na	那 n	泥 n	n	n	n
E	5	𑍡	𑍡 ca	者 tɕ	澄 dɕ	tche	tch	č
	6	𑍢	𑍢 cha	車 tɕ'	徹 tɕ'	tchha	tch'	č'
	7	𑍣	𑍣 ja	遮 dɕ	知 tɕ	tche	dj	ǰ
	8	𑍤	𑍤 ṇa	倪 ŋ	娘 ṇ	ni	ṇn	-
F	(5)	-	- -	- -	床 dɕ	-	-	-
	(6)	-	- -	- -	穿 tɕ'	-	-	-
	(7)	-	- -	- -	照 tɕ	-	-	-
	27	𑍦	𑍦 ṣa	設 ɕ	審 ɕ	che	ch	ǰ
	43	𑍧	- -	- -	禪 ʒ	-	-	-

Oshibu- chi 1930	Hattori 1946	Hope 1953	Ligeti 1956	Popper 1957	Clauson 1959	Denlinger 1963	Nakano
k	k	kH/gh	k	k	k	k /g/	k
k'	k'	k'	k'	k'	k'	k' /k'/	k'
g	g	g	g	g	g	g /k/	g
ñ, ng	ŋ	ng	ñ	ŋ	ŋ	ŋ /ŋ/	ŋ
p	p	pH/bh	p	p	p	p /b/	p
p'	p'	-	b	-	p'	p' /p'/	p'
b	b	b		b	b	b /p/	b
m	m	m	m	m	m	m /m/	m
f	f	f, fh	f	-	f	xu /v/	f
-			-	-	-	fu /f/	
-			-	-	v	xu /v/	
v, w	w	ŵ, w	w	v	w	w /w/	w
t	t	tH/dh	t	t	t	t /d/	t
t'	t'	t'	t'	t'	t'	t' /t'/	t'
d	d	d	d	d	d	d /t/	d
n	n	n	n	n	n	n /n/	n
oh	ts	tjH/jh	č	č	č	č /dz/	ts
ch'	ts'	tj'	č'	č'	č'	č' /ts'/	ts'
j	dž	j	ǰ	ǰ	ǰ	ǰ /ts/	dž
ñ	ñ	ñ	ñ	-	ñ	ñ /n/	ñ
-	ts	-	-	-	-	č /dz/	ts
-	ts'	-	-	-	-	č' /ts'/	ts'
-	dž	-	-	-	-	ǰ /ts/	dž
š	š	sǰ	š	š	š ¹	š /s/	s
-	ž	-		-	š ²	ž /z/	ž

Table 1-b

	No.	'Pgs.	Tib. equivalent	FSK	MKTY	Gabelen- tz, 1839	Pauthier 1862	Dragunov 1930
G	17	𑖦	𑖦 tsa	拶 ts	從 dz	tsa	ds	ts
	18	𑖧	𑖧 tsha	捺 ts'	清 ts'	ths	ths	ts'
	19	𑖨	𑖨 dza	惹 ĩ	精 ts	je	ts	ds
	28	𑖩	𑖩 sa	沙 𑖩	心 s	cha	sz, s	s
	22	𑖪	𑖪 za	薩 s	邪 z	sa	s, z	z
H	29	𑖫	𑖫 ha	訶 h	曉 h	ho	'h, f, e	h
	44	𑖬	- -	- -	匣 h	-	-	-
	35	𑖭	- -	遐 h	- -	hia	hoû	-
	36	𑖮	- -	霞 h	匣(合) f	hia	'h	f
	23	𑖯	𑖯 'a	阿 .	影 .	ngo	h, 'h	.
	30	𑖰	𑖰 a	啞 .	喻(魚) j	ou	â ^y init.	e
	24	𑖱	𑖱 ya	耶 j	喻 j	ye	y, a	j
	45	𑖲	- -	- -	影(凶) y	-	-	-
I	26	𑖳	𑖳 la	羅 l	來 l	lo	l	l
	21	𑖴	𑖴 za	若 ĩ	日 ĩ	jo	j	ž
J	31	𑖵	𑖵 i	伊 -	- -	y	î init.	i
	32	𑖶	𑖶 u	郎 -	- -	u	ou ^u init.	u
	33	𑖷	𑖷 e	翳 -	- -	ye	î, i	ê
	34	𑖸	𑖸 o	汚 -	- -	o	ou	o
	39	𑖹	- -	也 -	- -	e	e	e
	40	𑖺	𑖺 (w)	𑖺 -	- -	u, n	ou, oua	u
	41	𑖻	𑖻 (ya)	耶 -	- -	-	yê, e	-
K	25	𑖼	𑖼 ra	囉 l	- -	lo(ro)	r	-
	38	𑖽	- -	惡 -	- -	ngo	'õ	-

Oshibuchi 1930	Hattori 1946	Hope 1953	Ligeti 1956	Pope 1957	Clauson 1959	Denlinger 1963	Nakano
ds	ts	tzH/zh	c	} c'	ts	c /dz/	ts
ts'	ts'	tz'	c'		ts'	c' /ts'/	ts'
ts	dz	dz	c, ʒ	j	dz	j /ts/	dz
s	s	s	s	s	s	s /s/	s
z	z	szh	z	z	z	z /z/	z
h	h	x	} h	h	h ¹	h /x ¹ /	h
-	h	-		-	h ²	h /x ² /	h
-	-	(kx)	-	q	g(x)	g	-
h'	ʃ	h(x)	ʃ	ʃ	x(x)	x /ʃ/	ʃ
'h	e	clear pitch	.	.	h	.	.
a	,	mudd pitch	u	a	'(a)	-	y
y	j	y	} y	y	y ¹	y { /ɕi/ /ɕi/	j
-	y	-		-	y ²	y { /ɕi/ /x/	.j
l	l	l	l	l	l	l /l/	l
zh	ʒ	ʒh	z	ʒ	ʒ	ʒ { /ʒ/ /ʒ/	ʒ
i	i	i	i	i	i	i /i/	i
u	u	u	'u	u	u	u /u/	u
e	ɛ	e(ia)	e	ɛ	ɛ	y+(a) /ia/	ɛ
o	o	o(ua)	o, ô	o	o	o /o/	o
e	e	ä	..	e	e	i+(a) /ia/	e
w	ŭ	v	u	u	-w	u+(a) /ua/	ŭ
ia	Y(a)	y	ia	y	-y	y+(a) /ia/	Y
r	-	-	-	r	r	-	r
-	-	-	-	-	'(?)	-	-

although the Tibetan and Sanskrit equivalents of this letter have a phonetic value *g*. A similar kind of alternation between *ɣ* and *g* can be seen in Nos. 11, 15 and 19, which are represented by *d*, *b*, and *dz* respectively, not only in the *FSK* and *CTT* but also in other Chinese Buddhist texts since the T'ang dynasty, as *Table 2* shows:

Table 2

Skt.	Chin.	Buddhist texts
	Old trsc.	New trsc.
<i>ga</i>	伽 (= <i>g</i>)	哦, 誡, 哖 (= <i>ɣ</i>)
<i>da</i>	陀, 挖 (= <i>d</i>)	娜, 倮, 擻, 捺 (= <i>n</i>)
<i>ba</i>	婆 (= <i>b</i>)	摩, 麼, 末 (= <i>m</i>)
<i>ja</i>	闍, 社 (= <i>dz</i>)	若, 惹 (= <i>ɳʒ</i>)

Conversely, we find other examples which show Chinese nasals transcribed by the Tibetan or Uighur plosives as *Table 3* shows:

Table 3

AC	Tibetan trsc.	Uighur trsc.
<i>m-</i>	妙 'byehu, 莫 'bag [S];	摩 <i>ba</i> , 昧 <i>bai</i> ,
	磨 'ba, 寐 'bi, 微 'byi [C1];	萬 <i>ban</i> , 戊 <i>bou</i> ,
	漠 'bag, 門 'bun [H]	默 <i>bäg</i> [C2]
<i>n-</i>	農 'doñ, 念 'dyam (or <i>nyam</i> ¹²) [S]; 那 'da', 納 'dab [C1]	no example
<i>ɣ-</i>	五 'gu (or 'go), 礙 'ge [S];	元 <i>gön</i> , 彥 <i>gen</i> ,
	業 'geb, 議 'gi [C1]; 鴈 'gan,	危 <i>gü</i> , 義 <i>gi</i> [C2]
	藝 'ge'i [H]	
<i>ɳʒ-</i>	二 <i>zi</i> , 人 <i>zin</i> [S]; 而 <i>zi</i> (or <i>ze</i>),	壬 <i>nžim</i> (or <i>šim</i>)
	入 <i>žib</i> [C1]; 弱 <i>žag</i> [H]	仁 <i>žin</i> , 如 <i>žü</i> , 日 <i>žir</i> [C2]

assumes that the phonetic value of this character is *xjwei* 'on the assumption that the "mouth" radical is not part of the character, but a sound modifier.' However, it is very easy to find this character in any Chinese dictionary by the *fan-ch'ieh* system; i.e. 牙葛切, 語訐切, and 許貴切. The *CTT* annotates 五割切 for the Sanskrit *ga* which is equivalent to No. 3, therefore in this case this character should have an initial. *ɣ*

¹² It is believed that the characters which have the nasal finals *-n*, *-m*, *-ɣ* have

Abbreviations in this table are follows :

- [S] = W. Simon, 'A note on Chinese texts in Tibetan transcription', *BSOAS*, XXI (1958), pp. 334-43.
 [H] = T. Haneda, 'Kan-Ban taion Senjimon no dankan', *Haneda Hakushi Shigaku Ronbunshū*, II, pp. 396-419.
 [C1] = B. Csongor, 'Some Chinese texts in Tibetan script from Tun-huang', *AOH*, X (1960), pp. 97-140.
 [C2] = Csongor, 'Chinese in the Uighur script of the T'ang-period', *AOH*, II (1952), pp. 73-121.

The above examples suggest that the Chinese transcription of Sanskrit and the Tibetan and Uighur transcriptions of Chinese have been influenced by the denasalisation which occurred in the northwestern dialects in the T'ang period.¹³ This denasalisation can be theoretically deduced as follows :

$$\begin{aligned} m &> mb > b \\ n &> nd > d \\ \eta &> \eta g > g \\ \acute{n} &> \acute{n}z > \acute{z} \text{ (or } \acute{r}) \end{aligned}$$

According to this assumption, it is not surprising that the Sanskrit *g*, *d*, *b*, *j* were represented by the Chinese *ŋ*, *n*, *m*, *ńz* respectively, and that the Chinese *m*, *n*, *ŋ*, *ń* were transcribed as *b*, *d*, *g*, *z* by the Tibetans and Uighurs.

This phenomenon, however, did not continue in the succeeding Sung and Yüan periods, because the capital returned to the Middle Plain after the fall of the T'ang dynasty.¹⁴ However, the Chinese transcription of

never undergone the denasalisation. Examples of this can be seen in the Tibetan and Uighur transcriptions and in the Kan-on version of Sino-Japanese. But this rule is not always applicable, as seen in two variant transcriptions for the character 念 and the Kan-on version used in the Tendai sect (Tendai Kan-on 天臺漢音). For further details, see H. Arisaka, '*Mei, nei* no tagui wa hatashite Kan-on nara-zaruka?', *Kokugo On'inshi no Kenkyū* (rev. ed.), pp. 369-74.

¹³ On the denasalisation, see H. Maspero, 'Le dialecte de Tch'ang-ngan sous les T'ang', *BEFEO*, XX, 2 (1920), pp. 1-124, especially pp. 29-36; T. Ogawa, '*Ni* to *erh* oyobi *jih-mu* no seiritsu', *GK*, 24 (1953), pp. 7-11; S. Mizutani, 'Tōdai ni okeru Chūgokugo gotō bion no *denasalization* shinkō katei', *TYGH*, XXXIX, 4 (1957), pp. 1-31.

¹⁴ In the Tō-on version of Sino-Japanese which was influenced by some Middle Plain dialects of the Sung and Yüan periods, these phonemes have no longer been

Sanskrit apparently still followed the pattern fixed in the T'ang time as seen in the *CTT*. Sheng Hsi-ming, the author of the *FSK*, also followed the *CTT*.

The phonetic values of Nos. 1-4 are, therefore, *k*, *k'*, *g*, *ŋ* respectively, in accordance with the Chinese system of phonology.

On the other hand, this alternation between nasals and plosives in the *CTT*, *FSK*, and other Chinese Buddhist texts suggests that the phenomenon of alternation between voiced and voiceless initials of Chinese in the 'Phags-pa script does not occur through the aspiration of voiced initials as Karlgren explained but through the difference of phonological opposition between Chinese and Mongolian. This problem will be discussed in further details in the next chapter.

B : Bilabial group

In this group the phoneme *p'* does not appear in Dragunov's, Hope's, and Poppe's materials, because the phoneme *p'* has never existed in Mongolian. The *PCH*, according to Ligeti,¹⁵ includes many letters denoting *p*, *p'*, and *b*, which are considerably confused in this book. Even in the *FSK*, No. 13 representing *p* is given mistakenly as Ξ which is exactly the same as *b*. Also, No. 14 has a shape which can be easily confused with No. 15. Comparing this with the Tibetan equivalent of No. 15, No. 14 might have had a shape somewhat similar to the Tibetan པ as seen in some modern Tibetan seals.¹⁶ However, the Mongolians have never used this No. 14, and its lack of use might have increased the possibility for it to have become confused with No. 15.

C : Labio-dental group

It is supposed that Bla-ma 'Phags-pa invented only Nos. 37 and 20 in

influenced by denasalisation. For further details, see Arisaka, 'Fugin no Tō-on ni han'ei shita Kamakura jidai no on'in jōtoi', *Kokugo On'inshi no Kenkyū*, pp. 185-220.

¹⁵ 'Le *Po kia sing* en écriture 'phags-pa', p. 15, n. 49.

¹⁶ In Das' plate, Francke's table ('Note on the Dalai Lama's seal...', pp. 1211-

this group. As far as the phoneme *f* is concerned, he may well have invented No. 37, which has a compound shape consisting of a combination of Nos. 29 *h* and 40 *ũ*, by analogy with the fact that the phoneme *h*, when accompanied by a *ho-k'ou* 合口 (rounded-mouth) medial *ũ*, can easily become an expiratory *f*. Originally, as shown by Pelliot and Aalto, the phoneme *f* did not exist in the Tibetan and Mongolian languages.¹⁷ In Chinese, the phoneme *f* came into existence in the Northern Sung time,¹⁸ and the earliest material indicating this fact is the *Huang-chi Ching-shih T'ien-sheng Ti-yin T'u* 皇極經世天聲地音圖 (abbr. *HCCS*), which is a simple rhyme table written by Shao Yung 邵雍.¹⁹ In this rhyme table the four bilabial initials *pang-* 幫, *p'ang-* 滂, *ping-* 並 and *ming-* 明 initials which had the third-degree final and the medial *u* in Ancient Chinese might have changed to the labio-dental initials *fei-* 非, *fu-* 敷, *feng-* 奉 and *wei-* 微 initials. Theoretically speaking, this change can be shown by the following schema:

AC		OM	
幫	<i>p</i> >	非	<i>f</i>
滂	<i>p'</i> >	敷	<i>f</i> ' (<i>f</i>)
並	<i>b</i> >	奉	<i>v</i>
明	<i>m</i> >	微	<i>w</i>

In fact, however, the phoneme *f'* ought not to exist because the phoneme *f* is always accompanied by an aspiration, so this schema should be

12) and the *Rgya-dkar-nag*..., the variant shapes of No. 14 can be seen as 𐠫, 𐠬, 𐠭, etc.

¹⁷ Pelliot, 'Les mots à *h* initiale, aujourd'hui amuie dans le mongol des XIII^e et XIV^e siècles', *JA*, CCVI, 2 (1925), pp. 193-263; Aalto, 'On the Altaic initial *p*', *CAJ*, I (1955), pp. 5-16.

¹⁸ Perhaps Ch'ien Ta-hsin 錢大昕 is the first scholar to mention the derivation of labio-dentals from bilabials. See 'Ku wu ch'ing-ch'en-yin 古無輕唇音', *Shih-chia-chai Yang-hsin-lu* 十駕齋養新錄, vol. 5 (*Ch'ien-yen-t'ang Ch'üan-shu*, ed.), pp. 15a-27a.

¹⁹ On this rhyme table, see Chou Tsu-mo, 'Sung-tai Pien-Lo yü-yin k'ao', *FJHC*, XII, 1/2 (1943), pp. 221-85; Lu Chih-wei, 'Chi Shao Yung *HCCS* te t'ien-sheng ti-yin', *YCHP*, XXXI (1946), pp. 71-80; Li Jung, '*HCCS* chieh', *Ch'ieh-yün Yin-hsi* (Peking, 1952), pp. 165-74; Chao Yin-t'ang, *Teng-yün Yüan-liu* (Shanghai, 1957), pp. 84-92; A. Tōdō, *Chugokugo On'inron* (Tokyo, 1957), pp. 115-18 and 'Development of Mandarin from 14c. to 19c.', *AA*, VI (1964), pp. 31-40.

corrected to (*f*). In the Mandarin-speaking area the phoneme *v* has never existed because the voiced initials have been assimilated to either voiceless non-aspirated or voiceless aspirated initials depending on their tones, although in the non-Mandarin area the voiced initials have been partly retained. From this fact, it is not difficult to suppose that Bla-ma 'Phags-pa invented only two letters denoting the phonemes *f* and *w* to transcribe the sounds of the Mandarin-speaking area. Nevertheless, appearance of another two letters, Nos. 42 and 46 in the *MKTY*, is probably due to the fact that No. 42 was needed to represent the southern dialects which retained the voiced initials, and No. 46 was fitted in by Chu Tsung-wen's adherence to the traditional concepts of Chinese phonology. Although Denlinger states: 'The distinction between *f* and *v* is probably an archaizing distinction with no basis in the spoken language of the time,'²⁰ Chu Tsung-wen's archaizing is, as mentioned above, limited only to No. 46. Denlinger mistakenly supposes it also affects No. 42, but this conflicts with what we know of the phonology of Middle Chinese. He also fails to distinguish the letter shapes of Nos. 37, 46, and 42. He maintains that Nos. 37 and 42 are apparently identical, but it is very difficult to distinguish No. 46 from Nos. 37 and 42 in any original material. However, a study of the *MKTY* reveals clear distinctions in the use of Nos. 37, 46, and 42, and thus Denlinger is somewhat wide of the mark when he transliterates *xü* for Nos. 37, 42 and *γü* for No. 46 and also gives the Chinese phonemes *v* for Nos. 37, 42 and *f* for No. 46. Nos. 37 and 46 should be transcribed *f*, as Clauson did, or *hü*, as Hattori did, and No. 42 should be transcribed as *v* (or *hü* in Hattori). (See *Table 1*.)

D: Plosive dental group

According to the *CTT*, the Chinese equivalent of the Sanskrit *da* is 捺, which also illustrates alternation by the denasalisation. The character 達 in the *FSK* is used for the Sanskrit *dha* in the *CTT* and other Chinese Buddhist texts. Nevertheless, this mistake by Sheng Hsi-ming suggests that his spoken language had not undergone the denasalisation

²⁰ 'Chinese in hP'ags-pa script', *MS*, XXII (1963), pp. 419-20.

of the northwestern dialects in the T'ang period. He might simply have followed his own spoken language while on the other hand adopting the traditional usage of characters for Sanskrit. Therefore, from the viewpoint of traditional Chinese Buddhist texts, Sheng Hsi-ming's 達 is a mistake, but from the viewpoint of Chinese as spoken in the Middle Plain, this transcription is of course correct.

E: Cerebral group

F: Supradental and Affricated alveolo-palatal groups

A full account of the cerebral group is given by Lo Ch'ang-p'ei.²¹ This group has been assimilated to the group F since the eleventh century.²² In the Mandarin-speaking area the phonetic changes of the groups E and F can be shown as follows;

stage 1.	F (2nd-degree): ʃi, dʒi, tʃi, tʃ'i		
	F (3rd-degree): ʒi, ʃi, dʒi, tʃi, tʃ'i		E: ŋi, ɕi, t'i, t'i
stage 2.	F (2) : ʃi, dʒi, tʃi, tʃ'i : ʒi, ʃi, dʒi, tʃi, tʃ'i* F (3) : ʒi, ʃi, dʒi, tʃi, tʃ'i** : ɕi, t'i, t'i		E: → ŋi
	F (2) : ʃɿ, tʃ'ɿ, tʃɿ F (3) : ʃi, tʃ'i, tʃi		
	F (2) : ʃi, tʃ'i, tʃi F (3) : ʃɿ, tʃ'ɿ, tʃɿ		
	F (2) : ʃi, tʃ'i, tʃi F (3) : ʃɿ, tʃ'ɿ, tʃɿ		
stage 4.	ʃɿ, tʃ'ɿ, tʃɿ		

note: * *chih-she* 止攝(*k'ai-k'ou* 開口)

** others

²¹ 'Chih, ch'e, ch'eng, niang yin-chih k'ao', AS, III, 1 (1931), pp. 121-57.

²² The earliest indication of this change can be seen in the *HCCS*. In this rhyme table, affricated alveolo-palatals have been assimilated to the supradental group. However, this table is too simple to illustrate fully the structure of the sound system.

In these schema, stages 1-4 signify Ancient Chinese, Old Mandarin (11-17 C.), Middle Mandarin (17 C.),²³ and Modern Mandarin respectively. The *CYYY* and *MKTY* are the products of stage 2, but it must be noted that in these rhyme dictionaries there is no phonetic distinction between *ɕ*, *tɕ'*, *tɕ* and *ʃ*, *tʃ'*, *tʃ*, although the *CYYY* distinguishes them in the case of vowels either as *i* or *i*. In the Wu dialects, however, the sounds of the Ancient Chinese E and F groups have been assimilated to the simple sibilant group except in the Kiuchow 衢州 and Kinhwa 金華 dialects, in which [tʃ, tʃ', dʒ, ʃ, ʒ] appear very often.²⁴ This fact suggests that in the Wu dialects the Ancient Chinese *tʃ*, *tʃ'*, ... series was still preserved in the Yüan period. So if the *MKTY* employed one of the Wu dialects, Nos. 5-7, 27, and 43 might have had the values [tʃ, tʃ', dʒ, ʃ, ʒ].

Denlinger's transliteration of this group follows Ligeti, Poppe, and Clauson, but his ascription of the Chinese phonemes *ts*, *ts'*, *dz* to Nos. 7 6, 5 respectively is a great mistake.²⁵ According to his transliteration, there is no distinction between groups E and F and group G. This seems to be a misprint.

As regards No. 8 which was a nasal cerebral (*niang*-娘 initial) in Ancient Chinese, it appears only once in the *PCH* as a character 鈕. In the *MKTY*, this phoneme is distributed to *ñ*, *n* or *ɳ*, although it has been completely assimilated into *n* in the *CYYY*. The feature of confusion between these three phonemes is similar to that in the Wu dialects.²⁶ This also suggests the similarity of the dialect employed in the *MKTY* and the Wu dialects. Denlinger again interprets this fact mistakenly: 'careful comparison between *MKTY* and *Kuang-yün* 廣韻 with regard to

²³ Source materials for Middle Mandarin include: *Chiao-t'ai-yün* 交泰韻 (1606) by Lü Kun 呂坤: *Hsi-ju Erh-mu-tzu* 西儒耳目資 (1926) by Nicolas Trigault; *Wu-fang Yüan -yin* 五方元音 (1626-7?) by Fan Teng-feng 樊騰鳳; *Yün -lüeh Hui-t'ung* 韻略匯通 (1642) by Pi Kung-ch'en 畢拱辰. The phonetic changes shown in stage 3 of my schema can be obviously seen in the *Ssu-ma Wen-kung Teng-yün T'u-ching* 司馬溫公等韻圖經 (1606) by Hsü Hsiao 徐孝, which is supposed to have employed the sound system of Shun-t'ien 順天.

²⁴ See Chao Yuen-ren, *Hsien-tai Wu-yü te Yen-chiu*, Table I, 4.

²⁵ Op. cit., pp. 413-14, Chart Ia-9, 10, 11, 26, 27, 28 and pp. 418-19.

²⁶ See Chao Yuen-ren, *ibid*; N. Osada, 'Soshūgo on'in taikai no sho tokuchō ni tsuite', *CGKR*, I (1953), pp. 35-50.

his initial suggests that in this area the “archaising” of the *MKTY* was completely unsuccessful.²⁷

With regard to the distinction between Nos. 27 and 43, No. 43 occurs only in the *MKTY* which has retained all voiced initials. Clauson and Denlinger explain that No. 43 is ‘peculiar’ or ‘archaising’ without any specific reference to the *MKTY*.²⁸ It is natural that Bla-ma ‘Phags-pa did not invent No. 43 because it is supposed to be difficult to distinguish Nos. 43 from 7. Therefore, the phonetic values of Nos. 5-7, 27, 43 are phonetically denoted as [tʂ, tʂʰ, dz, ʂ, z] in Mandarin, and [tʃ, tʃʰ, dʒ, ʃ, z] in the Wu dialects, but they can also be phonologically interpreted as tʂ, tʂʰ, dzʰ, ʂ, z respectively.

G: Sibilant group

Nos. 17-19 are much different in shape from the Tibetan equivalents. Later, however, we find many other variants which are equivalent to the phonemes *ts*, *tsʰ*, *dz* in the Tibetan seal-script as follows:

Table 4

No.	'Phags-pa		Devanāgarī	Chin. trsc.	Tib. equi- valent		Tib. seal-script**
	FSK	Mong.*			Old	New	
5.	𐠜	者	č	-	-	-	𐠜 <i>ca</i>
6.	𐠝	車	čʰ	-	-	-	𐠝 <i>cha</i>
7.	𐠞	遮	č	-	-	-	𐠞 <i>ja</i>
8.	𐠟	倪	-	𐠟 <i>na</i>	若	倪	𐠟 <i>na</i>
27.	𐠡	設	š	𐠡 <i>ša</i>	賒	設	𐠡 <i>ša</i>
-	-	-	-	𐠢	沙	沙	𐠢 <i>ša</i>
43.	𐠣	-	-	-	-	-	-
17.	𐠤	撈	c	𐠤 <i>ca</i>	遮	撈	𐠤 <i>tsa</i>
18.	𐠥	擦	-	𐠥 <i>cha</i>	車	擦	𐠥 <i>tsha</i>
19.	𐠦	惹	j	𐠦 <i>ja</i>	闌	惹	𐠦 <i>dza</i>
-	-	-	-	𐠧	闌重	嵯	-
28.	𐠨	沙	s	𐠨 <i>sa</i>	娑	薩	𐠨 <i>sa</i>
22.	𐠩	薩	z	-	-	-	𐠩 <i>za</i>
21.	𐠪	若	ž	-	-	-	𐠪 <i>ža</i>

note * The Mongolian transcription in this table follows Poppe, op. cit., pp.19-24.

** Examples of Tibetan seal-script are collected from Francke, op. cit., Walsh, op. cit. and the *Rgya-dkar-nag*....

²⁷ Op. cit., p. 419.

²⁸ Clauson, op. cit., p. 307; Denlinger, ibid., p. 421.

In this table, one should note that the Chinese transcription of the Sanskrit *ca*, *cha*, *ja*, *jha* has two different forms, as also in the case of the Sanskrit *ga*, *da*, *ba*. Lo Ch'ang-p'ei suggests that this might be result of three factors; 1. Indic dialects, 2. phonetic changes in Indic phonology, 3. differences between the Buddhist sects.²⁹ In the *FSK*, the old Chinese transcription of Nos. 17-19 is removed to Nos. 5-7 and the new Chinese transcription of Nos. 17-19 is used for 'Phags-pa Nos. 17-19 respectively.

On the other hand, Nos. 17-19 of the 'Phags-pa alphabet much more resemble in shape the Devanāgarī *ca*, *cha*, *ja* than the Tibetan equivalents *tsa*, *tsha*, *dza*.³⁰ According to Poppe, Nos. 17-19 have been rarely used except for the phonemes of Chinese origin, because these phonemes have never existed in the Mongolian language.³¹ Therefore, Bla-ma 'Phags-pa has apparently invented Nos. 17-19 for Chinese phonemes only, and the Tibetans who have referred to Mongolian documents in 'Phags-pa script might have felt it difficult to find 'Phags-pa equivalents of the Tibetan *tsa*, *tsha*, *dza*. They might also have invented Tibetan seal-script by analogy from the shape of *dbu-can*. The difference of shape between 'Phags-pa script and the Tibetan equivalents of Nos. 17-19 is supposed to have been caused by Bla-ma 'Phags-pa's desire to avoid confusion. Otherwise, the Tibetan equivalents of Nos. 5-7 and 17-19 might easily have been confused. Hence it is considered that Bla-ma 'Phags-pa invented Nos. 17-19 on the basis of the Devanāgarī alphabet, and not on that of the Tibetan *dbu-can* as in other letters.

The use of the character 惹 for No. 19 is also the result of denasalisation. This character has *jih* initial 日母, which is supposed to have a phoneme *ʃʒ* and which was always transcribed by the Tibetans as *ʒ* or Uighur *ž* (see *Table 3*). Therefore, it is not strange that the Tibetan

²⁹ 'Fan-wen o-yin wu-mu ...'.

³⁰ The three Tibetan letters *tsa*, *tsha* and *dza* were evidently differentiated from the palatals *ca*, *cha* and *ja* respectively. 'Phags-pa perhaps tried to avoid the confusion of letter shapes between sibilants and palatals when he invented the 'Phags-pa script. Also see Clauson and Yoshitake, 'On the phonetic value of the Tibetan characters.....', p. 845, which gives a simple account of this problem.

³¹ Poppe, *op. cit.*, p. 21.

dza and *ža* are transcribed by the Chinese *jih* initial, since it would have been different for the Chinese to distinguish the Tibetan *dza* from *ža*.

However, from the standpoint of Chinese phonology, the phonetic value of the *jih* initial in the Yüan period had already acquired a vibrant element which resulted in *ř*. In the *MKTY*, there is a distinction between *dž* (*chao* initial 照母), *z* (*ch'an* initial 禪母), *z* (*hsieh* initial 邪母) and *ř*, but the first three of these phonemes are assimilated to *tš* *š* and *s* in the *CYYY*. According to Karlgren, the phonetic value of the *jih* initial in modern Mandarin is *ʒ* ($=[ʒ]$),³² which is apparently the conclusion of a theoretical process from $n > \acute{n} > \acute{n}z > \acute{z}$ to *z*.³³ Careful observation of modern Pekinese illustrates that this phoneme has a strong retroflex element [ɻ] and that the actual value of modern utterance might have been derived from *ř* ($=[ɻ]$) at some stage in Old Mandarin. Also, Karlgren's process $\acute{n}z > \acute{z} > z$ is inconsistent with the *MKTY*. Why was it necessary for Karlgren to distinguish *z* from *z*, which are both regarded as the same in the *MKTY*? The character 惹 for No. 19 is, thus, the result of traditional transcription since Amoghavajra.

The character 沙 for No. 28 in the *FSK* should be corrected to 薩, according to the *CTT*, and the character 薩 for No. 22 should be also corrected to something which has an initial *z*.

Thus, the phonetic values of Nos. 17-19, 28 and 22 in this group are *ts*, *ts'*, *dz*, *s*, *z*, respectively.

H: Laryngeal group

This group has given us many difficulties. The problems will be discussed in the next chapter (§ 4).

³² *Han-yü Fang-yin Tzu-hui* (Peking, 1962) also adopts Karlgren's [ʒ]. Phonetically speaking, [ʒ] is a voiced of [ʃ] in the retroflex group. But the *jih-mu* is not derived from the voiced of the *shen-mu* 審母; in other words, there is no phonological opposition between *š* ($=[ʃ]$) and *jih-mu* in modern Pekinese. Therefore, this phoneticisation is inconsistent.

³³ Maspero gives only the formulae associated with *m*, *n*, *y*. But according to Ogawa (op. cit., p. 8) this formula is also applicable to the *jih-mu*. Karlgren (op. cit., pp. 466-9) gives a different formula; $\eta z > \eta g z > g z$.

I : Liquid group

Phonetic values of Nos. 26 and 21 are *l* and *ɾ*. This phoneticisation *ɾ* is adequate to avoid confusion between *z*, *dʒ*, and *jih* initial, as mentioned above.

J: Vowels

Nos. 31, 32, 34 should undoubtedly be *i*, *u*, *o* respectively. Ligeti's observation on the variant of No. 34 (丕)³⁴ (=No. 34a), which appears both in the *PCH* and *MKTY*, is correct, but he does not mention the peculiar final n accompanied by No. 34a. This problem will be discussed in the next chapter (§ 2).

Ligeti's suggestion as to No. 39 (central vowel symbol) is incorrect, and has been rectified by Clauson and Denlinger.³⁵ Nos. 39 and 41 are very similar in shape; in the *MKTY* they are identical. Nos. 40 and 41 and No. 34a are medials. In the *MKTY*, No. 33 is mistakenly described as 𐰣 and Denlinger follows this,³⁶ but in fact the equivalent should be 𐰤 or 𐰥. Oshibuchi and Poppe proposed two central vowels *ø* and *ü* which are compound shapes of No. 41 and Nos. 32, 34a.³⁷ The central vowels are unknown before the advent of modern Chinese, so they should rather be diphthongs in the *MKTY* or other Chinese 'Phags-pa documents. There were, however, central vowels in Mongolian, as Poppe has noted. Chinese transcription of Sanskrit, as far as the vowels are concerned, is much different from that in the *FSK*. For instance, the character 𐰣 for No. 33 has been used to transcribe the Sanskrit *ī*, but in the 'Phags-pa alphabet it is *ē*.

K: Miscellanea

No. 25 was invented solely to transcribe the Mongolian *r*, and was omitted from Chinese material. The Mongolian *r* is a 'strong rolled alveolar

³⁴ 'Trois notes sur l'écriture 'phags-pa', *AOH*, XIII (1961), pp. 201-37, especially pp. 212-25.

³⁵ Clauson, 'The *hp'ags-pa* alphabet', pp. 319, 322; Denlinger, *op. cit.*, p. 428.

³⁶ Denlinger, *ibid.*, pp. 425-6.

³⁷ Oshibuchi, 'Chūgenon'in chū no.....' p. 606; Poppe, *op. cit.* p. 25.

sound'³⁸ and in the *Tsung-k'uo Pien-hua chih t'u* 總括變化之圖 in the *MKTY*,³⁹ it is annotated as *chuan-she-erh* 轉舌兒. This seems that the Mongolian *r* was similar to Chinese retroflex vibrant *ʃ*. The reason why No. 25 was not transcribed by *jih* initial character but was transcribed by the *lai* initial (來母) character (*l*) is also a result of the traditional transcription of the Chinese Buddhist texts.

As regards No. 38, this seems to have been invented to transcribe the Sanskrit *ah* as seen in the *CTT*. Later, however, this letter became completely useless to transcribe Chinese and Mongolian.

³⁸ Poppe, *Grammar of Written Mongolian*, p. 13.

³⁹ *MKJI* (Kansai Daigaku ed.) p. 7; *PSPT* ed., p. 97a.

III

'PHAGS-PA ORTHOGRAPHY IN CHINESE DOCUMENTS

§ 1 Alternation between Voiced and Voiceless Initials

It has been frequently said that in the 'Phags-pa transcription of Chinese, voiced and voiceless initial consonants usually alternate. In fact, this phenomenon can be seen in both the *PCH* and *MKTY* as follows :

group	No.	'Pgs.		Chin.
A.	3	<i>g</i>	:	<i>k</i>
	1	<i>k</i>	:	<i>g</i>
B.	15	<i>b</i>	:	<i>p</i>
	13	<i>p</i>	:	<i>b</i>
D.	11	<i>d</i>	:	<i>t</i>
	9	<i>t</i>	:	<i>d</i>
E.F.	7	<i>dʒ</i>	:	<i>tʂ</i>
	5	<i>tʂ</i>	:	<i>dʒ</i>
G.	19	<i>dz</i>	:	<i>ts</i>
	17	<i>ts</i>	:	<i>dz</i>

However, in the following cases this phenomenon does not appear :

G.	37	<i>f</i>	:	<i>f</i>
	42	<i>v</i>	:	<i>v</i>
F.	27	<i>ʂ</i>	:	<i>ʂ</i>
	43	<i>ʐ</i>	:	<i>ʐ</i>
G.	28	<i>s</i>	:	<i>s</i>
	22	<i>z</i>	:	<i>z</i>
H.	29	<i>h</i>	:	<i>h</i>
	44	<i>ɦ</i>	:	<i>ɦ</i>

That is to say, the alternation of voiced and voiceless initials always occurs in the plosive group (including affricated sounds) and not in the fricative group.

On this problem, Karlgren states :

La supposition *b'*, *d'*, *g'* etc. nous donne aussi la clef d'un autre problème.
Les transcriptions mongoles ont régulièrement des sourdes pour les sonores

chinoises et des sonores pour les sourdes chinoises. Or, si l'on interprète les sonores de l'ancien chinois par *b, d, g* etc., il sera tout à fait incompréhensible que les mongols aient entendu *p* pour *b* et *b* pour *p*. Mais en supposant que les phonèmes de l'ancien chinois ont été *b', d', g'* etc. et qu'en mongol les sourdes *p, t, k* ont été plus aspirées que les sonores *b, d, g* — ce qui est la règle par ex. dans les langues germaniques — on ne trouvera rien d'étonnant à ce que le *b'* chinois, à cause de son aspiration, ait été perçu par les mongols comme un *p'*, et que la sourde faible chinoise *p*, vu son manque d'aspiration, ait été perçue comme un *b*,¹

According to Karlgren, this phenomenon can be indicated as the following scheme :

	Chin.	Mong.	'Pgs.
stage 1.	<i>b'</i>	————→ <i>p</i> (=[<i>p'</i>])	————→ <i>p</i>
Scheme I stage 2.	<i>p</i>	————→ <i>b</i>	————→ <i>b</i>
stage 3.	<i>p'</i>	————→	————→ <i>p'</i>

On the evidence of alternation between voiced and voiceless initials in the Chinese and Mongolian languages, Karlgren concludes that Ancient Chinese voiced initials were aspirated. Chiang Yung 江永 and Ch'en Li 陳澧 assigned the voiced initials to the aspirated group,² which would accord with Karlgren's hypothesis, and Lo Ch'ang-p'ei produces evidences from Chinese Buddhist texts to support this conclusion.³ However, Lu Chih-wei and A. Tōdō hold the opposite view,⁴ and Chao Yuan-ren, although he in general follows Karlgren's hypothesis, still leaves the question open.⁵ Thus it is difficult to associate the phenomenon of alternation between voiced and voiceless initial in 'Phags-pa with the presence of aspiration in Ancient Chinese voiced initials, until the presence of aspiration in Ancient Chinese has itself been proved more conclusively.

As there is no phonological opposition concerning aspiration in Ancient Chinese voiced initials, it is possible to deal phonologically with Ancient Chinese voiced initials without further reference to Karlgren's theory.

¹ Karlgren, *Études sur la phonologie chinoise*, p. 360.

² Chiang Yung, *Yin-hsüeh Pien-wei* 音學辨微: Ch'en Li, *Ch'ieh-yün k'ao wai-pien* 切韻考外篇.

³ Lo Ch'ang-p'ei, *T'ang Wu-tai Hsi-pei Fang-yin*, pp. 27-30.

⁴ Lu Chih-wei, 'Shih CYYY', *YCHP*, XXXI (1946), p. 38, n. 2; A. Tōdō, *Chagokugo On'inron*, pp. 158-61.

⁵ Chao Yuen-ren, 'Lun ch'ing-cho', *AS*, XXX, 2 (1959), pp. 493-7.

In Ancient Chinese there is a phonological opposition between voiced, voiceless aspirated and voiceless non-aspirated initials (e. g. $b:p':p$) in each group. On the other hand, in Mongolian there is a phonological opposition only between voiced and voiceless initials (e. g. $b:p/b:p'$).

Voiceless initials are all strong aspirated,⁶ so we can also denote them p' because there is no phonological opposition between them.

It can be supposed that the alternation between voiced and voiceless initials in 'Phags-pa transcription of Chinese is caused by the differences of phonological opposition in Chinese and Mongolian. The Mongols, who did not possess a phonological opposition between aspirated and non-aspirated initials, might have noticed the phonological opposition between them of Chinese. In this case, the transcription should be as follows:

	Chin.	Mong.	'Pgs.
stage 1.	p'	————→ p ($=[p']$)	————→ p'
<i>Scheme II</i> stage 2.	p	————→ b	————→ b
stage 3.	b	————→	————→ p

In this scheme, Chinese and Mongolian naturally correspond to each other; however the voiced initial b excluded from Chinese in stages 1 and 2 should be replaced by p which is also excluded from 'Phags-pa transcription in the stages 1 and 2. Therefore it can be said that stages 1 and 2 are a natural alternation from the Mongolian point of view, but stage 3 is an artificial alternation introduced from a comparison with Chinese usage.

Another explanation is also possible. In the T'ang period, the Uighur script tended to transcribe Chinese voiced initials (except nasals) by voiceless initials.⁷ This was influenced by the denasalisation of the North-western dialects as discussed in Chapter II. This can be shown as follows:

⁶ See Poppe, *Grammar of Written Mongolian*, pp. 12-5; *Introduction to Mongolian Comparative Studies*, pp. 95-171.

⁷ See Csongor, 'Chinese in the Uighur script of the T'ang-period', pp. 110-9. (comparative list of the Middle Chinese glosses in Uighur script) in which one may find the following examples (AC sounds are in parentheses): 伽 ka (gia); 麒 ki (gji); 毗 pi (bji); 大 tai (dai); 弟 tai ($diei$); 己 ki (kji); 般 pan ($puan$); 等 $tang$ ($təng$); 高 qo (kau); 都 tu (tuo); 開 qai ($k'ai$); 柴 tso ($dzang$); 孔 $qung$ ($k'ung$); 統 $tung$ ($t'ung$); 摩 ba (mua); 危 $gü$ ($ngjwie$); 彥 gen ($ngjiän$); etc.

	Chin.	Ugr.
stage 1.	<i>m</i> —————→	<i>b</i>
<i>Scheme III</i> stage 2.	<i>b</i> —————→	<i>p</i>
stage 3.	<i>p, p'</i> —————→	<i>p</i>

In the Yuan period, however, the Uighur transcription of Chinese was influenced by phonetic changes in Old Mandarin, by which voiced initials were distributed to either aspirated or non-aspirated voiceless initials depending upon their tones. Therefore, in Old Mandarin there is simply an opposition between aspirated and non-aspirated voiced initials. The Mongols regarded this phonological opposition in Old Mandarin as that between voiced and voiceless initials⁸. So in the case of Mongol, alternation might have occurred as follows:

	Chin.	Ugr.
<i>Scheme IV</i> stage 1.	<i>p</i> —————→	<i>b</i>
stage 2.	<i>p'</i> —————→	<i>p</i> (= [p'])

This principle had apparently already been established when the 'Phags-pa script came into existence.⁹ In the 'Phags-pa transcription of Chinese, the alternation suggested above also took place. In order to transcribe the voiced initials which were still retained in the non-Mandarin area, 'Phags-pa script had to use the only group of letters available, as follows:

⁸ Cf. F.W. Cleaves, 'The Sino-Mongolian inscription of 1362 in memory of Prince Hindu', *HJAS*, XII (1949), pp. 1-133+27 plates, esp. see pp. 69-82, 'Index verborum Mongolicorum'. In this index, the following examples may be seen (Pekinese sounds in parentheses): 伯 *bai* (*pai/po*); 部 *bu* (*pu*); 判 *bun* (*p'an*); 碑 *bii* (*pei*); 兵 *bing* (*ping*); 德 *dü* (*te*); 等 *ding* (*teng*); 都 *du* (*tu*); 東 *dung* (*tung*); 金 *gim* (*chin*); 官 *gon* (*kuan*); 光 *gong* (*kuang*); 國 *gui* (*kuo*); 臺 *tai* (*t'ai*); 騰 *ting* (*t'eng*); 同 *tung* (*t'ung*); etc. The Uighur transcription of Chinese has definitely been influenced by old Mandarin. Furthermore, in the tentative romanisation of Chinese put forward in 1957 in mainland China, the phonological opposition between aspirated and non-aspirated initials is replaced by that between voiced and voiceless initials. The Japanese also tend to regard Chinese *p*: *p'* as *b*: *p* respectively.

⁹ Hope also gives an explanation of alternation in the 'Phags-pa transcription of

	Chin.		Mong.		'Pgs.
stage 1.	<i>p</i>	----->	<i>b</i>	----->	<i>b</i>
<i>Scheme V</i> stage 2.	<i>p'</i>	----->	<i>p</i> (=[<i>p'</i>])	----->	<i>p'</i>
.....					
stage 3.	<i>b</i>	----->		----->	<i>p</i>

In this scheme, stages 1 and 2 are identical with those in *Scheme IV*, and stage 3 was necessarily added to transcribe the non-Mandarin voiced initials as seen in the *MKTY* and *PCH*. E.R. Hope's scheme is identical with the above *Scheme V*, but his intention is apparently to illustrate the alternation between 'clear null' and 'muddy null' pitches. He states, 'The Tibetan muddy null ʔ, which has the same tone as KH/Gh [*g*], TH/Dh [*d*] etc, becomes the clear-pitch null of Chinese, while the Tibetan clear-pitch null ʔ̄, which is of the same tonal series as the initials G [*k*], D [*t*], etc. becomes the muddy null in Chinese.'¹⁰([] indicates my adjustment.)

In the 'Phags-pa Mongolian documents, as Poppe points out,¹¹ the confusion of fortis and lenes, especially initially, occurs. Although no explanation about this phenomenon is given by Poppe, it should be noted that in the 'Phags-pa Mongolian documents *alternation* between fortis and lenes does not occur but simply the *confusion* between them occurs. In Mongolian consonantalism, there is a phonological opposition between voiceless and voiced initials (e.g. *p/k*: *b/g*). Normally, however, according to Poppe, the Mongolian voiceless stops are strong aspirated fortis.¹² Also in Uighur orthography, the letters denoting *p/k* and *b/g* are not distinguished from each other; in other words, only one Uighur letter is provided to denote either *p/k* or *b/g*. Since *p/k* and *b/g* are phonetically [*p'*]/[*k'*] and [*b*]/[*g*] respectively, these two

Chinese: 'Evidently the identification of Mongol G [*g*] with Chinese G [*k*] was already established at the time, and too strongly established to allow any change to be made.' (*Karlgren's Glottal Stop Initials*..., p. 35), but he gives no reference or reason for this phenomenon.

¹⁰ Hope, *ibid.*, p. 36.

¹¹ Poppe, *Mongolian Monuments* ..., p. 33.

¹² Poppe, *Grammar of Written Mongolian*, pp. 12-5.

phonemes are to be distinguished from each other, but they have no orthographical distinction at all. After the 'Phags-pa script was introduced, the letters denoting the voiceless aspirated consonants *p'* and *k'* were added to Mongolian documents. Thus, in 'Phags-pa Mongolian documents, the phonemes *p* and *k*, which were phonetically [p'] and [k'], were represented by using the 'Phags-pa letters *p'* and *k'*, while the 'Phags-pa letters *p* and *k* were used for representing *p* and *k* in the words of foreign origin.¹³ The confusion of *p'/k'* and *b/g* in the 'Phags-pa Mongolian documents took place of that of *p/k* and *b/g* in the Uighur orthography. This phenomenon is, thus, to be regarded as a consequent development from the Uighur orthography and not to be regarded as a phonological confusion between fortis and lenes.

Hattori also explains the confusion between fortis and lenes in the 'Phags-pa Mongolian documents and ascribes it to the result of the Tibetan transcription of Mongolian which tended to transcribe the Mongolian voiceless aspirated by the 'Phags-pa voiced letters, as in the Lhasa dialect of Tibetan of the time the voiced was actually pronounced like voiceless.¹⁴ This explanation is, however, hardly acceptable unless the fact that the Tibetans in Lhasa transcribed Mongolian in the 'Phags-pascript is proved. The 'Phags-pa script is supposed to have not been used in Tibet at the time but only been used in Mongolian and China.

On the one hand, Hattori also explains the peculiar phenomenon of alternation between voiceless and voiced initials in 'Phags-pa Chinese documents. Hattori states: 'At the time, the principle that the Chinese voiceless non-aspirated was represented by the 'Phags-pa voiced letters and the Chinese voiceless aspirated was represented by the 'Phags-pa aspirated letters was established, because the Chinese and Mongolians of the time, in comparing their languages, regarded the Mongolian voiced/voiceless aspirated as the Chinese voiceless non-aspirated/voiceless aspirated. Thus, the Chinese voiced aspirated which did not exist in Mongolian was necessarily represented by the letters derived from the Tibetan voiceless letters.'¹⁵ This can be deduced as *Scheme VI* shows:

¹³ See Poppe, *Mongolian Monuments...*, pp. 19-21, esp. Nos. 5, 11, 12 and 21.

¹⁴ Hattori, *Genchōhishi no Nōkogo...*, p. 68.

¹⁵ Hattori, *ibid.*, p. 67.

		Chin.	Mong.	'Pgs.
Scheme VI	stage 1.	p	$\longrightarrow b$	$\longrightarrow b$
	stage 2.	p'	$\longrightarrow$	$\longrightarrow p'$
	stage 3.	b'	$\longrightarrow p$	$\longrightarrow p$

Although Hattori's premise of this explanation that the Chinese voiced initials were aspirated as Karlgren's cannot be accepted, his interpretation mentioned above illustrates that the alternation of Chinese voiced and voiceless initials in the 'Phags-pa orthography was a result of difference of phonological opposition between the Chinese and Tibetan languages and Mongolian language. That is to say, the Mongolian language has only distinction between sonants and surds, while the Chinese and Tibetan ('Phags-pa) languages have the phonological opposition between aspiration and non-aspiration as well as sonants and surds.

§ 2. The Peculiar η

The phoneme η is usually denoted as No. 12 (∞) in the 'Phags-pa script. However, only in the *MKTY* a variant of No. 12 (∞) appears regularly, and this letter is always accompanied by the vowel ($\neq$) which is also a variant of No. 34 ($\neq$) and which occasionally appears in Mongolian documents.¹⁶ Concerning the distribution of $\neq$ and $\neq$, Ligeti has proposed a comprehensive theory,¹⁷ but he gives no mention of ∞ accompanied by $\neq$.

The distribution of ∞ and $\neq$ in the *PCH* and *MKTY* is as follows:

	AC	CYYY	PCH	MKTY
黃 <i>huang</i>	(宕攝 1, 合, 匣母)	<i>hwang</i>	$\gamma\acute{o}\eta$	$\gamma\acute{o}\eta$
崦 <i>guan</i>	(山攝 1, 合)	$\cdot won$	—	$\acute{o}\eta$
官 <i>kuan</i>	(")	<i>kwon</i>	$g\acute{o}\eta$	$g\acute{o}\eta$
寬 <i>k'uan</i>	(")	<i>k'won</i>	—	$k'\acute{o}\eta$
端 <i>tuan</i>	(")	<i>twon</i>	—	$d\acute{o}\eta$

¹⁶ In Mongolian documents, Ligeti's δ occurs in many cases, but the most peculiar case should be found in the word *mōngk'a* ('eternal') in the initial formula of edicts. See W. Kotwicz, 'Formules initiales des documents mongols aux XIII-e et XIV-e ss.,' *RO*, 10 (1934) pp. 131-57; Poppe, *Mongolian Monuments...*, pp. 68-72; Pelliot, 'Un rescrit mongol en écriture 'phags-pa', *TPS*, II, pp. 621-4; Ligeti, *ibid.*

¹⁷ Ligeti, 'Trois notes ..., ' pp. 212-25.

湍	<i>t'uan</i>	(")	<i>t'won</i>	—	<i>t'ôn</i>
段	<i>duan</i>	(")	<i>t'won</i>	<i>tôn</i>	<i>tôn</i>
暖	<i>nuan</i>	(")	<i>nwon</i>	—	<i>nôn</i>
潘	<i>p'uan</i>	(")	<i>p'won</i>	<i>pôn</i>	<i>p'ôn</i>
滿	<i>muan</i>	(")	<i>mwon</i>	<i>môn</i>	<i>môn</i>
桓	<i>ɣuan</i>	(")	<i>hwon</i>	<i>ɣôn</i>	<i>ɣôn</i>
樂	<i>luan</i>	(")	<i>lwon</i>	<i>lôn</i>	<i>lôn</i>
卷	<i>k'iuAn</i>	(山攝 3, 合)	<i>kjwen</i>	---	<i>geôn</i>
勸	<i>k'iuAn</i>	(")	<i>k'jwen</i>	—	<i>k'eôn</i>
戀	<i>liuAn</i>	(")	<i>ljwen</i>	—	<i>leôn</i>
浮	<i>b'ieu</i>	(流攝 3, 開, 唇音)	<i>fu</i>	<i>fu</i>	<i>fôw</i>
復	<i>p'ieu</i>	(")	<i>fu</i>	<i>fu</i>	<i>fôw</i>

Ligeti's *ô* or Hattori's *o* in Chinese documents are considered to be denoted as [ɔ] phonetically, because the nucleus is evenly the back-vowel [ɑ] and the medial preceding it is also a back-vowel [u] in the 1st-degree of the both *shan-she* 山攝 and *tang-she* 宕攝. On the other hand, 2nd-degree of these groups had a nucleus [ɑ] and medial [w]. From these facts, it is supposed that the medial [u] in these groups was much stronger than ordinary medial [w], so it is possible to assume that this medial [u] has a tendency to assimilate [ɑ] into [u] itself. Even in the *CYYY* this phenomenon occurs; the nucleus [ɑ] in Ancient Chinese changes to [o] being attracted by the medial [u]; as a result of this medial [u] changes to [w] and the nucleus [ɑ] changes to [o]. Similarly, in the *MKTY* as a result of mutual attraction, either [o] or [ɔ] can appear. In this case, *ô* (or *o*) should be [ɔ], because [o] had already appeared in the *MKTY* as follows.

			<i>CYYY</i>	<i>MKTY</i>
<i>shan, tang</i> (- <i>she</i>),	1st h.k.	{	<i>-uan</i> → [-won]	[-ɔn]
			<i>-uang</i> → [-wan]	[-ɔŋ]
„ „	2nd h.k.	{	<i>-wan</i> → [-wan]	[-wan]
			<i>-wang</i> → [-wan]	[-wan]

On the other hand, Hattori denotes ㄨ as *n* to distinguish it from other ordinary *n*, though he does not give any explanation of *n*.¹⁸ As seen in the *MKTY*, this letter has obviously the different function from ordinary *n*. In the Genroku edition of the *PCH*, this letter appears often, but they are apparently misprints which Ts'ai Mei-p'iao corrected in the *PSPT*.¹⁹ Another evidence of the existence of the letter ㄨ is the table of seal-script forms of the 'Phags-pa script. According to this table,²⁰ each letter of the 'Phags-pa script has at least one seal-script form; e. g. No. 12 (ㄨ) has three seal-script forms; ㄨ, ㄨ and ㄨ, and the variant of No. 12 (ㄨ) has one; ㄨ. From this it would seem to follow that two letters ㄨ and ㄨ had different functions. This may be confirmed by some considerations of modern dialects as follows:

Table 5

final	shan-she 山攝								chen-she 臻攝
<i>k'ai-ho</i>	k. k.			h. k.					
degree	1,2	3	4	1	2	3			4
initial						k,h ..	ts-	f-	
Soochow	E	E, ø	ɿ	ø		iø	ø	E	ɿ iø
Wenchow	a	a, i	i	ø		y		a	y
Yangchow	ɛ	ɛ, i	i	uø	ɛ	yī	uø	ɛ	yī

¹⁸ Hattori, op. cit., p. 44.

¹⁹ *PSPT*, pp. 45-52.

²⁰ The table of the seal-script forms of the 'Phags-pa script in the *MKTY* is defectively compiled, e.g. *k'* and *dʒ* appear in duplicate, the seal-script forms of *f* and *t* are too artificial, the seal-script form of *d* is obviously a mistake, etc. But some of seal-script forms of the 'Phags-pa script in this table resemble those in the Tibetan seal-script, e.g. *j, y, l, s, z, u, i*, etc. These seal-script forms were also sometimes used in epigraph inscriptions, and the Tibetans might have used these Chinese inscriptions in the 'Phags-pa script as models in inventing their own seal-script. Although the 'Phags-pa script is also called 'square script', some letters include round strokes such as in ㄨ, ㄨ, ㄨ, ㄨ and ㄨ. These letters are not suitable for seal-script, so the Chinese made them square as in the seal-script forms of Chinese characters.

Sian	a						ẽ
Taiyuan	ǣ	ε	ǣ			ε	ŋ
Amoy	n	n, i	n, ă	uă	n		
Foochow	ŋ						
Mandarin	n						

(This table is based on the *Han-yü Fang-yen Tzu-hui*.)

This table shows different variants of the final consonant *n* in modern dialects. From this table the following facts can be deduced: (1) in Peking and some other Mandarin-speaking areas the final *n* has not changed; (2) in Foochow *n* has evenly changed to *ŋ*; (3) in Amoy it has not changed except for occasional nasalisation; (4) in both the Sian and Taiyuan dialects it has also been nasalised apart from *ŋ* of *chen-she* in Taiyuan; (5) in Yangchow (in the Mandarin-speaking area) it has been nasalised except *chen-she*; (6) in the Wu dialects (Soochow and Wenchow) it has been dropped in the *shan-she* group, but in the *chen-she* group it has been kept except in Wenchow, where it has changed to *ŋ*.

Comparing this table with the distribution of *ŋ* in the *MKTY*, we see that *ŋ* which is a variant of *n* cannot correspond to the Mandarin *n* because in Peking and some other Mandarin-speaking areas *n* has been a very stable dental plosive.

Most of Mandarin speaking areas, therefore, should be excluded from the possibility of accordance because the *chen-she* group in the *MKTY* has an ordinary *n*, although in Sian and Taiyuan it usually changed to either *ŋ* or nasalised sounds. Similarly Foochow can be excluded because *n* has evenly changed to *ŋ*. The Amoy dialect can also be excluded, because this dialect has retained an ordinary *n* in *ho-k'ou* while in the *MKTY* *n* had changed to the peculiar *ŋ* under the similar conditions to the Amoy dialect. Therefore, the possibility of similarity between the *MKTY* and modern dialects concerning the peculiar *ŋ* may be connected

with one of the dialects of Soochow, Wenchow, or Yangchow. The Soochow and Wenchow dialects belong to the Wu dialects and the Yangchow dialect belongs to the Mandarin-speaking area (though Yangchow situates nearer to the Wu dialects area). The Yangchow dialect is more strongly influenced by the Wu dialects, although it still keeps some peculiarities of Mandarin; for example it has no retroflex initials, keeps the entering-tone as a glottal stop, and its proportion of the nasal final consonants reserved is similar to that of the Wu dialects etc., although it has dropped the voiced initials as in most of the Mandarin dialects.

In the Wu dialects (in this case, the Yangchow dialects is for convenience included in this group), the *yang-lei* 陽類 final group²¹ has a tendency to change depending on nature of their preceding nuclei regardless their original nature in Ancient Chinese.

According to Tōdō, in the Soochow dialect there is a phonological opposition between *n* and *ŋ* similar to Pekinese, and this opposition can be denoted as [n], [ŋ] and [ã] (nasalised) phonetically.²² However, these sounds supplement each other as follows:

	根	:	更		新	:	星		爭		剛		工
Pek.	/kən/	:	/kəŋ/		/sjən/	:	/sjəŋ/	:	/tʃən/		/kaŋ/		/kwəŋ/
Soochow	[kən]				[siən]				[tsã]		[kəŋ]		[koŋ]

In other words, [ŋ] appears after the back-vowel [ɤ] and [o], [n] appears after the front-vowel [ə] and nasalisation occurs after [a].

²¹ In the traditional Chinese phonology, the final consonants can be divided into the following three groups:

<i>yin-lei</i> 陰類	<i>yang-lei</i> 陽類	<i>ju-lei</i> 入類	
-a	-ang	-ak	ends with velars
-aj	-an	-at	ends with dentals
-aw	-am	-ap	ends with bilabials
ends with null	ends with nasals	ends with plosives	

²² A. Tōdō, op. cit., pp. 59-62.

Therefore, from the viewpoint of phonology we can state that there is only one phoneme *n* denoting the nasal final consonant in the Soochow dialect.

The latest observation of the Wu dialects also supports Tōdō's explanation, though there are some differences between them on some minor points. The following table shows distribution of the *yang-lei* group.²³

Table 6

AC dialects	山, 咸	臻, 深		宕 江	梗		通		曾	
			k. k., 3			k. k. 3, 4		h. k. 3		k. k. 3
Yangchow	nasalised	n	nasalised	ŋ	ŋ	ɿ		ŋ	n	i
Soochow	E, ø, ɿ		n	ŋ		ŋ		ŋ		n
Wenchow	a, ø, y		ŋ	ɔ	ɛ	ŋ		ŋ ɔ		ŋ
Mandarin		n			ŋ					

As shown before, in the *MKTY* the group which has a peculiar *ŋ* appears only in the 1st-degree and a part of the 3rd-degree of *ho-k'ou* in the *shan-she* group. It therefore follows that this peculiar *ŋ* would denote a transitional feature of either nasalisation in the Yangchow dialect or the disappearance of the final *-n* in the Soochow and Wenchow dialects from the phonetical viewpoint.

Phonetically speaking there are four variants of the dental nasal stop as follows:

1. [ŋ] : stop articulated with either blade, a front of the tongue or both.
2. [ɲ] : stop articulated with front of tongue and front of palate.
3. [ŋ̃] : nasalised ; e. g. *ǣ*, *ǿ*.
4. [N] : loose stop articulated with back of tongue and rearmost part of back palate (including the uvula).

Among them, 1 and 2 can be phonologically denoted as /ŋ/ or /ɲ/, which appear as palatalized [ɲ̃] in the *MKTY*. Therefore these two pho-

²³ *Han-yü Fang-yin Tzu-hui*. Also investigation in Chao Yuen-ren's *Hsien-tai Wu-yü te Yen-chiu* is the same as above.

nemes cannot be identified with the peculiar *ɲ*. If the stop articulated with blade and alveole ([*n*]) loosens and the point of articulation retreats to the back, then it changes to either nasalised [*ŋ*] or post-velar [*N*]. The peculiar *ɲ* in the *MKTY* is supposed to be one of these, and [*ŋ*] or [*N*] have been loosened even more to complete the disappearance of *n* as in modern Wu dialects. In this paper, especially in Chap. IV, § 6, I shall use the sign *N* in denoting this peculiar *ɲ*, since at the time of the *MKTY*, nasalisation is considered to have not yet sufficiently undergone even in the Wu dialects.

§ 3 The Vocalism of Peculiar *h*

In both the *PCH* and *MKTY* especially in the *MKTY*, a peculiar *h* which vocalises as a medial appears frequently. Dragunov and Ligeti have discussed this but not in any detail, and Clauson and Denlinger have followed their conclusions.²⁴ The distribution of vocalic *h* in the *MKTY* is as follows:

	AC	CYYY	PCH	MKTY
鄧 <i>təŋ</i> (會攝, 1, 開)	<i>təŋ</i>	<i>təŋ</i>	<i>tɪŋ</i>	<i>dɦɪŋ</i>
爭 <i>tʂəŋ</i> (梗攝, 2, 開, E, F)	<i>tʂəŋ</i>	<i>tʂəŋ</i>	-	<i>dʒɦɪŋ</i>
生 <i>ʃiəŋ</i> (" , 3, 開, F)	<i>ʃəŋ</i>	<i>ʃəŋ</i>	-	<i>zɦɪŋ</i>
史 <i>ʃɿ</i> (止攝, 2, 開, F)	<i>ʃɿ</i>	<i>ʃɿ</i>	<i>ʃi</i>	<i>zɦɿ</i>
司 <i>si</i> (" , 4, 開, G)	<i>si</i>	<i>si</i>	<i>si</i>	<i>shɿ</i>
瑟 <i>ʃet</i> (臻攝, 2, 開, F入)	<i>ʃɿ</i>	<i>ʃɿ</i>	-	<i>zɦɿ</i>
戢 <i>tʂəp</i> (深攝, 2, 開, F入)	-	-	-	<i>dʒɦɿ</i>
德 <i>tək</i> (會攝, 1, 開, 入)	<i>tək</i>	<i>tək</i>	-	<i>dɦɪj</i>
色 <i>ʃək</i> (" , 2, 開, F入)	<i>ʃək</i>	<i>ʃək</i>	-	<i>zɦɪj</i>
根 <i>kən</i> (臻攝, 1, 開)	<i>kən</i>	<i>kən</i>	-	<i>ghɪn</i>
臻 <i>tʂən</i> (" , 2, 開, F)	<i>tʂən</i>	<i>tʂən</i>	-	<i>dʒɦɪn</i>
鈎 <i>kəu</i> (流攝, 1, 開)	<i>kəu</i>	<i>kəu</i>	<i>giw</i>	<i>ghɪw</i>
鄒 <i>tʂəu</i> (" , 2, 開, F)	<i>tʂəu</i>	<i>tʂəu</i>	<i>jiw</i>	<i>dʒɦɪw</i>
岑 <i>dʒəm</i> (深攝, 2, 開 F)	<i>tʂ'əm</i>	<i>ɕim</i>	<i>ɕim</i>	<i>tʂɦim</i>
莊 <i>tʂəŋ</i> (宕攝, 2, 開 F)	<i>tʂwəŋ</i>	<i>jiən</i>	<i>dʒɦəŋ</i>	<i>dʒɦəŋ</i>

²⁴ Dragunov, op. cit., p. 30; Ligeti, 'Le Po kia sing...', pp. 11, 14 (n. 41); Clauson, 'The *hP*'ags-pa alphabet', p. 320; Denlinger, op. cit., pp. 416, 427.

From this table of distribution, the following formula can be deduced :

	AC	CYYY	MKTY
(1)	-ə- (會, 臻, 流, 1)	} -ə-	} - <u>hi</u> -
(2)	-ə- (會, 臻, 流, 深 2, E, F)		
(3)	-i- (止, 2, F)	} -i-	
(4)	-i- (止, 4, G)		
(5)	-ang	→ -wang	-hang

As far as (1) is concerned, there are very few dialects whose nucleus of the 1st-degree final has changed to the deflected sounds,²⁵ except the Shuangfeng and Amoy dialects.²⁶ Therefore, it may be easily supposed that *-hi-* in the *MKTY* is not a deflected sound but one of the straight sounds. As far as (2), (3) and (4) are concerned, the supradental had already lost the deflected element (-i-) by this time, both in the Mandarin-speaking area and amongst the Wu dialects. In other words, *-hi-* in the *MKTY* should have something like the quality of a semi-vowel which is not a deflected sound. From this point of view, Ligeti's denotation *i̇*, which represents a central vowel, is reasonably correct but still not sufficiently inclusive to embrace all conditions mentioned above. Also, as Clauson explains: '... *-hi* is obviously a back *i*,

²⁵ As to the details of this term and straight sounds, see the following table:

	<i>k'ai-k'ou</i>	<i>ho-k'ou</i>	nature of vowel	nature of final
1	(A) <i>kan</i> <i>kən</i>	(B) <i>kwan</i> <i>kwen</i>	low and back	straight sound 直音
2			high and front	
3	(C) <i>kien</i> <i>kien</i>	(D) <i>kiwen</i> <i>kiwan</i>	central [i̇]	deflected sound 拗音
4			front [i]	

The sounds which belong to the columns (A), (B), (C) and (D) are called *k'ai-k'ou-hu* 開口呼, *ho-k'ou-hu* 合口呼, *ch'i-ch'ih-hu* 齊齒呼 and *she-k'ou-hu* 撮口呼 respectively.

²⁶ According to the *Han-yü Fang-yen Tzu-hui*, *tsəŋ* and its group have changed to *tcie* in the Shuangfeng dialect and to *tsy* in the Amoy dialect. The Foochow dialect also occasionally has this tendency.

the sounds represented in the Wade transcription system by *-ih* (in such words as *chih*) and *-ü* (in such words as *tzü*); but it is hard to grasp its function in *-hang*.²⁷ This explanation is misleading, because in the *MKTY* *-hi* does not appear in any 'sound represented in the Wade transcription system by *-ih*' but only appears in the supradental group under the condition mentioned above. As shown in p. 52 (Chapter II, § 2, E, F), the phonetic changes of retroflex sounds since the Northern Sung period have been very complicated, but nevertheless the distinction between the supradental and affricated alveolo-palatal groups had been preserved until the early seventeenth century, although the initial consonants had already assimilated each other at that time. Even in the *CYYY* the supradentals in *stage 3* (see p. 52) derived from the affricated alveolo-palatal still retained a deflected element as follows:

Table 7

<i>CYYY</i> AC	齊微韻 <i>-jei</i>	支思韻 <i>-i</i>	Modern Mandarin	Modern Wu
F (2nd)		止	[-ɿ]	[-ɿ] or [-ɥ] (except entering-tone)
F (3rd)	蟹 (entering-tone)	止		
E	止 (entering-tone)			

On the other hand, in the *MKTY* the distinction between the supradental, affricated alveolo-palatal, and cerebral groups is as follows:

Table 8

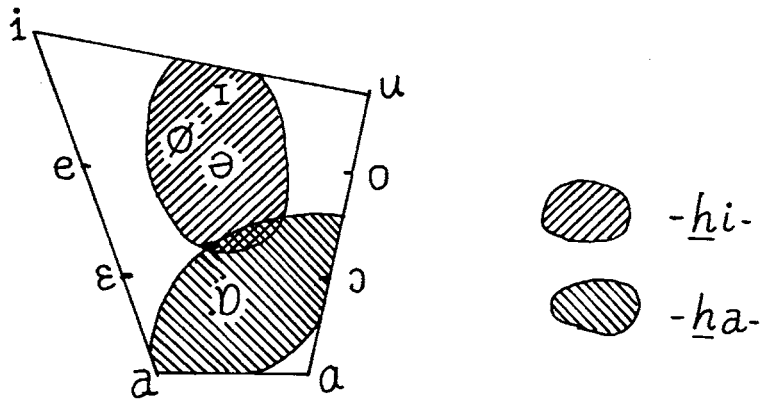
<i>MKTY</i> AC	支 <i>-i</i>	韻 <i>-hi</i>
F (2nd)		止, 臻, 深 (entering-tone)
F (3rd)	止, 蟹 (entering-tone)	
E	止 (entering-tone)	

²⁷ Clauson, op. cit., p. 320.

All the characters in these tables have changed to retroflex vibrant in modern Mandarin, however in both the *CYYY* and *MKTY* distinctions were still made between them on the basis of their origins in Ancient Chinese. Therefore, Clauson's explanation, '-*hi* is obviously a back -*i*, the sound represented in the Wade transcription system by -*ih*' is completely erroneous.

Phonetically speaking, -*hi* should be placed somewhere near the vowels [i], [ə], [ɪ] depending on its original vowel in Ancient Chinese. In the *MKTY*, the characters 士, 事, 四, 此, etc. (*chih-she*, 2nd- and 4th-degrees) should have a central closed vowel [ɪ], and the characters 崩, 彭, 登, etc. (*tseng-she*, 1st-degree) should have a front half-closed vowel [ø].

As regards -*hang*, it is still difficult to infer its function as Clauson states. However, the characters 莊, 創, 牀, 霜, etc. (supradental with a front vowel [a]) have changed to *ho-k'ou* in the Mandarin-speaking area despite their original nature as members of the *k'ai-k'ou* group. In the Wu dialects they have changed to a back vowel [ɔ] or [ɒ]. Thus it is supposed that in the *MKTY* *ha-* is used to indicate the change of [a] to the back vowels of either [u], [ɔ] or [ɒ], therefore *ha-* may be located between them as the following diagram:



In the *MKTY*, as shown later, there is no [ø], [ɿ] or [ə] as nuclei, and those vowels are very infrequent. Thus *-h* is supposed to be put forwards as a common medial to indicate these delicate phonetic distinctions.

From these observations, the following scheme can be deduced:

AC			
-ə- (1st)	} + <i>-h</i> ·	{	-i- = [ø]
(E, F)			[ɿ]
-i- (E, F)			[ɿ]
-i- (G)			[ø]
-a- (E, F)			[ɒ]

Of course, it is difficult to determine the phonetic values of *-h* under the conditions mentioned above. So these three values are simply tentative, and indicate approximate quantity which might be able to satisfy some conditions.

§ 4 Differentiations in the Laryngeal Group

In Ancient Chinese the laryngeal group²⁸ is divided into the following four initials; *ying-mu* 影母 (=·), *hsiao-mu* 曉母 (=h), *hsia-mu* 匣母(=ɦ) and *yü-mu* 喻母(=j). On the other hand, in the *Ku-chin Yün-yui Chü-yao* 古今韻會舉要(abbr. *KYC*) the following three initials were also added; *ho-mu* 合母, *yü-mu* 魚母 (to distinguish 喻母 and 魚母, the former will be called *yü-mu 1* and the latter will be called *yü-mu 2*) and *ao-mu* ㄠ母; the *MKTY* follows this. The 'Phags-pa script signs denoting these sounds are: No. 23 𑖇 for *ying-mu*, No. 29 𑖉 for *hsiao-mu*, No. 44 𑖊 for *hsia-mu*, No. 24 𑖋 for *yü-mu 1*, No. 36 𑖌 for *ho-mu*, No. 30 𑖍 for *yü-mu 2* and No. 45 𑖎 for *ao-mu*. The conditions under which the various members of the laryngeal group are differentiated in the *MKTY* are as follows:

²⁸ In this paper, the term 'laryngeal' is a translation of *hou-yin* 喉音 in the traditional Chinese phonology. In fact, *hou-yin* includes palatals ([j], [y]), velars ([x], [ɣ]), uvulars ([q], [R]) and laryngeals ([ʔ], [h], [ɦ]) phonetically. Therefore the term 'laryngeal' in this paper follows the traditional Chinese terminology.

Table 9

MKTY AC		影	匣	喻	合	魚	么	疑 ²⁹	曉
影	1	+							
	2	k.k.					+		
		h.k.	+						
	3	+							
	4	k.k.					+		
		h.k.	+						
匣	1				+				
	2	k.k.	+						
		h.k.			+				
	4		+						
喻	3	k.k.		+					
		h.k.				+			
	4			+					
疑	1	k.k.						+	
		h.k.				+			
	2	k.k.		+					
		h.k.				+			
	3	k.k.		+				+	
		h.k.				+			
	4			+				(+)	
曉									+

²⁹ In this table, the column of *i-mu* is insufficient because this initial still retains its original nature in Ancient Chinese under the condition of *k.k.* of 1, 3 and 4 degrees.

Hattori puts forwards as the actual phonetic values of these seven initials the following: ³⁰

ɿ	:	ying-mu	[ʔ]
y	:	ao-mu	[ʔj]
ʹ	:	yü-mu 2	(gradual beginning of voice)
j	:	yü-mu 1	[j]
h	:	hsiao-mu	[h]
ɣ	:	ho-mu	[ɣ]
ɦ	:	hsia-mu	[ɦ]

adding by way of justifications:

According to the established theory of Chinese phonology, this is the only way to infer the sounds. On the other hand, comparison with a Tibetan sound represented by the Tibetan letter 'a (=ɿ) and a Mongolian sound represented by a 'Phags-pa sign equivalent to this Tibetan character, suggests that it is better to take [ʔ] for 'ɿ, and ʹ as the gradual beginning of voice'. Dragunov, in his article 'The *h*Phags-pa script and Ancient Mandarin', also takes the Chinese sounds represented by these 'Phags-pa signs as follows:

ɿ	:	[ʔ]
ʹ	:	[h]
j	:	[j]

Dragunov does not explain his reasons, although he notices that the Tibetan sounds representing the first two are [h] and [ʔ] being exactly opposite to each other. I shall attempt to explain this difficulty by pointing out that in Mongolian documents in 'Phags-pa script, the initial vowels are represented either with an initial consonant ʹ (and vowel) or a special vowel as follows:

Mong.	:	'Pgs.
a	:	'(a)
e	:	E
i	:	I
o	:	<u>Q</u>
u	:	<u>U</u>
ö	:	'eo, 'e <u>o</u>
ü	:	'eu

In exceptional cases, the letter ɿ is rarely used like *ɿi-he-ɿen* and *ɿeu-gu-le*. The reason why the initial ʹ is more frequently used than ɿ is not due to the fact that the Mongolian initial vowel begins with clear [ʔ], but is caused by the fact that in Tibetan ʹ is more frequently used than ɿ as an initial vowel. If it may be supposed that in Mongolian the initial vowels are always preceded by [ʔ] as a phoneme, the letter ʹ is probably used to represent the phoneme [ʔ]. The Chinese might have regarded ʹ, which is the gradual beginning of voice in Mongolian initial

³⁰ Hattori, op. cit., pp. 50-2, 71-2(n.18).

vowels as the same as *yü-mu* 2, and also identify the initial [j] with *yü-mu* 1. Thus they may have adopted an initial *ɕ* to represent *ying-mu* and invented an initial *y* which is derived from the 'Phags-pa *j* to represent *ao-mu*.³¹

As far as the 'Phags-pa Mongolian documents are concerned, Hattori's theory corresponds exactly to the result of Poppe's investigations³²; however, we still need to consider the ascription in the *KYC* to clarify the phonetic value in Chinese documents. The *KYC* denotes these sounds as follows:

hsiao-mu : 羽次清音
ho-mu : 羽濁次音
hsia-mu : 羽濁音
ying-mu : 羽清音
ao-mu : 羽次清次音
yü-mu 2 : 角次濁次音
yü-mu 1 : 羽次濁音

Namely, the terms *yü* 羽 and *chiao* 角 correspond to *hou-yin* 喉音 (=laryngeals) and *ya-yin* 牙音 (=velars) in the *Yün-ching* 韻鏡 system.³³ *Tz'u-ch'ing-yin* 次清音, *cho-yin* 濁音, *ch'ing-yin* 清音 and *tz'u-cho-yin* 次濁音 mean voiceless aspirated initials, voiced initials, voiceless non-aspirated initials and voiced nasal initials respectively. The function of *tz'u-yin* 次音, however has not yet been clearly worked out.

According to Chang Fu's 章黼 *Ch'i-yin san-shih-liu-mu fan-ch'ieh ting-chü* 七音三十六母反切定局³⁴ based on the *Ku-chin Yün-hui* 古今韻會 (abbr. *KY*), *tz'u-yin* occurs only in the *hsin-mu* 心母, *shen-mu* 審母 and *ch'an-mu* 禪母; i.e. as far as Chang Fu's table is concerned, *tz'u-yin* means a fricative element.

On the other hand, phonetically speaking, [f, v, s, z, ʃ, ʒ, x, ɣ, h, ɦ] belong to the fricative sound group. The *KY* mentions that *fei-mu* 非母, *fu-mu* 敷母 and *feng-mu* 奉母 which were derived from the bilabial plosives belong to *tz'u-kung ch'ing-yin* 次宮清音, *t'zu-kung*

³¹ Ibid., pp. 71-2.

³² Poppe, op. cit., pp. 19-24.

³³ As regards the terms *yü* 羽, *chiao* 角, *kung* 宮, *chih* 徵 and *shang* 商, see the following books: Wang Li, *Han-yü Yin-yün-hsüeh*, pp. 56-77; Chao Yin-t'ang, *Teng-yün Yüan-liu*, pp. 10-15, 53-4, 77, 110, 141-2, etc.

³⁴ For detail on this table, see Chao Yin-t'ang, *ibid.*, pp. 139-142.

tz'u-ch'ing-yin 次宮次清音 and *tz'u-kung cho-yin* 次宮濁音 which mean labio-dental voiceless non-aspirated, labio-dental voiceless aspirated and labio-dental voiced respectively. In this classification, these labio-dentals which came into existence in the eleventh century in China were classified as *tz'u-kung* 次宮 or semi-labials (=labio-dentals), therefore they were not put into the *tz'u-yin* group. Also in Chang Fu's classification, *hsieh-mu* 邪母 should be included in the *tz'u-yin* although he also included it amongst *tz'u-cho-yin* (=voiced nasals) by mistake. The sounds [h, ɦ], according to Pike, should be classified into the 'vocoid'; i. e. fricatives like [h, ɦ] or semi-vowels [j, w] which are the sounds 'which air leaves the mouth over the centre of the tongue (non-lateral) and without friction in the mouth (but friction elsewhere does not affect the classification)'.³⁵

It is not surprising that Huang Kung-shao 黃公紹, the compiler of the *KY*, noticed the peculiar nature of the fricative [h, ɦ] as vocoid and put them into the ordinary group. Thus we can explain the three initials in the *KYC* by using the concept of *tz'u-yin* (=fricative element) as follows:

- ying-mu* : [ʔ] = glottal voiceless (羽清)
- hsiao-mu* : [h] = glottal voiceless aspirated (羽次清)
- ao-mu* : [x] = velar voiceless aspirated fricative (羽次清次音)
- hsia-mu* : [ɦ] = glottal voiced (羽濁)
- ho-mu* : [ɣ] = velar voiced fricative (羽濁次音)
- yü-mu 1* : [j] = palatal voiced semi-vowel *k'ai-k'ou* (羽次濁)
- yü-mu 2* : [ɥ] = palatal voiced semi-vowel *ho-k'ou* (羽次濁次音)

According to this hypothesis, [x] for *ao-mu* could be passively denoted [ʔj], as Hattori infers; however, the combination of the glottal stop [ʔ] and palatal semi-vowel [j] may be expected to produce the aspirated fricative sound [x] which appears slightly front of the glottal voiceless aspirated [h]. Also unless otherwise indicated the glottal stop [ʔ] occurs before [j], this sound being very similar to *yü-mu 1* (= [j]), and this is probably the reason why this letter No. 45, whose shape is slightly

³⁵ K. L. Pike, *Phonetics, A Critical Analysis of Phonetic Theory and a Technic for the Practical Description of Sounds* (=Language and Literature, XXI) (Ann

different but still easily mixed up with *yü-mu 1* (No. 24), was later invented. From these facts, we may conclude firstly that Huang Kung-shao distinguishes *ao-mu* from its original initial *ying-mu*, and secondly that he mentions this actual sound as similar to *hsiao-mu* by its aspiration, thirdly that Chu Tsung-wen, compiler of the *MKTY*, probably noticed the similarity between *ao-mu* and *yü-mu 1* by virtue of their both including a semi-vowel [j], and therefore invented a new letter to represent this sound by changing the shape of *yü-mu 1*. The *ao-mu* gives us many difficulties, i.e. its origin, denotation in the *KYC*, and the shape of the letter used to denote it in the 'Phags-pa script. I can thus only offer a hypothetical equivalent for this sound. According to the description in the *KYC* the phonetic value of this initial should be [x] although Hattori's assumption is more realistic. As regards transcription of this letter, it is adequate to adopt *y* as Hattori, Clauson, and Denlinger do.³⁶ However the transcription *·j* may be better to distinguish it from the gradual beginning of voice *j* (*yü-mu 1*) because *y* is easily mixed up with the phoneme [y]. As far as *yü-mu 2* is concerned, my assumption of the phonetic value of this letter [ɥ] may be reasonably correct because this initial is derived from the *ho-k'ou* of *yü-mu 1* and *i-mu* 疑母 in Ancient Chinese. For the transcription of this letter, *y* will certainly be better than Hattori's *ʹ* or Oshibuchi and Poppe's *a*.

Thus we can conclude that the transcription and phonetic value of these letters should be as follows:³⁷

initial	:	transcription	phonetic value
<i>ying-mu</i>	:	•	[ʔ]
<i>hsiao-mu</i>	:	<i>h</i>	[h]
<i>ao-mu</i>	:	• <i>j</i>	[x]
<i>hsia-mu</i>	:	<i>h</i>	[ɦ]
<i>ho-mu</i>	:	<i>ɣ</i>	[ɣ]
<i>yü-mu 1</i>	:	<i>j</i>	[j]
<i>yü-mu 2</i>	:	<i>y</i>	[ɥ]

Arbor: University of Michigan Publications, 1947, 3rd. ed.), pp. 76-8.

³⁶ Clauson, op. cit., pp. 322, No. 24A; Denlinger, op. cit., pp. 415 (No. 33a), 424. Besides the Chinese characters 匣 (32), 影 (33a), 喻 (34) and 以 (34a) in Denlinger's Chart Ia should be corrected to 合, 幺, 魚 and 喻 respectively.

³⁷ Cheng Tsai-fa also gives a full account of the laryngeal group in the *MKTY* in comparison with the *KYC*. He deals in great detail with *fan-ch'ieh* of this group, but it is regrettable that he gives no actual phonetic value of each letter. See *MKTY ken ken Pa-suu-pa-tzu yu-kuan-te yün-shu*, (Taipei, 1965), pp. 27-35.

IV

THE SOUND SYSTEM IN THE *MENG-KU TZU-YÜN*

§ 1. On the *Meng-ku Tzu-yün*

The *MKTY* (2 vols.) is said to have been compiled by Chu Tsung-wen in the first year of the Chih-ta 至大 reign (1308).¹ According to the *Ssu-k'u Ch'üan-shu Tsung-mu T'i-yao* 四庫全書總目提要, Chu Tsung-wen was one of the students in the Meng-ku Tzu-hsüeh (= 'School for the Mongolian Script') established by Imperial edict in each province after the invention of the 'Phags-pa script.² Liu Keng 劉更 states in his preface to the *MKTY* that Chu Tsung-wen's Mongolian name is Po-yen 伯顏 or Pa-yen 巴顏 (Mong. *Bayan*) which means 'rich' or 'wealthy'.

As the *Ssu-k'u Ch'üan-shu Tsung-mu T'i-yao* mentions, the printed text of the *MKTY* has long been lost, and today the manuscript held in the British Museum is believed to be the only reliable text.³ Based upon this manuscript, the following editions are now available:

1. *Eiin Daiei Hakubutsukan zō Kyūshōhon Mōko Jiin*, 2 vols. 影印大英博物館藏舊鈔本蒙古字韻二卷. This is based on the photos taken by J. Ishihama 石濱純太郎 in 1921.

¹ According to Liu Keng's preface to the *MKTY*, Chu Tsung-wen (*tzu*, Yen-chang 彥章) simply revised and enlarged the original text of the *MKTY*, which has been lost. The original text of the *MKTY* is supposed to have had at least two editions; the Hupeh edition and the Chekiang edition. See Chu Tsung-wen's preface to the *MKTY* (Kansai Daigaku edition, pp. 5-6; *PSPT* edition, p. 96); Cheng Tsai-fa, op.cit., pp. 3-7.

² The *T'i-yao* also states that Chu Tsung-wen was born during the Chih-cheng 至正 reign (1341-1368), but this should be corrected to the Chih-yüan 至元 reign (1264-1294), because the year in which Chu Tsung-wen compiled the *MKTY* was the year of *wu-shen* in the Chih-ta 至大 reign (1308). See Ts'ai Mei-piao, *PSPT*, p. 89; Cheng Tsai-fa, op. cit. p. 5. Liu Keng is said to have been a teacher of Chu Tsung-wen in the Meng-ku Tzu-hsüeh, but there are no reference to this man.

³ The manuscript of the *MKTY* held in the British Museum is supposed to have been copied in the Ch'ien-lung 乾隆 reign (1736-1795) of the Ch'ing dynasty (see Y. Ozaki, 'Daiei Hakubutsukan-bon Mōkojiin sakki', p. 164). This manuscript was bought by Mrs Russell in 1909 (6 April) (see Lo Ch'ang-p'ei, '*MKTY* pa', *PSPT*,

2. *Hsieh-pen Meng-ku Tzu-yün* 寫本蒙古字韻 in the *PSPT*. This is based on the photos taken by Yü Tao-ch'üan 于道泉 in 1938.

The *MKTY* consists of a title page, a preface by Liu Keng, the compiler's preface, a list of errata in each edition, a diagram of *Tsung-k'uo Pien-hua chih t'u* 總括變化之圖, a table of the 'Phags-pa alphabet, a table of the 'Phags-pa alphabet in seal-script form, a table of contents, the text (vol. 1, pp. 8a-33b; vol. 2, pp. 1a-30a, the *PSPT* edition lacks pp. 5a-b, both lack pp. 31a-b) and colophon.

The *MKTY* was, as Chu Tsung-wen states in his preface, based upon the *KY* whose text has been lost. The sound system employed in the *KY* is, therefore, still a matter of conjecture. However, according to the *Ssu-k'u Ch'üan-shu Tsung-mu T'i-yao*, Huang Kung-shao 黃公紹, who composed the *KY*, was born in Chaowu 昭武 in Foochow and became a *chin-shih* 進士 (a top-class successful applicant for bureaucracy examination) in the first year of the Hsien-ch'un 咸淳 reign (1265) in the Sung dynasty, and never held a post under the Yüan government.⁴ He is therefore believed to have been hostile to the Yüan government, and it is also supposed that he did not recognise the dialect of Ta-tu 大都 (the capital of the Yüan dynasty, Peking) as standard Chinese but took a dialect of either Pien-ching 汴京 (the capital of the Northern Sung dynasty, Kaifeng) or Lin-an 臨安 (the capital of the Southern Sung dynasty, Hangchow) as standard Chinese.⁵ Moreover, Hsiung Chung 熊忠, the compiler of the *KYC* which is a reduced edition of the *KY*, was also born in Chaowu, while Chu Tsung-wen, the compiler of the *MKTY* was born in Hsin-an 信安 (Kiuchow) in Chekiang province.⁶ It is noteworthy that none of these three compilers was born in Peking or anywhere else in Northern China, and it therefore seems extremely unlikely that these books would have employed sound system of the Northern or Mandarin-speaking area. Only Chu Tsung-wen is

p. 84). The catalogue number of this manuscript in the British Museum is OR. 6972.

⁴ The *T'i-yao* makes no mention of the *Ku-chin Yün-hui*, but it gives an account of the *Tsai-hsüan chi* 在軒集, Huang Kung-chao's prose selection.

⁵ For further details, see Hattori, *op. cit.*, pp. 39-40, 54-6.

⁶ There were two Hsin-an prefectures in the Yüan dynasty, one in Hopei province and the other in Chekiang province. In the case of Chu Tsung-wen, Hsin-an was

generally said to have been appointed to the Yüan government.

Nevertheless, a satisfactory conclusion on the sound system employed in these books cannot be deduced unless we study them phonologically.

In this chapter, I intend to analyse the *MKTY* phonologically regardless of whether the sound system employed in the *MKTY* is identical with that in the *KY* (or *KYC*) or not.

§ 2. Initial Consonantal System

(1) Voiced Initials

The most distinctive peculiarity in the initial consonantal system of the *MKTY* is the existence of voiced initials. In the *CYYY* compiled almost at the same time as the *MKTY*, voiced initials in Ancient Chinese were assimilated into either voiceless aspirated or voiceless non-aspirated depending on their tones.

Amongst modern dialects, only the Wu and Amoy dialects⁷ have still retained voiced initials. In the Mandarin-speaking area, the disappearance of voiced initials begins in the eleventh century. The earliest indication of their disappearance may be seen in the *HCCS* compiled by Shao Yung. Thus, the existence of voiced initials in the *MKTY* suggests a possibility that the sound system there employed is related to either the Wu or the Amoy dialects. Further difficulties involved by the assumption or the reconstruction of the old sound system will be discussed in § 5 of this chapter.

(2) Changes of *i-m* 疑母 (*ŋ*)

In the *CYYY*, very few characters retain their original initial *ŋ*; all the others have devocalised or have been assimilated either to *yü-mu* or to *hsiao-mu*.⁸

On the other hand, in the *MKTY*, the distribution of the initial *ŋ* is very complicated, as shown below:

probably in Chekiang province because the *T'i-yao* calls him 'a man from the South'. See Cheng Tsai-fa, op. cit., p. 13, n. 9.

⁷ See Lo Ch'ang-p'ei, *Hsia-men Yin-hsi*, (2nd ed.), pp. 5-9.

⁸ Lo Ch'ang-p'ei states that there is no distinction between *i-mu*, *yü-mu* and *hsiao-mu* in the *CYYY* ('*CYYY sheng-lei k'ao*' AS, II, 4 (1932), pp. 423-40), but as Chao Yin-t'ang infers only the characters which belong to *kuo-she* 果攝 retained their ori-

Scheme 1

	AC	MKTY
$k'ai-k'ou$	$\left\{ \begin{matrix} 1 \\ 3 \end{matrix} \right\}$	$\longrightarrow i-mu(\eta)$
	$\left\{ \begin{matrix} 2 \\ 4 \end{matrix} \right\}$	$\longrightarrow yü-mu 1 (j)$
$ho-k'ou$	$\left\{ \begin{matrix} 1 \\ 2 \\ 3 \end{matrix} \right\}$	$\longrightarrow \text{devocalisation}$
		$\longrightarrow yü-mu 2 (y)$

According to Chao's investigation, in most of the Wu dialects the initial η has been kept when preceded by a straight final, and has changed to either n or $\hbar$ when preceded by a deflected final.⁹ On the other hand, in the MKTY η disappeared when preceded by the $ho-k'o$ finals. Thus the distribution of η in the Wu dialects and the MKTY is very dissimilar. However, in Hangchow (previously Lin-an), η has been kept only when it follows the straight final of $k'ai-k'ou$ and changed to $\hbar(u)$ when preceded by the straight final of $ho-k'ou$. Also following the deflected sounds, η has changed to either n or j . This distribution again is different from that in the MKTY, because the MKTY retains η when preceded by $k'ai-k'ou$ of 3rd-degree final. However, it is possible that η in this may have disappeared at some time since the MKTY was compiled. The following scheme shows the distribution of η in Hangchow in contrast to Scheme 1.

Scheme 2

	AC	Hangchow
$k'ai-k'ou$	$\left\{ \begin{matrix} 1 \\ 2 \\ 3 \\ 4 \end{matrix} \right\}$	$\longrightarrow \eta$
		$\longrightarrow n \text{ or } j$
$ho-k'ou$	$\left\{ \begin{matrix} 1 \\ 2 \\ 3 \end{matrix} \right\}$	$\longrightarrow \hbar(u)$
		$\longrightarrow n \text{ or } j$

Comparing Scheme 1 and 2, the change from 1 to 2 is phonologically

ginal initial in the CYYY [CYYY *Yen-chiu* (Shanghai, 1936), chapter III]. I Fu also maintains that many characters of the *i-mu* group retain their initial η in the CYYY ('CYYY 25 sheng-mu chi-shuo' ZY, 132 (1964), pp. 337-59).

⁹ Hsien-tai *Wu-yü te Yen-chiu*, pp. 23-4, 31.

natural, because η belonging to the 3rd-degree of $k'ai-k'ou$ in *Scheme 1* has an ability to change to n or j , and the devocalised sounds in *Scheme 2* can easily be accompanied by h if pronounced with strong aspiration. Thus the distribution of the initial η in both the *MKTY* and Hangchow dialect is quite similar. However, it cannot be concluded that the sound system employed in the *MKTY* is the Hangchow dialect without having investigated certain other elements. So far we are only entitled to assume that as far as the initial η is concerned the sound system employed in the *MKTY* may be the Hangchow dialect.

(3) Changes of *niang-mu* 娘母 ($\tilde{n}$)

In the *CYYY*, *niang-mu* (palatal nasal $\tilde{n}$ -) was assimilated to *ni-mu* 泥母 (n). In the *MKTY*, this initial has almost retained its original nature although there were some confusions between this initial and *ni-mu* and *jih-mu* as *Table 10* shows:

This phenomenon can be also seen in Archaic Chinese, as Chang P'ing-lin proposes.¹⁰ In the Mandarin-speaking area, as seen in the *CYYY*, *ni-mu* and *jih-mu* are obviously distinguished as a dental plosive nasal and a retroflex vibrant respectively. In most Wu dialects, on the other hand, these three initials are confused. As already discussed, the initial *jih-mu* presents some difficulties, but on the assumption that the phonetic value of this ancient sound was $\acute{n}z$ as Karlgren proposes, in the Wu dialects 'the written form has adopted its fricative element to produce the same sound as *ch'uang-mu* 曄母 and *ch'an-mu* 禪母 and the spoken sound has adopted its nasal element to produce something similar to *ni-mu* and *niang-mu*.'¹¹ However, in the *MKTY* the *jih-mu* initial exists as an independent initial, therefore 'the sound system employed in the *MKTY* does not accord with the spoken sound in the Wu dialects, because z was supposed to represent the voiced alveolar fricative and not a nasal as is evident by the Tibetan prototype of this letter.'¹² Nevertheless, on the assumption that the *MKTY*

¹⁰ 'Ku-yin *niang*, *jih* erh-niu kuei *ni* shuo', *Chang-shih Ts'ung-shu*, vol. I, pp. 30b-33a.

¹¹ Chao Yuen-ren, op. cit., p. 29.

¹² Hattori, op. cit., p. 52.

Table 10

AC				MKTY		$\tilde{n}$	n	$\acute{n}\acute{z}$
攝		等						
$\tilde{n}$	止	3	k.k.		尼, 儺, 膩			
			h.k.		諤			
	遇	3	h.k.		女, 祐		女	
	蟹	2	k.k.			孺		
	流	3	k.k.		紐, 糅			
	效	2	k.k.				橈	
	通	3	h.k.	入	醺, 濃, 穠			
						搨		
	宕	3	k.k.		娘, 釀			
	曾	3	k.k.		匿	紉		
	臻	3	k.k.	入				
					曠			
	山	2	h.k.			豹		
	咸	3	h.k.			聿		
深	3	k.k.		賃				
n	通	1	h.k.			腴	褥	
$\acute{n}\acute{z}$	山	3	h.k.					

confuses the spoken and literary forms of the Wu dialects, the confusion between *niang-mu*, *ni-mu*, and *jih-mu* and the existence of a voiced alveolar fricative can be understood without difficulty.

(4) On the treatment of labio-dentals

The treatment of the labio-dental group in the *KYC* and *MKTY* can be said to be conservative or showing a tendency to archaism. The *KYC* distinguishes even *fei-mu* 非母 and *fu-mu* 敷母, although the *MKTY* correctly unified them as only one phoneme *f*. The existence of

feng-mu 奉母(*v*) in the *MKTY* can be said to be a consequence of the *MKTY*'s retention of voiced initials. Only one problem concerning the treatment of *wei-mu* 微母(*w*) in the *MKTY* requires comment. Initial *wei-mu* was derived from *ming-mu* 明母 of the 3rd-degree under the following conditions :

Table 11

攝	<i>k'ai</i> or <i>ho</i>	
通, 曾, 梗, 流, 效		<i>m</i>
止*, 山, 臻	<i>k.k.</i>	(*with a few exceptions)
	<i>h.k.</i>	
宕, 遇, 咸		<i>w</i>

However, in the *MKTY* this initial is confused with *ming-mu* as follows :

Table 12

<i>MKTY</i> AC	<i>m</i>	<i>w</i>
<i>m</i>	(A) 囑, 謾, etc.	(B) 夢, 目, 繆, 牧, 矛, 謀, 牟, etc.
<i>w</i>	(C) 曼	(D) 無, 毋, 武, 舞, etc.

In Table 12, the columns (B) and (C) show confusions between *ming-mu* and *wei-mu*. In the Hangchow dialect, the spoken sound of *wei-mu* has two initials *m* and *v*. In the Shanghai dialect also the literary sound of *wei-mu* has two initials β and *v* (or $h(u)$),¹³ but the differentiating features of these initials in the Wu dialects are not the same as those in the *MKTY*. According to Chou Tsu-mo, in the *HCCS* the initial *wei-mu* is divided into two sounds *m* and *v* depending on its tones ; in the case of falling-rising-tone *wei-mu* changes to either zero or *v*, in the case of the other tones (=level-tone, falling-tone and entering-tone) it changes to η .¹⁴ The sound system employed in the *HCCS* is supposed to be the Pien-ching (Kaifeng) dialect of that

¹³ See Chao Yuen-ren, op. cit., p. 22.

¹⁴ 'Sung-tai Pien-Lo yü-yin k'ao', *FJHC*, XXII, 1-2 (1943), pp. 268-9.

day. If Hattori's hypothesis is correct, the sound system employed in the *MKTY* is the Pien-ching dialect transplanted to Lin-an by the transfer of the capital, and thus the confusions in the *HCCS* and *MKTY* should be similar to each other. Thus as far as the confusion between *wei-mu* and *ming-mu* in the *MKTY* is concerned, there is little possibility that this sound system is related to one of the Wu dialects or even to the Pien-ching dialect. This problem clearly requires further investigation.

(5) On the distribution of the retroflex initials

It is still difficult to establish the sound system in the *MKTY* on the evidence mentioned above, but in part at least it presents similarities to one of the Wu dialects. Nevertheless, another difficulty arises here which requires clarification; this is the problem of the existence of retroflex initials.

As is well-known, the retroflex initials in the modern Mandarin-speaking area have come from the supradental, affricated alveolo-palatal and cerebral, and the development of these initials from Old Mandarin has been very complicated, as shown in p. 52 above.

In the *MKTY*, it is obvious that the retroflex initials in the modern Mandarin are clearly distinguished from other dental initials. On the other hand, in the Wu dialects, as already discussed (Chapter II, § 2, E, F), they have been assimilated to the simple sibilant group with the exceptions of the Kiuchow 衢州 and Kinhwa 金華 dialects. Kiuchow was previously called Hsin-an 信安, and was Chu Tsung-wen's birthplace. Although it is not certain whether Chu Tsung-wen referred to his own dialect or not, or whether the other Wu dialects had already assimilated the groups E and F to the sibilant group or not, the existence of the *ʈʂ* series may be regarded as the result of Mandarin element.

§ 3. Final System

(1) 15 final groups in the MKTY

In the MKTY, all the finals are classified into 15 groups as follows:

1. *tung-yün* 東韻: -ung, -eung.
2. *keng-yün* 庚韻: -ing, -hing, -iung, -eing, -üung, -iing.
3. *yang-yün* 陽韻: -ang, -iang, -üang, -hang, -ong, -üeng.
4. *chih-yün* 支韻: -i, -hi, -ei, -uε, -iuε, -euε, -üi.
5. *yü-yün* 魚韻: -u, -eu.
6. *chia-yün* 佳韻: -aj, -üaj, -iaj, -hij, -ij.
7. *chen-yün* 真韻: -in, -un, -eun, -hin, -ein, -üin.
8. *han-yün* 寒韻: -an, -on, -üan, -ian.
9. *hsien-yün* 先韻: -εn, -en, -üen, -eon, -iεn.
10. *hsiao-yün* 蕭韻: -aw, -εw, -ew, -üaw, -iaw, -üew.
11. *yu-yün* 尤韻: -iw, -uw, -hiw, -eiw, -ow.
12. *t'an-yün* 覃韻: -am, -εm, -em, -iam, -iεm.
13. *ch'in-yün* 侵韻: -im, -him, -iim.
14. *ko-yün* 歌韻: -o, -üo.
15. *ma-yün* 麻韻: -e, -üa, -ia, -üe, -üε, (-a, -ε).

Some peculiarities of the final system in the MKTY will be discussed below.

(2) -eu- and -iu-¹⁵

In the 'Phags-pa Mongolian documents,  (*eu*) represents the sound [y]. In the 'Phags-pa Chinese documents, this compound of *e* + *u* also appears very frequently. Dragunov denotes this compound as *eu* and infers its Chinese phonetic value as [y].¹⁶ Ligeti gives the Chinese phonetic value of this compound as *ü* ([y]),¹⁷ as in Mongolian.

¹⁵ In my previous article, I corrected all the -eu- group to -iu-, but in the present paper I keep the 'Phags-pa spelling.

¹⁶ 'The *h*Phags-pa script and Ancient Mandarin' (Chin. tr.), pp. 26-9.

¹⁷ 'Le *Po kia sing...*', e.g. Index Nos. 287-309.

In Ancient Chinese, *-iŭ-* and *-iu-* did not have a central vowel [y], although the Uighur script tended to transcribe Ancient Chinese *-iŭ-* and *-iu-* as *-ü-*.¹⁸

Yet it is very difficult to decide whether in Old Mandarin *-iŭ-* and *-iu-* had changed to [y] or not. Chao Yin-t'ang infers that in the CYYY there was a sound [y], such as in 容 *yng*, 從 *tsyng*, 局 *tcy*, etc.¹⁹ Chao's denotation has been adopted by E. Nagashima,²⁰ but the characters which include Chao's *yng* are *-ung* in modern Pekinese, with the exception of 兄, 凶, 雄, 熊, etc, which are now denoted as *hsiung* (or *hstung*) in the Wade transcription. It would have been very unnatural for Ancient Chinese *-iung* to have changed to *yng* and for *yng* to have changed to *-ung*. In the CYYY, therefore, Chao's *y* should be corrected to *io* or *iu*.²¹

But the question remains, when did *-iu* change to *y*? In the *Hsi-ju Erh-mu-tzu* 西儒耳目資 (1626) by Nicolas Trigault, characters such as 中, 弓, 松, 龍, which were considered as *-io* in the CYYY are romanised as *chum*, *kum*, *sum*, *lum*²² respectively. So it can be seen that the sound *-iong* of the CYYY had already lost its deflected element *-i-* (or *-j-*) as a medial at the latest by the seventeenth century. On the other hand, the *Hsi-ju Erh-mu-tzu* distinguishes characters such as 於, 居, 須, 虛, 魚, which were derived from the *yin-lei* group from 曲, 菊, 欲, 局, which were derived from the Ancient Chinese entering-tone denoting the former group as *-iu* and the latter group as *-io*. The phonetic value of Trigault's *-iu* must be [y].²³ The Shansi dialect, the sound system employed in his book, replaced the final consonants *-k*,

¹⁸ Cf. Csongor, 'Chinese in the Uighur script ...', e.g. Index Nos. 29 癸 *kü*, 51 慧 *hüi*, 96 軍 *gun*, *gün*, 150 如 *zü*, 162 龍, *lu*, *lü*, 187, 肅 *süg*, etc.

¹⁹ CYYY *Yen-chiu*, p. 104 ff.

²⁰ Nagashima, 'Kinsei Shinago tokuni Hoppōgo keitō ni okeru on'inshi kenkyū shiryō ni tsuite', *GK*, 7-8 (1941), pp. 155-8.

²¹ Cf. Lu Chih-wei, 'Shih CYYY', *YCHP*, XXXI (1946), p. 56. He says: 'It is very strange that *u* and *y* were rhymed together, because in the Yüan dramas *mo-yün* (*u*) and *yü-yün* (*iu*) can be rhymed together'.

²² The final consonant *-m* in the *Hsi-ju Erh-mu-tzu* and Matteo Ricci's romanisation is equivalent to *-ng*.

²³ In Matteo Ricci's romanisation, [y] is denoted as *iu* (e. g. 居 *kiu*, 虛 *hiu*, 決 *kiue*, etc.) and *y* (e. g. 用 *yum*, 遠 *yuen*, etc.), João Soeiro's romanisation is very

-t, -p with a glottal stop after they had disappeared. Also, as Wang Li mentions, the *Lei-yin* 類音 (1712) by P'an Lei 潘耒 classifies finals into 師, 衣, 疏 and 於, which represent the nuclei *ɿ*, *i*, *u*, and *y* respectively.²⁴ Therefore, the phonetic change of *iu* to *y* in Old Mandarin might have occurred after the compilation of the *CYYY* and before the late seventeenth century.

Another problem is the existence of *y* in the Wu dialects. Lu Yu 陸游 (1125-1210), a poet of the Northern Sung dynasty, states in the *Lao-hsüeh-an Pi-chi* 老學庵筆記: 'Wu people have corrupted the sound of the word 魚 and its rhyme group to *k'ai-k'ou*.'²⁵ This accords with some of the Wu dialects such as the modern Soochow, Wuhing 吳興, Taiping 太平 dialects, whose sounds of the 魚 group are either *i* or *ɿ*. On the other hand, according to Arisaka, both the 鬼 group, which has -uei or -ui finals in modern Mandarin, and the 魚 group already included the sound [y] in the Yüan period on the evidence of the Tō-on version of Sino-Japanese.²⁶ This assumption accords with Ch'ien T'ahsin's 錢大昕 (1728-1804) observation that in the Wu dialects the word 鬼 (Pek. *kuei*) is pronounced as 舉 (Pek. *chü*), the word 歸 (Pek. *kuei*) is pronounced as 居 (Pek. *chü*), ... the word 椅 (Pek. *i*) is read as 于 (Pek. *yü*).²⁷

The *MKTY* in parts reflects some peculiarities of the colloquial sound *y* in the Wu dialects. In the *MKTY*, the characters 規, 桂, 葵, 惠, etc. are transcribed as -iuɛ, and the characters 輝, 諱, 洩, etc. are transcribed as -euɛ. Almost all the Wu dialects pronounce these

similar. See Lo Ch'ang-p'ei 'Yeh-su-hui-shih tsai yin-yün-hsüeh shang te keng-hsien', *AS*, 1, 3 (1930), pp. 267-338; A. Tōdō, 'Kanwa no seiritsu katei kara mita Seiju Jimokushi', *THG*, 5 (1930), pp. 99-122; W. Simon, 'The China Illustrata Romanisation of João Soeiro's (Soerio's) *Sanctae Legis Compendium* and its Attribution to Michael Boym', *Studia Serica Bernhard Karlgren Dedicata*, pp. 265-70+4 plates.

²⁴ *Han-yü-shih kao*, vol. 1, p. 170. On the book *Lei-yin*, see Chao Yin-T'ang, *Teng-yün yüan-liu*, pp. 181-7.

²⁵ *Lao-hsüeh-an Pi-chi* (Ch'in-tai Pi-shu ed. vol. VI, p. 10b).

²⁶ Arisaka, 'Fugin no Tō-on ni han'ei shita Kamakura jidai no on'in jōtai', *Koku-go On'inshi no Kenkyū*, pp. 199-203.

²⁷ Shih-chia-chai Yang-hsin-lu, vol. V (Ch'ien-yen-t'ang Ch'üan-shu ed.), p. 34a.

characters as *y* in the colloquial form and *-ue* in the literary form.²⁸ The sounds *-iuɛ* and *-euɛ* in the *MKTY* perhaps indicate the sound *y* or its approximation. However, it is difficult to distinguish between *-iuɛ* and *-euɛ*. Similarly, in the *MKTY*, the characters 頰, 瓊, 詞, 雄, 熊, etc. are transcribed as *-iung*, and the characters 弓, 松, 龍, 兇, 永 etc. are transcribed as *-eung*. In the Wu dialects, the former group and 兇, 永 of the latter group have the sound *-iong*, and the latter group (except 兇, 永) have the sound *-ong*.²⁹ Therefore, the medial *-i-* and *-e-* seem in this case to have the function of indicating whether the sounds are deflected or not.

Generally speaking, in 'Phags-pa documents the letters *e* and *i* are easily confused with each other, because their shapes $\sqsubset$ (*e*) and $\sqsupset$ (*i*) are very similar. Also it is doubtful whether the person who copied the manuscript of the *MKTY* was careful to make the distinction between these two letters. However, the existence of a distinction between them probably indicates that either *-eu-* or *-iu-* in the *MKTY* can be equivalent to *y*, although the distribution of *-eu-* and *-iu-* in the *MKTY* is not sufficiently consistent because of the similarity of their letter shapes. Therefore, in this paper, I shall simply follow the 'Phags-pa spelling, and adjust the sound in each case in comparison with modern dialects.

(3) *-üeng*

The sound *hüeng* which includes four characters 悅, 況, 貺 and 況 appears in the *yang-yün* group of the *MKTY*. These four characters are now pronounced as *k'uang* in Mandarin, and are given as *huang* in the *CYYY*. In the Wu dialects they are either *huəŋ* (Soochow), *huəŋ* (Hangchow) or *huɔ̃* (Ningpo).³⁰ The sound *hüeng* in the *MKTY* is closer to the *huəŋ* of Hangchow than to *k'uang* in Mandarin because of its front vowel.

(4) *-uɛ*

With the exception of the entering-tone, the characters belonging

²⁸ See Chao Yuen-ren, op. cit., Table II, 7.

²⁹ See ibid., Table II, 5, 12.

³⁰ The characters 悅, 況, 貺, and 況 have undergone a phonetic change *h > k*.

to the *-uɛ* group in the *MKTY* are pronounced *-ei* or *-uei* in Mandarin, while they are *-e*, *-ɛ*, *-ue*, *-uɛ* in the literary form and *-y* in the colloquial form of the Wu dialects.³¹ But the characters of the Ancient Chinese entering-tone group are not always similar to the Wu dialects; for example 國 (*kuɛ*) is *ko*, *kɔ*, *kuə* and 域 (*•uɛ*) is *i*, *yo*, *yə*, etc.³² In general, the distribution of the entering-tone in the *MKTY* is very difficult to grasp, and this problem will be discussed in the next section.

(5) *-ŷin*

The characters 蘊, 燭, 雲, 韻, etc. are pronounced as [yn] in Mandarin. In the *MKTY* they are denoted as *-ŷin* (i.e. 蘊, 燭 *•ŷin*; 雲, 韻 *yŷin*), and are distinguished from the 君, 春, 允, 薰 group, which has the final *-eun*. The *-ŷin* group also shows a tendency towards the Wu dialects, such as *yn* (Hangchow) and *yl(ng)* (Kiuchow).³³

(6) nuclei and medials

Basing upon all the finals in the *MKTY*, the nuclei and medials and their connections with endings can be shown as the following table:

Other examples are given in Karlgren, *Études sur la phonologie chinoise*, p. 372.

³¹ See Chao Yuen-ren, op. cit., Table II. 2, 7. But some of the characters of this group are pronounced as *y* in the colloquial form, except in the Hangchow and Kiuchow dialects.

³² See *ibid.*, Table III, 4.

³³ See *ibid.*, Table II. 13.

Table 13

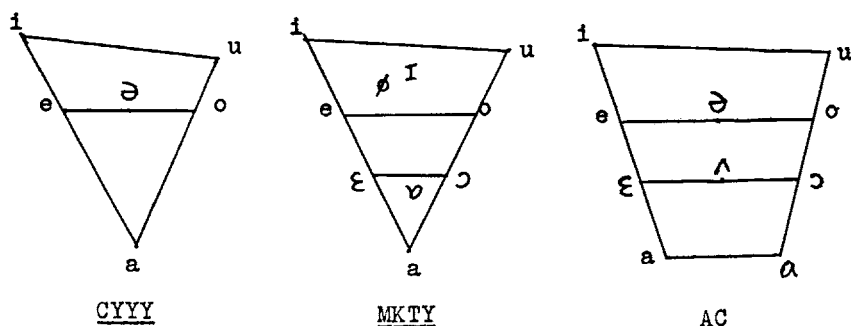
endings medials nuclei		yin-lei				yang-lei		
		—	-j	-w	-ε	-ng	-n	-m
—	a	(a)	aj	aw	—	ang	an	am
-ĩ-		ia	iaj	iaw	—	iang	ian	iam
-ũ-		ũa	ũaj	ũaw	—	ũang	ũan	—
-h-		—	—	—	—	hang	—	—
—	o(ɔ)	—	—	ow	—	ong	on	—
-e-		—	—	—	—	—	en	—
—	o	o	—	—	—	—	—	—
-ũ-		ũo	—	—	—	—	—	—
—	u	u	—	uw	uε	ung	un	—
-ĩ-		—	—	—	ũuε	ĩung	—	—
-e-		eu	—	—	euε	eung	eun	—
-ũ-		—	—	—	—	ũu ng	—	—
—	ε	(ε)	—	εw	—	—	εn	εm
-ĩ-		—	—	—	—	—	ĩεn	ĩεm
-ũ-		ũε	—	—	—	—	—	—
—	e	e	—	ew	—	—	en	em
-ũ-		ũe	—	ũew	—	ũeng	ũen	—
—	i	i	ij	iw	—	ing	in	im
-ĩ-		—	—	—	—	ĩing	—	ĩim
-e-		ei	—	eiw	—	eĩng	ein	—
-ũ-		ũi	—	—	—	—	ũiin	—
-h-		hi	hij	hiw	—	hing	hin	him

From this table, the following seven nuclei can be abstracted; *a*, *o*, *ɔ*, *u*, *ε*, *e*, and *i*. However, phonetically speaking, another three nuclei may also be supposed to exist in the MKTY; [ɔ, ɪ, ø]. These three nuclei can be phonologically interpreted as equivalent to *-h̥a-*, *-h̥i-*, *-hi-* respectively.

As regards the medials, the MKTY has four medials; *-ĩ-*, *-e-*, *-ũ-*.

and *-h*, while the *CYYY* has only two; *-i*-(or *-j*-) and *-w*-. Also the *MKTY* has four endings in the *yin-lei* group; null (ends with nucleus), *-j*, *-w* and *-ε*, while the *CYYY* has three; null, *-j* and *-w*. Therefore, in the *MKTY*, the phonemes *e* and *ε* are used as nucleus and medial/ending. As to the final consonants in the *yang-lei* group, both the *MKTY* and *CYYY* have *-ng*, *-n* and *-m* as in Ancient Chinese.

Seven nuclei in the *MKTY* can be diagrammed in comparison with Ancient Chinese and the *CYYY* as follows:



§ 4 Distribution of the Entering-tone

As well known, the entering-tone in Ancient Chinese disappeared in the Mandarin-speaking area since about the eleventh century. In the *HCCS*, we see the first indications of the disappearance of the final consonants of the entering-tone, while by the time the *CYYY* was composed, there was no trace of this tone. Also in the *MKTY*, it may be noted that the entering-tone had already disappeared as a phonetic value but still existed as a tone. For example, the sound *ki* does not signify one of the finals *-k*, *-t*, *-p*, but is distributed to four groups depending upon its tone; *p'ing-sheng* (level-tone), *shang-sheng* (falling-rising-tone), *ch'ü-sheng* (falling-tone), and *ju-sheng* (entering-tone). This shows that the entering-tone still existed as one of the four tones in Ancient Chinese, but the final consonants *-k*, *-t*, *-p* had already disappeared. In this section, I intend to clarify the distribution of the entering-tone in the *MKTY*, with particular reference to the exhaustive studies of this subject by Keiya.³⁴

³⁴ See 'Nisshō inbi shōshitsu no katei ni tsuite no ichi kasetu—*MTKY* karano apu-

The earliest source material which shows an indication of the disappearance of the final consonants of the entering-tone is the *HCCS*. In this simple rhyme table, the characters 岳, 霍, 六, 玉, 日, 骨, 德 and 北 are not allocated to the *yang-lei* group but to the *yin-lei* group which ends with either a nucleus or one of the medials. On the other hand, the characters 十 and 妾 are allocated to the *-m* series in the *yang-lei* group, just as in Ancient Chinese. This means that the final consonants *-k*, *-t* and *-p* no longer have the same nature as in Ancient Chinese. Chou Tsu-mo interprets this phenomenon as indicating that the entering-tone had changed to a comparatively short and quick sound,³⁵ but he does not establish the actual sounds of these characters which had formerly ended with either *-k* or *-t*. On the other hand, Ogawa proposes that in the *HCCS* the dental final consonant *-t* and velar final consonant *-k* are confused with each other, having already been assimilated to the glottal stop *-ʔ* ([ʔ]), and only the bilabial consonant *-p* has still retained its original nature. Ogawa points out that the most of the *ku-f'i-shih* 古體詩 ('old style poems') by Su Tung-p'o 蘇東坡 (1036-1101) rhyme between *-t* and *-k* although the other poets of his day still archaized to the traditional rhyming. This would reflect the spoken language in North China at that time, supposing Su Tung-p'o to have made free use of colloquial sounds.³⁶

However, in the *tz'u* poetry (lyric poems) of the Sung period, confused rhyming between *-k*, *-t* and *-p* final consonants can be seen very frequently. According to Sakai's study of rhyme in the *tz'u* poetry, the

rōchi,' *NDBKR*, XXXVII (1965), pp. 1-37. Keiya also contributes to this problem in the following articles: '*Pei-yin ju-sheng yen-pien k'ao* fusetsu', *ibid*, XL (1966), pp. 45-110; '*Nisshō inbi no shōshitsu ni kansuru ichi mondai*', *Kotoba*, XXXIV (1966), pp. 15-37; '*Onsetsu kōsei to on'in henka — Kohoku hōgen ni okeru nisshō inbi shōshitsu no katei*', *NDBKR*, XLIII (1967), pp. 17-49.

³⁵ Chou Tsu-mo, '*Sung-tai Pien-Lo yü-yen k'ao*', pp. 237-8.

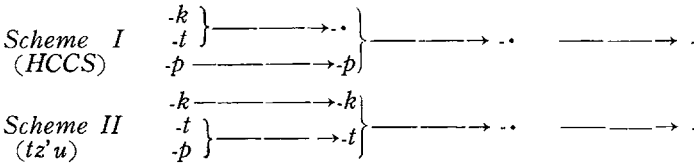
³⁶ Ogawa, '*Su Tung-p'o koshi yōin kō*', *Kyōto Daigaku Bungakubu Gojishshūnen Kinen Ronshū*, pp. 843-70. Also the rhyming pattern in the *chu-kung-tiao* poems [Ch'en Shou-yi translates this term as 'a song of narrative nature in which musical airs of various keys were used' in his book, *Chinese Literature* (New York: The Ronald Press Company, 1961), p. 441] is helpful for understanding the distribution of the entering-tone. Cf. Liao Hsün-ying, '*Chu-kung-tiao te yung-yün*', *ZY*, 128 (1964), pp. 19-27.

confusions between three final consonants are as follows :³⁷

Table 14

	-k	-t	-p	-k,-t,-p	total
-k (%)	70 (57)	25 (20)	8 (7)	20 (16)	123 (100)
-t (%)	25 (22)	20 (18)	48 (42)	20 (18)	113 (100)
-p (%)	8 (10)	48 (59)	5 (6)	20 (25)	81 (100)

From the proportion of confusions between these three final consonants, Sakai proposes that the final consonants of the entering-tone in the Sung period can be divided into two groups; the *-k* group, and the *-t* group which assimilated the *-p* group. This contrasts with the hypothesis derived from the *HCCS*, which suggests that confusion between *-k* and *-t* came first and resulted in .. The two hypotheses are illustrated in the following scheme.



It is still difficult to conclude which of these is more adequate to explain the disappearance of the final consonants of the entering-tone during the transitional period of Old Mandarin. However, it may be suggested that differences between the two pypotheses reflect differences in the Sung period dialects.³⁸ To clarify this problem, it will be useful to examine the distribution of the entering-tone in the *MKTY* as shown by Keiya :³⁹

³⁷ Sakai, 'Sōshi cōinji ni mirareru on'injō no ichini no tokushoku', *TYGH*, XXXVIII, 2(1955), pp. 85-113, esp. see p. 100.

³⁸ P. Serruys, 'Chinese dialectology based on written documents', *MS*, XXI(1962), p. 335 describes the manner of merging between *-k*, *-t* and *-p* only as in Scheme II without considering the case of the *HCCS*, but, as Table 14 shows, the confusion between *-k* and *-t* is not consequent but shows only a statistical majority.

³⁹ 'Nissō inbi shōshitsu no katei ni tsuite no ichi kōsatsu', pp. 166-8. The ori-

Table 15

(i)	-p	-t	k-	MKTY
			auk ak iak	-aw
			auk uak	-ūaw
			auk	-īaw
			iak	-εw
			iak	-ew
			iuak	-ūew
(ii)			ak	-aj
			uek uak	-ūaj
			ak	-īaj
			ək iak	-hij
			ək	-ij
(iii)	ap ap	at		-o
		uat		-ūo
	ep ap	et at		-ia
		uet uat		-ūa
	iap icp ep	iat ict et		-e
		iuat iuct uet		-ūe

(iv)

	<i>ət</i> <i>uət</i> <i>ɪuət</i>	<i>ɔuk</i> <i>ok</i> <i>ɪəuk</i> <i>ɪok</i>	<i>-u</i>
	<i>ɪēt</i> <i>ɪuet</i> <i>iuət</i> <i>ɪuət</i>	<i>ɪəuk</i> <i>ɪok</i>	<i>-eu</i>
<i>iep</i> <i>iep</i>	<i>ɪēt</i> <i>ɪəl</i> <i>ɪət</i>	<i>ɪak</i> <i>iek</i> <i>ek</i> <i>ɪək</i>	<i>-i</i>
<i>īēp</i>	<i>ɪēt</i>		<i>-hi</i>
	<i>ɪēt</i>	<i>ek</i>	<i>-ei</i>
	<i>iuēt</i>	<i>uek</i>	<i>-ui</i>

(v)

	<i>ɪēt</i>	<i>ɪak</i> <i>ek</i> <i>uək</i> <i>ɪək</i>	<i>-uɛ</i>
	<i>iuɐt</i>		<i>-ʉɛ</i>
	<i>ɪyēt</i>	<i>ek</i> <i>uek</i>	<i>-ɪuɛ</i>
		<i>ɪuək</i>	<i>-euɛ</i>

Keiya also summarises the above tables in the following table:

Table 16

group	conditions	MKTY
<i>k</i> I (ImN <i>k</i>)	high vowel + <i>k</i> <i>i</i> (med) + mid. vowel + <i>k</i>	I'm' (or I'm'?)
<i>k</i> II (ImN <i>k</i>)	mid. vowel + <i>k</i> (no med. <i>i</i>)	<i>j</i>
<i>k</i> III	low vowel + <i>k</i> (regardless med. <i>i</i>)	<i>w</i>

$t\ 1, \ p\ 1$ (ImNt, ImNp)	high syllable ⁴⁰	I'm' (or I'm' ?)
$t\ 2, \ p\ 2$ (ImNt, ImNp)	non-high syllable	I'm'N' (or I'm'N' ?)

I = initial consonant ; m/med. = medial ;

N = nucleus ; mid. = middle.

Keiya states :

In the above table, it seems to be a lack of consistency in that the final *-k* is divided into three groups, and the finals *-t* and *-p* into two groups. However, phonetically speaking, the region of change of *-k* is wider than that of *-t* and *-p* because the point of articulation of *-k* is further back than *-t* and *-p* in the mouth. For example, in the following cases, the initial consonant and nucleus in the same, but the final consonant is slightly different *pak*, *pat* and *pap*, it is even possible that these final consonants might disappear, to result in *pa*. But in actual fact, the *a* nucleus, in *pak* leads to a wider opening of the mouth than with other instances. ⁴¹

To interpret this peculiar function of the final *-k*, Keiya proposes the existence of the glides *-w* and *-j* as follows :

$-ak^w \longrightarrow -ag^w \longrightarrow -e^w g^w$ (or *-awgw*) $\longrightarrow -aw$
 $-ek^j \longrightarrow -eg^j \longrightarrow -a^j g^j$ (or *-ajgj*) $\longrightarrow -aj$

In fact, this formula follows Rai's hypothesis, which assumes a phonological opposition between *-k* and *-q* ($=[\widehat{kw}]$) in Archaic Chinese. ⁴²

Also Arisaka proposes a glide as follows: ⁴³

$-ak \longrightarrow -a^u k \longrightarrow -auk \longrightarrow (-aug) \longrightarrow au^? \longrightarrow o^? \longrightarrow -o$
 $-ek \longrightarrow -e^i k \longrightarrow -aik \longrightarrow (aig) \longrightarrow ai^? \longrightarrow -ai$

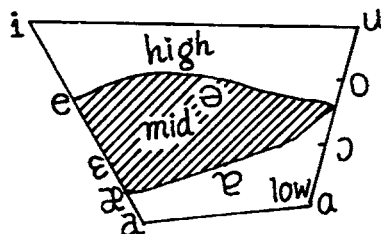
ginal tables presented by Keiya give Chinese characters which signify the traditional rhyme groups, but the denotation of these tables is the work of the present author.

⁴⁰ According to Keiya, high vowel (syllable), middle vowel (syllable) and low vowel (syllable) can be shown in the right diagram (see Keiya, p. 184):

⁴¹ Keiya, op. cit., p. 169.

⁴² Rai, 'Jōko Chūgokugo no kōtō inbi ni tsuite', *OJDK*, III (1953), pp. 51-64.

⁴³ Arisaka, 'Nisshō inbi shōshitsu no katei', *Kokugo On'inshi no Kenkyū*, pp.



In general, the consonant *k* has a peculiar nature. The syllables which had the final *-k* and the initial *k*- series accompanied by middle or low nuclei had easily combined with the medial *-i-* intending the further palatalisation (e. g. *kauk/pauk* → *kīaw/paw*).⁴⁴

In the *CYYY* the characters which formerly had final consonants of the entering-tone in Ancient Chinese are shared amongst the *yang-p'ing-sheng* (rising-tone), *shang-sheng* (falling-rising-tone), or *ch'ü-sheng* (falling-tone) groups, depending on the nature of their initials.⁴⁵ Lu Chih-wei proposes that even in the *CYYY* the entering-tone has been partly re-

601-7. This scheme is based on the suggestions of Arisaka as summarized by Keiya.

⁴⁴ Ozaki points out that in the *MKTY* the velar initials of defective syllables had already been palatalised, as is shown by the following passage of Chu Tsung-wen's preface to the *MKTY*: '古今韻會於每字之首必以四聲釋之, 由是始知見經堅爲 ㄅ', which Ozaki interprets to mean 'In the *Ku-chin Yün-hui*, all the sound groups are arranged under one of the *tsu-mu* (initials). From this arrangement, I realized for the first time that the initial consonant of the characters 見, 經 and 堅 is *g*. [In fact, these characters are not pronounced as *g* although they are denoted as *g* in the 'Phags-pa script. But now I realized that the original sound of these characters was *g* by use of the *Ku-chin Yün-hui*.] (Ozaki, 'Daiei Hakubutsukan-bon *MKTY* sakki', pp. 167-174). Thus Ozaki proposes that the velar initials of defective syllables had already been palatalised by this time. This hypothesis is similar to Chao Yin-t'ang's assumption (*CYYY Yen-chiu*, pp. 88-93). Ozaki also criticizes Tōdō's theory that palatalisation occurred between the seventeenth and nineteenth centuries, in his 'Ki- to tsi- no kondō wa 18 seiki ni hajimaru', *CG*, 94 (1960), pp. 1-3, 12; 'Development of Mandarin from 14c. to 19c.' *AA*, VI (1964), pp. 38-9. However, Tōdō's hypothesis is more acceptable, since in many rhyme dictionaries such as the *Yün-lüeh I-t'ung*, *Wu-fang Yüan-yin* and *Hsi-ju Erh-mu-tzu*, written during the fourteenth and seventeenth centuries, velar initials have still not undergone palatalisation. Also Chu Tsung-wen's words quoted above might be interpreted as follows: '...From this arrangement I realized for the first time that the initial consonant of the characters 見, 經 and 堅 is *g*. [In fact, these characters are pronounced as *k* although they are denoted as *g* in the 'Phags-pa script. But I now realized that in the 'Phags-pa transcription of Chinese there is an alternation between voiced and voiceless initials like *k* and *g*.]'. According to my interpretation of Chu Tsung-wen's preface, it is impossible to infer the existence of palatals in the *MKTY*.

⁴⁵ According to H. Hirayama, 'Chūko nishō to Pekingo seichō no taiō tsūsoku', *NCGH*, XII (1960), pp. 139-156, it must be noted that some of modern Pekinese sounds have colloquial and literary versions. The colloquial element may be taken as basic Pekinese, but the literary element is supposed to consist of many other dialects in the form of loan-sounds (cf. Table 3 in his article).

tained, as [ʔ], [ɥ] or [ʃ], and he explains: '...the disappearance of [ʃ] which is a fricative final consonant possibly originated from the changing of *tz'u-cho* (nasals and semi-vowels) to the falling-tone, thereafter gradually leading to complete extinction.'⁴⁶

Thus the difficulty in dealing with the disappearance of the entering-tone in the *CYYY* lies in its relationship with other tones.⁴⁷ Although Lu Chih-wei proposes the existence of a glottal stop replacing the former *-k*, *-t* and *-p*, the fact that the entering-tone syllables had already been distributed amongst other three tones means that the trace of glottal stop at the end of syllables must have been very weak and already tending to disappear.

On the other hand, in the *MKTY* the four tones of Ancient Chinese have all been preserved, although the final consonants of the entering-tone have already been dropped. It is therefore considered that in the *MKTY* those characters which formerly had the final consonants of the entering-tone (except *-k* accompanied by middle / low vowel) have a clear glottal stop [ʔ] at the end of each syllable.

Comparing this feature in the *MKTY* with that in the *CYYY*, we can phonologically interpret as follows:

Table 17

AC	<i>CYYY</i>	<i>MKTY</i>	Wu dialects ⁴⁸
high vowel + <i>k</i>	-	..	} ..
middle vowel + <i>k</i>	- <i>j</i>	- <i>j</i>	
low vowel + <i>k</i>	- <i>w</i>	- <i>w</i>	
- <i>t</i>	-	..	} ..
- <i>p</i>	-	..	

⁴⁶ 'Shih *CYYY*', pp. 63-6. However, according to his 'Kuo-yü ju-sheng yen-pien hsiao-chu', *YCHP*, XXXIV (1948), pp. 21-8, [ɥ] is corrected to [j]. This theory was criticized by Chao Hsia-ch'iu and Tseng Ch'ing-jui in their '*CYYY* yin-hsi te chi-ch'u ho ju-p'ai san-sheng te hsing-chih', *ZY*, 117(1962), pp. 312-24.

⁴⁷ See Keiya, '*Pei-yin-ju-sheng yen-pien k'ao fusetsu*', which critically treats Po Ti-chou's proposal and adds many supplementary materials based on exhaustive investigation of the *CYYY*, *Chung-chou Yin-yün*, *Tz'u-lin yün-shih* and *Yin-yün ch'ih-cho chien*.

The *MKTY* reveals that the distribution of the ending *-·* is similar to that of the Wu dialects, while the existence of the endings *-j* and *-w* is more similar to the *CYYY*. It is very unlikely that the *MKTY*'s *-j* and *-w* have changed to *-·* because phonetic change such as *-j>-·* is incongruous. Thus we may conclude that in the respect of the disappearance of the final consonants of the entering-tone the *MKTY* has two aspects of both the Wu dialects and Mandarin, although the Wu element seems to be more dominant in it.

§ 5. Conclusion

The sound system employed in the *MKTY* has many elements of the Wu dialects, although it has a partly Mandarin element. As far as the initial consonant system is concerned, it seems very strange that the *MKTY* preserves voiced initials and retroflex initials which are the peculiarities of the Wu and Mandarin dialects respectively. However, it must be noted that the *MKTY* was compiled in the Yüan dynasty, just after voiced initials had disappeared in the Mandarin-speaking area. It might have been easy for the Pien-ching people to preserve the voiced initials which were retained in the Wu dialects when they moved to Lin-an, because this transfer of the capital in the Northern Sung dynasty (1138) took place when Mandarin was still in the transitional period. As Hattori explains,⁴⁹ when the Pien-ching dialect was transplanted to Lin-an, voiced initials might still have been preserved even in Mandarin. On the other hand, the retroflex initials in the *MKTY* are also rendered as affricated alveolo-palatals, which were vestiges of Ancient Chinese in the Wu dialects.

In the final system, the number and nature of nuclei are obviously much more complicated and archaised than in the *CYYY*. Also as to the other peculiarities of the final system, in particular the peculiar *ŋ*, the *MKTY* shows more similar elements to the Wu dialects than to

⁴⁸ According to the *Hsien-tai Wu-yü te Yen-chiu*, the phonetic change of the entering-tone in the Wu dialects is very simple. The nuclei have scarcely been influenced by the change of the final consonant to the glottal stop.

⁴⁹ Hattori, op. cit., p. 55.

Mandarin. On the Hangchow dialect, Chao Yuen-ren explains :

Harngjou (Hangchow), being the capital of the Southern Song (Sung) Dynasty, retain a good deal of Mandarin influence. Whereas all the other Wu-dialects have a literary and a colloquial pronunciation for a large number of words, Harngjou uses only the literary form whether in speech or in writing. There is therefore no striking difference in pronunciation between reading a literary passage in the Harngjou dialect and reading in the Shawhing (Shaohing) dialect, while the colloquial speech of Harngjou sounds very different from the surrounding dialects.⁵⁰

Hattori's assumption and Chao's observation thus accord with each other. Although in general I agree with Hattori's hypothesis that the sound system employed in the *MKTY* may perhaps be the Pien-ching dialect as transplanted to Lin-an, I also think that Chu Tsung-wen might have referred to the sound system of the Kiuchow dialect in minor points. Therefore, as a general conclusion, it can be said that the sound system employed in the *MKTY* is one of the prototypes of literary form of the Wu dialects.

§ 6. The Text of the *Meng-ku Tzu-yün*

This section is intended to show all the syllables represented in the *MKTY*. The table below consists of (1) 'Phags-pa spellings, (2) Chinese sounds, (3) distribution of tones and representative characters in each tone group, and (4) page number in the texts of the Kansai University edition (abbr. *MKJI*) and the new Chinese manuscript in the *PSPT* (abbr. *PSPT'* (in) parentheses).

p=*p'ing-sheng* (level-tone) ; s=*shang-sheng* (falling-rising-tone) ; c=*chü-sheng* (falling-tone) ; j=*ju-sheng* (entering-tone) ; k, t, p after the *ju-sheng* column denote the final consonants -k, -t, -p of the Ancient entering-tone respectively.

⁵⁰ Chao Yuen-ren, op. cit., 'Introduction in English', p. xiv.

MENG-KU TZU-YÜN

Volume I

1. *tung-yün* 東韻

ㄉㄨㄥ	1. gung	kung	P 公	s 礦	c 貢	(15, 99a)
	2. k'ung	k'ung	P 空	s 孔	c 控	
	3. dung	tung	P 東	s 董	c 凍	
	4. t'ung	t'ung	P 通	s 捅	c 痛	
	5. tung	dung	P 同	s 動		
	6. nung	nung	P 農			
	7. dzung	ʈʂung	P 中	s 冢	c 中	(16, 99a)
	8. ʈʂ'ung	ʈʂ'ung	P 忡	s 寵		
	9. ʈʂung	dzung	P 崇			
	10. ñung	ñung	P 醜			
	11. bung	pung		s 琫		
	12. pung	bung	P 蓬	s 擘	c 擘	
	13. mung	mung	P 蒙	s 蠓	c 霧	
	14. hūng	fung	P 風	s 乏	c 諷	(16-17, 99a-b)
	15. hūng	vung	P 馮	s 奉	c 鳳	
	16. wung	wung	P 膏		c 瘳	
	17. dzung	tsung	P 駿	s 總	c 櫻	
	18. ts'ung	ts'ung	P 忽	(s) ⁵¹ 念	c 認	
	19. tsung	dzung	P 叢			
	20. sung	sung	P 鬆		c 宋	
	21. şung	şung	P 春			(17, 99b)
	22. zung	zung	P 傭	s 羶		
	23. hung	hung	P 轟			(18, 99b)
	24. ɣung	ɣung	P 洪	s 頤	c 哄	
	25. •ung	•ung	P 翁	s 蓊	c 瓮	
	26. lung	lung	P 籠	s 籠	c 弄	
.....						
ㄍㄨㄥ	27. geung	kīung	P 弓	s 拱	c 供	
	28. k'eung	k'īung	P 穹	s 恐	c 諷	

⁵¹ Both the *MKJI* and *PSPT* editions lack the character 上 (*shang-sheng*).

29.	keung	gĩung	P 窮		c 共	
30.	q̣zeung	ṭṣĩung	P 蟲	s 重	c 仲	
31.	dzeung	tsĩung	P 縱		c 從	(19, 100a)
32.	ts'eung	ts'ĩung	P 縱			
33.	tseung	dziung	P 從		c 從	
34.	seung	sĩung	P 嵩	s 悚		
35.	zeung ⁵²	ziung	P 松		'c 頌	
36.	heung	hiung	P 冒		c 夔	
37.	•eung	•ĩung	P 雍	s 擁	c 雍	
38.	yeung	yĩung	P 頤	s 永	c 詠	
39.	•jeung	xĩung	P 榮			
40.	jeung	jĩung	P 融	s 甬	c 用	(20, 100a)
41.	leung	liung	P 隆	s 隴		
42.	feung	fiung	P 戎	s 冗		

2. *keng-yün* 庚韻

≡	43.	ging	king	P 驚	s 警	c 敬	
	44.	k'ing	k'ing	P 卿		c 慶	
	45.	king	ging	P 擎		c 競	
	46.	ŋing	ŋing	P 迎		c 迎	
	47.	ding	ting	P 丁	s 杙	c 訂	
	48.	t'ing	t'ing	P 汀	s 莚	c 聽	(21, 100b)
	49.	ting	ding	P 庭	s 挺	c 定	
	50.	ning	ning	P 寧	s 顗	c 寯	
	51.	q̣zing	ṭṣing	P 貞	s 整	c 政	
	52.	ṭṣ'ing	ṭṣ'ing	P 檉	s 逞	c 追	
	53.	ṭṣing	q̣zing	P 呈		c 鄭	
	54.	bing	ping	P 兵	s 丙	c 柄	(21-22, 100b)
	55.	p'ing	p'ing	P 俖		c 聘	
	56.	ping	bing	P 平	s 竝	c 病	
	57.	ming	ming	P 覲	s 皿	c 命	
	58.	dzing	tsing	P 蜻	s 井	c 飢	
	59.	ts'ing	ts'ing	P 鯖	s 請	c 倩	
	60.	tsing	dzing	P 情	s 靜	c 淨	

⁵² For ≡ read ≡ .

61.	sing	sing	p 星	s 醒	c 醒	(23, 101a)
62.	zing	zing	p 錫			
63.	şing	şing	p 聲		c 聖	
64.	zing	zing	p 成		c 盛	
65.	ring	ring	p 恒			
66.	·ing	·ing	p 羹	s 影	c 映	
67.	·jing	xing	p 嬰	s 癭	c 鑒	
68.	jing	jing	p 嫵	s ⁵³ 郢	c 輓	
69.	ling	ling	p 令	s 領	c 令	(24, 101a)
70.	ring	ring	p 仍			
.....						
☰ 71.	ghing	køŋ ⁵⁴	p 桓		c 亘	
72.	k'hing	k'øŋ		s 肯		
73.	dhing	tøŋ	p 登	s 等	c 嶝	
74.	thing	døŋ	p 騰		c 鄧	
75.	nhing	nøŋ	p 獐			
76.	džhing	ţşøŋ	p 丁	s 杙	c 偵	
77.	ţş'hing ⁵⁵	ţş'øŋ	p 瞠			(25, 101b)
78.	ţşhing	džøŋ	p 棖		c 銍	
79.	bhing	pøŋ	p 崩		c 迸	
80.	p'hing	p'øŋ	p 烹			
81.	phing	bøŋ	p 彭	s 僮	c 僮	
82.	dzhing	tsøŋ	p 增			
83.	tsking	džøŋ	p 層		c 贈	
84.	shing	søŋ	p 僧			
85.	şhing	şøŋ	p 生	s 省		
86.	lhing	løŋ	p 楞	s 冷		
.....						
☷ 87.	g'üŋg	k'üŋg	p 局	s 頰 ⁵⁶		(26, 101b)
88.	k'üŋg	k'üŋg	p 傾	s 頃		

⁵³ For 去 (after 蠅) read 上.

⁵⁴ See Chapter III, 3.

⁵⁵ For ☷ read ☷.

⁵⁶ The *PCH* gives the Nos. 27-42 group as *-eung*. See Dragunov, op. cit., 熊

	89.	kiung	giung	P 瓊		
	90.	hiung	hiung		s 詞	
	91.	fiung	fiung	P 雄	s 迴	
.....						
𠄎	92.	geing	keing	P 庚	s 梗	c 更
	93.	k'eing	k'eing	P 阮	s 磬	
	94.	heing	heing	P 諄		c 興
	95.	fieng ⁵⁷	fieng(fiung?)	P 兄		
.....						
𠄎	96.	•ũung	•ũung	P 泓		(27, 102a)
.....						
𠄎	97.	hiing ⁵⁸	hiing	P 行	s 杏	c 行
3. yang-yün 陽韻						
𠄎	98.	g(a)ng	kang	P 岡		c 鋼
	99.	k'(a)ng	k'ang	P 康	s 慷	c 抗
	100.	ŋ(a)ng	ŋang	P 昂		c 駟
	101.	d(a)ng	tang	P 當	s 黨	c 讜
	102.	t'(a)ng	t'ang	P 湯	s 贖	c 儻
	103.	t(a)ng	dang	P 唐	s 蕩	c 宕 (27-28, 102a)
	104.	n(a)ng	nang	P 囊	s 囊	c 儻 (28, 102a)
	105.	ɖz(a)ng	ɖʂang	P 張	s 長	c 脹
	106.	ɖʂ'(a)ng ⁵⁹	ɖʂ'ang	P 猖	s 昶	c 悵
	107.	ɖʂ(a)ng	ɖʂang	P 長	s 丈	c 仗
	108.	ñ(a)ng	ñang	P 娘		c 釐
	109.	b(a)ng	pang	P 幫	s 榜	
	110.	p'(a)ng	p'ang	P 滂		
	111.	p(a)ng	bang	P 傍	s 棒	c 傍 (29, 102b)
	112.	m(a)ng ⁶⁰	mang	P 茫	s 莽	

hèung; Ligeti, op. cit., 熊 *hūn*. Cheng Tsai-fa makes no distinction between Nos. 27-42 and Nos. 87-91.

⁵⁷ Hattori gives this as *hūing* (op. cit., p. 43).

⁵⁸ The *PCH* and some other inscriptions give 𠄎. Cf. Cheng Tsai-fa, op. cit., p. 950.

⁵⁹ For 𠄎 read 𠄎.

⁶⁰ For 𠄎 read 𠄎.

113.	hŭ(a)ng	fang	P 昉	s 昉	c 放	
114.	hŭ(a)ng ⁶¹	vang	P 房		c 防	
115.	w(a)ng	wang	P 亡	s 網	c 妄	
116.	dz(a)ng	tsang	P 臧	s 駟	c 葬	
117.	ts'(a)ng	ts'ang	P 倉	s 蒼		
118.	ts(a)ng	dzang	P 藏	s 奘	c 藏	
119.	s(a)ng	sang	P 桑	s 嗓	c 喪	(30, 102b)
120.	ṣ(a)ng	ṣang	P 商	s 賞	c 餉	
121.	z(a)ng	zang	P 常	s 上	c 尙	
122.	r(a)ng	yang	P 航	s 沆	c 吭	
123.	·(a)ng	·ang		s 块	c 盎	
124.	j(a)ng	jang	P 陽	s 養	c 漾	
125.	l(a)ng	lang	P 笕	s 朗	c 閭	
126.	ṛ(a)ng	ṛang	P 穰	s 壤	c 讓	

≡	127.	gī(a)ng	kīang	P 葢	s 縑	c 彊	(31, 103a)
	128.	k'ī(a)ng	k'īang	P 羌	s 控		
	129.	kī(a)ng	gīang	P 强	s 彊		
	130.	ḡī(a)ng	ḡiang	P 仰		c 仰	
	131.	dzi(a)ng	tsiang	P 將	s 漿	c 醬	
	132.	ts'ī(a)ng	ts'īang	P 踰			
	133.	tsī(a)ng	dzīang	P 牆		c 匠	
	134.	sī(a)ng	sīang	P 纊	s 想	c 相	
	135.	zī(a)ng ⁶²	zīang	P 詳	s 橡		(32, 103a)
	136.	hī(a)ng	hīang	P 香	s 響	c 向	
	137.	ḡī(a)ng	ḡiang	P 降	s 項	c 巷	
	138.	·ī(a)ng	·īang	P 央	s 鞅	c 怏	
	139.	lī(a)ng	līang	P 良	s 兩	c 亮	

≡	140.	gŭ(a)ng	kŭang	P 光	s 廣	c 誑	
	141.	k'ŭ(a)ng	k'ŭang	P 匡		c 曠	
	142.	kŭ(a)ng	gŭang	P 狂			

⁶¹ For 𠂔 read 𠂔 .

⁶² For ≡ (PSPT ed.) read ≡ .

143.	ɖʒũ(a)ng	ʈʂũang	P 椿			
144.	ʈʂ'ũ(a)ng	ʈʂ'ũang	P 窻			(33, 103b)
145.	ʈʂũ(a)ng	ɖʒũang	P 幢		c 撞	
146.	ʂũ(a)ng	ʂũang	P 雙			
147.	hũ(a)ng	hũang	P 荒	s 慌		
148.	·ũ(a)ng	·ũang	P 汪	s 枉	c 汪	
149.	yũ(a)ng ⁶³	yũang	P 王	s 往	c 迂	
150.	lũ(a)ng	lũang	P 瀧			
.....						
㊦ 151.	ɖʒh(a)ng	ʈʂɔŋg ⁶⁴	P 莊		c 壯	
152.	ʈʂ'h(a)ng	ʈʂ'ɔŋg	P 創	s 爽	c 剏	
153.	ʈʂh(a)ng	ɖʒɔŋg	P 牀		c 狀	
154.	ʂh(a)ng	ʂɔŋg	P 霜	s 爽		(34, 103b)
.....						
㊦ 155.	ɣɔŋg	ɣɔŋg	P 惶	s 晃	c 攜	
.....						
㊦ 156.	fiüeng	fiüeng		s 悅	c 況	
4. <i>chih-yün</i> 支韻						
㊦ 157.	gi	ki	P 羈	s 椳	c 寄 j(ktp) 訖	
158.	k'i	k'i	P 魅	s 綺	c 器 j(ktp) 乞	(34-35, 103-104a)
159.	ki	gi	P 奇	s 技	c 笈 j(ktp) 劇	(35, 104a)
160.	ŋi	ŋi	P 宜	s 螳	c 議 j(ktp) 疙	
161.	di	ti	P 低	s 邸	c 帝 j(k) 的	(35-36, 104a)
162.	t'i	t'i	P 梯	s 體	c 替 j(k) 逖	(36, 104a)
163.	ti	di	P 哢	s 弟	c 弟 j(k) 狄	
164.	ni	ni	P 泥	s 禰	c 泥 j(k) 怒	
165.	ɖʒi	ʈʂi	P 知	s 徵	c 智 j(ktp) 陟	(37, 104b)
166.	ʈʂ'i	ʈʂ'i	P 絺	s 恥	c 貍 j(k) 扶	
167.	ʈʂi	ɖʒi	P 馳	s 豸	c 緻 j(k) 秩	(38, 104b)
168.	ni	ni	P 尼	s 柅	c 膩 j(k) 睨	
169.	bi	pi	P 卑	s 妣	c 臂 j(k) 必	

⁶³ For ㊦ read ㊦.

⁶⁴ See Chapter III, § 3.

170.	p'i	p'i	P 紕	s 諱	c 譬	j(k) 匹	
171.	pi	bi	P 陴	s 婢	c 鼻	j(kt) 邨	(39, 105a)
172.	mi	mi	P 彌	s 潤	c 寐	j(kt) 蜜	
173.	hi ⁶⁵	fi	P 菲	s 匪	c 沸		
174.	fi ⁶⁶	vi	P 肥		c 狒		
175.	wi	wi	P 微	s 尾	c 未		
176.	dzi	tsi	P 齋	s 濟	c 霽	j(kp) 聖	(39-40, 105a)
177.	ts'i	ts'i	P 妻	s 泚	c 砌	j(ktp) 七	(40, 105a)
178.	tsi	dzi	P 齊	s 齊	c 穢	j(ktp) 疾	
179.	si	si	P 西	s 洗	c 細	j(kt) 悉	
180.	zi	zi				j(ktp) 席	
181.	ši	ši	P 純	s 弛	c 翅	j(kt) 失	(40-41, 105a-b)
182.	zi	zi	P 時	s 是	c 鼓	j(kp) 石	(41, 105b)
183.	hi	hi	P 犧	s 喜	c 戲	j(tp) 施	
184.	·i	·i	P 漪	s 倚	c 懿	j(tp) 乙	(41-42, 105b)
185.	·ji	xi	P 伊		c 縊	j(tp) 壹	(42, 105b)
186.	ji	ji	P 移	s 酖	c 易	j(kt) 逸	(42-43, 105b-106a)
187.	li	li	P 離	s 邏	c 詈	j(kt) 栗 ⁶⁷	(43, 106a)
188.	ri	ri	P 兒	s 爾	c 二	j(tp) 日	

𠄎	189.	dzhi	ts'ɿ ⁶⁸	P 菑	s 淬	c 戴	j(kp) 櫛	(44, 106a)
	190.	ts'hi	ts'ɿ	P 差		s 厠		
	191.	ts'hi	dzɿ	P 漿	s 士	c 事		
	192.	dzhi	tsɿ	P 貲	s 紫	c 積		
	193.	ts'hi	ts'ɿ	P 雌	s 此	c 刺		
	194.	tshi	dzɿ	P 慈		c 字		
	195.	shi	sɿ	P 思	s 徙	c 賜		(44-45, 106a-b)
	196.	zhi	zɿ	P 詞	s 兕	c 寺		(45, 106b)

⁶⁵ For 𠄎 read 𠄎.

⁶⁶ For 𠄎 read 𠄎.

⁶⁷ The character 曆 in the *ju-sheng* group of the *PSPT* edition must be corrected to 曆, because in the Ch'ien-lung manuscript of the *MKTY*, the last stroke of this character should be lacked to avoid the identity with 弘曆, the first name of the Emperor Ch'ien-lung. Cf. Ozaki, op. cit., p. 164.

⁶⁸ For 𠄎 read 𠄎.

	197.	ʂ'ei	ʂɿ	p 醜	s 屨	c 駛	j(tp) 瑟	
								
ㄣ	198.	gei	kei	p 鷄		c 計	j(kt) 吉	
	199.	k'ei	k'ei	p 谿	s 啓	c 契	j(t) 喫	
	200.	kei	gei	p 祗				
	201.	hei	hei	p 醢				(46, 106b)
	202.	fei	fei	p 奚	s 俟	c 系	j(kt) 檄	
								
ㄣ	203.	gue	kue	p 嬌	s 詭	c 媿	j(k) 國	
	204.	k'ue	k'ue	p 虧	s 跪	c 喟		
	205.	kue	gue	p 達	s 跪	c 匱		
	206.	due	tue	p 碓		c 對		
	207.	t'ue	t'ue	p 推	s 腿	c 媿		
	208.	tue	due	p 頹		c 兌		(47, 107a)
	209.	nue	nue	p 倭	s 饑	c 內		
	210.	dzue	ʂue	p 追	s 捶	c 惴		
	211.	ʂs'ue	ʂs'ue	p 吹		c 吹		
	212.	ʂue	dzue	p 髻		c 錘		
	213.	nue	nue			c 諉		
	214.	bue	pue	p 跛	s 彼	c 賁	j(kt) 碧	
	215.	p'ue	pu'ε	p 披	s 殍	c 帔	j(k) 埽	(47-48, 107a)
	216.	pue	bue	p 皮	s 被	c 髮	j(kt) 弼	(48, 107a)
	217.	mue	mue	p 酶	s 靡	c 媚	j(kt) 密	
	218.	dzue	tsue	p 劑	s 觜	c 醉		
	219.	ts'ue	ts'ue	p 崔	s 雌	c 翠		
	220.	tsue	dzue	p 摧	s 臯	c 萃		
	221.	suε	suε	p 胙	s 髓	c 遽		(49, 107b)
	222.	zue	zue	p 隨		c 遂		
	223.	ʂue	ʂue		s 水	c 稅		
	224.	zue	zue	p 垂	s 華	c 睡		
	225.	hue	hue	p 灰	s 賄	c 識		
	226.	ɣue	ɣue	p 迴	s 瘍	c 會	j(k) 或	
	227.	·ue	·ue	p 透	s 委	c 尉	j(k) 域	(49-, 50 107b)
	228.	yue	yue	p 危	s 碗	c 僞		(50, 107b)

	229.	luɛ	luɛ	p 疊	s 累	c 類 ⁶⁹	
	230.	ʔuɛ	ʔuɛ	p 蕤	s 藥	c 芮	
.....							
ㄟ	231.	g'iuɛ	k'iuɛ	p 規	s 癸	c 季	j(t)橘(50-51, 107b-108a)
	232.	k'iuɛ	k'iuɛ	p 闕	s 跬		j(k)闕 (51, 108a)
	233.	k'iuɛɛ	g'iuɛ	p 葵	s 揆	c 倂	
	234.	h'iuɛ	h'iuɛ			c 嘒	j(k)欸
	235.	h'iuɛ	h'iuɛ	p 隳		c 慄	j(t)獺
.....							
ㄟ	236.	heuɛ ⁷⁰	h'iuɛ	p 麾	s 毀	c 諱	j(k)洫
.....							
ㄟ	237.	·üi	·üi			c 恚	
	238.	jüi	jüi	p 惟	s 唯	c 遺	j(kt)聿 (51-52, 108a)
5. yü-yün 魚韻							
ㄟ	239.	gu	ku	p 孤	s 古	c 顧	j(kt)穀 (52, 108a)
	240.	k'u	k'u	p 袴	s 苦	c 袴	j(kt)哭
	241.	du	tu	p 都	s 覩	c 妬	j(kt)篤
	242.	t'u	t'u		s 土	c 菟	j(kt)禿
	243.	tu	du	p 徒	s 杜	c 渡	j(kt)獨 (53, 108b)
	244.	nu	nu	p 奴	s 怒	c 怒	j(t)訥
	245.	ɖzu	ʈsu	p 菹	s 阻	c 詛	
	246.	ʈs'u	ʈs'u	p 初	s 楚		j(k)矗
	247.	ʈsu	ɖzu	p 鉏	s 齟	c 助	
	248.	bu	pu	p 逋	s 補	c 布	j(k)卜
	249.	p'u	p'u	p 鋪	s 普	c 怖	j(kt)扑
	250.	pu	bu	p 圃	s 簿	c 捕	j(kt)暴 (54, 180b)
	251.	mu	mu	p 模	s 姥	c 暮	j(kt)木
	252.	füu	vu	p 附	s 甫	c 付	j(kt)福
	253.	hüu	fu	p 扶	s 父	c 附	j(kt)伏(54-55, 108b-109a)
	254.	wu	wu	p 無	s 武	c 務	j(kt)目 (55, 109a)
	255.	dzu	tsu	p 租	s 祖	c 作	j(kt)鍤

⁶⁹ The s. and c. groups are to be reversed.

⁷⁰ For ㄟ read ㄟ.

256.	ts'u	ts'u	p 麤		c 措	j(kt) 簇	
257.	tsu	dzu	p 徂	s 粗	c 祚	j(kt) 族	
258.	su	su	p 蘇		c 訴	j(kt) 速	
259.	şu	şu	p 疏	s 所	c 疏	j(kt) 縮	(56, 109a)
260.	hu	hu	p 呼	s 虎	c 誨	j(kt) 矯	
261.	ɣu	ɣu	p 胡	s 戶	c 護	j(kt) 穀	
262.	·u	·u	p 烏	s 隅	c 惡	j(k) 屋	
263.	lu	lu	p 盧	s 魯	c 路	j(k) 爐	(56-57, 109a-b)

ㄅ	264.	geu	k'iu	p 居	s 舉	c 據	j(kt) 菊	(57, 109b)
	265.	k'eu	k'iu	p 墟	s 去	c 驅	j(kt) 麴	
	266.	keu	g'iu	p 渠	s 巨	c 遽	j(kt) 鞠	
	267.	q̣zeu	ṭşiu	p 類	s 貯	c 著	j(kt) 竹	(57-58, 109b)
	268.	ṭş'eu	ṭş'iu	p 攄	s 楮	c 處	j(kt) 俶	(58, 109b)
	269.	ṭşeu	q̣ziu	p 除	s 佇	c 箸	j(kt) 舳	
	270.	ñeu	ñiu	p 榭	s 女	c 女	j(k) 眊	
	271.	dzeu	tsiu	p 且		c 怙	j(kt) 蹙	(58-59, 109b-110a)
	272.	ts'eu	ts'iu	p 疽	s 取	c 覷	j(k) 促	(59, 110a)
	273.	tseu	dz'iu		s 咀	c 聚	j(t) 岑	
	274.	seu	s'iu	p 胥	s 謂	c 絮	j(kt) 肅	
	275.	zeu	z'iu	p 徐	s 敘		j(k) 續	
	276.	şeu	şiu	p 書	s 暑	c 恕	j(k) 叔	
	277.	zeu	z'iu	p 蜎	s 豎	c 署	j(k) 熟	(59-60, 110a)
	278.	heu	h'iu	p 虛	s 許	c 洵	j(kt) 蓄	(60, 110a)
	279.	·eu	·iu	p 於	s 偃	c 飫	j(kt) 郁	
	280.	yeu	y'iu	p 魚	s 語	c 御	j(kt) 玉	
	281.	jeu	jiu	p 餘	s 與	c 豫	j(k) 育	(60-61, 110a-b)
	282.	leu ⁷¹	liu	p 臚	s 呂	c 慮	j(kt) 六	(61, 110b)
	283.	feu ⁷²	fiu	p 如	s 女	c 洳	j(k) 肉	

⁷¹ For 𪛗 read 𪛗.

⁷² For 𪛗 read 𪛗.

ㄅ 284. u u⁷³ p 吾 s 五 c 誤 j(t) 兀

6. *chia-yün* 佳韻

ㄅ 285.	g(a)j	kaj	p 該	s 改	c 蓋	(62, 110b)
286.	k'(a)j	k'aj	p 開	s 愷	c 磕	
287.	ŋ(a)j	ŋaj	p 皚		c 艾	
288.	d(a)j	taj		s 斛	c 帶	
289.	t'(a)j	t'aj	p 胎		c 泰	
290.	t(a)j	daj	p 臺	s 殆	c 大	
291.	n(a)j	naj	p 能	s 乃	c 柰 j(k) 擲	
292.	dʒ(a)j	tʃaj	p 齋		c 債 j(k) 責	(62-63, 110b-111a)
293.	tʃ'(a)j	tʃ'aj	p 釵	s 菑	c 差 j(k) 冊	(63, 111a)
294.	tʃ(a)j	dʒaj	p 柴	s 虜	c 毗 j(k) 贖	
295.	b(a)j	paj		s 擺	c 拜 j(k) 伯	
296.	p'(a)j	p'aj			c 派 j(k) 拍	
297.	p(a)j	baj	p 牌	s 罷	c 裨 j(k) 白	
298.	m(a)j	maj	p 埋	s 買	c 賈 j(k) 陌	(64, 111a)
299.	dz(a)j	tsaj	p 裁	s 宰	c 再	
300.	ts'(a)j	ts'aj	p 猜	s 采	c 蔡	
301.	ts(a)j	dzaj	p 裁	s 在	c 載	
302.	s(a)j	saj	p 腮		c 賽	
303.	ʃ(a)j	ʃaj		s 灑	c 曬 j(k) 索	
304.	h(a)j	haj	p 哈	s 海		
305.	ɣ(a)j	ɣaj	p 孩	s 亥	c 害	
306.	·(a)j	·aj	p 哀		c 藹	
307.	·j(a)j	xaj	p 娃	s 矮	c 隘 j(k) 啞	(65, 111b)
308.	j(a)j	jaj	p 崖	s 駭	j(k) 額	
309.	l(a)j	laj	p 來		c 賴	

.....

ㄆ 310.	gũ(a)j	kũaj	p 乖		c 怪 j(k) 皃	
311.	k'ũ(a)j	k'ũaj			c 快	
312.	tʃ'ũ(a)j	tʃ'ũaj	p 褻	s 揣	c 噉	
313.	ʃũ(a)j	ʃũaj	p 衰		c 帥 j(k) 摠	

⁷³ This group ought to belong to the Nos. 239-263 group.

314.	hũ(a)j	hũaj				j(k) 差	
315.	ɾũ(a)j	ɾũaj	P 懷		c 畫	j(k) 獲	(66, 111b)
316.	·ũ(a)j	·ũaj	P 蛙			j(k) 獲	
317.	yũ(a)j	yũaj			c 贖		
.....							
㉞ 318.	gi(a)j ⁷⁴	kiaj	P 佳	s 解	c 懈	j(k) 格	
㉞ 319.	k'i(a)j	k'iaj	P 揩	s 楷	c 劾	j(k) 客	
320.	hi(a)j	hiaj			c 譚	j(k) 赫	
321.	fi(a)j	fiaj	P 暎	s 蟹	c 邂	j(k) 輅	

.....
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㉞ 322.	k'hij	k'øj				j(k) 刻	(69, 112b)
323.	dhij	tøj				j(k) 德	
324.	tʂhij ⁷⁵	t'øj				j(k) 忒	
325.	thij	døj				j(k) 特	
326.	dʒhij	tʂøj				j(k) 晷	
327.	tʂ'hij	tʂ'øj				j(k) 測	
328.	tʂhij	dʒøj				j(k) 則	
329.	dzhij	tsøj				j(k) 則	
330.	tʂhij	dzøj				j(k) 賊	
331.	shij	søj				j(k) 塞	
332.	ʂhij	ʂøj				j(k) 色	(70, 112b)
333.	lhij	løj				j(k) 勒	

㉞ 334.	hij	høj ⁷⁶				j(k) 黑	
335.	ɾij	ɾøj				j(k) 刻	

7. *chen-yün* 眞韻

㉞ 336.	gin	kin	P 巾	s 謹	c 斤	
337.	kin	gin	P 勤	s 近	c 近	

⁷⁴ For ≡ of Nos. 318-321 read ≡.

⁷⁵ For ≡ (MKJI) and ≡ (PSPT) read ≡.

⁷⁶ No. 334 may have the same value as Nos. 322-333. The difference of 'Phags-pa spelling between them was perhaps to avoid the duplicating form in *hhij*.

333.	ɣin	ɣin	p 銀	s 听	c 愁	
339.	nin	nin	p 紉			
340.	ɖzin	ʈsin	p 珍	s 軫	c 震	(70-71, 112b-113a)
341.	ʈʂ'in	ʈʂ'in	p 瞋	s 輓	c 疚	(71, 113a)
342.	ʈsin	ɖzin	p 神	s 紉	c 陳	
343.	bin	pin	p 賓		c 濱	
344.	p'in	p'in	p 繽			
345.	pin	bin	p 頻	s 牝		
346.	min	min	p 旻	s 愍		
347.	dzin	tsin	p 津	s 盡	c 晉	
348.	ts'in	ts'in	p 親		c 親	
349.	tsin	dzin	p 秦	s 盡		
350.	sin	sin	p 辛		c 信	(72, 113a)
351.	zin	zin	p 簋			
352.	ʂin	ʂin	p 申	s 矧		
353.	ʒin	ʒin	p 辰	s 腎	c 愼	
354.	rin	rin	p 痕	s 狠	c 恨	
355.	·in	·in	p 殷	s 隱	c 億	
356.	·jin	xin	p 因		c 印	
357.	jin	jin	p 寅	s 引	c 胤	
358.	lin	lin	p 鄰	s 隣	c 遴	
359.	fin	fin	p 人	s 忍	c 刃	(73, 113b)
.....						
360.	gun	kun	p 昆	s 髡		
361.	k'un	k'un	p 坤	s 闕	c 困	
362.	dun	tun	p 敦		c 頓	
363.	t'un	t'un	p 墩	s 瞞		
364.	tun	dun	p 屯	s 園	c 鈍	
365.	nun	nun			c 嫩	
366.	bun	pun	p 奔	s 本		
367.	p'un	p'un	p 濱		c 噴	
368.	pun	bun	p 盆		c 仝	
369.	mun	mun	p 門	s 悞	c 悶	(74, 113b)
370.	fun ⁷⁸	vun	p 分	s 粉	c 盆	

⁷⁷ For 𠬞 read 𠬞.

⁷⁸ For 𠬞 read 𠬞.

	371.	hun ⁷⁹	fun	p 汾	s 憤	c 分	
	372.	wun ⁸⁰	wun	p 文	s 吻	c 問	
	373.	dzun	tsun	p 尊	s 樽	c 掇	
	374.	ts'un	ts'un	p 村	s 付	c 寸	
	375.	tsun	dzun	p 存	s 鐫		
	376.	sun	sun	p 孫	s 損	c 巽	(75, 114a)
	377.	hun	hun	p 昏			
	378.	ɣun	ɣun	p 魂	s 混	c 慝	
	379.	• un	• un	p 溫	s 穩		
ㄌㄩㄣˊ	380.	lun	lun	p 論		c 論	
							
	381.	geun	k'iun	p 君		c 據	
	382.	k'eun	k'iun	p 困			
	383.	keun	g'iun	p 群	s 窘	c 郡	
	384.	dzeun	tɕ'iun	p 屯	s 準	c 稕	
	385.	tɕ'eun	tɕ'iun	p 春	s 蠢		
	386.	tɕeun	dɕ'iun	p 脣	s 盾	c 順	(76, - ⁸¹)
	387.	dzeun	ts'iun	p 遵		c 僞	
	388.	ts'eun	ts'iun	p 逡			
	389.	seun	siun	p 荀	s 笋	c 峻	
	390.	zeun	ziun	p 旬		c 徇	
	391.	ɕeun	ɕiun			c 舜	
	392.	ɕeun	ɕiun	p 醇			
	393.	heun	hiun	p 薰		c 訓	
	394.	jeun	jiun	p 勻	s 尹		
	395.	leun	liun	p 淪			
	396.	ɾeun	ɾiun	p 悖	s 蜚	c 閏	(77, -)
							
ㄌㄧㄣˊ	397.	ghin	køŋ	p 根		c 艮	
	398.	k'hin	k'øŋ		s 墜		
	399.	t'hin	t'øŋ	p 吞		c 褪	
	400.	dɕhin	tɕøŋ	p 臻			
	401.	tɕ'hin	tɕ'øŋ			c 襯	

⁷⁹ For ㄅ read ㄆ.

⁸⁰ For ㄇ (MKJI) read ㄇ.

⁸¹ The PSPT lacks Nos. 386-405.

	402.	ʃhin	ʃøn	p 莘		
	403.	• hin	• øn	p 恩		
.....						
ㄣ	404.	gein	kein		s 緊	
	405.	hein	hein	p 欣		c 峠
	406.	fein	fein	p 磯		
(78, 114b)						
.....						
ㄣ	407.	• üin	• üin	p 贊	s 憚	c 醞
	408.	yüin	yüin	p 雲	s 殞	c 韻
8.	han-yün		寒韻			
ㄣ	409.	g(a)n	kan	p 干	s 筭	c 吁
	410.	k'(a)n	k'an	p 看	s 侃	c 侃
	411.	ɣ(a)n	ɣan	p 豢		c 岸
	412.	d(a)n	tan	p 單	s 亶	c 旦
	413.	t'(a)n	t'an	p 灘	s 坦	c 炭
	414.	t(a)n	dan	p 壇	s 但	c 彈
	415.	n(a)n	nan	p 難	s 赧	c 難
	416.	dʒ(a)n	tʃan		s 殫	
	417.	tʃ'(a)n	tʃ'an		s 剗	c 鎗
	418.	tʃ(a)n	dʒan	p 潺	s 棧	c 棧
	419.	b(a)n	pan	p 班	s 版	
	420.	p'(a)n	p'an	p 攀		c 攀
	421.	p(a)n	ban			c 辦
	422.	m(a)n	man	p 蠻		c 慢
	423.	h(a)n ⁸²	fan	p 翻	s 反	c 販
	424.	f(a)n ⁸³	van	p 蹣	s 飯	c 飯
	425.	k'(a)n ⁸⁴	wan		s 晚	c 萬
	426.	dz(a)n	tsan			c 贊
	427.	ts'(a)n	ts'an	p 餐		c 餐
	428.	ts(a)n	dzan	p 殘	s 瓚	
	429.	s(a)n	san	p 刪	s 散	c 散
	430.	ʃ(a)n	ʃan	p 刪	s 潛	c 訕
(81, 115b)						

⁸² For ㄣ read ㄣ.

⁸³ For ㄣ read ㄣ.

⁸⁴ For ㄣ read ㄣ.

431.	h(a)n	han		s 罕	c 漢
432.	ɣ(a)n	ran	P 寒	s 旱	c 翰
433.	·(a)n	·an	P 安		c 按
434.	·j(a)n	xan	P 殷		c 晏
435.	j(a)n	jan	P 顏	s 眼	c 鴈
436.	l(a)n	lan	P 爛	s 嬾	c 爛

ㄅ	437.	ɣn	ɔN	P 阮		c 玩	
	438.	gɣn	kɔN	P 官	s 管	c 貫	(82, 115b)
	439.	k'ɣn	k'ɔN	P 寬	s 款		
	440.	dɣn	tɔN	P 端	s 短	c 鍛	
	441.	t'ɣn	t'ɔN	P 湍	s 瞳	c 豕	
	442.	tɣn	dɔN	P 團	s 斷	c 段	
	443.	nɣn	nɔN		s 暖	c 悞	
	444.	bɣn	pɔN	P 黠		c 半	
	445.	p'ɣn	p'ɔN	P 潘		c 判	
	446.	pɣn	bɔN	P 槃	s 伴	c 叛	(82-83, 115b-116a)
	447.	mɣn	mɔN	P 滿	s 滿	c 縵	(83, 116a)
	448.	dzɣn	tsɔN	P 鑽	s 纂	c 鑽	
	449.	ts'ɣn	ts'ɔN			c 竄	
	450.	tsɣn	dzɔN	P 攢		c 攢	
	451.	sɣn	sɔN	P 酸	s 算	c 筭	
	452.	hɣn	hɔN	P 歡		c 喚	
	453.	ɣɣn	ɣɔN	P 桓	s 緩	c 換	
	454.	·ɣn	·ɔN	P 剋	s 盃	c 惋	
	455.	lɣn	lɔN	P 鑾	s 卵	c 亂	(84, 116a)

ㄇ	456.	gǔ(a)n	kǔan	P 關		c 慣	
	457.	ɖzǔ(a)n	ʈʂǔan	P 詮			
	458.	ʈʂ'ǔ(a)n	ʈʂ'ǔan			c 纂	
	459.	ʈʂǔ(a)n	ɖzǔan		s 撰	c 饌	
	460.	ɣǔ(a)n	ɣǔan	P 還	s 脛	c 患	
	461.	·ǔ(a)n	·ǔan	P 彎	s 箱		

462.	ts'ü(a)n ⁸⁵	yüan	P 頑			
.....						
ㄇ 463.	gĩ(a)n	k'ian	P 間	s 簡	c 欄	(84-85, 116a-b)
464.	k'ĩ(a)n	k'ian	P 豸			(85, 116b)
465.	fi(a)n	fi'an	P 閑	s 欄	c 覓	
9. <i>hsien-yün</i> 先韻						
ㄇ 466.	gen	ken	P 揀	s 蹇	c 建	
467.	k'en	k'en	P 愆		c 譴	
468.	ken	gen	P 乾	s 件	c 健	
469.	ɣen	ɣen	P 言	s 巘	c 彥	
470.	dɛn	tɛn	P 顛	s 典	c 殿	
471.	t'en	t'en	P 天	s 腆	c 瑱	
472.	tɛn	dɛn	P 田	s 殄	c 電	(86, 116b)
473.	nɛn	nɛn	P 季	s 然	c 覲	
474.	ɬɛn	ʈɛn	P 澶		c 驪	
475.	ʈɛn	ɬɛn	P 纏			
476.	pɛn	bɛn	P 騙	s 辯	c 卞	
477.	mɛn	mɛn	P 眠	s 緬	c 麵	
478.	tsɛn	dɛn	P 前	s 踐	c 荐	
479.	zɛn	zɛn	P 次		c 羨	(87, 117a)
480.	ʃɛn	ʃɛn	P 鋌	s 善	c 繕	
481.	jɛn	jɛn	P 延	s 演	c 衍	
482.	lɛn	lɛn	P 蓮	s 輦	c 練	
483.	ʀɛn	ʀɛn	P 然	s 燠		
.....						
ㄇ 484.	gen	ken	P 堅	s 𦨇	c 見	
485.	k'en	k'en	P 牽	s 遣	c 覲	
486.	ɬɛn	ʈɛn	P 𦨇	s 展	c 戰	
487.	ʈɛn	ɬɛn	P 燂	s 𦨇	c 硯	(88, 117a)
488.	ben	pen	P 邊	s 緋	c 變	
489.	p'en	p'en	P 篇	s 鵠	c 片	
490.	dɛn	tsɛn	P 箋	s 剪	c 薦	

⁸⁵ For ㄣ read ㄣ'.

	491.	ts'en	ts'en	p 千	s 淺	c 蒨	
	492.	sen	sen	p 先	s 銑	c 靱	
	493.	ʃen	ʃen	p 羶		c 扇	
	494.	hen	hen	p 軒	s 櫛	c 獻	
	495.	• en	• en	p 焉	s 偃	c 堰	(89, 117b)
	496.	• jen	xen	p 煙		c 宴	
.....							
ㄨㄣ	497.	gŭen	kŭen	p 涓	s 畎	c 眼	
	498.	k'ŭen	k'ŭen	p 犬			
	499.	kŭen	gŭen	p 權	s 圈	c 倦	
	500.	qzŭen	tʃŭen	p 專	s 轉	c 嘽	
	501.	tʃ'ŭen	tʃ'ŭen	p 穿	s 舛	c 釧	
	502.	tʃŭen	qzŭen	p 船	s 篆	c 傳	
	503.	dzŭen	tsŭen	p 鐫			
	504.	ts'ŭen	ts'ŭen	p 詮			
	505.	tsŭen	dzŭen	p 全	s 雋		(90, 117b)
	506.	sŭen	sŭen	p 宣	s 選	c 選	
	507.	zŭen	zŭen	p 旋		c 漩	
	508.	ʃŭen	ʃŭen	p 遄			
	509.	hŭen	hŭen	p 翺	s 環	c 絢	
	510.	fŭen	fŭen	p 玄	s 沚	c 縣	
	511.	• ŭen	• ŭen	p 鴛	s 婉	c 怨	
	512.	yŭen	yŭen	p 元	s 阮	c 願	(90-91, 117b-118a)
	513.	• jŭen	xŭen	p 淵		c 餌	(91, 118a)
	514.	jŭen	jŭen	p 沿	s 兗	c 掾	
	515.	fŭen	fŭen	p 堰	s 輓		
.....							
ㄟ	516.	geɣn	k'ɿɿN	p 卷		c 辮	
	517.	k'eɣn	k'ɿɿN	p 鴛	s 綬	c 券	
	518.	leɣn	lɿɿN	p 攀	s 櫛	c 戀	
.....							
ㄣ	519.	fɛɿn	fɿɿn	p 賢	s 峴	c 見	

10. *hsiao-yün* 蕭韻

ㄅ	520.	g(a)w	kaw	P 高	s 鬲	c 誥	j(k)各	(92, 118a)
	521.	k'(a)w	k'aw		s 考	c 箇	j(k)恪	
	522.	ɣ(a)w	ɣaw	P 敖		c 傲	j(k)𠮟	
	523.	d(a)w	taw	P 刀	s 倒	c 到		
	524.	t'(a)w	t'aw	P 鑿	s 討		j(k)託	
	525.	t(a)w	daw	P 陶	s 道	c 導	j(k)鐸 (92-93, 118a-b)	
	526.	n(a)w	naw	P 獠	s 腦	c 撓	j(k)諾 (93, 118b)	
	527.	ɖz(a)w	ɖzaw	P 嘲	s 爪	c 罩		
	528.	ɖʂ'(a)w	ɖʂ'aw	P 抄	s 炒	c 抄		
	529.	ɖʂ(a)w	ɖʂaw	P 巢		c 棹		
	530.	b(a)w	paw	P 褒	s 寶	c 報	j(k)博	
	531.	p'(a)w	p'aw	P 胞		c 筲	j(k)灤	
	532.	p(a)w	baw	P 庖	s 鮑	c 鉋	j(k)電 (94, 118b)	
	533.	m(a)w	maw	P 毛	s 卯	c 帽	j(k)寞	
	534.	ʋ(a)w	vaw				j(k)縛	
	535.	dz(a)w	tsaw	P 糟	s 早	c 竈	j(k)作	
	536.	ts'(a)w ⁸⁶	ts'aw	P 操	s 草	c 操	j(k)錯	
	537.	ts(a)w	dzaw	P 曹	s 阜	c 漕	j(k)昨 (94-95, 118b-119a)	
	538.	s(a)w	saw	P 騷	s 嫂	c 梟	j(k)索 (95, 119a)	
	539.	ʂ(a)w	ʂaw	P 稍		c 稍		
	540.	h(a)w	haw	P 蒿	s 好	c 耗		
	541.	ɣ(a)w	ɣaw	P 豪	s 皓	c 號	j(k)涸	
	542.	·(a)w	·aw	P 鏹	s 襖	c 奧	j(k)惡	
	543.	·j(a)w	xaw	P 坳	s 拗	c 勒	j(k)渥 (96, 119a)	
	544.	j(a)w	jaw	P 磬	s 𪗇	c 樂	j(k)嶽	
	545.	l(a)w	law	P 勞	s 老	c 嫪 ⁸⁷	j(k)落	
.....								
ㄆ	546.	gɛw	kɛw	P 驕	s 矯		j(k)脚	
	547.	k'ɛw	kɛ'w	P 譙			j(k)卻	
	548.	kɛw	gɛw	P 喬		c 嶠	j(k)噓	

⁸⁶ For ㄅ read ㄆ.

⁸⁷ The character 上 (*shang-sheng*) in the *PSPT* edition must be corrected to 去 (*ch'ü.sheng*).

	549.	ɲɛw	ɲɛw	P 鴉			j(k) 虐	
	550.	tɛw	dɛw	P 迢	s 窕	c 藿		
	551.	ɖʒɛw	tʂɛw	P 朝	s 沼	c 照	j(k) 著	(97, 119b)
	552.	tʂ'ɛw	tʂ'ɛw	P 昭			j(k) 綽	
	553.	tʂɛw	ɖʒɛw	P 晁	s 肇	c 召	j(k) 著	
	554.	bɛw	pɛw	P 鑣	s 標			
	555.	pɛw	bɛw	P 瓢	s 標	c 驪		
	556.	mɛw	mɛw	P 苗	s 眇	c 妙		
	557.	ʂɛw	ʂɛw	P 燒	s 少	c 燒	j(k) 爍	
	558.	ʒɛw	ʒɛw	P 韶		c 紹	j(k) 勺	
	559.	hɛw	hɛw	P 驕			j(k) 譙	
	560.	·ɛw	·ɛw	P 妖	s 夭		j(k) 約	(98, 119b)
	561.	jɛw	jɛw	P 堯	s 鶯	c 窈	j(k) 藥	
	562.	lɛw	lɛw	P 聊	s 了	c 料	j(k) 略	
	563.	rɛw	rɛw	P 饒	s 擾		j(k) 若	
.....								
層	564.	gew	kew	P 驍	s 皎	c 叫		
	565.	k'ew	k'ew	P 蹻		c 窳		
	566.	kew	gew	P 翹				(99, 120a)
	567.	dew	tew	P 貂	s 鳥	c 吊		
	568.	t'ew	t'ew	P 祧	s 眇	c 耀		
	569.	new	new		s 嫻			
	570.	tʂ'ew	tʂ'ew	P 超			j(k) 姁	
	571.	pew	bew	P 漂	s 標	c 剽		
	572.	dzew	tsew	P 焦	s 勦	c 醺	j(k) 爵	
	573.	ts'ew	ts'ew	P 熬	s 悄	c 隋	j(k) 鵲	
	574.	tsew	dzew	P 樵		c 詔	j(k) 嚼	
	575.	sew	sew	P 簫	s 篠	c 笑	j(k) 削	(100, 120a)
	576.	hew	hew	P 曉	s 曉			
	577.	few	few		s 晶			
	578.	·jew	xew	P 幺	s 杳	c 要		
.....								
層	579.	gũ(a)w	kũaw				j(k) 郭	
	580.	k'ũ(a)w	k'ũaw				j(k) 廓	

581.	nũ(a)w	nũaw			j(k)擲	
582.	ḍṣũ(a)w	ṣũaw			j(k)捉	
583.	ṣṣ'ũ(a)w	ṣṣ'ũau			j(k)達	
584.	ṣṣũ(a)w	ḍṣũaw			j(k)泥	(101, 120b)
585.	ṣũ(a)w	ṣũaw			j(k)朔	
586.	hũ(a)w	hũaw			j(k)霍	
587.	ṛũ(a)w	ṛũaw			j(k)穫	
588.	•ũ(a)w	•ũaw			j(k)獲	
589.	lũ(a)w	lũaw			j(k)擧	

𠬞	590.	gĩ(a)w	kiaw	p 交	s 絞	c 教	j(k)覺	
	591.	k'ĩ(a)w	k'iauw	p 敲	s 巧	c 礲	j(k)殼	
	592.	hĩ(a)w	hiaw	p 墟		c 孝		(102, 120b)
	593.	fi(a)w	fiaw	p 肴	s 淆	c 效	j(k)學	

𠬞	594.	gűew	kűew				j(k)獲	
	595.	k'űew	k'űew				j(k)嚳	
	596.	•űew	•űew				j(k)嫗	
	597.	yűew	yűew				j(k)簍	

598. b(a)•o⁸⁸ paw 御寶上用此寶字

11. *yu-yŭn* 尤韻

𠬞	599.	giw	kiw	p 鳩	s 九	c 救	
---	------	-----	-----	-----	-----	-----	--

⁸⁸ The character 寶 normally belongs to No. 530 (*shang-sheng*), but this spelling was used for this character only when written on Imperial treasure. In Chinese 'Phags-pa documents, • in the intervocalic position occurs only in this character. In the Mongolian documents, '•' in intervocalic position served to indicate a hiatus between two adjacent vowels belonging to two separated syllables' (Poppe, *The Mongolian Monuments* ..., p. 23). The only interpretation of this spelling of *ba•o* is that people in the Yüan court pronounced *paw* very clearly to distinguish it from ordinary *paw*, thus resulting in *pao*. The Mongolians then denoted this as *pa•o* in the Mongolian way.

600.	k'iw ⁸⁹	k'iw	p 邱	s 糗		(103, 121a)
601.	kiw	giw	p 裘	s 舅	c 舊	
602.	ɣiw	ɣiw	p 牛	s 有	c 有	
603.	ɖziw	ʈʂiw	p 輓	s 肘	c 晝	
604.	ʈʂ'iw	ʈʂ'iw	p 抽	s 丑	c 畜	
605.	ʈʂiw	ɖziw	p 儔	s 紂		
606.	ñiw	ñiw		s 紐	c 糅	
607.	biw	piw	p 彪			
608.	miw	miw	p 繆		c 謬	(104, 121a)
609.	dziw	tsiw	p 啾	s 酒	c 儻	
610.	ts'iw	ts'iw		s 秋		
611.	tsiw	dziw	p 酋		c 就	
612.	siw	siw	p 脩	s 滄	c 秀	
613.	ziw	ziw	p 囚		c 袖	
614.	ʂiw	ʂiw	p 收	s 首	c 狩	
615.	ʒiw	ʒiw	p 讎	s 受	c 授	
616.	hiw	hiw		s 吼	c 薏	
617.	ɣiw	ɣiw	p 侯	s 厚	c 猴	(104-105, 121a-b)
618.	·iw	·iw	p 憂			(105, 121b)
619.	·jiw	xiw	p 幽	s 黝	c 幼	
620.	jiw	jiw	p 猷	s 酉	c 狷	
621.	liw	liw	p 劉	s 柳	c 溜	
622.	fiw	fiw	p 柔	s 蹂	c 蹂	
.....						
𠂔 623.	buw	puw		s 培		
624.	p'uw	p'uw		s 剖	c 仆	
625.	puw	buw	p 裒	s 部		(106, 121b)
626.	muw	muw		s 母	c 茂	
627.	vuw	vuw	p 不	s 缶	c 副	
628.	kuw ⁹⁰	wuw	p 謀			
.....						
𠂔 629.	ghiw	kɔw	p 鈎	s 苟 ⁹¹	c 邁	

⁸⁹ For 𠂔 read 𠂔.

⁹⁰ For 𠂔 read 𠂔.

⁹¹ For the character 去 (*ch'ü-sheng*) read 上 (*shang-sheng*).

630.	k'hiw	k'øw	p 彊	s 口	c 寇
631.	ɣhiw	ɣøw		s 藕	
632.	dhiw	tøw	p 兜	s 斗	c 鬪
633.	t'hiw	t'øw	p 偷	s 甌	c 透
634.	thiw	døw	p 頭		c 豆
635.	dʒhiw	tʃøw		s 穀	c 穉
636.	tʃ'hiw	tʃ'øw	p 鄒	s 撮	c 皺
637.	tʃhiw	dʒøw	p 搗		c 筵
638.	zhiw	zøw	p 愁		c 驟
639.	dzhiw	tsɔw	p 緬	s 走	c 奏
640.	ts'hiw	ts'øw		s 趣	c 輓
641.	tskiw	dzøw	p 鯁		
642.	shiw	søw	p 揪	s 叟	c 瘰
643.	ʃhiw	ʃøw	p 摻	s 滲	c 疹
644.	·hiw	·øw	p 謳	s 歐	c 漚
645.	lhiw	løw	p 樓	s 樓	c 陋

(107, 122a)

(108, 122a)

ㄏㄨ	646.	geiw	keiw	p 膠	s 糲	
	647.	keiw	geiw	p 蚪	s 繆	
	648.	heiw	heiw	p 休	s 朽	c 黷

ㄅ	649.	ŋøw	vɔw	p 浮	s 婦	c 復
---	------	-----	-----	-----	-----	-----

12. t'an-yün 覃韻

ㄢ	650.	g(a)m	kam	p 甘	s 感	c 顛
	651.	k'(a)m	k'am	p 龔	s 坎	c 勘
	652.	d(a)m	tam	p 𪔐	s 黠	c 擔
	653.	t'(a)m	t'am	p 貪	s 搏	c 譚
	654.	t(a)m	dam	p 覃	s 禪	c 儼
	655.	n(a)m	nam	p 南		
	656.	dʒ(a)m ⁹²	tʃam		s 斬	c 蘸
	657.	tʃ'(a)m	tʃ'am	p 攪	s 攪	c 懺
	658.	tʃ(a)m	dʒam	p 讒	s 湛	c 賺

(109, 122b)

(110, 122b)

⁹² For ㄞ (MKJI) read ㄟ.

659.	hũ(a)m	fam			c 汎
660.	fü(a)m	vam	p 凡	s 范	c 梵
661.	w(a)m	wam		s 鈔	
662.	dz(a)m	tsam	p 簪	s 簪	
663.	ta'(a)m	ts'am	p 參	s 慘	
664.	ts(a)m	dzam	p 蠶	s 蠶	c 暫
665.	s(a)m	sam	p 銚	s 慘	c 三
666.	ş(a)m	şam	p 穢	s 慘	c 釧
667.	h(a)m	ham	p 愁	s 喊	
668.	r(a)m	ram	p 含	s 頷	c 憾
669.	·(a)m ⁹³	·am	p 諳	s 晦	c 暗
670.	·j(a)m	xam		s 黤	
671.	j(a)m	jam	p 岫	s 黠	
672.	l(a)m	lam	p 婪	s 壞	c 蓋

(111, 123a)

73.	gɛm	kɛm		s 檢	c 劍
74.	k'ɛm	k'ɛm			c 欠
75.	kɛm	gɛm	p 箔	s 儉	
76.	ɣɛm	ɣɛm	p 嚴	s 儼	c 驪
77.	dɛm	tɛm		s 點	c 店
78.	t'ɛm	t'ɛm	p 添	s 忝	c 楸
79.	tɛm	dɛm	p 甜	s 簞	c 莧
80.	nɛm	nɛm	p 鮎		c 念
81.	ɖzɛm	tʂɛm	p 霑	s 黠	c 占
82.	tʂ'ɛm	tʂ'ɛm	p 覘	s 諛	c 躋
83.	ñɛm ⁹⁴	ñɛm	p 黏		
84.	bɛm ⁹⁵	pɛm	p 砭	s 貶	c 窆
85.	dzɛm ⁹⁶	tɕɛm	p 尖		c 僭
86.	ts'ɛm	ts'ɛm	p 僉	s 儉	c 湮
87.	sɛm	sɛm	p 銛		
88.	ʂɛm	ʂɛm	p 苦	s 陝	c 閃
89.	zɛm	zɛm	p 搏	s 剡	c 瞻

(112, 123a)

(113, 123b)

⁹³ For 𪛗 (PSPT) read 𪛗.

⁹⁴ For 𪛗 read 𪛗.

⁹⁵ For 𪛗 read 𪛗.

⁹⁶ For 𪛗 (MKJI) and 𪛗 (PSPT) read 𪛗.

	690.	• ɛm	• ɛm	p 淹	s 奄	c 掩	
	691.	ɟɛm	ɟɛm	p 炎	s 琰	c 豔	
	692.	lɛm	lɛm	p 廉	s 飲	c 殛	
	693.	• ɛm ⁹⁷	ɪɛm	p 顛	s 冉	c 染	
.....							
ㄣ	694.	gem	kem	p 兼			
	695.	k'ɛm	k'ɛm	p 謙	s 歉	c 儼	(114, 123b)
	696.	tsem	dzem	p 潛	s 漸		
	697.	• jem	xem	p 厭	s 釅	c 厭	
.....							
ㄣ	698.	gɪ(a)m	kɪam	p 緘	s 減	c 鑑	
	699.	k'ɪ(a)m	k'ɪam		s 歉		
	700.	hɪ(a)m	hɪam		s 喊		
	701.	ɦɪ(a)m	ɦɪam	p 咸	s 謙	c 陷	
.....							
ㄣ	702.	ɦɪɛm	ɦɪɛm	p 欵	s 險		
	703.	ɦɪɛm ⁹⁸	ɦɪɛm	p 嫌			
13. <i>ch'in-yün</i> 侵韻							
ㄣ	704.	gim	kim	p 金	s 錦	c 禁	(115, 124a)
	705.	k'im	ki'm	p 欽			
	706.	kim	gim	p 琴	s 噤	c 吟	
	707.	ɟim	ɟim	p 吟			
	708.	qɰim	ɰim	p 碁	s 枕	c 枕	
	709.	ɰ'im	ɰ'im	p 檠	s 暉	c 闕	
	710.	ɰim	qɰim	p 沉	s 朕	c 鴿	
	711.	ɲim	ɲim			c 質	
	712.	bim	pim		s 稟		
	713.	p'im ⁹⁹	p'im		s 品		
	714.	dzim	tsim	p 稜	s 浸	c 稜	(116, 124a)
	715.	ts'im	ts'im	p 侵	s 寢	c 沁	
	716.	sim	sim	p 心		c 沁	
	717.	zim	zim	p 尋			

⁹⁷ For ㄣ read ㄣ.

⁹⁸ Hattori makes this as *ɛm*, but this must be identical with *ɪɛm*.

⁹⁹ For ㄣ read ㄣ.

	718.	ɕim	ɕim	P 深	s 沈		
	719.	ɹim	ɹim	P 謚	s 甚	c 葢	
	720.	·im	·im	P 音	s 飲	c 蔭	
	721.	·jim	xim	P 愔			
	722.	jim	jim	P 淫			
	723.	lim ¹⁰⁰	lim	P 林	s 廩		
	724.	rim	rim	P 任	s 荏	c 妊	(117, 124b)
.....							
𠄎	725.	ɖɕhim	ɖɕəm	P 簪		c 譖	
	726.	ɖɕ'him	ɖɕ'əm	P 嶸		c 識	
	727.	ɖɕhim	ɖɕəm	P 岑			
	728.	ɕhim	ɕəm	P 森		c 滲	
.....							
𠄎	729.	hɿm	hɿm	P 歆			
14.	<i>ko-yün</i>	歌韻					
ㄨ	730.	go	ko	P 歌	s 哥	c 箇	j(tp) 葛
	731.	k'o	k'o	P 珂	s 可	c 珂	j(ktp) 渴
	732.	ɣo	ɣo	P 莪	s 我	c 餓	j(t) 餓
	733.	do	to	P 多	s 彈	c 瘡	(118, 124b)
	734.	t'o	t'o	P 佗		c 拖	
	735.	to	do	P 駝	s 柁	c 馱	
	736.	no	no	P 那	s 娜	c 柰	
	737.	dzo	tso		s 左	c 佐	
	738.	ts'o	ts'o	P 嗟	s 嗟		
	739.	tso	dzo	P 醜			
	740.	so	so	P 娑		c 些	(119, 125a)
	741.	ho ¹⁰¹	ho	P 訶	s 歌		j(tp) 喝
	742.	ɣo	ɣo	P 何	s 荷	c 賀	j(tp) 曷
	743.	·o	·o	P 阿			j(tp) 遏
	744.	lo	lo	P 羅	s 攞		
.....							
ㄨ	745.	gũo	kũo	P 戈	s 果	c 過	j(t) 括
	746.	k'ũo	k'ũo	P 科	s 顆	c 課	j(t) 闊

¹⁰⁰ For 𠄎 read 𠄎.

¹⁰¹ For 𠄎 read 𠄎.

747.	dũo	tũo		s 捶		j(t) 掇	
748.	t'ũo	t'ũo	P 訛	s 妥	c 唾	j(t) 佻	(120, 125a)
749.	tũo	dũo		s 墮	c 墮	j(t) 奪	
750.	nũo	nũo	P 倭		c 悞		
751.	bũo	pũo	P 波	s 跛	c 播	j(t) 莢	
752.	p'ũo	p'ũo	P 頗	s 叵	c 破	j(t) 鑊	
753.	pũo	bũo	P 婆			j(t) 跋	
754.	mũo	mũo	P 摩	s 麼	c 磨	j(t) 末	
755.	dzũo	tsũo			c 挫	j(t) 撮	
756.	ts'ũo	ts'ũo		s 脛	c 剉	j(t) 撮	
757.	tsũo	dzũo	P 燧	s 坐	c 坐		
758.	sũo	sũo	P 莎	s 鎖			(121, 125b)
759.	hũo ¹⁰²	hũo		s 火	c 貨	j(t) 豁	
760.	ɣũo	ɣũo	P 和	s 禍	c 和	j(t) 佞	
761.	•ũo	•ũo	P 倭		c 浼	j(t) 幹	
762.	lũo	lũo	P 驪	s 裸	c 邏	j(t) 捋	
.....							
763.	o	o	P 訛		c 臥		
15.	ma-yŭn	麻韻					
764.	ge	ke				j(tp) 結	
765.	k'e	k'e				j(tp) 挈	
766.	de	te				j(tp) 窳	(122, 125b)
767.	t'e	t'e				j(tp) 鐵	
768.	ne	ne				j(t) 涅	
769.	dze	tʂe	P 遮	s 者	c 柘	j(tp) 哲	
770.	tʂ'e	tʂ'e	P 車	s 輦		j(t) 撤	
771.	be	pe				j(t) 彌	
772.	p'e	p'e				j(t) 瞥	
773.	me	me		s 乚		j(t) 蔑	
774.	dze ¹⁰³	tse	P 嗟	s 姐	c 借	j(tp) 節	(122-123, 125b-126a)
775.	ts'e	ts'e		s 且		j(tp) 切	(123, 126a)
776.	se ¹⁰⁴	se	P 些	s 寫	c 卸	j(tp) 屑	

¹⁰² For 𪛗 read 𪛗.

¹⁰³ For 𪛗 read 𪛗.

¹⁰⁴ For 𪛗 read 𪛗.

777.	še ¹⁰⁵	še	p 奢	s 捨	c 舍	j(tp) 攝	
778.	he	he				j(p) 脅	
779.	fe	fe				j(tp) 纈	
780.	• e ¹⁰⁶	• e				j(tp) 謁	
781.	• je	xe				j(t) 噎	
782.	je	je				j(t) 齧	
783.	le	le				j(tp) 列	(124, 126a)
784.	fe	fe		s 惹		j(t) 熱	
.....							
◁ 785.	gǔ(a) ¹⁰⁷	kǔa	p 瓜	s 寡		j(t) 刮	
786.	k'ǔ(a)	k'ǔa	p 誇	s 髀	c 跨		
787.	nǔ(a)	nǔa				j(t) 獬	
788.	džǔ(a)	ʧǔa	p 樾			j(t) 茁	
789.	šǔ(a)	šǔa		s 蓓		j(t) 刷	
790.	hǔ(a)	hǔa	p 華		c 化		
791.	γǔ(a)	γǔa	p 華	s 踝	c 搨	j(t) 滑	
792.	• ũ(a)	• ũa	p 窰				(125, 126b)
793.	yǔ(a) ¹⁰⁸	yǔa		s 瓦		j(t) 別	
.....							
≡ 794.	gǐ(a)	kǐa	p 嘉	s 榎	c 駕	j(tp) 曼	
795.	k'ǐ(a)	k'ǐa		s 骼	c 骼	j(tp) 簞	
796.	hǐ(a)	h'ǐa	p 鰕		c 嚇	j(tp) 瞎	
797.	fi(a)	fi'a	p 遐	s 下	c 暇	j(tp) 黠	
.....							
≡ 798.	gǔe	kǔe				j(t) 玦	
799.	k'ǔe	k'ǔe				j(t) 闕	(126, 126b)
800.	džǔe ¹⁰⁹	ʧǔe				j(t) 輟	
801.	ʧǔ'e	ʧǔ'e				j(t) 歃	
802.	dzǔe	tsǔe				j(t) 薊	
803.	tsǔe	dzǔe				j(t) 絕	
804.	sǔe	sǔe				j(t) 雪	

¹⁰⁵ For 𑄎 read 𑄏.

¹⁰⁶ For 𑄐 read 𑄑.

¹⁰⁷ The *PSPT* edition lacks the 'Phags-pa spelling of this sound.

¹⁰⁸ For 𑄒 read 𑄓.

¹⁰⁹ For 𑄔 read 𑄕.

805.	zŭe	zŭe	j(t)	蜥
806.	ʃŭe	ʃŭe	j(t)	說
807.	zŭe	zŭe	j(t)	噉
808.	hŭe	hŭe	j(t)	血
809.	hŭe	hŭe	j(t)	穴 (127, 127a)
810.	·ŭe	·ŭe	j(t)	扶
811.	·jŭe ¹¹⁰	·xŭe	j(t)	月
812.	jŭe	jŭe	j(t)	悅
813.	lŭe	lŭe	j(t)	劣
814.	rŭe	rŭe	j(t)	藝

815.	gŭe	kŭe	j(t)	厥
816.	k'ŭe	k'ŭe	j(t)	闕
817.	kŭe	gŭe	p 癩	j(t) 屬
818.	hŭe	hŭe	(p) ㄗ	

SUPPLEMENT ¹¹¹

S1.	d(a)	ta	s 打	j(tp)	恒答
S2.	t'(a)	t'a		j(tp)	闔獮鎔榻
S3.	t(a)	da		j(tp)	達沓翹
S4.	n(a)	na	p 拏	j(tp)	捺納廬
S5.	dʒ(a)	ʃʒa	p 檀參 s 鮓 c 訖訴	j(tp)	晰割
S6.	ʃʒ'(a)	ʃʒ'a	p 叉 s 姪 c 訖汊	j(tp)	察刺垂
S7.	ʃʒ(a)	dʒa	p 槎稂 s 槎 c 乍	j(tp)	霄煤
S8.	b(a)	pa	p 巴 s 把 c 霸	j(t)	八
S9.	p'(a)	p'a	p 葩 c 杷	j(t)	汜
S10.	p(a)	ba	p 柏 c 杷罷	j(t)	拔
S11.	m(a)	ma	p 麻 s 馬 c 禡	j(t)	倭帛
S12.	hŭ(a)	fa		j(t)	髮
S13.	hŭ(a)	va		j(t)	伐

¹¹⁰ For ㄗ read ㄗ.

¹¹¹ The manuscript of the *MKTY* held in the British Museum lacks the last two final groups -a and -ε. A supplement was written by Cheng Tsai-fa with reference to the *KYC* (*MKTY ken ken Pa-ssu-pa-tzu yu-kuan te yŭn-shu*, pp. 102-3). I will append his supplement in full for the convenience of readers.

S14.	w(a)	wa				j(t) 轆
S15.	dz(a)	tʂa				j(tp) 撈市挾眨
S16.	ts'(a)	ts'a				j(t) 撈
S17.	ts(a)	dʒa				j(tp) 截襍
S18.	s(a)	sa				j(tp) 撻跂
S19.	ʂ(a)	ʂa	p 沙	s 灑	c 嘎	j(tp) 殺猷
S20.	h(a)	ha		s 閤		
S21.	*j(a)	xa	p 鴉	s 啞	c 亞	j(tp) 軋押
S22.	j(a)	ja	p 牙	s 雅	c 訝	
S23.	l(a) ¹¹²	la				j(tp) 刺拉臘

.....

S24.	gɛ	kɛ	p 迦			j(tp) 訐劫揭孑
S25.	k'ɛ	k'ɛ	p 呿			j(tp) 謁笈
S26.	kɛ	gɛ	p 伽			j(tp) 竭踮傑
S27.	ŋɛ	ŋɛ				j(tp) 齧啗業孽齧
S28.	tɛ	dɛ				j(tp) 牒姪
S29.	tʂɛ	dʒɛ	p 蛇		c 射	j(tp) 牒轍舌
S30.	pɛ	bɛ				j(t) 蹙別
S31.	tʂɛ	dʒɛ			c 藉	
S32.	zɛ	zɛ	p 邪	s 埶	c 謝	j(p) 捷
S33.	ʒɛ	ʒɛ		s 閤	c 社	j(tp) 涉折
S34.	hɛ	hɛ				j(t) 歇
S35.	jɛ	jɛ		s 野	c 夜	j(tp) 葉拙

.....

¹¹² For 𠵿 (ibid., p. 103) read 𠵿.

APPENDIX

'PHAGS-PA MATERIALS

Many 'Phags-pa materials are now available for research in the Chinese, Mongolian, and Tibetan languages. The following list of 'Phags-pa materials is classified into these three languages and is further divided according to provenance, e.g. inscriptions, seals, coins.

Each item is described as follows: title, (1) date, (2) size, (3) place of discovery, (4) present location and (5) reproductions (* decipherments).

Much 'Phags-pa material must be either unknown or inaccessible, and the author welcomes any further information on this subject.

(A) 'PHAGS-PA MATERIALS IN CHINESE

I. Inscriptions

1. *Edict of the Shen-yü-miao Shrine at Lung-men* 龍門神禹廟聖旨碑
(1) 1275, (2) 1.24m.×0.73m., (3) Shensi, Han-ch'eng, (4) Peking University, (5) E. Chavannes, 'Inscriptions et pièces de chancellerie chinoises de l'époque mongole', *TP*, IX (1908), pp. 373-6, plate 18; *PSPT*, p. 32, plate 4.
2. *Edict of the Ch'ung-yang Wan-shou-kung Shrine at Ching-chao-lu* 京兆路重陽萬壽宮聖旨碑
(1) 1269, (2) 2.07m.×1.67m., (3) Shensi, Chou-chih, (4) Peking University, (5) *PSPT*, pp. 32-3, plate 5.
3. *Edict of Grant to Pei-yüeh* 加封北嶽聖旨碑
(1) 1291, (2) 1.29m. ×0.58m., (3) Hopei, Ch'ü-yang, (4) Peking University, (5) *PSPT*, p. 33, plate 6.
4. *Edict of the School of the Confucian Shrine* 孔子廟學聖旨碑
(1) 1294, (2) 1.34m.×0.86m., (4) Peking University, (5) *PSPT*, p. 33, plate 7.
5. *Ditto*
(1) 1294, (2) 2.89m.×1.14m., (4) Peking University, (5) *PSPT*, p. 33, plate 8.
6. *Proclamation of Posthumous Grant to Confucius* 加封孔子制

- (1) 1307, (2) 2.18 m. $\times$ 0.76 m., (3) Honan, Yüan-wu, (4) Peking University, (5) *PSPT*, p. 34, plate 9.
7. *Ditto*
 (1) 1307, (2) 2.10m. $\times$ 0.81m., (3) Shantung, Ch'ü-fu, (4) Peking University, (5) Chavannes, op.cit., pp. 313-4, plate 1; *PSPT*, p. 34, plate 10; Kadokawa Shoten (ed.), *Sekai Bunkashi Taikei*, vol. XVII (Tokyo, 1959), p. 148.
8. *Ditto*
 (1) 1307, (2) 1.21m. $\times$ 0.61m., (3) Hopei, Ting-hsien, (4) Peking University, (5) *PSPT*, p. 34, plate 11.
9. *Proclamation of Special Posthumous Award to Cheng* 特贈鄭制宜制誥
 (1) 1308, (2) 1.27m. $\times$ 0.66m., (3) Shansi, Yang-ch'eng, (4) Peking University, (5) *PSPT*, p. 34, plate 12.
10. *Ditto* 特贈鄭鼎制誥
 (1) 1312, (2) 1.42m. $\times$ 0.76m., (3) Shansi, Yang-ch'eng, (4) Peking University, (5) *PSPT*, p. 34, plate 13.
11. *Edict of the Ta-ch'ung-yang Wan-shou-kung Shrine at Feng-t'ien-lu*
 奉天路大重陽萬壽宮聖旨碑
 (1) 1313, (2) 2.36m. $\times$ 1.14m., (3) Shensi, Chou-chih, (4) Peking University, (5) *PSPT*, pp. 34-5, plate 14.
12. *Proclamation of Posthumous Grant to Mencius' Parents* 加封孟子父母制
 (1) 1316, (2) 2.64m. $\times$ 0.86m., (3) Shantung, Tsou-hsien, (4) Peking University, (5) R. Bonaparte, *Documents de l'époque des XIII^e et XIV^e siècles...*, plate XIII, 1; Chavannes, op.cit., pp. 342-5, plate 10; *PSPT*, p. 35, plate 15.
13. *Proclamation of Posthumous Grant to Mencius* 加封孟子鄒國亞聖公制
 (1) 1331, (2) 2.48m. $\times$ 0.91m., (3) Shantung, Tsou-hsien, (4) Peking University, (5) Bonaparte, *ibid.*, plate XIII, 2; Chavannes, *ibid.*, pp. 345-7, plate 11; *PSPT*, p. 35, plate 16.
14. *Proclamation of Posthumous Grant to Yen-kuo Fu-sheng-kung and his Wife* 加封袁國復聖公制, 追封袁國夫人制
 (1) 1331, (2) 2.31m. $\times$ 0.96m., (3) Shantung, Ch'ü-fu, (4) Peking University, (5) Chavannes, *ibid.*, pp. 329-30, 340-2, plate 5; *PSPT*, p. 35, plate 17.

15. *Proclamation of Posthumous Grant to Yen-tzu's Parents* 加封顏子父母制
(1) 1334, (2) 1.82m.×0.73m., (3) Shantung, Ch'ü-fu, (4) Peking University, (5) Chavannes, *ibid.*, pp. 338-40, plate 9; *PSPT*, p. 35, plate 18.
16. *Edict of the Ta-ch'ung-yang Wan-shou-kung Shrine at Feng-t'ien-lu* 奉天路大重陽萬壽宮聖旨碑
(1) 1358, (2) 2.13m.×0.99m., (3) Shensi, Chou-chih, (4) Peking University, (5) *PSPT*, p. 35, plate 19.
17. *Ditto*
(1) 1363, (2) 1.70m.×0.85m., (3) Shensi, Chou-chih, (4) Peking University, (5) *PSPT*, pp. 35-6, plate 20.
18. *Record of the Reconstruction of the Ch'ung-ch'ing-yüan* 重修崇慶院記
(1) 1289, (2) 2.74m.×0.94m., (3) Shantung, Tzu-yang, (4) Peking University, (5) **PSPT*, p. 36, plate 21.
19. *Record of the Confucian School at Chung-shan-fu* 中山府儒學記
(1) 1294, (2) 1.44m.×0.68m., (3) Hopei, Ting-hsien, (4) Peking University, (5) **PSPT*, p. 36, plate 22 [two words are illegible].
20. *Dedicatory Stele to General Liu I* 武略將軍遼州知州劉義神道碑
(1) 1300, (2) 1.34m.×0.71m., (3) Shansi, Liao-chou, (4) Peking University, (5) *PSPT*, p. 36, plate 23.
21. *Proclamation of Posthumous Grant to Confucius* 加封孔子制
(1) 1307, (2) 1.37m.×0.63m., (3) Kiangsu, Wu-hsi, (4) Peking University, (5) *PSPT*, p. 36, plate 24.
22. *Stele of Ling-chi Chao-yu Hsien-sheng-wang* 靈濟昭佑顯聖王碑
(1) 1350, (2) 1.65m.×0.71m., (3) Honan, Meng-hsien, (4) Peking University, (5) *PSPT*, p. 36, plate 25.
23. *Stele of Ancestors of the Chang family* 張氏先塋碑
(1) 1335, (2) 3.83m.×1.39m., (5) Inner Mongolia, Ch'ih-feng, (4) Peking University, (5)* F.W. Cleaves, 'The Sino-Mongolian inscription of 1335 in memory of Chang Ying-jui', *HJAS*, XIII (1950), plates XVII, XVIII, XXIV, XXX; *PSPT*, pp. 36-7, plate 26.
24. *Edict of the Tung-p'ing-hsüeh School* 東平學聖旨碑
(1) 1294, (2) 2.23m.×0.87m., (3) Shantung, Tung-p'ing, (4) Peking University, (5) *PSPT*, p. 37, plate 27.

25. *Edict of the School of the Confucian Shrine* 孔子廟學聖旨碑
 (1) 1294, (2) 1.90 m. $\times$ 1.06., (3) Kiangsu, Sung-chiang, (4) Peking University, (5) G. Pauthier, 'De l'alphabet de Pa'-sse-pa, ...', *JA*, V, 19 (1862), plate facing p. 5; *PSPT*, p. 37, plate 28.
26. *Edict of Grant to Tung-an-wang* 增封東安王詔書碑
 (1) 1298, (2) 2.76m. $\times$ 0.97m., (3) Shantung, Lin-ch'ü, (4) Peking University, (5) *PSPT*, p. 37, plate 29.
27. *Edict of Exemption from Labour Service of "hsiu-ts'ai" in Chiang-huai* 江淮免秀才雜泛差役詔書碑
 (1) 1288, (5) Bonaparte, op. cit., plate XII, 2; *PSPT*, plate 30.
28. *Stele of a Christian* (1)
 (1) 1311, (2) 0.45m. $\times$ 0.30m., (3) Fukien, Chuanchow, (5)* Wu Wen-liang, *Ch'üan-chou Tsung-chiao Shih-k'o*, p. 33, plate 85; Kadokawa Shoten, op.cit., p. 159.
29. *Ditto* (2)
 (1) 1324, (2) 0.34m. $\times$ 0.31m. (3) Fukien, Chuanchow, (5)* Wu Wen-liang, *ibid.*, pp. 33-4, plate 86 (rubbing reproduction on p. 83).
30. *Ditto* (3)
 (2) 0.42m. $\times$ 0.28m., (3) Fukien, Chuanchow, (5)* Wu Wen-liang, *ibid.*, p. 34, plate 87.

II. Seals

31. *T'ai-wei chih yin* 太尉之印
 (1) 1377, (5)* *Hsi-ch'ing hsü-chien* 西清續鑑(甲編); *PSPT*, p. 19, fig. 1.
32. *Lung-chen-wei pai-hu chih yin* 隆鎮衛百戶之印
 (5) * *Tung-pei ku-yin kou-ch'en* 東北古印鈎沈; *PSPT*, p. 20, fig. 20.
33. *Meng-ku-chün pai-hu yin* 蒙古軍百戶印
 (1) 1295, (2) 6.5cm², (5) *W. Simon, 'A *h*Phags-pa seal of 1295', *AM*, n. s. VI (1958), pp. 203-5, plates I, II.
34. *Huai-ning-wang yin* 懷寧王印
 (1) 1305 ?, (5) P. Pelliot, 'Un rescrit mongol en écriture «'phags-pa»', *TPS*, II, p. 622 [This seal is stamped on this edict—fig. 1]; * E. Haarh, 'L'écriture 'phags-pa vraiment carrée des sceaux chinois des Yüan', *AO*, XXIV, 1-2 (1959), pp. 60, 62 (fig. 1).
35. *Ta-Yüan ti-shih t'ung-ling chu-kuo seng-ni chung-hsing Shih-chiao chih*

yin 大元帝師統領諸國僧尼中興釋教之印

(1) 1295 (5) Seal stamped on the *Ĵa-lu* documents. See. *TPS*, II, pp. 670-754, figs. 124-131 ; *Haarh, *ibid.*, p. 60, fig. 2. [Haarh mistakenly deciphered this as *T'ai-Yüan Ti-shih Jung-ling Chüeh-kuei Sheng-shu Chung-ch'ing Shih-chia-k'o-chih yin* 大元帝師冗令爵圭聖署中卿釋迦科旨印]

36. *Chung-shu-li-pi* [read -*pu*] *chih yin* 中書禮部之印

(1) 1306, (5) Seal stamped on the *Proclamation of 1306*. See Chavannes, *op. cit.*, plate 2 ; Poppe, *The Mongolian Monuments in the ḥP'ags-pa Script*, plate VI ; *Haarh, *ibid.*, p. 60, fig. 3. [Haarh mistakenly deciphered this as *Chung-shu-ling pi-chih-yin* 中書令祕旨印.]

37. *Chung-shu-sheng yin* 中書省印

(1) 1307, (5) Seal stamped on the *Proclamation of 1307*. See Chavannes, *ibid.*, plate 3 ; Cheng Tsai-fa, 'Pa-ssu-pa-tzu piao-chu...', plate 6.

38. *Ta-ssu-t'u yin* 大司徒印

(5) Seal stamped on the painting *Li Po yin-hsing t'u* by Liang K'ai ; W. Willettes, *Chinese Art*, vol. II (Baltimore, 1958), plate 49 ; *Haarh, *ibid.*, p. 60, fig. 5 [Haarh mistakenly deciphered this seal as *T'ai-shih-tu yin* 太侍讀印.] ; * S. Hasumi, 'Liang K'ai hitsu *Li Po yin-hsing t'u* no Pasupamoji "Ta-ssu-t'u yin" to Anigo ni tsuite', *THG*, 35 (1968), p. 91. As to re-examination of Haarh's readings concerning items 35, 36, and 38, see M. Nakano, 'Three 'Phags-pa Chinese Seal Inscriptions', *AM*, vol. XVI, part 1 (1971) [in prees].

39. *Tsung-pa chih yin* 總把之印

(3) Chekiang, Yung-chia, (5) *Ts'ai Mei-piao, 'Yung-chia fa-hsien Yüan-tai Meng-wen-yin k'ao-shih', *WWTK*, 89 (1958), pp. 42-3.

40. *Hsiao-chung-i Ch'ien-hu so-t'i ya-yin* 驍忠義千戶所提押印

(2) 5.8cm², (3) Inner Mongolia, O-t'o-k'e ch'i, (5)**WW*, 182(1965), p. 62.

41. Seal (illegible) stamped on the *Edict of Annanda*

(1) 1233, (5) Bonaparte, *op. cit.*, plate XII, 1 ; Poppe, *op. cit.*, plate V.

III. *P'ai-tzu*

42. *Kai-kuan ching-lü* 該官旌閭 (?)

(5) Lo Chen-yü, *Li-tai Fu-p'ai T'u-lu* 歷代符牌圖錄, vol. 2 ; W. Yanai, *Mōkoshi Kenkyū*, plate facing p. 870 ; T. Haneda, *Haneda Hakushi Shigaku Ronbunshū*, I. fig. 2 ; *PSPT*, p. 23, fig. 4.

IV. Bank-notes

43. *Chih-yüan pao-ch'ao* 至元寶鈔

(1) ? -1294, (4) Academia Sinica (Peking) and Asiatic Museum (Leningrad), (5) **PSPT*, pp. 24-5, plates 1, 2; Kadokawa Shoten, op. cit., pp. 175-6.

44. *Chung-wen Yüan-pao, chiao-ch'ao* 中統元寶, 交鈔

(3) Tsinghai, (4) Shanghai Museum, (5)* *WW*, 171 (1965), p. 35, plate V, 2 (illegible).

V. Coins

45. *Ta-Yüan t'ung-pao* 大元通寶

(5) *Hsi-ch'ing hsü-chien* (Taipei, 1965. new ed.), vol. 6. pp. 3747-9.; * Pauthier, 'Rapport sur deux médailles...', *JA*, V, 15 (1860), pp. 330-5, fig. on p. 332; Banaparte, op. cit., p. 5, plate XV, 2; * Han Ju-lin, 'Passu-pa-tzu Ta-Yüan t'ung-pao pa', *Chung-kuo Wen-hua Yen-chiu-so Hui-k'an*, III (1943), pp. 361-64; *Kadokawa Shoten, op. cit., p. 174; **PSPT*, pp. 25-7, fig. 5 (left).

46. *Chih-yüan t'ung-pao* 至元通寶 (1)

(5) Bonaparte, op. cit., p. 5, plate XV, 2; **PSPT*, pp. 25-7, fig. 5 (right).

47. *Chih-yüan t'ung-pao* 至元通寶 (2) (with four inscriptions in Chinese, 'Phags-pa, Hsi-hsia and Persian)

(5) *Wang Chin-ju, 'Shih Ting-hai Fang-shih so-tsang ssu-t'i Chih-yüan t'ung-pao ch'ien-wen', *AS*, III, 2 (1931), pp. 277-8.

48. *Chih-cheng t'ung-pao* 至正通寶

(5) **WW*, 171 (1965), p. 62.

VI. Balances

49. (?) *-chin-p'ing* □斤秤

(1) 1300 and 1321, (4) Lu Ho-chiu, (5) **PSPT*, p. 28, plate 3.

VII. Texts of the *Po-chia-hsing* 百家姓

50. *Po-chia-hsing*

(1) 1340 (ed.), (4) Peking University, (5) *PSPT*, pp. 57-67.

51. *Po-chia-hsing*

(1) 1531 (ed.), (5) *T'ang Ching-ch'uan pai-pien* 唐荊川稗編; J. Edkins, 'Sanskrit and Mongolian characters', *Transactions of the China Branch*

of the Royal Asiatic Society, V (1855), pp. 110-8, 4 plates.

52. *Po-chia-hsing*

(1) 1699 (ed.), (4) Library of the Academia Sinica (Peking), (5) *PSPT*, pp. 69-82.

53. *Po-chia-hsing*.

(1) 1699(ed.), (4) Kunaishō Zushoryō (Tokyo), (5) Ligeti, 'Le *Po kia sing* en écriture 'phags-pa', *AOH*, VI (1956), pp.1-52 (pp. 49-52, plates).

VIII. Texts of the *Meng-ku Tzu-yün* 蒙古字韻

54. *Meng-ku Tzu-yün*

(1) 1736-95 (copied), (4) British Museum, (5) Kansai Daigaku Tōzai Gakujutsu Kenkyūjo, *Eiin Daiei Hakubutsukan-zō kyū shōhon Mōkojiin* (Osaka, 1956), 123 pp. ; *PSPT*, pp. 95-127.

(B) 'PHAGS-PA MATERIALS IN MONGOLIAN

I. Inscriptions

55. *The Edict of Mangala*

(1) 1276, (5) Chavannes, op. cit., pp. 376-81, plate 19 ; * Poppe, op. cit., pp. 46-7, plate I [Chinese text is in Ts'ai Mei-piao, *Yüan-tai Pai-hua-pei Chi-lu*, No. 23].

56. *The Edict of Buyantu Qan*

(1) 1314, (5) Chao Han, *Shih-mo Chüan-hua* (*Chih-pu-tsu-chai Ts'ung-shu* ed.) vol. 6, pp. 11b-14b. ; * von der Gabelentz, 'Versuch über eine alte mogulische Inschrift', *ZKM*, II, 1 (1839), pp. 4-13, Tables I, III ; * Wylie, 'Sur une inscription mongole ...', *JA*, V, 19 (1862), reproduction facing p. 465 ; Bonaparte, op. cit., plate XII, 3 ; * De-véria, 'Notes d'épigraphie mongole-chinoise', *JA*, IX, 7-8 (1896), pp. 94-128 ; Chavannes, *ibid.* *TP*, II, 5 (1904), pp.422-6 ; * Lewicki, *Les inscriptions mongoles inédites en écriture carrée*, pp. 20-3 ; *Poppe, *ibid.*, pp. 48-50, plate II.

57. *The Edict of Buyantu Qan*

(1) 1314, (2) Honan, An-yang, (5) Chavannes, *ibid.*, *TP*, IX(1908), pp.

407-8, plate 24; * Poppe, *ibid.*, pp. 51-3, plate III; Ts'ai Mei-piao, *op. cit.*, p. 67, plate 4.

58. *The Edict of Dharmapāla's Widow*

(1) 1321, (4) Oriental Library of the Leningrad University, (5) A.A. Bobrovnikov, 'Gramoty vdovy Darmabalovoj i Bujantu-Xana, pisannyja kvadratnym' pis'mon', *TVOIRAO*, XVI (1872) [not seen]; * Poppe, *ibid.*, pp. 54-5, plate IV; Simon, *op. cit.*, p. 205, plate III (b) [only the top of this epigraph]; * Haarh, *op. cit.*, p. 60, fig. 4 [only the top of this epigraph].

59. *The Edict of Ananda*

(1) 1283, (5) Bonaparte, *op. cit.*, plate XII, 1; * Poppe, *ibid.*, pp. 56-7, plate V.

60. *The Proclamation*

(1) 1306, (5) Chavannes, *op. cit.*, pp. 320-3, plate 2; * Poppe, *ibid.*, p. 57, plate VI.

61. *The Proclamation*

(1) 1307, (5) Chavannes, *ibid.*, pp. 323-4, plate 3; Cheng Tsai-fa, *op. cit.*, plate 6 [The 'Phags-pa inscription of this epigraph is exactly the same as item 57.].

62. *The Proclamation*

(1) 1294, (5) Chavannes, *ibid.*, pp. 325-9, plate 4 [The inscription is also exactly the same as item 57.].

63. *The Proclamation*

(1) 1365 (or 1377), (2) 0.82m. × 0.64m., (3) Shansi Province, Shan-pi-shan, Hsüan-chung-ssu Temple, (4) ditto, (5) * Ozawa, 'Sansei-shō Kōjō-ken Sekiheki-zan Genchū-ji no Pasupamoji Mōkogo hibun no kaidoku,' *Tōkyō Gaikokugo Daigaku Ronshū*, 9 (1962), pp. 9-33+1 plate.

64. *The Chū-yung-kuan Inscription* 居庸關碑文

(1) 1345, (2) 1.55m. × 1.58m. (both walls), (3) Hopei, Chū-yung-kuan, (5) * Wylie, 'On an ancient Buddhist inscription at Keu-yung kwan,' *JRAS*, n. s. V (1870), restoration after p. 44; Bonaparte, *op. cit.*, plates I, III, IV; Sekino and Tokiwa, *Shina Bukkyō Shiseki*, vol. V, plates 128-30; * Poppe, *ibid.*, pp. 60-6, plate II; J. Murata (ed.), *Kyōyōkan*, vol. II, plates 59-63, 91-2.

65. *The Edict of Kuang-kuo-ssu Temple*

(1) 1318, (3) Shensi, Ko-yang-hsien, (5) Chavannes, op. cit., plate XXV; * Yamasaki, '1318 nen no Pasupaji Mōkogo hibun kaidoku', *GK*, 26/27 (1954), pp. 111-9 (reproduction is on p. 113); Cheng Tsai-fa, op. cit., plates 4, 5 (illegible).

66. *The Edict of the Ch'ung-yang-kung at Chou-chih*

(1) 1350?, (3) Shensi, Chou-chih, (4) Ethnological Museum of Berlin, (5) * Haenisch, *Steuergerechtsame der chinesischen Klöster unter der Mongolenherrschaft*, pp. 58-9, plate I.

67. *Ditto*

(1) 1351, (3) Shensi, Chou-chih, (4) Ethnological Museum of Berlin, (5) * Haenisch, *ibid.*, pp. 59-60, 63-4, plate II; * Han Ju-lin, 'Ch'eng-tu Meng-wen sheng-chih-pei k'ao-shih', *Studia Serica*, II (1941), pp. 136-49.

68. *Ditto*

(1) 1352, (3) Shensi, Chou-chih, (4) Ethnological Museum of Berlin, (5) * Haenisch, *ibid.*, pp. 60-1, 65-6, plate III.

II. Seals

69. *Seal of Nomči mergen mkhan-po*

(2) $1\frac{5}{16}$ in. square, (3) Darjeeling, (4) Forbes-Tweedie (?), (5) * Clauson, 'A Mongolo-Tibetan seal', *JRAS*, 1929, pp. 117-9, [The last line is written in Tibetan.].

70. *Seal of Galdan Boshogutu*

(5) * Krueger, 'Three Oirat-Mongolian Diplomatic Documents of 1691', *CAJ*, XII, 4 (1969), p. 289.

III. *P'ai-tzu*

71. *The Minusinsk p'ai-tzu*

(3) Minusinsk, (4) The Hermitage Museum (Leningrad), (5) Yule, *The Book of Ser Marco Polo*, I, plate facing p. 352; Yanai, op. cit., plate facing p. 894; Haneda, op. cit., fig. 1; * Poppe, op. cit., p. 57, plate VII.

72. *The Nyuki p'ai-tzu*

(3) Nyuki, (4) The Hermitage Museum, (5) * Poppe, *ibid.*, p. 58, plate VIII.

73. *The Bogotol p'ai-tzu*

(3) Bogotol, (5) A. M. Pozdneyev, 'Ob'jasnenie drevnej mongol'skoj

nadpisi na čugunnoj doščecky, dostavlennoj v Imp. Akad. Nauk' G. Vinokurovym'', *ZIAN*, 39 (1881) [not seen]; Haneda, *ibid.*, fig. 6, pp. 113-4; * Poppe, *ibid.*, p. 53, plate IX.; Kadokawa Shoten, *op. cit.*, p. 172.

74 The Mongolian-Persian-Chinese *p'ai-tzu*

(3) near Peking, (4) Institute of Oriental Studies of the Academy of Sciences of the USSR, (5) Haneda, *ibid.*, fig 5; *Poppe, *ibid.*, p. 58, plate X; Kadokawa Shoten, *ibid.*, p. 172.

IV. Documents

75. *The Edict of Hai-ning-wang* 海寧王謄旨

(1) 1305, (5) *Pelliot, *op. cit.*, *TPS*, II, pp. 621-4.

76. Fragment of the *Subhāṣitaratnanidhi* (1) (= *The Mannerheim Fragment*)

(3) East Turkestan, (4) Société Finno-Ougrienne (?), (5) Ramstedt, 'Ein Fragment mongolischer Quadratschrift', *JSFOu*, XXVII, 3 (1911), pp. 1-4.; * Aalto, 'The Mannerheim fragment of Mongolian 'Quadratic' script', *SO*, XXII, 7 (1952), pp. 1-9; *Poppe, *op.cit.*, p.59, plate XI.

77. *Ditto* (2)

(5) Carter, *The Invention of Printing in China and its Spread Westward*, plate facing p. 120; *Aalto, 'A second fragment of the *Subhāṣitaratnanidhi*', *JSFOu*, LVII, 5 (1954), pp. 1-6;

78. *The Turfan fragment*

(3) Turfan, (4) Ethnological Museum of Berlin, (5) *Aalto, 'Zu den Berliner Turfan-Fragmenten T III D 322', *JSFOu*, LXI, 6 (1959), pp. 3-21.

(C) 'PHAGS-PA MATERIALS IN TIBETAN

I. Seals

79. *Seal of Dalai Lama* (1)

(5) Waddell, *Lhasa and its Mysteries*, p. 443; *Walsh, 'The coinage of Tibet', *MASB*, II, 2 (1907), pp. 16-7; * Francke, 'Note on the Dalai Lama's seal and the Tibeto-Mongolian characters', *JRAS*, 1910, p.1206. [As to the decipherment of this seal, see the following works as well: Bushell, Review of Waddell, *op.cit.*, *JRAS*, 1906, p. 478; Waddell, 'Seal of the Dalai Lama', *JRAS*, 1911, pp. 204-6; Francke, 'The Dalai Lama's seal', *JRAS*, 1911, pp. 528-30.]

80. *Seal of Dalai Lama* (2)

- (5)*Francke, 'Another version of the Dalai Lama's seal', *JRAS*, 1912, pp. 746-7.
81. *Seal of Rnam-rgyal*
 (5)*Francke, 'Note on the Dalai Lama's seal...', p. 1206, fig. 4.
82. *Seal of Prime Minister* (1)
 (3) Darjeeling, (5)*Walsh, 'Examples of Tibetan seals', *JRAS*, 1915, pp. 5-7.
83. *Seal of Prime Minister* (2)
 (5)*Walsh, *ibid.*, pp. 7-8.
84. *Seal of The Tibetan Council of Ministers*
 (5)*Walsh, *ibid.*, p. 9, fig. 6.
85. *Seal of Bka'-blon Bla-ma*
 (5)*Walsh, *ibid.*, pp. 9-10, fig. 8.
86. *Seal of Tsogs-'du dud-pa*
 (5)*Walsh, *ibid.*, pp. 9-10, fig. 7.
87. *Seal of Rjon-dpon* (1), (2)
 (5)*Walsh, *ibid.*, pp. 10-11, fig. 9.
88. *Seal of the Abbot of the Gyantse Monastery*
 (5)*Walsh, *ibid.*, p. 11.
89. *Seal of the Tibet Joint Trade Agent at Gyantse*
 (5)*Walsh, *ibid.*, pp. 11-12.
90. *Seal of the Kyab-dpin*
 (5) Walsh, *ibid.*, p. 12, fig. 10 (indecipherable).
91. *Private Seal of Dalai Lama*
 (5) Walsh, *ibid.*, pp. 4-5, fig. 3 (indecipherable)
92. *Seal of the 'Bras-spun Monastery*
 (5)*Walsh, *ibid.*, p. 15.
93. *Seal of Sera Monastery*
 (5)*Walsh, *ibid.*, p. 15 (partly illegible).
94. *Seal of Dga'-ldan Monastery*
 (5)*Walsh, *ibid.*, p. 15.
95. *Seal of Dalai Lama* (3)
 (1) 1741, (5)*Walsh, 'Examples of Tibetan seals : Supplementary Note', *JRAS*, 1915, pp. 466-8.

96. *Smaller Seal of the Regent of Lhasa*
 (1) 1741, (5) Walsh, *ibid.*, p. 469 (illegible).
97. *Larger Seal of the Regent Lhasa*
 (1) 1741, (5) Walsh, *ibid.*, p. 470 (indecipherable).
98. *Seal of Bhutan*
 (5)*Francke, 'Ein Siegel in tibeto-mongolischer Schrift von Bhutan', *ZDMG*, LXIV (1910), pp. 553-4.
99. *Seal of Nomči mergen mkhan-po*
 [see item 69.]
100. *Seal of Qan Olan-a ergügdegse*
 (5)*Rintchen, 'A propos de la sigillographie mongole', *AOH*, III (1953) pp. 27, 30.
- II. Block-prints
101. *Rgya-dkar-nag rgya-ser ka-smi-ra bal bod hor-gyi yi-ge dan dpe-ris rnam-graṅs man-ba*, fols. 14a, 14b, 15a
 (1) early nineteenth century (?), (3) printed in Peking, (4) National Library of Germany (Berlin); Library of the Hungary Academy of Sciences (Budapest); The Australian National University Library (Canberra); Sakai Collection (Kōyasan); Nagao Collection (Kyōto); Asiatic Museum (Leningrad); Lokesh Chandra Collection (New Delhi); Library of the Oriental Institute, Czechoslovakian Academy of Sciences (Prague), (5) Das, 'The sacred and ornamental characters of Tibet', *JASB*, LVII (1888), plates V (b), (e), VII, No. 1; * Francke, 'Note of the Dalai Lama's seal...', p. 1203; * Nakano, '*Rgya-dkar-nag*...ni tsuite ...', *THG*, 36 (1968) pp. 149-134, plate. ; Nakano, 'On the *Rgya-dkar-nag*... and some remarks on the 'Phags-pa script', *Indo-Asian Studies*, part 3 (1971) pp. 1-16, plate.
102. A 'Phags-pa specimen
 (4) E. Teramoto, (5) Teramoto, *Chibettogo Bunpō*, the 3rd plate after the title page; W. Simon, *op. cit.*, plate III (c).

(D) 'PHAGS-PA MATERIALS IN OTHER LANGUAGES

I. Sanskrit

103. *Epigraph of Mo-kao-k'u* 莫高窟碑 (The Thousand Buddhas in Tunhuang)

(3) Kansu, Tun-huang, (4) Academia Sinica (Taipei), (5) Hsieh Chih-liu, *Tung-huang I-shu Hsü-lu* (Shanghai, 1955), plate 1; P'an Hsieh-tzu, *Tun-huang Mo-kao-k'u I-shu* (Shanghai, 1957), p. 24; Kadokawa Shoten, op. cit., p. 181; Cheng Tsai-fa, op. cit., plate I. [This epigraph is written in the six scripts: Lañtsha, Tibetan, Uighur, 'Phags-pa, Hsihsia and Chinese. The *dhāraṇī* of this epigraph can be read as *Oṃ maṇi padme hūṃ*].

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POSTSCRIPT

After this monograph had been completed, a number of articles became available. Particularly important ones are as follows:

1. FARQUHAR, D.M., 'The Official Seals and Ciphers of the Yüan Period', *MS*, XXV (1966), pp. 362-93+36 figs.
2. HASHIMOTO, M.J., 'The *hP*'ags-pa Transcription of Chinese Plosives', *MS*, XXVI (1967), pp. 149-74.
3. PULLEYBLANK, E.G., 'Note of the *hP*'ags-pa Alphabet for Chinese', *AM* (= *W.B. Henning Memorial Volume*) (1970), pp. 358-75.
4. KRUEGER, J. R., 'Three Oirat-Mongolian Diplomatic Documents of 1691', *CAJ*, XII, 4 (1969), pp. 288-95.

Farquhar provides a number of materials of 'Phags-pa seals. His figure 20 is, as he says, especially of interest 'for being the only known text in a Turkic language written with the 'Phags-pa script' (p. 388). In 'Appendix : 'Phags-pa Materials' above, I have listed only one item written in a language other than Chinese, Mongolian, and Tibetan. Thus the 'Phags-pa Turkic seal is now to be added to my list as new material with some other 'Phags-pa Chinese seals introduced by Farquhar.

I was also unable to consult Hashimoto's article, although it is listed in my bibliography. It deals in great details with alternation between voiced and voiceless initial consonants in 'Phags-pa Chinese documents, which I have also treated in Chapter III. I have tried to clarify the puzzle of the alternation from a viewpoint of 'phonological opposition'; on the other hand Hashimoto bases his argument on a much more exhaustive phonetical viewpoint.

Pulleyblank deals with the value of the letters *e* and *o*, the representation of the 'muddy' initials, and the initials *ying*, *yü* and *i*, some of which are also mentioned in my paper.

As to Krueger, I wrote a commentary on his reading of The Great Seal of Galdan Boshogtu Khan, stamped on the letter to the Russian

Czar from the Oirat Khan, Galdan in 1691. It is expected to be published in *CAJ*, XIII, 1 (1971). As regards 'Phags-pa Chinese seals, I have also re-examined E. Haarh's reading of three 'Phags-pa Chinese seals. My article entitled 'Three 'Phags-pa Seal Inscriptions—Re-examination of Dr. E. Haarh's Readings', will be published in *AM*, XVI, 1 (1971), pp. 96-101.

I regret I was unable to revise this monograph after referring to these articles.

After finishing this monograph, I wrote a small book on the same subject for general readers, *Sabaku ni uzumoreta Moji — Pasupamoji no Hanashi* — 砂漠に埋れた文字—パスパ文字のはなし — (*Script buried in Desert: A Story of the 'Phags-pa Script*) soon to be published in Japan. In this book, I have advanced or abandoned some of the ideas in this monograph; in particular I have dealt historically with the social roles of the 'Phags-pa script amongst Mongolian and Chinese bureaucrats in the Yüan court and the meaning of the 'returning' of the 'Phags-pa script to Tibet.

Sapporo, April, 1971

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