

語言學前沿叢書（第五種）

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龔煌城 著



北京大學出版社  
PEKING UNIVERSITY PRESS

H4-53  
G383:1

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圖書在版編目(CIP)數據

漢藏語研究論文集/龔煌城著. —北京: 北京大學出版社, 2004. 9

(語言學前沿叢書)

ISBN 7-301-07949-4

I. 漢… II. 龔… III. 漢藏語系-研究-文集 IV. H4-53

中國版本圖書館 CIP 數據核字(2004)第 095911 號

本書由臺灣「中央研究院」《語言暨語言學》授權北京大學出版社出版  
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書 名: 漢藏語研究論文集

著作責任者: 龔煌城

責任編輯: 徐 剛

標準書號: ISBN 7-301-07949-4/H · 1209

出 版 者: 北京大學出版社

地 址: 北京市海淀區中關村北京大學校內 100871

網 址: <http://cbs.pku.edu.cn> 電子信箱: [zpup@pup.pku.edu.cn](mailto:zpup@pup.pku.edu.cn)

電 話: 郵購部 62752019 發行部 62750672 編輯部 62752028

排 版 者: 興盛達激光照排中心 82715400

印 刷 者: 北京飛達印刷有限責任公司

發 行 者: 北京大學出版社

經 銷 者: 新華書店

787 毫米×1092 毫米 16 開本 27.75 印張 493 千字

2004 年 9 月第 1 版 2004 年 9 月第 1 次印刷

定 價: 50.00 元

## 自序

這本論文集裡所收的文章是我過去二十多年來所發表的有關漢語、藏語、及漢藏語比較研究的中英文論文，一共收了十五篇。文章分爲三類：一、關於漢藏語的比較研究；二、關於十二世紀末漢語西北方音的研究；三、關於藏緬語的研究。爲了呈現我的研究發展的過程，同類的文章都依照發表年代的先後排列。

關於漢藏語的比較研究本書共收了九篇文章。

漢藏語言的比較研究，自 John Leyden (1808) 指出漢藏語若干語言的同源關係以來，已有將近兩百年的歷史。一八〇八年 Leyden 發表〈論印度支那語言和文學〉一文，指出漢語、藏語、緬甸語、泰語等語言有類似之處。十二年以後，法國學者 Abel Rémusat (1820) 寫了一本研究韃靼語言的書，提出它對滿語、蒙語、回語與藏語的文法及文學異同的研究，其中就提到若干今日一般所接受的漢、藏語同源詞，如吾、日、水、父、母、名、及數詞二、三、四、五、六、九等。一八五一年德國學者 Schiefner 寫〈藏文研究〉一文也指出了藏文和漢文之間的同源詞。但是從一八〇八年至一八五一年經過了四十多年，漢藏語的比較研究卻仍毫無進展，直到一八七四年法國學者 Rosny 和英國學者 Edkins 才悟到要作比較研究必須從漢語古音研究開始的道理。一八八一年德國學者甲柏連孜 (Georg von der Gabelentz) 出版了《漢文經緯》(Chinesische Grammatik) 一書，他在書中說：「印支語言（即漢藏語）科學的比較研究是語言學許多課題之一，但對於解決這一問題，卻連第一步都還沒踏出」。

漢藏比較語言學的理論與方法師承印歐比較語言學。印歐比較語言學自一八一六年 (Bopp 1816) 在歐洲發端，在六、七十年之中就把印歐語各重要語言之間的對應關係釐清，發現到即使是例外的對應也受規律的支配；到一八七八年，新語法學派的學者甚至主張語音變化毫無例外 (Osthoff and Brugmann 1878)。回顧漢藏比較語言學從一八〇八年同源關係被指出，至一八八一年甲柏連孜的《漢文經緯》出版，歷經七十多年，卻連第一步都沒有踏出，反而必須回過頭來從漢語古音的研究開始。漢藏比較語言學遠遠落在印歐比較語言學之後，其原因固然不止一端，而漢語的古音研究不能與之配合，則是最大原因。

瑞典的學者高本漢 (Bernhard Karlgren) 在歷史語言學研究的潮流下，在一九一五年至一九二六年間陸續發表其中古音研究，其後並進而從中古音上溯上古

音，於一九二三年出版《中文分析字典》，踏上研究上古音的第一步。此時德國學者西門華德 (Simon 1929) 便迫不及待地以高本漢的研究為基礎，作漢藏語的比較研究，找出他所認為的漢藏語同源詞三三八對，將藏語與漢語的聲母和韻母作全面性的比較研究；可惜因為時機尚未成熟，他的研究幾乎完全失敗。當時高本漢所構擬的中古漢語元音非常複雜，而且他拿漢語與藏語作比較所選的字例也不十分嚴謹。高本漢 (Karlgren 1931) 對西門的研究感到不滿意的，是關於漢藏語語音的對應關係。他說，若照西門的比較字例，則任何一個藏語元音可以對應任何一個漢語的元音（例如藏語 a 元音可以對應漢語十八種元音），其中並沒有任何法則可言。

西門的研究之所以歸於失敗，其主要原因是漢語上古音的研究尚未上軌道。這一點只要看高本漢、董同龢 (1967) 所構擬的漢語上古音元音系統的複雜，再看看藏語與緬甸語簡單的元音系統，便可知問題之所在。古藏語有五個元音，古緬甸語只有三個，而上古漢語竟有二十幾個元音，比較漢藏語的結果自無法確定哪一個元音對應哪一個元音。加以選字不嚴謹，看不出漢語與藏語的元音之間有何對應關係，自屬意料中之事。

漢藏語的比較研究要到李方桂先生一九七一年劃時代的〈上古音研究〉出版，建立了四個元音的上古音系統，時機才臻成熟。根據這一系統，我在一九七八年第十一屆國際漢藏語言學會中提出漢藏語元音的比較研究，首次確立漢語和藏語、緬甸語的元音對應關係。這本論文集所收的第一篇論文〈A comparative study of the Chinese, Tibetan, and Burmese vowel systems〉就是當時所發表的論文。

一九八三年，李方桂先生訪問北京大學作學術演講，在會後的「上古音學術討論會」中，當時的中國社會科學院語言研究所的所長李榮曾說：「漢藏語的比較，現在還處在貌合神離的階段，看著藏文有點兒像，就湊上了。目前，漢藏語的研究還在起步時期，我們不能過分苛求。要依據漢藏語的比較來研究上古音，現在恐怕為時尚早」。一九八八年羅杰瑞 (Jerry Norman) 出版了《漢語概說》(Chinese) 一書，他在書中提到「漢語、藏語、緬語的親屬關係是無容置疑的，但漢藏語的比較研究還很差。漢語和藏緬語的語音對應還沒有搞得很詳細，只有完成了這項工作，漢藏語的比較研究才能真正起步」(Norman 1988:13, 漢譯本 pp.12-13)。羅杰瑞在上引書中還指出「要確立漢藏語之間更明確的親屬關係，唯一的路徑，是辨認出更多的同源詞。這好像是雙向並行的街道：語音對應規律基於同源詞的分析，而同源詞反過來又主要是在語音對應規則的基礎上，加以辨別和判斷，究竟是或不是同源詞。漢藏語的比較研究相對來說還屬初級階段，兩組語言的語音對

應規則，由於缺乏足夠數量的確實可靠的同源詞，還不能加以總的、全面的敘述」。

同源語言的比較研究能透露各個別語言演變的歷史，這乃是歷史比較語言學的精髓所在。李榮所說的，要依據漢藏語的比較來研究上古音，這樣的觀點在研究漢語上古音的重要學者，如高本漢 (Karlgren 1923:31)、馬伯樂 (Maspero 1930:315)、董同龢 (1954:6)、王力 (1957:31) 以及李方桂先生 (1971:3) 等的著作中都曾提及。但是如何「辨別和判斷，究竟是或不是同源詞」卻是最大的困難所在，在學者之間迄今仍無共識。翻開最近學者所提出的漢藏同源詞，也仍會發現竟然是南轅北轍，彼此差異很大，而這正是阻礙漢藏語比較研究進步的最大阻力。

漢藏語同源詞的認定，是以原始漢藏語的存在及從原始漢藏語到各個別語言有規律的演變為前提。同源詞的認定應該建立在整個音韻系統的對應上，而對應關係必須能合理解釋漢語與藏緬語從原始漢藏語演變的過程。這樣的基本認識，似乎在一些著作中全然缺乏。

我們要找真正的同源詞，必須不斷的檢討、不斷的改進，正如羅杰瑞所說，我們必須從可靠的同源詞中去發現正確的對應關係，再從正確的對應關係中去發現更多的同源詞；而同源詞的研究也應以發現漢藏語言演變發展的規律為其終極目標。

我從一九八〇年發表〈A comparative study of the Chinese, Tibetan, and Burmese vowel systems〉一文以後的十年間，轉向研究西夏語文。從九十年代以後，開始嘗試利用漢藏語的比較來解決漢語上古音的問題。這本論文集所收的第二篇論文〈從漢藏語的比較看上古漢語若干聲母的擬測〉、第三篇〈從漢、藏語的比較看漢語上古音流音韻尾的擬測〉、第六篇〈從漢藏語的比較看重紐問題（兼論上古 \**-rj-* 介音對中古韻母演變的影響）〉、及第七篇〈從漢藏語的比較看上古漢語的詞頭問題〉等論文都冠以「從漢藏語的比較看」的標題，主要目的是要從漢藏語比較語言學的觀點，對漢語上古音的研究進行檢討，以具體的研究實現李榮所說「依據漢藏語的比較來研究上古音」，使漢語上古音的研究能與漢藏語的比較研究接軌。

第四篇〈The first palatalization of velars in late Old Chinese〉一文雖然未冠上「從漢藏語的比較看」的標題，然而它在基本上仍然是根據漢藏語的比較，從類型上作若干推論。在這篇文章中，我提議把李方桂先生 (1976) 所構擬的 \**krj-*、\**khrij-*、\**grj-*、及 \**hrj-* 修改為 \**klj-*、\**khlij-*、\**glj-*、及 \**hlj-*，並且從藏緬語一般演變的趨勢，認為這些音最先發生顎化，成為漢語史上第一次的顎化，以別於中古以後所發生的第二次顎化。

第五篇〈The system of finals in Proto-Sino-Tibetan〉一文是第一篇〈A comparative study of the Chinese, Tibetan, and Burmese vowel systems〉的進一步擴充與發展。在這一篇論文中，我把西夏語（漢藏語系語言中第四個古代語言）也納進了比較的範圍，並且爲 278 個漢藏同源詞具體構擬了韻母。第一篇論文所討論的只涉及主元音，在這一篇中則加以擴充，包含了介音與韻尾。

關於漢藏語聲母的對應關係，複聲母的對應是重要的課題。第八篇〈上古漢語與原始漢藏語帶 r 與 l 複聲母的構擬〉一文，從詞頭與聲母的結合及帶 r 與 l 複聲母的角度加以探討，根據漢藏語的比較，構擬了上古漢語與原始漢藏語帶 \*r- 與 \*-l- 的複聲母。

上古漢語帶 \*r- 與 \*-l- 複聲母的問題，討論已有一百多年的歷史。研究過這一問題的重要學者如高本漢 (Karlgren 1923:31)、馬伯樂 (Maspero 1930:315) 等學者都曾寄望於漢藏語的比較研究能給這一問題帶來終究的解決。此一論文即在此背景下所作，以期對問題的若干層面，如流音的音值 (\*r- 或 \*-l- 的問題)、流音前面的聲母 (有無 \*b-, \*d-, \*g- 等音的問題) 得出確切的答案。在這篇文章中我也另外提出「\*N- 詞頭說」以解決從上古漢語到中古漢語不同的演變。在此之前，上古漢語 \*br-, \*dr-, \*gr- 等音在什麼情況下演變爲 \*b-, \*d-, \*g-、在什麼情形下演變爲 \*r- (即中古來 l- 母字) 的問題，沒有妥善的解決方法。這篇文章從漢藏語比較的觀點對這一問題提出解答：即前一種情形帶有 \*N- 詞頭，後一種情形不帶 \*N- 詞頭。這是漢藏語的比較研究對漢語上古音研究所作的重大啓示。

第九篇〈從原始漢藏語到上古漢語以及原始藏緬語的韻母演變〉一文，是我在二〇〇〇年臺北第三屆國際漢學會議中所發表的論文。我在這篇文章中探討了上古漢語及原始藏緬語從原始漢藏語演變發展的歷史。針對美國學者白保羅 (Benedict 1972) 所構擬的原始藏緬語的韻母系統，從漢語上古音的觀點加以檢討，並提出了我的看法。在這篇文章中，我把我以前所構擬的原始漢藏語的韻母系統與白保羅的系統加以銜接。我過去所作的原始漢藏語的構擬是將漢語上古音直接與古藏語及古緬甸語加以比較，而迴避了白保羅所構擬的原始藏緬語的階段。此論文則將兩者加以整合，使原始漢藏語到原始藏緬語韻母演變的情形得以彰顯出來。在這篇文章中，我根據漢藏語比較中例外的對應關係，重新確認在原始漢藏語以及上古漢語中存在 \*-g, \*-d, \*-b 等韻尾。上古漢語是否有 \*-g, \*-d, \*-b 等韻尾是長久以來學者爭論的焦點。這篇文章利用漢藏語中例外的對應關係，論證上古漢語及原始漢藏語中存在著 \*-g, \*-d, \*-b 等韻尾，一方面藉以解釋例外對應的成因，一方面也試圖解決歷來爭論不決的問題。

本書第二部分是關於十二世紀末漢語西北方音的研究，共收了三篇文章：第十篇〈十二世紀末漢語的西北方音（聲母部分）〉、第十一篇〈十二世紀末漢語的西北方音（韻尾問題）〉、及第十二篇〈十二世紀末漢語西北方音韻母系統的構擬〉。其中第十二篇是一九九五年六月我應邀出席美國威斯康辛（Wisconsin）大學「第四屆國際中國語言學會第七屆北美中國語言學會聯合年會」，擔任 Keynote Speaker 時寫的文章。當時沒有立刻發表，因為覺得必須仔細再加推敲後才能正式發表。可是時光易逝，轉眼已經過七年，一直沒有機會重新加以思考。現在要出論文集，十二世紀末漢語西北方音的研究，有聲母、有韻尾、而獨沒有韻母，難免有美中不足之憾。現在把它一起出版，接受同行學者的指正。

本書第三部分是關於藏緬語的研究，共收了三篇文章：第十三篇〈古藏文的 y 及其相關問題〉、第十四篇〈阿科話的音韻系統及其來源〉、及第十五篇〈Case postpositions in Tibeto-Burman languages〉。這些都是我早期的文章，由於編排的關係反而放在最後面。

這本論文集能夠出版，首先要感謝美國康乃爾大學的梅祖麟教授及本處主任何大安教授。為我出論文集之事我原先並不知道，後來才得知是祖麟兄在背後催促。梅先生當時是本處的諮詢委員，在返臺開諮詢會議之際與大安兄商討為本處同仁出版論文集事宜，決定之後大安兄更堅持要以限期完成的方式加以執行。就出版我的論文集而言，我曾向大安兄建議等我退休之後再做，待我把想要寫的文章都寫完了，不再寫新的論文的時候才來把過去寫的文章結集，一次出版。但我的建議未蒙採納。在重新打字排版，進度稍緩之際，香港科技大學人文社會學院院長、也是本處的諮詢委員丁邦新兄在返臺開會時也表達了他的關切，叮嚀大安兄務必要如期出版。

為了出版這本論文集，處裡動員了不少人。編輯助理郭君瑜小姐負責編排，給這些在不同的時期、不同的地方發表的文章統一的體例。她的細心與專業的訓練顯現在許多細節上面，我在做最後校對的時候看到她所作的若干更改，心裡感到佩服與感謝。我的助理高雅琪小姐負責作校對工作，另一位助理陳心惠小姐也從旁協助部分的排版工作。最使我感動的是正在本處作博士後研究的張珮琪小姐自始就主動全力投入支援，舉凡我的原文有不夠明晰的地方，西夏文抄錄有誤之處，她都一一找出來跟我討論後作修正。原文所引用的俄文文獻有用拉丁文字轉寫的，她也幫忙改回原來的俄文字母。另外在本處接受博士候選人培育計畫訓練的江敏華小姐幫忙作藏、緬文字的輸入工作。這項工作用我們目前的軟體做起來十分不易，她不計辛勞獨自承擔下來。本處的秘書陳玉冠小姐、資訊所文獻處理



實驗室的張翠玲、許婉蓉兩位小姐都曾主動提供了她們的協助。對這些促成此一論文集出版的所有的人，我在此謹致誠摯的謝意。

回首過去二十多年的學術生涯，使我走上學術道路，使我有今天這麼一點小成績的，首先要感謝我在德國已故的恩師 Wolfgang Bauer 教授；他使我有機會留學德國，在那裡我第一次接觸到印歐語的歷史比較語言學。其次要感謝已故的語言學泰斗李方桂先生對我的提拔與愛護；如果沒有他，我不可能進中央研究院享受這麼好的研究環境。在進歷史語言研究所之初，他正在所裡訪問，我有機會時時請益，我的第一篇論文〈古藏文的 y 及其相關問題〉一文是在他的指導下完成的。最後要感謝內子蔡盞女士，她爲了能使我專心做研究工作，家裡大小事一肩挑，無怨無悔，沒有她的支持我當初就不可能走學術這一條清冷的道路。

龔煌城

2002 年 5 月

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## A Comparative Study of the Chinese, Tibetan, and Burmese Vowel Systems\*

### 1. Introduction

The Sino-Tibetan family comprises hundreds of languages and dialects. Among them, the most important languages having long histories in written form are Chinese, Tibetan, and Burmese. Chinese preserves literature of the first millennium B.C., and of the language in that time we already possess considerable reliable knowledge. For Tibetan there is an inscription of A.D. 821-822, which was studied by Fang-kuei Li (1956). The earliest document for Burmese is the Myazedi inscription of A.D. 1112, studied by Nishida (1955, 1956). The purpose of this paper is to compare the vowel systems of these three literary languages and to reconstruct the vowels of their parent language.

The development of comparative Sino-Tibetan linguistics is closely connected with progress made in the field of Chinese historical linguistics. When Conrady published his *Eine Indochinesische Causativ-Denominativ-Bildung und ihr Zusammenhang mit den Tonaccenten* in 1896, the reconstruction of Middle Chinese had not yet begun; consequently, he had to base his comparison on modern Chinese dialects. In 1916 Laufer listed 96 Chinese-Tibetan cognates in the Appendix to his article, "The Si-hia Language". In his comparison he marked most of the Chinese forms with asterisks; however, his reconstruction was made more on *ad hoc* basis than on any clearcut principle.

The first systematic reconstruction of Middle Chinese (called Ancient Chinese at first) was made by Karlgren in 1919 in his "Etudes Historiques." His work provided solid ground for comparative study, and his *Analytic Dictionary of Chinese and Sino-Japanese*, published in 1923, became an indispensable reference book for all students in the field. The road to an extensive comparative study was thus opened.

Simon's "Tibetisch-Chinesische Wortgleichungen: Ein Versuch" (1929) was the first attempt at a systematic comparative study. He gave 338 Chinese and Tibetan likely

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\* This paper was presented at the 11th International Conference on Sino-Tibetan Languages and Linguistics at University of Arizona, October 20-22, 1978. I wish to thank Professors Fang-kuei Li, Fa-kao Chou, Paul K. Benedict, Pang-hsin Ting, Paul Jen-kuei Li and Tsu-lin Mei for their comments on the manuscript and Professor Lynn Struve for her editorial assistance. However, I have not followed all their advice and I am alone responsible for the errors in the article.

cognates, with Chinese represented by Middle Chinese forms as reconstructed by Karlgren, and compared them by their final consonants, initials, and vowels. However, as Karlgren (1931:30) pointed out in his review of Simon's work, "Every Chinese vowel seems to correspond to a whole row of different Tibetan vowels, and each of these Tibetan vowels in its turn corresponds to a long series of Chinese vowels". From such correspondences it would be difficult to reconstruct the vowels of the parent language.

However, failure in establishing sound correspondences was largely due to the circumstance that the historical study of Chinese and Tibetan had not yet been finished. Karlgren first published some research on Archaic Chinese (called Old Chinese in this paper) as early as 1923 in his *Analytic Dictionary*; and the research was later joined by Simon and Fang-kuei Li. But achievements in this field were not applied in comparative study until after 1940 when Karlgren published "Grammata Serica". During this time there was very little progress in the study of Tibetan historical phonology, one of the few thoroughly modern linguistic approaches to the internal reconstruction of Tibetan being made by Li in 1933.

"Grammata Serica" replaced *Analytic Dictionary* and became the pivot in the comparative study. Most authors turned then to Archaic Chinese for comparison, with the exception of R. Shafer, who remained with Ancient Chinese.

Karlgren's Archaic Chinese system later was partially revised by subsequent study. Tung (1945) recombined the two parts respectively, of the rhyme categories *yü* 魚 and *hou* 侯, which had been split by Karlgren, and reconstructed a final consonant \*-g for all the members of these two classes. Tōdō (1957) reconstructed a final consonant \*-r for the *ko* 歌 rhyme category. Archaic Chinese thus appeared to be a language without open syllables, as Simon argued long ago. But on the other hand, Wang Li (1957) reconstructed a whole series of open syllables for the *yin-sheng* 陰聲 part of the *yü* 魚, *hou* 侯, *chih* 之, *chih* 支, *yu* 幽, and *hsiao* 宵 rhyme categories. Opinions were divided so far as the final consonants were concerned.

In 1971 Fang-kuei Li published his "Studies on Archaic Chinese Phonology." This article, written tersely in 61 pages, integrates new developments in this field during the previous decades and contains many new solutions of his own to various problems in this reconstruction. Chinese has been regarded as a language with a complicated vowel system. In comparative Sino-Tibetan research, this has been a great obstacle. Li, starting from his basic hypothesis of "the same rhyme category, the same vowel", revising the theory of Yakhontov (1963) and Pulleyblank (1962-63) concerning the -l- medial for words of the second division, and explaining the double rhymes in the second division with \*ia, arrived at a reconstruction which is in accordance with his basic hypothesis. The vowel in the *chih* 脂, *chen* 真, *chia* 佳, and *keng* 耕 categories was

reconstructed as \*e by Karlgren. This reconstruction has been generally accepted since then and it seems that no one has ever wondered why there was \*u and no corresponding \*i. An Archaic Chinese rhyme category generally contains words of all divisions, but it happens that the four rhyme categories mentioned above lack words of the first division. Li changed \*e into \*i and solved all these problems in one stroke. At the same time, the reconstruction \*i solves a puzzle in our comparative study.

It is on this reconstruction that I base my study. I have examined many proposed cognate words and selected those which seem certain to me, added some of my own findings, and tried to fix the rules governing these cognate words. I do not mean to deny other kinds of correspondences, but I think a substantial number of examples should be required to establish them.

In the following examples, Chinese tones “level”, “rising”, and “departing” are designated by A, B, and C in order to facilitate comparison with the Burmese tone system.

## 2. The vowel systems of Old Chinese, Written Tibetan, and Written Burmese

According to Li (1971:24) there are four vowels: \*i, \*u, \*ə, \*a, and three vocalic clusters: \*iə, \*ia, \*ua in Old Chinese.

Vowels	i	u	Vocalic clusters: iə, ia, ua
	ə		
	a		

In Written Tibetan there are five vowels: i, u, e, o, a.

i	u
e	o
a	

The vowel system of Written Burmese needs some explanation before it can be applied in comparative study. For convenience of discussion, I cite the following list of finals given in Pulleyblank (1963:216):

	Level	Creaky	Heavy		Final Stop	
(a)	ā	a	āḥ	[a]		
	aṇ	aṇ.	aṇḥ	[iṇ]	ak	[εʔ]
	aí	aí.	aíḥ	[iṇ, i, ε]	ac	[iʔ]
	an	an.	anḥ	[aṇ]	at	[aʔ]
	am	am.	amḥ	[aṇ]	ap	[aʔ]
(i)	ī	i	īḥ	[i]		
	in	in.	inḥ	[eiṇ]	it	[eiʔ]
	im	im.	imḥ	[eiṇ]	ip	[eiʔ]
(u)	ū	u	ūḥ	[u]		
	un	un.	unḥ	[ouṇ]	ut	[ouʔ]
	um	um.	umḥ	[ouṇ]	up	[ouʔ]
(e)	e	e.	eḥ	[e]		
(ai)	ay	ai.	ai	[ε]		
(o)	o'	o.	o	[ɔ]		
	oṇ	oṇ.	oṇḥ	[auṇ]	ok	[auʔ]
(ui)	ui	ui.	uiḥ	[o]		
	uiṇ	uiṇ.	uiṇḥ	[aiṇ]	uik	[aiʔ]

“Level”, “Creaky”, and “Heavy” represent three different tones. In the present study they will be designated as A, B, and C, respectively. As the vowel length is correlated with the tones and has no phonemic significance, it will be omitted in my transcription. The above list shows that Written Burmese, like Written Tibetan, has five vowels. Irregularity in the distribution, however, suggests that this is not original. As we can see from the table, only a, i, and u can combine with final consonants -m/-p and -n/-t, whereas e and o cannot. The vowel e always occurs alone, whereas o occurs only in front of velar finals -ŋ/-k. Shafer (1941:22) posits the following shifts:

\*-ing > -əing > -aí  
 \*-ik > -əik > -aé

Parallel to this are the shifts:

\*-ung > -əung > -aung (transcribed as -ong)  
 \*-uk > -əuk > -auk (transcribed as -ok) > -auʔ

By means of this postulation, the parallelism in distribution of a, i, and u is restored.

-ang(k)	*-ing(k) > ań(ć)	*-ung(k) > -ong(k)
-an(t)	-in(t)	-un(t)
-am(p)	-im(p)	-um(p)

However, the counterpart of o[ɔ] is not e[e], but ai[ɛ], as can be seen from their sound values given in square brackets. From the way they are written in the Burmese writing system and from their modern pronunciation, it can be easily inferred that \*au and \*ai have undergone the following shifts:

*-au	>	[ɔ]	(transcribed as -o)
*-ai	>	[ɛ]	(transcribed as -ai)

It seems that what we usually transcribe as o has in fact two sources: \*-u- (in \*-ung and \*-uk) and \*-au. The former must have already broken into -au- and coalesced with original \*-au at the time the Burmese writing system came into being. The later divergent development is conditioned by the presence or absence of the final consonants -ng and -k.

**au	>	*-au	>	[ɔ]	(transcribed as -o)
**ung	>	*-aung	>	[aung]	(transcribed as -ong)
**uk	>	*-auk	>	[auʔ]	(transcribed as -ok)

The counterpart of e[e] is ui[o], as their modern pronunciation indicates. In the Myazedi inscription, e is written iy, while ui is written with the sign for u below and the sign for i above the consonant. Blagden (1914) transcribed the sound as ui, and since then this transcription has been generally followed. As for its sound value, opinion differs. Wolfenden (1929:197) supposes it was pronounced like the Dutch colloquial "ui" in *huis*, *buis*. Nishida (1955:21-22) takes it to be [u]; and since there are in the inscription words of other origin written -uy (which is later written -we in Written Burmese), he writes it ö in order to avoid confusion. The same sound is transcribed as ɤ in Miller (1957:42), and Pulleyblank interprets it as /iɥ/ in the article quoted above. In a comparative study, Benedict (1972) posits -ui < \*-uw in the main text, but in a new footnote (No.188, p.57) declares \*-əw to be preferable to \*-uw.

In my opinion, a new proposal must take the following facts into consideration: (1) It corresponds to OC \*-ug and WT -u; (2) it is written with the signs for u and i in the Myazedi orthography; and (3) the later development shows parallelism with -iy > -e. In order to account for all these, I posit the following sound shifts:

ST \*-ug > Myazedi -uĩ > \*-uw > -o  
 ST \*-id > Myazedi -iy > -iy > -e

At the time of the Myazedi inscription, the second element of ui (our uĩ) must have sound close to i, for it was written with that sign. A sound which goes back to \*g and is similar to i might have retained the features of both. It seems therefore reasonable to assume that the sound was back (like g), high and unrounded (like i). (I write [ĩ], which is equal to [u] of the International Phonetic Alphabet). The shift -uĩ > \*-uw can be easily explained by assimilation.

As far as -uing and -uik are concerned, Pulleyblank quotes Shorto to the effect that words with these finals may not be native Burmese. If we exclude them from the list, we get the following system:

#### 1. Closed Syllables

(a)	ang	ak
	an	at
	am	ap
(i)	ing > ań	ik > ać
	in	it
	im	ip
(u)	ung > aung (=ong)	uk > au? (=ok)
	un	ut
	um	up

#### 2. Open Syllables

(a)	a	ay (=ai)	aw (=o)
(i)	i	iy (> e)	—
(u)	u	uy (> we)	uĩ > *uw (=ui)

According to this analysis, the vowel system of Written Burmese goes back to an earlier three-vowel system.

i            u  
             a



### 3. Vowel correspondences and their reconstruction

#### A. ST (Sino-Tibetan) \*a

OC (Old Chinese) \*a : WT (Written Tibetan) a : WB (Written Burmese) a

Involved in this kind of correspondence are Chinese words in the *yü* 魚, *yang* 陽, *ko* 歌, *chi* 祭,  *yuan* 元, *yeh* 葉, and *t'an* 談 categories. Difficulties arise when one bases such a comparison on the reconstruction of Karlgren, who splits the *yü* 魚 category in two parts, one having open syllables with final -o and another having closed syllables with final -ag. The diacritical marks employed to distinguish words of different divisions complicate the matter further and lead to wrong conclusions. The use of Middle Chinese in comparative study and the choice of incorrect cognates also increases confusion. As a matter of fact, the correspondence of ST \*a is the clearest one. The problem of medials and final consonants exceeds the scope of the present study and will not be discussed here.

(The number in parentheses refers to the phonetic series in "Grammata Serica Recensa".)

1.	OC	*ngag	B 五	five (58, a)
	WT	lnga		five
	WB	nga	C	five
2.	OC	*ngag	A 吾	we, my, our (58, f)
	WT	nga		I, we
	WB	nga	A	I
3.	OC	*ngjag	B, C 語	speak (58, t)
	WT	ngag, dngag		speech, talk, word
4.	OC	*ngjag	A 魚	fish (79, a)
	WT	nya		fish
	WB	nga	C	fish
5.	OC	*khag	B 苦	bitter, suffer (49, u)
	WT	kha		bitter
	WB	kha	C	bitter
6.	OC	*khag	C 苦	difficulty, hardship (KYSH 93)
	WT	khag-po		difficult, hard
		dka-ba		difficult, hardship
	WB	khak		difficult, hard
7.	OC	*pljag	A 膚	skin (69, g)
	WT	pags, lpags		skin, hide