SINO-PLATONIC PAPERS

Number 145 August, 2004

Reviews XI

by
the Editor

Victor H. Mair, Editor
Sino-Platonic Papers
Department of East Asian Languages and Civilizations
University of Pennsylvania
Philadelphia, PA 19104-6305 USA
vmair@sas.upenn.edu
www.sino-platonic.org

SINO-PLATONIC PAPERS is an occasional series edited by Victor H. Mair. The purpose of the series is to make available to specialists and the interested public the results of research that, because of its unconventional or controversial nature, might otherwise go unpublished. The editor actively encourages younger, not yet well established, scholars and independent authors to submit manuscripts for consideration. Contributions in any of the major scholarly languages of the world, including Romanized Modern Standard Mandarin (MSM) and Japanese, are acceptable. In special circumstances, papers written in one of the Sinitic topolects (*fangyan*) may be considered for publication.

Although the chief focus of *Sino-Platonic Papers* is on the intercultural relations of China with other peoples, challenging and creative studies on a wide variety of philological subjects will be entertained. This series is **not** the place for safe, sober, and stodgy presentations. *Sino-Platonic Papers* prefers lively work that, while taking reasonable risks to advance the field, capitalizes on brilliant new insights into the development of civilization.

The only style-sheet we honor is that of consistency. Where possible, we prefer the usages of the *Journal of Asian Studies*. Sinographs (*hanzi*, also called tetragraphs [*fangkuaizi*]) and other unusual symbols should be kept to an absolute minimum. *Sino-Platonic Papers* emphasizes substance over form.

Submissions are regularly sent out to be refereed and extensive editorial suggestions for revision may be offered. Manuscripts should be double-spaced with wide margins and submitted in duplicate. A set of "Instructions for Authors" may be obtained by contacting the editor.

Ideally, the final draft should be a neat, clear camera-ready copy with high black-and-white contrast.

Please note: When the editor goes on an expedition or research trip, all operations (including filling orders) may temporarily cease for up to two or three months at a time. In such circumstances, those who wish to purchase various issues of *SPP* are requested to wait patiently until he returns. If issues are urgently needed while the editor is away, they may be requested through Interlibrary Loan.

N.B.: Beginning with issue no. 171, *Sino-Platonic Papers* has been published electronically on the Web. Issues from no. 1 to no. 170, however, will continue to be sold as paper copies until our stock runs out, after which they too will be made available on the Web at www.sino-platonic.org.

Table of Contents

A Brief Review Essay on the Rise of English as a Mandatory Second (Quasi-Official) Language in East Asia, Especially China
or
The Impending Implosion of the Sinographic Writing System

Kingsley Bolton. *Chinese Englishes: A Sociolinguistic History*. Studies in English Language. Cambridge: Cambridge University Press, 2003. xvii, 338 pages.

Bob Adamson. *China's English: A History of English in Chinese Education*. Asian Englishes Today. Hong Kong: Hong Kong University Press, 2004. xi, 241 pages.

Braj B. Kachru. *Asian Englishes Beyond the Canon*. Asian Englishes Today. Hong Kong: Hong Kong University Press, 2004. 336 pages.

YAN Zhiqiang, ed. *Shijie Yingyu gailun (World Englishes)*. Beijing Waiguoyu Daxue Yuyanxue Yanjiu Congshu [Beijing Foreign Languages University Linguistic Research Series]. Beijing: Waiyu Jiaoxue yu Yanjiu Chubanshe (Foreign Languages Teaching and Research Press), 2002. 23, 321 pages.

Peter Trudgill, Jean Hannah. *International English: A guide to varieties of Standard English*. 4th ed. London: Arnold; New York: Oxford University Press, 2002. xv, 153 pages.

David Crystal. *English: The Global Language*. n.p.: publisher unspecified, 1996. x, 134 pages.

__________. *English as a global language*. 2nd ed. Cambridge: Cambridge University Press, 2003. xv, 212 pages.

Tom McArthur. *The English Languages*. Cambridge: Cambridge University Press, 1998, 2002. xxi, 247 pages.

__________. *The Oxford Guide to World English*. Oxford: Oxford University Press, 2002. xvii, 501 pages.

A veritable English language mania has swept across China. The embodiment of this hyperenthusiasm for the post-colonial tongue par excellence is Li Yang's Crazy English (*Fengkuang Yingyu*).[1] Mass rallies with tens of thousands of devotees are held, their fervor reminding one of Nürnberg. Crowds of adherents holding the teacher's books, tears of joy streaming down their faces, shout whatever English words and phrases they can muster as loudly as they can. Li Yang exhorts his followers to **study English as a patriotic duty**, so that -- relying on English -- China can overtake the West. The vast mobilization of millions under Li Yang's banner has a distinctly militaristic air, with troops / troupes of policemen often seen marching across his stages, and a close association with the People's Liberation Army an unmistakable feature of this movement.

It is curious that another mass cultural movement of recent times (though one of much smaller dimensions), namely, Falungong, also had a connection with the PLA in its heyday, with the army actually being the publisher of its texts and sanctioning its exercises as effective means to better health. Be that as it may, the government shows no signs of cracking down on Crazy English or any other kinds of English that are proliferating like wildfire across the land. Quite the contrary, it is now mandatory not just for college and high school students to study English, even junior high and elementary school students are introduced to this language of the erstwhile "red-haired [barbarians]" (*hongmao*). Parents who can afford to do so send their children to English-only kindergartens, and thousands of teenagers and pre-teenagers are sent abroad during vacations for total immersion in English-language environments. In the city of Qingdao (Tsingtao, Ch'ing-tao; in Shandong Province, a former German "sphere of influence" and home to China's most famous beer [naturally]) alone, with a population of less than two million, there are already over 350 schools that specialize in English language teaching, with more being established all the time.

What is odd about this rage for English is that it comes at a time when political relations with China are severely strained over Taiwan and other sensitive issues. Before I attempt to explain this seemingly strange phenomenon, I would like merely to mention that the crucial role of English in other Asian countries is even more deeply entrenched. There are over 50,000 English *gairaigo* (loanwords, borrowings) in Japanese, with many of these imported terms displacing perfectly good native words. Both in Taiwan and in Japan, formal proposals have been repeatedly put forward to make English an official second / auxiliary language, and it is only a matter of time before this becomes a reality. In Korea and Vietnam, English is widely studied and seen by many parents as an essential key to success. (Not long ago, there were numerous media reports of Korean parents having the tips of their childrens' tongues clipped so that they would supposedly be able to pronounce English more distinctly.) It is not necessary to continue southward to point out that -- despite the harshly anti-American rhetoric of its former prime minister -- Malaysia relies on English to maintain its international commercial ties, and English is the first language of flourishing Singapore, with paramount leader Lee Kwan Yew recently declaring that "Chinese" (by which one can only presume that he means **written** Modern Standard Mandarin) is too difficult for most citizens to learn! One could hop from country to country around Southeast Asia, South Asia, and virtually the whole world demonstrating how English has become the de facto world (or international, or global) language. It should suffice, however, to point out that, according to Braj B. Kachru,[2] who has been described as "the guru of gurus" on English in Asia, users of English in India and China alone number over 533 million. With outsourcing of financial, computing, and other services having become one of India's primary sources of income, and China eager to catch up with India in the English proficiency of its citizenry, that number surely has already increased significantly since Kachru determined it a couple of years ago.

Approximately one third of the people on earth (about 2 billion individuals) are users of English. It is unprecedented for one language to achieve such a dominant position worldwide. How can we account for the ascendancy of English? We all know the defects (or difficulties, rather) of English: unruly spelling, protean prepositions, irregular verbs and adjectives, plethora of idiomatic usages and expressions. But the pluses of English far outweigh its minuses: the richest vocabulary of any language (one which draws freely from virtually all other languages), a streamlined grammar that yet retains distinctions important for clarity and logic (tense, gender, number, etc.), a nice mix of phonemic and morphemic spelling, distinctive and not overly demanding phonology, and so forth.

But let us return to China and its English language fever. What is it, really, that is driving the obsession with English? Of course, one could say that the incentives are purely social and economic, that learning English enhances one's status and increases one's money-earning capacity. That is undoubtedly true, but I believe that there is a deeper, subconscious explanation for the pervasive craving to acquire proficiency in English, an explanation that accounts for both the fervent desire of Chinese citizens to learn English and for the acquiescence of the Chinese government in the rampant spread of this language of the opponent. The Chinese government may no longer be dictatorial, but it certainly remains totalitarian and authoritarian. If they wished to, the leaders of the all-powerful Chinese Communist Party conceivably could do to the English language what they have done to Falun Gong: prohibit its instruction and use. Far from it, as Bob Adamson details in *China's English*, the government of the PRC has actually been a strong proponent of English language instruction, even during the chilliest days of the Cold War. This continues the policies of Chinese authorities that began in 1861 with the establishment of the Tongwen Guan (College of Languages; School of Common Writing) in Peking and the Guang Fangyan Guan (School for Expanded Topolects) in Shanghai in 1863 by the Qing government. Why were the Manchu rulers (or at least their advisers) so intent on promoting instruction in the language of a people who had defeated them in the Opium Wars and would soon be defeating them in other conflicts? As Adamson puts it (p. 26), "the study of English had a dual role: to gain access to Western technology through the translation of scientific and technical books into Chinese, and to enable the Chinese government to engage in diplomacy with the Western powers."

Neither at the end of the 19th century nor at the beginning of the 21st century was the spread of English in China imposed by an occupying force. Rather, especially today, it has been willingly, voraciously acquired by hundreds of millions of individuals with the active encouragement of the authorities. It would be easy to write a long article (or even a whole book) about the social, economic, psychological, geostrategic, and other aspects of the widespread desire for English proficiency in China. However, I have promised myself that I will keep this combined review brief. Therefore, I will conclude quickly by directing my readers' attention to the works listed above, where most of the explanations for the overt explanations for the English language craze in China may be found. Yet, so vast are the dimensions of this movement, so urgently is the need for this linguistic transformation felt, so rapidly is it occurring, and so radically is it changing the nature of commercial, cultural, and intellectual life that the rampant spread of English in China cannot be compared with its steady expansion elsewhere in the world. The deeper answers to the wildfire proliferation of English in China may be found in two remarkable books by a scholar who is uniquely qualified to analyze the intricate dynamics of language, script, and mind in East Asia. This courageous, prescient scholar is William C. Hannas, and his two landmark volumes are *Asia's Orthographic Dilemma* (Honolulu: University of Hawai'i Press, 1997) and *The Writing on the Wall: How Asian Orthography Curbs Creativity*, Encounters with Asia (Philadelphia: University of Pennsylvania Press, 2003). Although Hannas's books are well written, they are challenging to pore over, especially the latter, because they not only deal with so many different languages and scripts at a profound level, they also plumb the depths of the workings of the brain, leading the intrepid and inquisitive reader into realms of cognitive science, psycholinguistics, and creativity theory.

For those who have the fortitude and raw intelligence to work their way through Hannas's two books, I would suggest one further stage of investigation. Try to track down the following article by the author of this review: "On 'Transformationists' (*bianjia*) and 'Jumbled Transformations' (*laza bian*): Two New Sources for the Study of 'Transformation Texts' (*bianwen*): With an Appendix on the Phonotactics of the Sinographic Script and the Reconstruction of Old Sinitic," in Alfredo Cadonna, ed., *India, Tibet, China: Genesis and Aspects of Traditional Narrative*, Orientalia Venetiana VII (Florence: Leo S. Olschki, 1999), pp. 3-70. The Appendix is a determined, concentrated attempt to tackle head-on the problem of cognates in Old Sinitic and the relationship between the Chinese writing system and Sinitic languages at the deepest possible level. The gist of the Appendix is encapsulated in Fig. 1 (p. 56): "The graphs and words of Sinitic correlated with literary versus vernacular forms of writing." What Fig. 1 reveals dramatically is a rising curve in three vital respects: 1. total number of sinographs, 2. total number of syllabic and polysyllabic words, 3. divergence of Literary Sinitic and Vernacular Sinitic written languages. For the first thousand or so years of the script, all three curves rose gradually, but for the past two millennia, growth has been exponential. The data in Fig. 1 only take into account 60,000 characters, whereas there are certainly well over 100,000. The curve is now rising so sharply, and the divergence between spoken languages (as reflected in vernacular writing) and the script -- in terms of the ability of the script to **efficiently** and **accurately** represent the sounds of Sinitic words -- that the writing system is destined to collapse within several decades at most. A vertical rate of growth simply cannot be sustained. We must remember that people are still regularly inventing completely new graphs -- lots of them -- and compulsive custodians of the script continue to drudge up old forms (variants, etc.) that may have been used only once in the last 3,200 years but are now being reinserted into electronic fonts. Already Chinese characters take up more than 75% of all Unicode code points (designed to accommodate every writing system on earth),[3] and there are thousands more candidates (archaic forms, previously overlooked graphs, newly created characters, etc.). In terms of worldwide Information Technology networks and facilities, the Chinese writing system is an incredibly greedy member of the family of scripts. It is like a selfish gene that is endangering the health and stability of its brother and sister scripts.

The ASCII code used to get along perfectly well with 7 bits (128 combinations) or 8 bits (256 combinations), but -- to accommodate the tens of thousands of Chinese characters -- Unicode has switched to 16 bits, and there are further calls for a 32 bit code to make sure that no imaginable Chinese character will be left out. But this is madness! The number of Chinese characters is open-ended and consequently jeopardizes the security and smooth operation of the Internet. In cybernetics, the simpler an operating system is and the more redundancy it has built into it, the less likely it is to fail. Conversely, the more complicated a system and the less redundancy it possesses, the more likely it is to fail. A Unicode structured to accommodate all possible Chinese characters -- which are by their very nature extremely complex and lacking in redundancy -- is bound to be less efficient and more prone to mishaps than one designed to handle alphabets and non-logographic syllabaries.

Advocates of total capitulation to the insatiable demands of the Chinese writing system keep counting on faster and faster baud rates and larger and larger memories to compensate for their gargantuan codespace appetite. But is this approach necessary? No. Is it cost effective? No. Is it likely to result in misfunctioning of the system? Yes. Furthermore, a Unicode designed to accommodate every character that ever existed or shall exist begs the question. Even if such a clumsy code can be made to hobble along, constant crashes and all, it is going to be manifestly more clumsy, complicated, and costly than a simple ASCII code. The ultimate question, then, may be stated thus: is all the expense, effort, and anxiety of propping up a system in which a hundred thousand or more discrete code points are allotted to Chinese characters worth it? Is it necessary? In both cases, the only rational answer is decisively in the negative. The urge to keep alive on the Internet all the Chinese characters that have ever or shall ever exist is an emotional fetish and should not be the determining factor in how to design an efficient Internet for all users.

Among my friends are two of the most ardent and well-informed proponents of a Unicode designed to embrace all the Chinese characters that have ever existed. Here is how they explained for me -- in brief -- the workings of the current version of Unicode (bear in mind that Unicode keeps changing as it scrambles to cope with the demands of Chinese):

1. Unicode includes 17 planes, numbered 0 through 16 (that is, 0 through 10 in hexadecimal). Each plane has 256 X 256 = 65,536 "codepoints." The total number of codepoints is then 256 X 256 X 17 = 1,114,112. The number of bits needed to represent a given character depends upon something called the "encoding form." Unicode originally included only plane 0 (called the Basic Multilingual Plane or BMP), and a 16-bit representation was sufficient ($2^{16} = 65{,}536$). With the addition of planes 1 through 16, a chunk of plane 0 called "surrogates" was set aside to permit 32-bit representation (surrogates are not characters, but provide access to higher plane codepoints). The most popular encoding form is something called UTF-8, which is an elegant "variable length" encoding form, backwards compatible with ASCII. The term "variable length" means that codepoints are represented using from 1 to 4 bytes.

2. Unicode is now a variable-length standard. It is now using numbers too large for 16 bits, mostly for rare characters, especially CJK [i.e., Chinese characters] Extension B. The 32 bits already give you 4 billion possible codes. I don't know if anyone's really concerned with that limitation **yet** [emphasis added].

There are different encodings. The simplest is UTF-32, which uses 4 bytes for each character (Chinese or otherwise). That is simple but wastes space, so it is rarely used for storing files. UTF-16 is similar to the original 16-bit encoding: it uses 2 bytes for each character, except for some rare characters (like CJK Extension B) which use 4 bytes. UTF-8 is my favorite (for some purposes). Characters use from 1 to 4 bytes (with 5- and 6-byte codes available for future expansion). Most Chinese characters use 3 bytes; rare ones use 4 bytes. These encodings are all equivalent (easily converted to each other). Actually, UTF-16 doesn't have as much room for future expansion as the other encodings, but that may or may not ever become a significant issue.

Such complications are dizzying and surely lead to IT confusion and inefficiency. I believe that there is a much safer and simpler method that will enable champions of unlimited / total acceptance of all Chinese graphs -- past, present, and future -- within a single byte ASCII environment. Namely, instead of assigning each character a separate code point, it would be assigned a unique numeric (or alphanumeric) code, whereby five digits could handle 99,999 different characters and six digits could handle 999,999 characters. The use of preposed letters for certain classes of letters would enormously increase the number of representable characters.

Unicode has made a terrible mistake by bending over backwards to accept the virtually unlimited codespace demands of the Chinese script. As currently configured, the increasing complexity of the system brought about by the essential intricacy of Chinese characters imperils all users, not just those who transmit characters via the Internet.

Before the Internet is faced with absolutely intolerable demands placed upon it by unrestricted additions of characters, however, I predict that the Chinese script may well implode on its own account. Archaic, bloated, and overly complicated, the Chinese morphosyllabic writing system cannot begin to compete with simple, streamlined, efficient, alphabets. For Chinese, there is still nothing comparable to spell-checking, style / grammar / syntax checking, workable text scanning, and many other features of plain word processing that users of alphabetic languages profit from and take for granted every day. When the drawbacks of characters vis-à-vis alphabets with regard to all aspects of IT are taken into account, if China wishes to keep up with alphabet-using nations, it will be compelled to adopt an alphabet itself -- at least for certain applications. As for how that will happen, I will touch upon the possible outcomes in the final paragraph below.

The Japanese government long ago wisely limited the number of characters for daily use to around 2,000. The Chinese government made feeble efforts to reduce the number of characters through simplification and other measures, but this has only led to confusion (by collapsing multiple graphs into single forms and by destroying the already meager phonological clues of the graphs) without solving the essential problem of the open-ended nature of the script. Even 6,500 characters (the approximate number in the minimal standard font) are too many for students to have to master and for efficient systems to have to deal with.

In short, while electronic information processing systems may have afforded the Chinese script a temporary reprieve, in the end they will sound its death knell because their demands for efficiency and security (based on relative simplicity) will outweigh those of the Chinese script for complexity and inefficiency. This is a natural process, one that cannot be staved off forever, no matter how ingenious and elaborate the planes and variable-lengths of Unicode UTFs may grow. Indeed, it is the very elaborateness and decreasing redundancy of Unicode that will seal the fate of the writing system.

To revert, then, to the main theme of this review, we may ask once again why so many Chinese are desperately seeking to learn English. In my estimation, one key factor is because they **subconsciously** recognize the inefficiency of the Chinese script and its generally poor fit in the modern world (especially the overwhelmingly important IT aspect of the modern world). For a quarter of a century, my friends and I have been working hard to help realize an alphabetical script for China, and progressive visionaries like Lu Xun called for romanization even before us. Mao Zedong came very close to providing the requisite leadership to give China the alphabetical writing system it needs so badly, but -- in the end -- he did not have the will of an Ataturk to confront entrenched tradition. Consequently, instead of romanized Mandarin, the Chinese people seem to be opting for romanized English. So be it. Yet my Chinese friends and I are still striving to put in place a digraphia whereby the characters and romanized Mandarin would be used in tandem for an indefinite transitional period. But there is not much time left. English is winning and Chinese is losing.

---

1. Those who wish to gain an impression of Li Yang's *modus operandi* may do so by viewing the 1999 documentary film entitled "Fengkuang Yingyu (Crazy English)" produced by Chen Ziqiu and Zhang Yuan, and directed by Zhang Yuan. It is available in VCD format from Asia Video Publishing Co., Ltd.

2. Editor of *The Other Tongue: English across Cultures* (Urbana, Chicago, London: University of Illinois Press, 1982) and author of *Asian Englishes* (cited at the beginning of this review).

3. James T. Caldwell, "Unicode: A Standard International Character Code for Multilingual Information Processing," in Victor H. Mair and Yongquan Liu, ed., *Characters and Computers* (Amsterdam, Oxford, Washington, Tokyo: IOS, 1991), pp. 180-191.

Hilary Chappell, ed. *Sinitic Grammar: Synchronic and Diachronic Perspectives*. Oxford: Oxford University Press, 2001. xxvii, 397 pages.

I must confess that I was powerfully attracted to this book by its title. Having long been an advocate of "Sinitic" as the proper designation for the group of languages known in Mandarin as *Hanyu*, I was curious to see whether the editor of this book had made a principled choice when she decided to use this word rather than the customary "Chinese." After I received the book and had a chance to peek inside it, I could see that the author had very good reasons for choosing "Sinitic" to describe her frame of reference.

In her "Introduction," the editor lays out the rationale for the whole book, which is to take a synchronic and diachronic look at Sinitic languages, with the emphasis definitely on the plural. Her aim is not to examine only Mandarin grammar, or some abstrusely homogenized "Chinese." Rather, she wants to analyze a whole series of different languages. After one reads the chapters on Xiang, Shang, Cantonese, and Taiwanese, anyone who has an open mind will have to recognize that these are separate languages, not merely dialects of some disembodied, yet all-inclusive "Chinese." Furthermore, her focus is not merely on modern forms of these languages, but on earlier stages of their development as well, which leads to questions of relatedness within and beyond the languages of this (the Sinitic) group.

Hilary Chappell clearly made an intelligent decision when she chose to characterize her book as dealing with "Sinitic." On July 7, 2003, I wrote an e-mail to Dr. Chappell telling her how pleased I was with the title of her book. I was dismayed, however, when she wrote back from Paris the same day, saying that Oxford University Press was asking her to change the title of the book to the nondescript, imprecise *Chinese Languages...*! Clearly, the forces of thoughtless conformity were going to work on Hilary Chappell.

I find it surpassingly strange that even the most eminent historical linguists can speak of "Sino-Tibetan" in one breath and of "Chinese" in the next breath, without being able to recognize the gross contradiction of the latter name. Surely, if Sino-Tibetan is a family, then the two main subdivisions of the family should be Sinitic and Tibetan (assuming that one admits the existence of a Sino-Tibetan family [and nobody calls it "Chinese-Tibetan"!], which most historical linguists studying the languages of China do). Even if one does not accept the existence of a Sino-Tibetan language family, there are dire problems with "Chinese" as an umbrella term for all the Han languages of China.

What, after all, do we mean when we say "Chinese" in the linguistic sense? Do we mean just Modern Standard Mandarin (MSM; *Putonghua*) as the national language of China? Fair enough, if that's what one wants to call Mandarin. By extension, then, we could also speak of "Middle Chinese" and "Old Chinese," but, logically and strictly speaking, we should do so only when we are referring to the actual forerunners of Mandarin per se (cf. "Middle English," "Old French," etc.). If we accept "Chinese" as the designation of Mandarin, a distinctly vernacular language, we should technically not also apply it to the dead book language *wenyan(wen)* commonly called "Classical Chinese," but which I prefer, for the sake of clarity and accuracy, to call "Literary Sinitic." After all, we make an unambiguous distinction between Italian, Middle Italian, and Old Italian on the one hand, and Latin (with its Classical, Late, and Vulgar varieties) on the other. Ditto for Hindi, Middle Hindi, and Old Hindi on the one hand, and Sanskrit (with its Vedic, Classical, and Buddhist Hybrid varieties) on the other -- not to mention Pali, Prakrit, Ardha-Māgadhī and other vernaculars that came before Hindi. We do not speak of some amorphous "Italian" or "Hindi" that covers all stages of development and all styles of vernacular and literary related to the current, modern, nationally approved exemplars designated by the quoted terms. Even supposing that one does accept "Chinese" as the proper designation for MSM and its **vernacular** forerunners, it is inappropriate to refer to prior, non-Mandarin stages with the same term. This is especially the case because, both historically and contemporaneously, *Hanyu* is such a large, elaborate, complicated group of distinct languages. It is **not** a small, closely coherent, tightly homogeneous group with minimal variety. All the more, it has **NOT** been a single, invariant, monolithic language for all time.

So much for "Chinese" in the context of Mandarin versus Literary Sinitic (*wenyan[wen]*). It is even more questionable to apply this single designation to all the varieties of languages that are now being spoken or have ever been spoken by the Han people. And, by any impartial linguistic standards, these are separate languages, not merely dialects. In the first palce, as I have pointed out over and over, "dialect" is a mistranslation of the Mandarin term *fangyan*. "Topolect" is a far more accurate, neutral rendering for this linguistically vague term. Conversely, the English word "dialect" should be translated into Mandarin as *tong1yan2* 通言 (a form of "speech" [*-lect*] that goes "across" or "through" [*dia-*]). Compare "dialog(ue)" (a conversation between two or more people), which is formed from the same Greek roots (*dia-* + *legein* ["to speak"]) as "dialect" and is suitably translated into Mandarin as *dui4hua4*. Thus, the word "dialect" etymologically implies mutual intelligibility. And, by any unbiased linguistic standards or tests, <u>dialects</u> of a given language **are** patently and unmistakably <u>mutually intelligible</u>. To make exceptions for the many varieties of mutually unintelligible "Chinese" alone by insisting that they are "dialects" of a single language is to destroy the viability of any linguistically rigorous definition of the word dialect.

What about the argument that there is only one "Chinese" language because all forms of it are written with characters? That would be like saying that all the languages of the world that are written with Roman letters are a single language (!), or -- looked at from another angle closer to home -- that Old Japanese (written with Chinese characters) is the same linguistic entity as "Chinese." As for all the spoken varieties of "Chinese" having the same written form, I have long ago and repeatedly demolished this totally specious argument, so I will not waste time on it again here, except to summarize ever so briefly. In China, what gets written down in Chinese characters is almost always Mandarin (or, in the past, Literary Sinitic). The other Sinitic languages have customarily not been written down. When they are written down **in their full, unadulterated** (by Mandarin) **forms**, they are very different from Mandarin and unintelligible to monolingual speakers and readers of Mandarin.

The last resort for those who support the notion that there is only a single "Chinese" language is also the feeblest: "the Chinese people **feel** that they have only a single language." But if linguistics is ever to become a full-fledged science (a goal toward which it continually strives), we cannot rely on feeling to decide such fundamental questions as whether "Chinese" is a single language or a whole group of languages. We must try to be precise and rigorous, and we must have rational grounds for our analyses. It would be conceivable for a Nordic supremacist to say "I feel that there is only one great Germanic language," but we certainly would not be obliged to accept his emotional claim as fact. When all the linguistic evidence (phonological, lexical, grammatical, syntactical, morphological, historical) points to the existence of separate Sinitic languages in China (each with a considerable time-depth of its own), it is being willfully obscurantist and antiscientific to continue to insist that there is now, always has been, and always shall be only a single "Chinese" language.

And what about all the non-Sinitic languages of China? Referring to the Sinitic languages of China as "Chinese" leaves us without a way to speak unambiguously of "the Chinese languages" or "the languages of China" (the title of S. Robert Ramsey's widely read book, which badly confused me when I first encountered it) inclusively (i.e., comprising both the Sinitic and the non-Sinitic languages of the political entity known as "China").

In linguistic classification, "Sinitic" is quite comparable to "Indic." Both consist of a number of separate languages (Mandarin, Wu, Southern Min, Yue...; Hindi, Bengali, Marathi, Gujarati...), each with its own historical development. And both Sinitic and Indic are part of a larger language family (Sino-Tibetan [if one accepts the existence of that family] and Indo-European).

I have been using the word "Sinitic" for decades as an umbrella term to refer to all the languages spoken by the people who style themselves "Han," both in their modern forms and in their earlier stages. Nearly all of my linguist friends profess not to comprehend any problem with "Chinese" or why I should devote so much energy and time trying to show that "Sinitic" is a far more suitable designation. (When I start to talk about this subject with them, their eyes glaze over and their minds go shut.) Therefore, it was with an enormous sense of relief and gratification when I discovered that Søren Egerod, the great Danish linguist, used the designation "Sinitic" for exactly the same reasons I outlined above. Now, everybody respects Egerod, but -- without any explanation whatsoever -- they completely ignore his principled views about the problem (and it is a serious issue) of "Chinese" versus "Sinitic."

So, when I happened upon Hilary Chappell's edited book, it was as though I had met a kindred spirit. Apart from the fact that she chose a brilliant title for her book, she has also filled it with a wonderful collection of first-class papers (delivered at the First International Symposium on Synchronic and Diachronic Perspectives on the Grammar of Sinitic Languages, which was held at Melbourne, Australia in July, 1996) by a galaxy of top-flight scholars from Australia, France, America, Taiwan, Hong Kong, and Japan. The papers are grouped into four parts: typological and comparative grammar, historical and diachronic grammar, Yue (Cantonese) grammar, and Southern Min (Taiwanese) grammar. To provide an idea of the range of interesting topics covered, here is a list of the papers in the volume and their authors:

Yunji Wu, "The Development of Locative Markers in the Changsha Xiang Dialect"

Hilary Chappell, "A Typology of Evidential Markers in Sinitic Languages"

Christine Lamarre, "Verb Complement Constructions in Chinese Dialects: Types and Markers"

Laurent Sagart, "Vestiges of Archaic Chinese Derivational Affixes in Modern Chinese Dialects"

Redouane Djamouri, "Markers of Predication in Shang Bone Inscriptions"

Alain Peyraube, "On the Modal Auxiliaries of Volition in Classical Chinese"

Hung-Nin Samuel Cheung, "The Interrogative Construction: (Re)constructing Early Cantonese Grammar"

Anne Yue, "The Verb Complement Construction in Historical Perspective with Special Reference to Cantonese"

Stephen Matthews and Virginia Yip, "Aspects of Contemporary Cantonese Grammar: The Structure and Stratification of Relative Clauses"

Feng-fu Tsao, "Semantics and Syntax of Verbal and Adjectival Reduplication in Mandarin and Taiwanese Southern Min"

Chinfa Lien, "Competing Morphological Changes in Taiwanese Southern Min"

Ying-Che Li, "Aspects of Historical-Comparative Syntax: Functions of Prepositions in Taiwanese and Mandarin"

In terms of its breadth of coverage and depth of investigation, this is an unprecedented volume. The organizers of the conference where the papers were first presented and the editor of *Sinitic Grammar*, together with the individual authors, are to be warmly congratulated for making a major contribution to our understanding of the nature and history of the Sinitic language group.

All language examples in the book are provided with characters, romanization, glosses, and translations, making them accessible to specialists and non-specialists alike.

There is a companion volume, written in Mandarin, and edited by the symposium co-organizer (with Hilary Chappell), Yunji Wu. It is entitled *Hanyu Fangyan Gongshi yu Lishi Yufa Yantao Lunwenji (Synchronic and Diachronic Perspectives on the Grammar of Sinitic Languages)* (Guangzhou [Canton]: Jinan Daxue Chubanshe, 1999). This book is composed of three studies on different Wu dialects, one on Hui, two on Xiang, one on Xiamen (Amoy) Southern Min, and five others on historical, typological, and comparative topics, including reduplication, copular verbs, verbs of having, comparative constructions, disposal constructions, modals, interrogatives, and affixal morphology.

Sinitic Grammar bristles with technical terms such as epistemic, deontic, and radial structure / category. Even when one looks these terms up in the index, it is very difficult to find a page on which they are succinctly defined. As a result, it would have been helpful if a glossary of the key concepts employed in the volume had been provided.

There is a common Bibliography for all the papers in the volume, necessitating constant turning to the back of the book to check references, plus the impossibility of photocopying the references for an individual chapter (doubtless intended on the part of the publisher!). An odd feature of the Bibliography is that some of the entries for Chinese and Japanese items are given with characters only for the titles and the publishers (the authors and place of publication are given in romanization) but no romanization or translation, while most of the titles are given in romanization but with no characters or translation. The entry for "Hafu Yanjing Xueshe" should be "Hafo Yanjing Xueshe" or, better yet, "Harvard-Yenching Institute."

The endpaper maps showing the distribution of Sinitic languages within China are spectacularly revealing and, considering that they employ only gray-scale tones, ingeniously informative.

A question before closing: there is an assumption in this volume (as in most other treatises on Sinitic languages) that it is improper -- but not impossible -- to write Cantonese, Taiwanese, etc. Why hasn't anyone discussed the linguistic, cultural, social, psychological, and political grounds for that assumption?

Despite all of its virtues and the valuable data it supplies, reading through this book from cover to cover is like an exercise in schizophrenia. From the very first page of the text, where we encounter the theme of "studies of grammar of Sinitic languages (or Chinese dialects," to the last chapter, which -- in the same breath -- discusses "the linguistic features of Medieval Chinese and Mandarin" and Min "positioned in the hierarchy as a great-great uncle on the genealogical tree of Sinitic languages, with Mandarin, a direct descendant of Medieval Chinese, and some other Chinese languages at a lower section on this tree [!!]," the authors waver unsteadily between Sinitic and Chinese (as well as between dialect and language), with no idea of the difference between the two. It is obvious from reading between the lines that the editor, being exceptionally bright and possessed of uncommon analytical acumen, realized clearly that "Sinitic" is far superior to "Chinese" as a category for comprehending the large group of disparate languages grouped under the umbrella term *Hanyu*, but her co-authors were intellectually and emotionally incapable of following her lead. The best defense they can muster for persisting in their references to "Chinese dialects" rather than "Sinitic languages" is the pathetic admission of the author of chapter 4 (p. 85n1): "In this study I use the traditional term 'Chinese dialects' for the sake of convenience. This does not in any way imply a rejection of the concept of 'Sinitic languages'."

My conclusion? "Chinese" is not a convenient term. It is an unworkable, impossible lintuistic category, both synchronically and diachronically. The only reason people continue to use it is out of the sheer force of habit and the sentimental desire to please non-linguist cultural homogenizers who are devoted to the unrealistic ideal of a monolithic CHINESE lasting through five millennia and occupying the territory from Manchuria to Taiwan to Tibet to Uyghurstan (Eastern Central Asia).

W. South Coblin and Joseph A. Levi, *Francisco Varo's Grammar of the Mandarin Language (1703): An English Translation of 'Arte de la Lengua Mandarina.'* With an Introduction by Sandra Breitenbach. Amsterdam Studies in the Theory and History of Linguistic Science; Series III -- Studies in the History of the Language Sciences, Vol. 93. Amsterdam / Philadelphia: John Benjamins, 2000. liv, 282 pages.

This is a remarkable collaborative work by two colleagues at the University of Iowa. W. South Coblin is a Sinologist who specializes in Chinese historical linguistics and Joseph A. Levi is a Romance philologist and historian. While neither of them could have written this volume alone, their fields of expertise complement each other perfectly, with the result that we now have the definitive scholarly translation into English of Varo's important early Mandarin grammar. Before describing the apparatus of the book, I should give due recognition to Sandra Breitenbach, a linguist at the University of Calgary, who has provided an expert Introduction (pp. xix-liii). In her substantial essay, Breitenbach details the biographical, historical, and grammatical context of Varo's *Arte de la Lengua Mandarina*. Breitenbach remarks that she is also preparing a monographic analysis of the morphological, syntactic, and semantic data in early Sinitic grammars, including that of Varo.

It should be noted that all of the earliest grammars of Sinitic languages were written by Westerners, starting from the 16th century. It was not until 1898 that a Chinese wrote a grammar of any Sinitic language. This was the *Ma shi wentong [Ma's Grammar]* by Ma Jianzhong (1845-1900).[1] The strangeness of the concept of grammar for China is reflected in the fact that the very word concocted to convey the concept was an ungainly transcription, *gelangma*. It was not until later that the neologism *yufa* (literally, "language law") was stabilized as the standard translation of the Western term. Even today, some old-fashioned teachers of Sinitic languages tell their students that they have no grammar, only syntax. Indeed, the notion that Sinitic languages lack grammar is stated at the very outset of Varo's own "Prologue": "Some ministers have felt and still feel today, categorically and with absolute conviction, that the general Chinese idiom of this Empire has no grammar and no rules." Varo sensibly rejects this view which was widespread during his own time.

The book under review opens with a brief "Editor's [*sic*] Foreword" in which the translators discuss the background to the text, biographical studies of Varo and the other contributors to his grammar, textual history and format of the *Arte de la Lengua Mandarina*, and the grammatical framework and transcriptional conventions of the translation. The translators have taken as their base text the 1703 printed edition held by the Biblioteca Dell' Accademia Nazionale dei Lincei e Corsiniana, Rome, but have compared it to another copy of the same year held by the Bibliothèque Nationale de France and a manuscript in the Library of Congress datable to 1790-1793. The Foreword ends with a list of 15 references (p. xviii). There is another, much longer, list of references at the end of Breitenbach's Introduction (pp. xlv-liii).

The translation proper begins on p. 4 and runs to p. 213. On the left hand (even-numbered) pages may be found photographic facsimiles of the original Spanish text. These are, of course, very helpful and much appreciated, but are in many places illegible due to foxing, poor printing, darkness of the photograph, etc., so it would have been helpful to provide in addition a transcription.

For those who are curious about the use of the term "Mandarin" to designate the lingua franca of China, it may be observed that this is an apt rendering of the Sinitic word for this form of speech, viz., *guan1hua4* (lit., "official's talk"): Portguese *mandarim* < Malay *menteri* < Hindi *mantrī* < Sanskrit *mantrin* ("counselor") < *mantraḥ* ("counsel"). We may further note that, at the time when the missionaries first encountered it (the late Ming Dynasty during the 16th century), the standard for this form of speech was based on the topolect of Nanking. Only later, under the influence of the Manchus, did the standard for Mandarin shift norward to Peking.

In general, the style of the translation is painfully literal. For example, if the Spanish has *Ministros*, Coblin and Levi give "ministers," if the Spanish has *Idioma*, they give "idiom," and so forth. At first, this perhaps overly literal quality of the translation is somewhat unsettling, but when one gets used to it, one does appreciate the strenuous efforts of the translators to adhere as faithfully as possible to the original. There are moments, however, when one is tempted to protest at the directness of the translation, as when one encounters a sentence like this: "I have molested (*molestado*) you by having spoken much," where "disturbed" would convey the intended sense much better.

On the other hand, there are moments when I wish that Coblin and Levi had been more literal. For example, they render the word *pusa* as "idol." While this may have been Varo's understanding of the term, it would be helpful for the modern reader to realize that *pusa* is a truncated transcription of the Sanskrit term *bodhisattva* ("enlightened being; savior"). At the very least, a footnote might have been provided which includes this information. On the whole, the annotations provided for the translation are absolutely minimal.

In certain instances, the translation of Mandarin words is insufficiently precise. On p. 7, where Varo has *xiaoshuo*, this is translated as "vernacular novels," whereas the term actually refers both to short stories and novels, whether vernacular or literary, hence "fiction" is a preferable rendering.

Another reservation that might be voiced is that, although Varo's *Arte* is manifestly a grammar, the translators actually seem far more interested in the phonological aspects of the text than in its grammatical descriptions. While there is certainly a tremendous amount of valuable information available to the historical phonologist in Varo's transcriptions, the emphasis on the sounds of individual syllables causes the translators to overlook morphological and grammatical properties of the words and sentences recorded by Varo. For example, although the word *pusa* mentioned just above is clearly a single word, the translators render it as two separate syllables. Yet neither *pu* nor *sa* means anything by itself. In fact, all Mandarin syllables in the entire book are treated independently, whereas the majority of the syllables in the book could more suitably be linked up into bisyllabic or longer words. Failure to do so distorts the import of Varo's exposition in places. On p. 71, where he is discussing substantives, Varo instances words like *zhuozi* ("table") and *miantou* ("bread"), where the second syllables of each word are nominal suffixes having no independent meaning of their own, so it is inappropriate to divide them from the words of which they form an integral part. But my criticism here is only wishful thinking and is really not fair to the translators, since Varo himself writes all of the syllables of Mandarin separately, even when they form parts of words.

I noticed a few "silent corrections" in the transcriptions. For example, on p. 199, in the third line up from the bottom of the page, the authors write *fân nào* ("trouble, vex[ation]"), whereas Varo wrote *fân lào*. Admittedly, *fân nào* is closer to what is said in Modern Standard Mandarin, but Varo was undoubtedly recording what he heard in the more southerly Mandarin of the late 17th century.

One area in which the translators deserve particular commendation is the identification of the appropriate sinographs (Chinese characters) to match Varo's transcriptions. This part of the work was undoubtedly carried out by Coblin, and he has by and large done a very good job on this extremely difficult task.

In his grammar (pp. 17ff.), Varo states that "There are three modes of speaking this language (*Tres modos ai de hablas esta lengua*)": high (elegant), medium (literary), low (vulgar). Despite his great learning, Varo is mistaken in this assessment of the linguistic circumstances in which he found himself. The first two modes that he describes are not Mandarin at all, both being Literary Sinitic (LS; also called Classical Chinese, i.e., *wenyan[wen]*), distinguished only by their degree of ornateness, and not really "sayable" at all. LS is a dead book language that can only be spoken in memorized snatches from written works. In the late 17th century as now, it was not used for spontaneous conversation. The third mode described by Varo, however, is truly Mandarin, the national *koine*. It is to Varo's great credit that he elsewhere (pp. 31, 255) describes an entirely different category of language largely overlooked by both native and foreign scholars until recently, namely the *xiangtan* ("local patois"). It is this latter category of speech that actually constitutes the mother tongues of all Sinitic speakers, but is seldom written down in an integral form.

Varo's *Arte* consists of sixteen chapters covering all major aspects of Mandarin as spoken in his day, including tones, parts of speech, sentence construction, numbers, particles, names and titles, and polite speech. At the conclusion of the *Arte* comes "A Brief Method for Undertaking Confession" (pp. 215-253) compiled by the Reverend Father Basilius of Glemona, Vicar Apostolic of the Province of Shaanxi.

Appendices I-III are made up of variant passages from the Library of Congress manuscript of the *Arte*. They are followed by a Chinese Character Index which lists all the Chinese characters inserted into Varo's grammar and de Glemona's confessional (the original texts are completely devoid of characters). The entries are arranged by alphabetical order and consist of *pinyin* romanization, Varo's Nanking romanization, and the page numbers of the original text where they are to be inserted. Coblin's achievement in making these identifications (over a thousand) is nothing short of phenomenal.

By and large, the book has been carefully prepared, although there are a few typographical errors here and there (e.g., *zao* 糟 instead of *cong* 聰 on p. 113, l. 14 up and *qiao* 敲 instead of *shui* 睡 on p. 123, l. 10 up).

1. See Victor H. Mair, "Ma Jianzhong and the Invention of Chinese Grammar," in Chaofen Sun, ed., *Studies on the History of Chinese Syntax*, Monograph Series Number 10 of *Journal of Chinese Linguistics* (1997), pp. 5-26.

Laurent Sagart. *The Roots of Old Chinese*. Amsterdam Studies in the Theory and History of Linguistic Science; Series IV -- Current Issues in Linguistic Theory, Vol. 184. Amsterdam / Philadelphia: John Benjamins, 1999. xi, 255 pages.

Despite the large number of its speakers, its long history, and its outstanding literature, there is still much about the Sinitic group of languages (often referred to ambiguously as "Chinese") that remains poorly known. One of the most frustrating aspects of dealing with Sinitic is trying to determine its genetic affinities. Many scholars believe that it bears some relation to Tibeto-Burman, but the degree and nature of this relationship is very far from clear.

The author himself states straightforwardly that "The central thesis of the present book is that in order to reconstruct Old Chinese phonology, a proper understanding of Old Chinese morphology and word-families is indispensable." In particular, he is concerned with the ideas that

Old Sinitic possessed consonant clusters and affixation, proposals first made by the French scholar, Henri Maspero, in 1920 and 1930. The aim of the present work is to advance the research tradition begun by Maspero. Sargart sees his task as threefold: a. to identify additional affixal processes and to investigate their functions, b. to integrate current understanding of Old Sinitic affixal morphology and word-families into a coherent system of phonological reconstruction, and c. to illustrate and test these ideas through an extended series of etymological studies.

Here may be detected a fundamental difference of opinion concerning the best way to go about reconstructing the phonology of Old Sinitic (hereafter OS). The mainstream for the past 80 years, following the pioneering research of the Swedish scholar, Bernhard Karlgren, has been to attempt to reconstruct OS sounds internally by focusing on the rhymes of the *Shi jing (Poetry Classic*; c. 600 BCE, but most likely subsequently modified four hundred or more years later) and projecting backward from the *Qie yun (Tomic Rhymes*; c. 600 CE). Sagart, rightfully so, is skeptical of this method for reconstructing Middle Sinitic (and projecting backwards from it to OS) based on the *Qie yun* because, as he says (p. 9), "it is a dictionary of *character readings* and ...this confers an excessive weight to the literary tradition at the expense of the oral tradition."

In contrast, Sagart strives to capitalize on morphological data that may be extracted from all the available sources during the period from about 1000 BCE to 600 CE, including especially the bronze inscriptions and the phonetic series evident in the script itself. The latter, customarily referred to by Sagart and others as the *xiesheng* series, is frequently invoked in the volume under review, but nowhere clearly defined. Sagart does not include the language of the Shang oracle bone inscriptions (c. 1200 BCE) in his concept of OS. A third, and much smaller, group of scholars, including the author of this review, emphasize the importance of external comparisons with language families whose historical phonology is better known, such as Indo-European, and from which words were borrowed into Sinitic over the course of the past four millennia.

The volume under review consists of two main parts. The first part, from chapter 1 to chapter 14, is an account of OS phonology and morphology. The first chapter is an introduction that sets the stage for all that follows. Chapters 2 and 3 deal with the phonology of OS, and chapters 4-14 present Sagart's account of affixal morphology. The second part of the book, chapters 15-29, presents etymological studies of selected items of the OS basic and cultural vocabulary as illustrations of the ideas on OS phonology and morphology detailed in the first part of the book. Within the second part, Sagart is always conscious of the importance of word families to supplement the evidence of rhyming and phonetic series.

The argumentation employed in this volume is so highly esoteric that there are probably not more than a dozen people in the entire world who can follow Sagart's line of reasoning in its entirety, if that. This is particularly true of the first part of the volume, which consists of chapters like 3 ("Root Segmentals"), 8 ("Prefix *t-"), 11 ("Infix *-r-"), 12 ("Initial Clusters"), 13

("Suffixation"), and 14 ("Reduplication and Compounding"). Here is a relatively transparent sentence from chapter 3 (p. 29): "I have shown (Sagart 1993d) that Baxter's *j- > y- covers cases where MC y- in fact reflects OC *^{b}l-." Two sentences later, we come across this statement: "Baxter's *hj-, the voiceless counterpart of his *j-, and an initial of very limited scope (Baxter 1992: 202), is also to be rejected, as the usual sources of MC sy- (i.e., OC *^{b}hl-, *^{b}hn-, *^{b}s-t- etc.) are sufficient to account for all cases." And on the next page we find: "This very marginal initial [*ɦ-], considered problematic by Baxter but included in his system for completeness, serves, accompanied by medial -j-, as the antecedent of MC hj- in the rare cases where this initial combination occurs in non-*hekou* syllables (OC *wj- accounts for the numerous *hekou* cases)." One, in fact, could pick almost any sentence in the pages between 24 and 138 of *The Roots of Old Chinese* at random and the chances are very good that it would be at least as opaque (to the non-hyperspecialist) as those quoted just above. Indeed, more often than not, the sentences one encounters in chapters 3-14 are likely to be even more dense and impenetrable for the non-hyperspecialist (I have intentionally chosen examples that are relatively easy to typeset).

The second part of the book, chapters 15-29, while still formidable, will be easier going for the layperson. Aside from the continuing stream of technical data and citations to highly esoteric literature, here one will also find genuinely interesting and relatively accessible information about numerals, body parts, mankind and kinship, the physical world, wild animals, domesticated animals, cultivated plants, food, metals, transportation, commerce, and writing. Therefore, if you are not one of Sagart's close colleagues who can engage with him at the level of chapters 2-14, do not throw the book aside. Jump directly to chapter 15 and plunge ahead, skipping over sentences that make absolutely no sense to you. If you do so, you will be rewarded with much useful information about early Chinese culture and valuable insights about the history of East Asia before the beginning of the Common Era.

Sagart's presentation ends abruptly and speculatively with his discussion of ancient Sinitic words for "book." While this may be a dramatic way to close his book, so to speak, a few words by way of conclusion would have been appreciated. Instead, the author moves on directly to a packed 25-page list of References, including many gems that were previously unknown to me. After that come Appendix A, "Chinese Chronology," and Appendix B, a "List of Reconstructions." The latter is arranged by the Modern Standard Mandarin pronunciations of the sinographs in *pinyin*. Each entry includes the relevant sinograph plus two stages of reconstruction linked by the sign ">". While it is not stated explicitly here what two stages these reconstructions represent, they are presumably Old Sinitic and Middle Sinitic. A typical example is *chui4* 橇 [this is probably a misprint for 捶, 搥, 槌, or 椎, all actually pronounced *chui2/3*; the character printed should be pronounced *qiao1* which has the meaning "sledge"] *[asterisk seemingly forgotten by Sagart] ^{b}sr-hn[i]p-s > tsrhjwejH . When we look this graph up in the Index of Characters, we find the same romanization and graph, and an indication that it is located on p. 56 of the main text. Turning to p. 56, we mysteriously find a completely different OS reconstruction, *ts(r)hjops, along with the definition "to pound." The paginations of many entries in the Index of Characters are also unreliable. For example, *cheng2* 乘 [this should also be listed as *sheng4*] *^{b}m-lɨŋ > zying is indicated as being on p. 186, whereas it is actually on p. 184. Since there are a considerable number of such errors in the List of Reconstructions and the Index of Chinese Characters, they should both be used with caution. Perhaps some of the problems have arisen because many of the characters cited are quite rare, and thus not readily accessible in normal computer fonts.

The final section of the book consists of a useful six-page General Index consisting mostly of proper names, but also including some linguistic topics. Unfortunately, this index is also plagued by pagination problems.

In the present volume, Sagart does not stress the alleged genetic relationship of Old Sinitic with Proto-Austronesian, a position for which he has been well known since 1993.

It is the great merit of the volume under review that it takes a completely fresh look at the question of the origins of Old Sinitic words and comes up with exciting new proposals. While neither all of the details presented by the author nor the conclusions drawn from them will be accepted in toto by others in the field, the author's rigorous marshalling of evidence and logical argumentation have already made a deep impression on his colleagues, and will surely prove fruitful for those who follow in his footsteps.

JI Fengyuan. *Linguistic Engineering: Language and Politics in Mao's China*. Honolulu: University of Hawai'i Press, 2004. viii, 351 pages.

Does language influence thought? The Communist rulers who controlled China after 1949 certainly believed that it did. And the ability of language to shape thought is a central premise of George Orwell's *Nineteen Eighty Four*, where Newspeak ensures acceptance of the official ideology. In his appendix to that novel, Orwell asserted that Newspeak -- designed to inculcate Ingsoc (English Socialism) -- would "make all other modes of thought impossible."

Ji Fengyuan's *LinguisticEngineering* is a careful investigation of the policies and practices of the Chinese Communist Party concerning the use of language as a tool to mold society. This is a sophisticated, well-argued, richly documented study. Ji begins with a consideration of relevant theoretical positions. Current academic dogma precludes acceptance of linguistic determinism, linguistic relativism, or an unadulterated Sapir-Whorf hypothesis. Common sense and obvious evidence, however, demand that Ji subscribe to a weak version of the Sapir-Whorf hypothesis. Ji also employs schema theory, which has been prominent in cognitive psychology since the 1970s. In addition, playing a major role in Ji's analysis are modeling theory and relevance theory. Taken all together, Ji's multifaceted approach is an intriguing -- and effective -- combination of linguistics, psychology, and political science.

The author examines in detail the use of specific words, phrases, and sentences to manipulate peoples' ideas. Ji demonstrates that the Communists not only did this with the Chinese language (relying heavily on the works of Mao for sacrosanct raw material), they also paid great attention to the molding of thought through the content and interpretation of English language pedagogical texts.

What the Communists did to the Chinese people linguistically was not an experiment; it was the reality of life itself. So pervasive was Maospeak that ladies arguing over the purchase of a tomato in a marketplace would do so by shouting Maoist slogans at each other.

Sales clerk: "Fight selfishness and repudiate revisionism."

Housewife: "We Communists pay great attention to conscientiousness."

The people gathered around who tried to pull them apart also enjoined them with various Maoslogans.

Ji Fengyuan has taken what, on the surface, appears to be an arcane, repugnant topic -- linguistic engineering (a type of brainwashing) -- and has shown how it had a brutal impact on the daily lives of hundreds of millions of Chinese from 1949 until Deng Xiaoping assumed power from Hua Guofeng in the 70s. One shudders to think what China would have become if the policies and practices of linguistic engineering had continued for another generation -- particularly as carried out during the excesses of the Cultural Revolution, when Mao's thoughts and words "could be used to prove anything at all."

A nightmare!

Henry Rogers. *Writing Systems: A Linguistic Approach.* Blackwell Textbooks in Linguistics. Malden, Massachusetts; Oxford; and Victoria, Australia: Blackwell, 2005. xvii, 322 pages.

This is a textbook, so one should not expect new theoretical approaches or unusual insights into the nature of writing. Nonetheless, it is worth looking into even for the professional linguist because of its generally clear organization and relatively comprehensive coverage. Each major writing system in this volume is examined in terms of four chief aspects: history and development, internal structure, the relationship of language and writing, and sociolinguistic factors. The author is primarily a phonetician, so he devotes a lot of attention to the phonology of the various scripts that he treats.

Since there are not many basic textbooks, as such, on writing available (in fact, I don't know of any other work designed specifically as a textbook for the study of the main writing systems of the world), I suppose we have to be grateful for this one. Indeed, it does have its merits. The systematic arrangement alluded to above is probably the strongest quality of the book. The author begins with an introduction that stresses the importance of writing and defines what writing is, then specifies the four main aspects of writing. In the second chapter on theoretical preliminaries, the author goes into more detail on the internal structure of writing and its relationship to language. Here he also examines the issue of diglossia. From chapter three to chapter fourteen, the author presents the following scripts and languages, with entire chapters being devoted to the first four named here: Chinese, Egyptian, English (is English a writing system?), Maya, Japanese, Korean (Hankul [*sic*], Hanca [*sic*]), Vietnamese (Chữ nôm, Quốc ngữ), Sumerian, Akkadian, Ugaritic, Old Persian, Southern West Semitic, Phoenician (Northwest Semitic), Aramaic, Hebrew, Arabic, Ethiopic, Linear B, Greek, Coptic, Gothic, Armenian, Georgian, Slavic, Etruscan, Latin, Finnish, Scots Gaelic, Indus Valley, Brāhmī, Kharoṣṭhī, Devanāgarī, Southeast Asian scripts, Tibetan, 'Phags-pa, Mongolian, Manchu, Cherokee, Cree, Inuktitut, Runic, Ogham, Pahawh Hmong, Bliss symbols, and IPA.

Most of what the author has to say about these various systems is routine, so there is little value in my rehashing it here. Instead, it would be more useful for me to point out some areas where I believe he has fallen short or is completely wrong. So that what I have to say can be more easily followed, I will -- more or less -- simply go through the book from beginning to end, highlighting several representative items. If I had an unlimited amount of time and space, the list could be multiplied many fold.

I cannot complain overly much that the author states with such certitude that writing was independently invented "on at least three occasions" (Sumerian [c. 5000 BP], Chinese [c. 3500 BP], Mayan [c. 2000 BP). I should be grateful that he did not also evoke Egyptian as a separate invention!) This is, after all, the standard doctrine. What does annoy me, however, is that he takes issue with I. J. Gelb, the great Chicago Semiticist, who maintained that writing was only invented once (for Sumerian) and all other writing systems were derived -- directly or indirectly -- from that single invention. I believe that we are within about two decades from the time when the monogenesis of writing will be provable by archeological, historical, and internal evidence. Still, current dogma is that writing was invented on at least three separate ocasions (and it is stated *ad* *nauseum* with such utter certitude: "we know for certain..." -- **how** do we know for certain? are we **absolutely sure** that we know for certain?), so I suppose that I should not even complain that the author takes issue with Gelb on this point. What really does bother me is that he also takes exception to Gelb on several other crucial matters (which I shall return to later), and that -- in so doing -- he is merely following the **opinions** of one Peter Daniels, a former student of Gelb. In fact, the author adheres to the Daniels line almost religiously throughout his book in all respects. This devotion to Daniels, however, is a dubious posture, inasmuch as Daniels has proposed a number of idiosyncratic theories and terms related to the theory and history of writing (see below for a few of these [one that will not be mentioned below is his notion -- crudely stated -- that Sumerian, Mayan, and Chinese were separate inventions because all three are syllabaries and because syllabaries are superior, natural writing systems]). What is more, nearly all of Daniels' most controversial proposals stem from basic disagreements that he had with his teacher. But how did Peter Daniels, an independent scholar, acquire such influence in the field of writing theory and history? Primarily through his co-editorship (with William Bright) of *The World's Writing Systems [WWS]* (Oxford: Oxford University Press, 1996), which is in nearly every significant research library and which has -- by default among current books in print -- become the standard authority. By any account, *WWS* is a major achievement and a handy, generally reliable, and impressively comprehensive single volume reference on writing. It is, without doubt, a convenient first stop for anyone who has a question about the various writing systems of the world.

We should note that, although Bright is far more eminent and far more senior than Daniels, and although "B" comes before "D" in the alphabet, Daniels' name is listed first on the cover and title page of *WWS*. This however, is only fair, because Daniels really did the overwhelming amount of work in producing this large, complicated book -- from locating and communicating with dozens of authors to managing scores of obscure fonts. Daniels' total dedication to *WWS* for years also gave him the leverage to write key sections of the volume and impose key concepts, some of which were opposed by his co-editor. The most notorious of these is the notion of an "abugida," a peculiar type of writing system that is situated somewhere between an alphabet and a syllabary. Since, according to Daniels, most modern Indic scripts fall under this category, and further, since modern Indian scripts are usually thought of as alphabets, this puts Daniels in conflict not only with his co-editor (a specialist on Indian languages and scripts), but with common opinion and common sense as well. Yet Daniels had to invent the notion of an abugida because it occupies a central position in his critique of his teacher's masterful treatise, *A Study of Writing* (Chicago: University of Chicago Press, 1963).

Without going into all of the details, not only did Gelb subscribe to the idea of the monogenesis of writing, he also believed in the unilinear development of writing. Basically what this means is that Gelb argued for a natural progression from pictographic to syllabic to phonetic stages in the evolution of writing. Daniels, who has a particular affection for the syllable, took vigorous exception to Gelb's view, disagreeing with him that Semitic was essentially syllabic (in that it lacked vowels) and that Greek represented the first true alphabet. Daniels' creation of the notion of an abugida is caught up in his polemics against his former mentor. Because this is a review of Rogers' *Writing Systems*, not Daniels' (and Bright's) *WWS*, I should not go on much longer in discussing Daniels' heteroclite ideas about the classification of writing systems. I would merely wish to vindicate Gelb by pointing out that alphabetic writing **is** gradually displacing syllabic writing in East Asia (the main part of the world where it still survives), as described elsewhere in these reviews. East Asian syllabic writing itself is following the very path that Gelb predicted. The Korean Hangul script is manifestly and paradigmatically a finely-nuanced alphabet that makes a cultural concession by allowing its "letters" to be grouped in syllabic blocks (the biggest mistake made by the devisers of the otherwise extraordinarily elegant script). Even Chinese characters, through a proliferation of official and semi-official simplified characters, are becoming increasingly phonetic and decreasingly morphemic, not to mention the wholesale integration of the roman alphabet into the Chinese writing system, as clearly demonstrated by Mark Hansell, Liu Yongquan, and others. (A glance at virtually any current Chinese publication on computers, chemistry, physics, engineering, mathematics, or medicine, and even in many publications in the social sciences and the humanities, will show the extent to which the alphabet permeates modern Chinese writing).

To return to Rogers' *Writing Systems*, his biggest errors are in following questionable sources, not just Daniels' contentious, anti-Gelbian diatribes. Unfortunately, his weakest chapter is that on Chinese, with which he oddly begins his presentation of various scripts. (Why not Sumerian or Egyptian, both of which are about 2,000 years older than Chinese characters?) The reason for this is that he relies so heavily for his information about the Chinese writing system on a very uneven book, *Writing and literacy in China, Korea and Japan*, Studies in Written Language and Literacy, 3 (Amsterdam / Philadelphia: John Benjamins, 1995), by his University of Toronto colleague, Insup Taylor, in collaboration with her husband M. Martin Taylor.[1] Actually, Rogers ignores the better parts of Taylor's book, such as her recognition that the major Sinitic topolects (*fangyan*) are different languages, not merely dialects.

Some of the major errors in Rogers' chapter on Chinese are as follows:

1. It is misleading to say that "Chinese is spoken by over a billion people..." as the author seemingly straightforwardly, but in actuality sensationally, opens his chapter. That is like saying Indo-Iranian is spoken by over a billion people.

2. Mandarin is not the sole form of written Sinitic. Cantonese is also written (usually in characters,

many especially created for Cantonese) and Taiwanese is also written (usually in Romanization) -- both looking very different from written Mandarin or Literary Sinitic (Classical Chinese). I do, however, applaud the author for pointing out explicitly the differences that exist between spoken Cantonese and written Mandarin pronounced in a Cantonese fashion.

3. Literacy was not "relatively widespread" in traditional China. It was restricted to a very small segment of the population, the research of Evelyn Rawski on "functional literacy" in late imperial China notwithstanding.

4. It is ludicrously misleading for the author to cite the notorious essay about ten stone lions consisting of 98 syllables pronounced *shi* (with different tones) without explaining that **no** ancient or modern Chinese person would ever speak or write in a manner even remotely resembling this intentionally bizarre piece. Rogers picked up this monument to all that is worst about literature written with Chinese characters from Taylor (p. 86), who fails to note that it was composed by the famous Chinese linguist, Y. R. Chao, and she also fails to warn innocent neophytes how unlike any spoken Sinitic language it is. For a much more usefully contextualized presentation of the ten stone lions hoax, I would encourage the reader to consult Zhou Youguang, *The Historical Evolution of Chinese Languages and Scripts*, Zhang Liqing, tr., Pathways to Advanced Skills, 8 (Columbus, Ohio: National East Asian Languages Resource Center, Ohio State University, 2003), pp. 111-113.

5. Some of the author's explanations for how characters came to mean what they did are not in accord with their actual construction and derivation. For example, *ming2* ("name, call") and *ming2* ("cry of a bird") did not arise through "a process of semantic extension" of *kou3* ("mouth"). In both cases, *kou3* is now the radical which constitutes the semantic category of the graphs in question (viz., something done with the mouth). However, since the remaining parts of both characters (*xi* ["evening"]) and *niao* ["fowl"] do not serve as their phonophores (i.e., these two characters are not pictophonetic), they must be semantic-semantic blends, viz., a name is what one calls out at night for purpose of identification, and a bird obviously cries out of its mouth. There is no evidence that the character for *kou3* ("mouth") was ever also used for a morpheme pronounced *ming2*. Both of these characters now pronounced *ming2* already existed with their present configuration and meaning on the oracle bones, and there is nothing to be gained by speculating what they might have looked like before that stage. In this case, Rogers is following an authority, William Boltz, who is usually reliable. Here, however, Boltz has led Rogers astray. Elsewhere, Rogers makes even more erroneous claims about the nature or derivation of particular characters because he follows Rick Harbaugh's *Chinese Characters and Culture: A Genealogy and Dictionary* (New Haven: Yale Far Eastern Publications, 1998) which -- especially in its web

version -- has probably caused more harm to students of Chinese and done more damage to the field of Chinese language study than any other single work; a veritable disaster. A goodly portion of Harbaugh's "genealogies" and "etymologies" (they are nothing of the kind!) are completely imaginary and have no basis in the evolution of characters from their earliest stages. So unreliable are Harbaugh's "genealogies" and "etymologies" that he himself has issued a warning (in fine print) not to take them for granted. It is sad that Harbaugh's dictionary is the most frequently visited Chinese language resource on the Web (my students in the Chinese Department at the University of Hong Kong -- at best -- only consulted Harbaugh's dictionary on line) and it is lamentable that Rogers recommends it warmly.

6. The answer to the question posed in 3.6, "How Many Characters Does Chinese Have?" is more than double the figure of 50,000 cited by the author.

7. The author states that he has "never met a Chinese person who could comfortably read a long text written in *pin1yin1*." I have many Chinese friends who can do so, and I correspond with many of them in *pinyin.* Tens of thousands of Hoklo (Taiwanese) speakers have achieved full literacy in Romanized Taiwanese. Tens of thousand of Dungans achieved full literacy in Cyrillicized northwestern Mandarin with plenty of loans from Russian, Persian, and Arabic. As the author himself intelligently proclaims, "...spoken Chinese gets along fine with all this homophony, and I am somewhat at a loss to understand how writing could not cope." It certainly can and, if the Chinese people one day decide to adopt a Romanized script, it will pose no particular technical problem, since billions of Chinese speaking scores of different Sinitic languages have functioned quite well without benefit of characters for thousands of years -- relying strictly on the sounds of their speech for purposes of communication. As with any other languages on the face of the earth, it is easy to represent the sounds of Sinitic languages with letters (or syllabic symbols) on a flat surface. One day it will probably happen -- unless English first becomes the primary written language of commerce, science, manufacturing, and other domains of human activity that put a high premium on efficiency.

I should not lead my reader to believe that I am completely dissatisfied with Rogers' treatment of Chinese. Aside from the types of problems alluded to above (which should lead teachers and students alike to be wary), he does a reasonably good job, better than most non-Sinologists, and even better than many people who do know one or more Chinese languages. In truth, there are some parts of Rogers' chapter on Chinese that are of respectable quality (e.g., that on the reconstruction of the early pronunciation of Sinitic).

Beyond the chapter on Chinese, I would like to extol several conspicuous virtues of this textbook. Among these are the informative, well-designed timelines, tables, and charts. Samples of a wide variety of scripts are profusely presented. Phonological representations are particularly careful. Other useful and commendable features are at the end of each chapter: suggestions for further reading, lists of key terms, and interesting exercises. Appendix A is a list of basic linguistic terms, Appendix B introduces the International Phonetic Alphabet (IPA), Appendix C provides the mechanics of English transcription, and Appendix D is a Glossary (liberally dotted with Danielsisms). A respectable Bibliography and helpful Index round out the volume.

On the whole, the book has been carefully edited and is not prone to typographical errors. The cover, however, has a howler which indicates some haste in bringing the book out half a year ahead of schedule (!). The endorsement by Alan S. Kaye on the back speaks of the book "including cuneiform of various types such as Semitic, Greek, and Roman." Most curious! What in the world could Kaye have been thinking of?

---

1. For reviews of the Taylors' book, see Victor H. Mair, *Word*, 50.2 (August, 1999), 263-267 and William C. Hannas, *Modern Language Journal*, 81.4 (Winter, 1997), 590-591.

Martin Neef, Anneke Neijt, and Richard Sproat, ed. *The Relation of Writing to Spoken Language*. Linguistische Arbeiten 460. Tübingen: Niemeyer, 2002. vi, 210 pages.

The collection of papers in this volume grew out of a workshop entitled "Writing Language," which was held at the Max Planck Institute in Nijmegen, the Netherlands, from August 28-30, 2000. As indicated by the editors themselves in their "Introduction," several basic issues are examined in these papers: 1. the difference between orthography and writing system, 2. the naturalness of writing, 3. orthographic depth, 4. the relationship between orthography on the one hand and reading and writing on the other, 5. local, global, and transderivational constraints, 6. dependency of writing upon speech versus autonomy, 7. readability versus writability. It is obvious that all of these issues are vital for anyone who has an interest in the relationship between spoken and written forms of language.

In general, the approach taken by most of the authors represented in this volume tends to be highly theoretical, but descriptive, empirical (experientially derived), and occasionally historical evidence is also appropriately invoked. The authors focus heavily on Germanic languages, with some references to other languages (especially Hebrew, and to a lesser extent Russian and Spanish) for comparative purposes. It is explicitly recognized (p. 49) that the analytical schemes proposed in this volume are directed primarily at alphabetic writing systems which are generally based on the principle of grapheme-phoneme correspondence (here "grapheme" refers to a single letter or a letter combination corresponding to a single phoneme. In contrast, writing systems like that used for Sinitic languages, where the characters usually represent morphemes, or Japanese *kana*, where each symbol corresponds to a mora or to a certain syllable type, would require additional consderations and refinements to the models set forth here. Nonetheless, the fundamental questions about the writing-speech dichotomy raised by the authors of these papers are applicable to all languages.

The most conspicuous theoretical approach cited in these papers is the Consistency Hypothesis, first proposed by Richard Sproat in his *A Computational Theory of Writing Systems*, Studies in Natural Language Processing (Cambridge: Cambridge University Press, 2000). According to this hypothesis, there is one single, consistent Orthographically Relevant Level (ORL) for a given writing system that mediates between the deep, underlying level of language and surface features of speaking / hearing and writing / reading. Yet, even Sproat's own co-editor, Neijt, holds that the Consistency Hypothesis cannot be maintained as a universal principle, preferring instead the two-step analysis of Anneke Nunn. According to Nunn, the ORL is to be defined as the phonemic description of morphemes, which bifurcates into phonological rules that eventuate in speech and autonomous spelling rules that result in orthographic form.

As someone with a longstanding interest in East Asian language reform, including the possibility of romanization, I was pleased to learn from this volume that script reform is not at all unusual in Europe. For example, in 1995 the Dutch decided to abolish the use of the diaeresis to indicate the beginning of an internal syllable in such vowel-rich words as *koeieuier* ("cow's udder"). Large-scale experimentation demonstrates that the presence or absence of the diaeresis has no bearing on the speed or accuracy of reading on the part of educated adults. It must be admitted, however, that the presence of such reading aids may be both effective and essential for learners (cf. accent marks in English, vowel realization in Slavic and Semitic languages, *furigana* to indicate the pronunciation of characters in Japanese writing, and so forth).

Orthography may be either reader-based or writer-based. That is to say, an orthography may be designed with the interest of being of optimum use to the reader, in which case the written form should make possible an unambiguous recording of the spoken form (p. 170), or with the intent of causing the least ambiguity and hesitation for the writer (pp. 172ff.). The key is to strike a well-functioning balance between these two desiderata.

One might think that, in a small country such as Switzerland, linguistic problems would be minimal. Such, however, is certainly not the case. In the first place, there are four official national languages (French, German, Italian, Romans[c]h), and most citizens also know English. Even within the German-speaking part of Switzerland, there exists a special type of bilingualism that may be termed "medial diglossia" (p. 196), whereby Swiss German and Swiss Standard German are customarily used for different purposes. Whereas various dialects of Swiss German are used in daily speech, Swiss Standard German is used for writing and for formal situations. It is no accident that the pronunciation of Swiss Standard German is often referred to as "spelling pronunciation," and the standard language is customarily called *Schriftdeutsch* ("written German"). What is surprising, however, is the degree to which Swiss also write their local dialects in informal and private correspondence, advertisements, greetings, and so forth. There is even a considerable amount of literature written in the dialects, the spelling conventions of which are only partly fixed. it is remarkable that the Swiss have achieved a complex state of equilibrium involving a tremendous amount of both linguistic freedom and standardization. Other countries that are struggling with problems of multiple languages and dialects might do well to study thoroughly the Swiss solution to linguistic diversity.

An efficient, reasonable orthography does not come into being spontaneously. Rather, intelligent orthographies are the result of the patient observations and expositions of grammarians like Valentin Ickelsamer (16th c.), K. Stieler (17th c.), and, above all, Johann Christoph Adelung (1732-1806) for German. As China struggles to establish an authoritative orthography for Mandarin (*Putonghua*), it would be well to keep in mind that not all complications (e.g., hyphenation, homophones, how to handle compounds and suffixation, etc.) can be solved overnight. Instead, a good orthography is something that requires fine tuning over a long period of time. This is all the more so because languages naturally change, and writing systems that are flexible enough to represent those transformations make the task of both reader and writer less burdensome.

Along with the editors, all of the other authors of the papers in this volume (including Susanne R. Borgwaldt, Annette M. B. de Groot, Dorit Ravid, Steven Gillis, Vincent J. van Heuven, Jochen Geilfuss-Wolfgang, Ursula Bredel, Christina Noack, and Thomas Lindauer) deserve commendation for helping us to understand better how speech is rendered into writing and how writing may be interpreted as a reflection of language.

The volume lacks an index.

David Christian. *Maps of Time: An Introduction to Big History*. Berkeley, Los Angeles, London: University of California Press, 2004. xxii, 642 pages.

Before reading this earth-shaking volume, I had never heard of "big history." It seems that the author himself invented this unabashedly audacious concept in connection with a series of lectures in an experimental history course taught during 1989 at Macquarie University in Sydney. Two years later, he published a formal defense of this approach in an essay entitled "The Case for 'Big History,'" *Journal of World History*, 2.2 (Fall, 1991), 223-238.

Basically, big history attempts to view history on the largest possible scale. That, of course, is not an easy task, since even much smaller chunks of history can be exceedingly difficult to handle. To be able to deal with the entire sweep of history from the beginning of the universe to the present day in a meaningful fashion, ingenious strategies and vast learning are required. One way the author kindly helps us wrap our minds around the 13 billion years from the Big Bang to the present day is by providing a series of eight interlinked timelines of decreasing magnitude. Each timeline is the height of a page, has key events marked alongside, and ends with the present. Thus, the first timeline shows the scale of the cosmos, all 13 billion years of it; the second timeline shows the scale of the earth, the biosphere, and "Gaia" for the last 4.5 billion years; the third timeline shows the scale of multicellular organisms during the past 600 million years; and so forth. The last timeline, entitled "the scale of modernity," consists of only 1,000 years. Also helping us to keep things in perspective are nine global and regional maps. The maps are clear and simple, designed to illuminate, not to obfuscate or intimidate. For example, Map 7.1 shows neatly the extent of glaciation during the ice ages (before the Holocene) and Map 7.2 is one of the most explicit depictions of human origins (250,000-200,000 BP) and migrations (from 100,000 BP that I have ever seen. Complementing the timelines and the maps are thirty-nine figures (photographs, drawings, paintings, charts, etc.) which concretize concepts and relationships that might otherwise not have much of an impact. For instance, three pie-charts in Fig. 8.1 demonstrate dramatically the duration of the Paleolithic, Agrarian, and Modern eras (250,000, 10,000, and 250 years respectively), the total number of humans who lived in each era, and the total number of years lived by all humans who lived in each of these three eras. Fig. 8.2 is a chart giving the total population of the earth on the vertical axis measured against time (the last 10,000 years before the present) on the horizontal plane. What one sees for the last two or three centuries or so is a sharply rising spike going from less than one billion population to six billion, whereas, in the previous ten thousand years, the population only gradually increased from six million individuals to six hundred million. That is to say, it took 9,700 years for the earth's total population ever so gradually to rise from six million to six hundred million, but it has merely taken 300 years to rise from six hundred million to six billion. What the figures show so vividly is made more precise in 32 tables. Table 6.2, for example, tells us that the rate of population growth during the last century was 462.42%, with an implied doubling time of forty years. This means that, by the middle of the 21st century -- less than fifty years from now, the population of the earth will exceed twelve billion people.

Wait a minute! How long can such mammoth population growth go on before the earth and human society itself are no longer capable of sustaining it? Reading a book like this not only informs one, it forces one to think very hard about some inescapable facts that every responsible human being needs to take into most serious consideration. This is not merely a dry, academic exercise. This is a book about the origins and the fate of humanity **in the universe**. For me, there is only one salvation for humanity: the colonization of space. Of course, the author has thought of this too, in his Part VI entitled "Perspectives on the Future." But we'd better hurry, because the species is in imminent danger of genetically self-destructing -- at least the male member of the species is in a vulnerable position, as spelled out succinctly in Bryan Sykes' *Adam's Curse: A Future without Men* (New York and London: W. W. Norton, 2004).

I shall not attempt to summarize the contents of this book (how does one summarize a history of the entire world from the very beginning?). I wish merely to sing its praises -- good notes, excellent bibliography, thought-provoking epigraphs, well-written, smart, unpretentious, immensely learned.... I cannot imagine a more ambitious scholarly project. The marvel of it all is that the author pulls it off so successfully with such aplomb and without the slightest ostentation.

When I encounter such a spectacular book as this, my first instinct is to ask, what is the intellectual biography of the (wo)man who wrote it? In this case, I have a fairly good idea, because I have been following the author's work for the last decade and more, and have been increasingly impressed as he bit off bigger and bigger chunks of the human drama and the arena in which it was enacted. David Christian's first book (at least the first by him with which I am familiar) was *Living Water: Vodka and Russian Society on the Eve of Emancipation* (1990). From a minute examination of a potent bit of material culture, he turned to studies on power and privilege in imperial Russia and the Soviet Union. Ranging further back in time and further afield in space, he wrote a masterful study of Inner Eurasia from prehistory to the Mongol Empire. I suppose that the volume under review may be looked upon as a logical progression of the scope of investigation -- minus quite a few intervening stages.

If *Maps of Time* were not so inviting, I would find it intimidating. Since the author presents his *magnum opus* in such a straightforward manner -- not intending to impress, I accept it simply as a tremendous boon, and warmly encourage everyone with an interest in the origins and fate of humanity to take a peek into it. Once you do, I am sure, you will take a second peek, and a third..., then pretty soon you will begin to ponder some very **big questions**.

Keith R. Benson and Philip F. Rehbock, ed. *Oceanographic History: The Pacific and Beyond*. Proceedings of the Fifth International Congress on the History of Oceanography, Scripps Institution of Oceanography, La Jolla, California, July 1993. Seattle and London: University of Washington Press, 2002. xii, 556 pages.

This is a big book (over 550 tall, triple-columned pages) -- so big, in fact, that I cannot begin in the space of this review even to list the titles of all 63 papers and the names of their more than 70 authors (some of the papers are jointly authored). Instead, I will merely note the eleven rubrics under which the papers fall, offer some general observations, and conclude with some reflections on the implications of the volume for East Asian Studies.

The first section, "The Scripps Heritage," pays homage to the institution where the international conference at which the papers were delivered was held, an institution that has also been responsible for a large proportion of the research that is described in the volume. It consists of three papers. The second section is entitled "Pacific Remembrances" and it has five papers. Section three, "Myth and Natural Knowledge of the Sea," has only two papers. Section four, "Exploration: The Pacific and Beyond," has sixteen, by far the most. The fifth section, "Pioneers of Ocean Science," has seven papers; section six, "North American Oceanography and Marine Biology," eight; section seven, "Technique and Technology," six; section eight, "Fisheries Science and Management," five; section nine, "Coral Reef Research," four; section ten, "Plate Tectonics," four; section eleven, "Archival Resources for the History of Oceanography," three papers.

The volume contains no scientific papers per se, but only papers on the history of science. Most striking to this reviewer is that, although China has a long coastline, it does not seem to have evinced much interest in the scientific study of the ocean. In the entire, hefty volume, I did not notice any mention of China as a center for oceanic research, except for one very conspicuous exception that I will note later, nor are there any Chinese authors represented in the book.[1] This is in contrast to Japan, which is referred to dozens of times, and Japanese authors were responsible for at least two of the papers in the volume. Although Japan is an island nation and would naturally be interested in the ocean, the disparity between Chinese and Japanese attention to the scientific study of the ocean is sufficiently striking to call for some sort of explanation.

Some may say that Japan developed oceanography before China because it was exposed to "Dutch learning" earlier. The Jesuits, however, had brought the full panoply of European learning to China by the same time, so one suspects, rather, that there was a difference in receptivity.

Chinese ships and fleets did make oceanic voyages, the most spectacular of which were those of the Ming admiral, Zheng He (1371-1443), who led seven large, diplomatic expeditions between 1405 and 1433. Zheng He's voyages have come to the attention of the general public recently due to the publication of the sensationalistic book by Gavin Menzies entitled *1421* with its exaggerated (and unreliable) claims that Zheng He and his men explored America (including its inland areas) before Columbus and even circumnavigated the globe before Magellan. Prior to the arrival of Western navies and organized commercial shipping during the sixteenth century, the bulk of long distance oceanic traffic in and out of China's ports was left largely to fleets under the control of and manned by Arab, Persian, and Indian captains and sailors.

Now, it is fairly well known that Zheng He was a Muslim, but what is not so well known is the fact that the great admiral was himself likely of non-Sinitic extraction. Here I quote from Jung-pang Lo's good article on Zheng He in the 15th ed. of the *Encyclopaedia Britannica*, 3.166c (diacriticals omitted):

> Cheng Ho was the son of a *ḥājjī*, a Muslim who had made the pilgrimage to Mecca. His family claimed descent from an early Mongol governor of Yunnan and a descendant of King Muhammad of Bukhara. The family name Ma was derived from the Chinese rendition of Muhammad. In 1381, when he was about 10 years old, Yunnan, the last Mongol hold in China, was reconquered by Chinese forces led by generals of the newly established Ming dynasty. The young Ma Ho, as he was then known, was among the boys who were captured, castrated, and sent into the army as orderlies.

With the death of the able Yongle emperor (r. 1402-1422), support for the oceanic expeditions of Zheng He was sharply diminished, and -- with Zheng He's own death in 1433 -- China once again turned resolutely inward. This endemic Chinese lack of interest in oceanic exploration is one of the main points of the famous television documentary series, "He shang (River Elegy)," that touched off the Tiananmen protests in the spring of 1989.

Parenthetically, I should note that the history of Muslim contributions to China during the last thousand and more years (especially since the Yuan dynasty when so many Islamic Persians, Arabs, and Central Asians were brought to China by Mongol conquerors) has yet to be written. From scattered sources, I have learned that the chief architect and many of the craftsmen who built the Yuan capital at Peking were Muslims, that Muslims were appointed as provincial and district officials, that some of China's greatest writers in late imperial times had an Islamic heritage (e.g., Pu Songling [1640-1715]), and even that Ming aristocracy and royalty (including at least one emperor) had extremely close ties to Islam. It is ironic, then, that some of China's bloodiest rebellions were linked to Muslims (e.g., the Nian Rebellion [1851-1868]).

To return to the question of China's relationship to oceanography, it is telling that Joseph Needham's plan for *Science and Civilisation in China* did not include a section on the ocean, although it did make ample provisions for the sciences of the earth (Vol. 3, sections 22-25, including a brief look at "Hydrographic books and descriptions of the coast" [22.b.4]), "Hydraulic engineering: II Control, construction, and maintenance of waterways" (Vol. 4, section 28f), and "Nautical Technology" (Vol. 4, section 29). The latter was intended to deal with the construction, propulsion, and steering of ships. In other words, Needham did not reserve any part of *Science and Civilisation* for an account of Chinese studies of the ocean and its creatures.

Aside from Japanese and many American scholars, historians and scientists from dozens of other countries are either contributors to or the subjects of papers in this book: British, French, Spanish, Germans, Italians, Dutch, Swedes, Norwegians, Russians, Rumanians, Croatians, and so forth. There is, however, one exception to the silence surrounding China in this big book, namely, a short passage on mariculture (pp. 440c-441a), which begins: "The world's largest mariculture facilities are located in China." Several pertinent observations should be made: 1. C. K. Tseng, "the father of Chinese mariculture," worked at the Scripps Institution of Oceanography before World War II, 2. Chinese mariculture hugs the coast, 3. it is basically a type of farming. All of this, we may conclude, offers **food for thought.**

1. The Weilü (an alleged hole at the bottom of the ocean where all its waters converge) of ancient texts may be a confused reference to Kuroshio (the Japan Current, lit., "Black Tide"), but it is of a mythological nature.

K. R. Howe. *The Quest for Origins: Who First Discovered and Settled the Pacific Islands?* Honolulu: University of Hawai'i Press, 2003. 235 pages.

For the past 30 years and more, there has been a strong bias against migration and diffusion (the two obviously go hand in hand because people take things, techniques, languages, and ideas when they travel from one place to another) in anthropological studies. The dominant view is that neither migration nor diffusion is of any particular importance in explaining how societies and cultures develop, the assumption being that they developed *in situ* and relying strictly on their own ingenuity. A sure test of this dogma is to apply it to the peopling of Oceania. No one in his / her right mind could possibly claim that the human species was created thousands of times on each of the islands scattered across the Pacific and that human civilization was reinvented from scratch on each of the inhabited Pacific islands. The anti-diffusionist and anti-migrationist prejudice thus falls flat on its face. Yet the question still remains: who did populate the Pacific islands? Where did they come from? What culture(s) did they bring?

Disappointingly, this book is not without its own heavy political axes to grind. It is anti-imperialist, anti-colonialist, anti-racist, anti-Western, and, yes, very much anti-diffusionist at every turn. Instead of simply confronting the evidence, the author takes great pleasure in dredging up manifestly kooky theories of ancient, superior civilizations, and then rubbing our noses in the mess. I'd rather know what the best scholars have to say on the subject, not the opinions of cranks. Admittedly, the craziest schemes for the Mediterranean, Mesopotamian, and Egyptian origins of the Polynesians (especially those which have them sailing all the way to America and back to the South Pacific before settling there) deserve to have a few holes poked in them. They are, however, not much more outlandish than Gavin Menzies' *1421*, which has the Chinese not only discovering the New World before Columbus (though not before Leif Ericson!), but travelling up the Mississippi inland to the center of the North American continent and circumnavigating the globe, yet serious scholars know that these wild dreams will eventually dissipate for lack of substance.

Nevertheless, when all the sarcastic, negative rhetoric is swept aside, there is much to be learned from this book. For example, I knew that the Pacific islands were the last habitable parts of the globe to be settled by humans, but I was unaware that New Zealand was the very last place of all. I am happy, also, through this book to make the acquaintance of J. R. Forster, "the grumpy Linnean scholar" who accompanied Capt. Cook on his second voyage and who was the first to discover the general lineaments of what we now call the Austronesian language family.

Digging still deeper beneath the derision, we find that there is some very meaty and valuable information to be had. I kept hoping that the author would offer some genetic and biological data on the various peoples of Oceania. While he barely mentions human DNA (though he does give a useful note telling where to find it), Howe serves up a pleasant surprise by showing, at some length, how rat and lizard DNA studies have helped researchers understand patterns of human movement in Polynesia. Of course, it simply will not do to talk about "baseless" racial categories such as Australoid, Mongoloid, Negroid, Melanesian, and Polynesian, but statistical analysis of bone and skull characteristics is permitted, while adaptive physiology and even genetic drift are not taboo.

On p. 84, the author provides a stark, striking map that limns the extent of the Austronesian language family. (The same map, though with more detail, also appears in the article on Austronesian languages in the *EncyclopaediaBritannica.*) What we see is a broad swath sweeping eastward across the Indian Ocean from Madagascar, passing just south of Ceylon and north of Australia, crossing over the southern half of Southeast Asia, curving upward slightly to take in Taiwan while avoiding New Guinea, then soaring across the broad expanse of the mid-Pacific to embrace the Hawaiian Islands and Easter Island, then sweeping back to include New Zealand, Tonga, Fiji, and New Caledonia. The distribution of the thousand or so Austronesian languages contrasts neatly with that of the non-Austronesian languages that cover all of Australia, most of New Guinea, and parts of Near Oceania. The non-Austronesian languages "are extremely old and were brought to what was then the continent of Sahul by the very first human travellers to the region 50,000-60-000 or more years ago." The nearly a thousand non-Austronesian languages are too diverse to fit within the confines of a single language family, but do cluster into groups such as Papuan, which is spoken primarily in New Guinea. The time depth of Austronesian, on the other hand, is much shallower, with Paiwanic (a language group of Taiwan that probably had its origins in what is now southeast China, the apparent homeland of the Austronesian language family) reaching back five or six thousand years ago and Hawaiian being a very young descendant at an age of a thousand years or less. It is reassuring that archeological, biological, and ethnohistorical findings closely corroborate these linguistic revelations.

After savoring all of this good stuff, we are forced to conclude with zany theories of sunken continents, lost continents, flooded continents, wandering tribes, and what not. I suppose somebody has to catalog all of this nonsense, and Howe felt it his duty to do so. But I find it aggravating that he reflexively takes advantage of his bashing the most preposterous proposals to ridicule the very notion of diffusion. Conspicuous by its absence from this volume is any mention of the work of scholars like Robert Heine-Geldern and Olaf R. T. Janse who were self-confessed diffusionists, yet were highly responsible researchers who always provided meticulous documentation for their assertions of influence. Incidentally, Heine-Geldern had much of importance to say about the cultural history of the Maoris, a central theme of the volume under review.

This is a book worth reading, but be prepared with plenty of antacids to counteract the ridicule with which it is saturated.

Timothy Lenz. *A New Version of the Gāndhārī Dharmapada and a Collection of Previous-Birth Stories: British Library Kharoṣṭhī Fragments 16 + 25.* With contributions by Andrew Glass and Bhikshu Dharmamitra. Gandhāran Buddhist Texts, Vol. 3. Seattle and London: University of Washington Press, 2003. xxii, 266 pages.

The volume under review is the third in the Gandhāran Buddhist Text (GBT) series.[1] The GBT series was initiated to publish editions and studies of texts contained in the British Library's collection of Kharoṣṭhī manuscript fragments and in other collections of recently discovered Gandharan manuscripts.[2] This endeavor is being carried out under the auspices of the Early Buddhist Manuscripts Project (EBMP) of the British Library and the University of Washington. An overview of the British Library's collection of Kharoṣṭhī manuscripts may be found in Richard Salomon *et al.*, *Ancient Buddhist Scrolls from Gandhara* (see note 2).

In brief, this collection was acquired by the British in 1994, along with several inscribed earthenware water jars, including one in which the manuscripts were originally interred. The collection consists of twenty-nine birch bark fragments, including *abhidharma, sūtra, gāthā,* and *avadāna* texts. Although the exact provenance of the manuscripts is unknown, they probably came from somewhere in or near Haḍḍa, which is located on the Jalalabad Plain of eastern Afghanistan. The collection has been provisionally affiliated with the Dharmaguptaka School and dated to the early first century C.E. most likely between the years 10 and 30.

The volume under review consists (in part I) of an edition and study of fifteen fragmentary verses of a new Gāndhārī version of the *Dharmapada* and (in part II) of a series of *pūrvayoga*s, or tales of previous lives of the Buddha and some of his disciples, which were separately recorded on the same scroll. The *Dharmapada* text is especially important, since it almost certainly represents the remains of a second version of the celebrated Gāndhārī *Dharmapada* discovered in 1892 and published by John Brough seventy years later,[3] which was previously the only Gāndhārī literary text available for scholarly study. The *pūrvayoga*s are of interest for both their content and their form. Among the five *pūrvayoga*s that are preserved well enough for analysis, two concern previous lives of the Buddha and three concern well-known disciples of the Buddha. Fortunately, complete stories in either Sanskrit or Chinese that roughly correspond in content to these *pūrvayoga*s have been identified for most of the stories in this volume.

Since the heart of Lenz's work lies in his highly technical editing of these newly discovered manuscripts, it is appropriate that he begins (pp. xvii-xviii) with a description of his citation and transcription system, which follows those established for other volumes in the series. Next comes a long list of abbreviations (pp. xix-xxii) with which the reader should familiarize him/herself before attempting to read through the volume. Many of the abbreviations designate grammatical and prosodical terms or titles of Pali texts.

Chapter 1 is a description of British Library fragments 16 and 25, which originally belonged to the same scroll. The texts published in this volume (the *Dharmapada* and the *pūrvayoga*s) were written on the same scroll in two different scribal hands. Topics covered in this chapter include the physical description, patterns of damage, and reconstitution of the scroll. It should be noted that digital photography, infrared sensing, and other advanced technologies have permitted Lenz and his colleagues not only to discern far more on the fragments than the naked eye could see, but to electronically manipulate and rearrange tiny bits and pieces of the fragments (sometimes only an *akṣara* [syllabic character] or two). One of the techniques fruitfully employed by the University of Washington researchers is to digitally copy, flip over, and realign short sections of the texts that had fallen out of place. Such excruciating work calls for the utmost exactitude and patience.

The second chapter consists of an introduction to and analysis of the *Dharmapada*. Various versions of the text exist in Pali, Sanskrit, Tibetan, and Chinese, ranging in length from just over 400 verses to slightly less than a thousand verses. The two Gāndhārī recensions that the author focuses on in this volume are the so-called London scroll (Dhp-G^{L}) and the so-called Khotan *Dharmapada* (Dhp-G^{K}) published by Brough in 1962 but previously studied by many other outstanding Sanskritists. The existence of so many other versions of the *Dharmapada*, and especially of the Dhp-G^{K} which is closely related to the Dhp-G^{L}, has made it possible for Lenz to reconstruct the latter with a considerable degree of confidence and accuracy, despite its fragmentary condition. The Dhp-G^{L} has only fifteen poorly preserved lines of text, containing parts of thirteen verses. These thirteen verses almost certainly belong to the "Bhikuvarga (Chapter on Monks)" of the *Dharmapada*. Aside from identifying and describing the contents of Dhp-G^{L}, Lenz also discusses it language, transposition, translation, and transmission in this chapter, and closes with a section that deals with the prosody of Dhp-G^{K+L}, which Lenz considers to be "lax."

Chapter 3 is a detailed treatment of the paleography and orthography of Dhp-G^{L}. Since Lenz systematically goes through each character and mark of the script one at a time, his coverage may be said to be fairly exhaustive.

Chapter 4 is an account of the phonology of the Dhp-G^{L}. Here, too, one could hardly ask for a more thorough treatment. The same is true of the examination of the morphology of the Dhp-G^{L} in Chapter 5.

Chapter 6 presents the transcribed text of Dhp-G^{L}, together with reconstructions, translation, and commentary. Although it would have been possible to completely reconstruct Dhp-G^{L} on the basis of Dhp-G^{K}, Lenz wisely refrains from doing so because it would have amounted to little more than wholesale repetition of parts of Dhp-G^{K} where Dhp-G^{L} is badly damaged, particularly the first five lines. Instead, Lenz only reconstructs those lines for which Dhp-G^{L} already has more than merely a few *akṣara*s. Given that approximately 40 percent of the surviving Dhp-G^{L} verses are missing, translation is possibly only with reference to Dhp-G^{K}. The commentary goes into the most minute orthographic and philological matters pertaining to nearly each word of the text.

Between pp. 74 and 75 may be found eight color plates of Dhp-G^{L}. The first seven are photographs of the birch bark manuscript itself. Plate 8 is an extraordinary color-coded transcription of the approximate layout of the *akṣara*s on the Dhp-G^{L} scroll. The number of *akṣara*s per line range from a low of 31 per line to a high of 43. The color key designates each *akṣara* according to the following categories: extant text, partially preserved *akṣara*, reconstruction based on parallels, proposed missing *śloka* (stanza), reconstruction of possible scribal error, and start of the *pūrvayoga* text, which begins unceremoniously and precipitously immediately after the last *akṣara* of the *Dharmapada* text.

The conclusion of the commentary for the last line of the *Dharmapada* is followed forthwith by Part II of the book, which treats the *pūrvayoga* text on the manuscript. The basic organization of this part of the book is similar to that of Part I which deals with the *Dharmapada*, with chapters 7-11 successively treating the introduction and analysis, paleography and orthography, phonology, morphology, and transcription, translation, and commentary. Since the *pūrvayoga* text, however, is quite different in that it consists of narratives (rather than the injunctions of the *Dharmapada*), Lenz embarks upon topics (e.g., *avadāna* [parable] and *jātaka* [previous birth] literature) not touched upon in Part I. Furthermore, where the *Dharmapada* text consists of only fifteen lines, the *pūrvayoga* text is made up of 45 lines with widespread parallels, hence Part II is naturally much longer than Part I (172 pages [counting related appendices] versus 76 pages).

Since there are five *pūrvayoga* stories on this part of the scroll for a total of only 45 lines, this means that an average of only five lines is devoted to each story. Consequently, the stories are highly abbreviated and formulaic. These characteristics lead Lenz to the reasonable conclusion that the *pūrvayoga*s preserved on the scroll were intended to serve as "memory aids or mnemonic devices." Typically, the full telling of these stories would be roughly twenty times as long in other texts where they are written out in their entirety. Other intriguing topics broached in Part II but not in Part I are those of punctuation and interlinear *likhidago* ("written") notations. Lenz suggests (pp. 109-110) that such characteristics may indicate that these texts were part of some sort of pedagogical exercises. This is entirely within the realm of possibility and reminds us of the close connection between school exercises and popular religious literature at Dunhuang.[4]

The four appendices include the following:

1. Verse Concordance: London, Khotan, Pali, and Patna *Dharmapada*s and *Suttanipāta*, *Udānavarga*, and *Jātaka*

2. A Second *Pūrvayoga* of Ājñāta Kauṇḍinya (British Library Fragment 3): Text and Commentary

3. *Avadāna* of Zadamitra (British Library Fragment 1): Text and Commentary

4. Sanskrit and Chinese Parallels for *Pūrvayoga*s 1-4

I should note that the English translations of the Chinese texts, done by Bhiksu Dharmamitra, are quite reliable overall. There are a few places, however, that might call for refinement or amplification. A couple of instances will suffice. When merchants set out across the ocean, they are not necessarily searching only for jewels (p. 213, l. 5), but "treasure[s]" (*bao3*) in general. On p. 244, there is a reference to the second son named Ponu (literally, "[Old] Woman-slave") of a king of Benares. A mystifying note in the *Taishō* text states that "In the language of the Sui, this means 'moon.'" In a note (p. 244n22) we are told only that "this editorial note is integral to the *Taishō* text." To make sense of the note in the *Taishō* text, a certain amount of unpacking is necessary. Superficially, the note would seem to indicate that Ponu is the transcription of a presumably foreign word than means "moon" in Sinitic (i.e., "Chinese" -- which we assume would be "the language of the Sui [Dynasty]"). However, the name Ponu is also readily intelligible as a Sinitic expresssion, viz., "[Old] Woman Slave." The likelihood that Ponu is a translation rather than a transcription is enhanced by the fact that the king's name is Fande, which is easily translatable as "Brahman Virtue" and his first son's name is Xigen, which is translatable as "Joyous Faculties." It would be odd to have two of the names be translations and one a transcription. On the other hand, "[Old] Woman Slave" would, to say the least, be a strange name for a prince. In the Sanskrit parallel to this *pūrvayoga* which is preserved in the *Saṅghabhedavastu* (II 64-6; see pp. 81 and 241 of the volume under review), the king is called Bhānu ("Brightness; Sun"), the first son is called Bhānumān ("Possessed of Brightness"), and the second son Bhānumanta ("Possessed of Brightness"). In *Pūrvayoga* 4 itself, the father is called Gaṣabadhaga, the elder son Sabrudidrigo, and the third son Bhano. On pp. 179-180, there is a great deal of very helpful information about all of these names in Sanskrit, Gandhari, and Chinese, and it should have been cited in n22 on p. 244. I shall not repeat all of the information on pp. 179-180, but will highlight a few points and make a few more observations that will serve to illuminate the mysterious note in the Chinese text.

Perhaps most intriguing of all is that the father's name in Gāndhārī probably has an Indo-Iranian or purely Iranian origin. In any event, the second half of the name, *bhadaga*, may well correspond to the common Middle Iranian (Pahlavi) word *bandak* ("servant, attendant"), which occurs commonly as the second half of Iranian names (Ātūnbandak, Mihrevandak, etc.). What is striking about this name is that it brings to mind the seond half of the Chinese name Ponu, where -*nu* ("slave, servant") means virtually the same thing as the second half of the Iranian name mentioned first above. Much more could be said about all of these names, but I shall close this discussion by noting simply that the name of the third son in the Gāndhārī text is Bhano ("brightness; sun"), and that this sounds very much like Ponu in the Chinese text. What seems to have happened is that the Chinese name was meant to be a transcription of Sanskrit *bhānu* or Gāndhārī *bhano*, both of which mean "brightness, sun," and that the mysterious Chinese note originally read "In the language of the Sui, this means 'sun.'" In other words, the Chinese text originally must have read *ri* ("sun") instead of *yue* ("moon"), but a scribal error occurred during the course of transmission of the *Fo benxing ji jing*. It is easy to understand how this could have happened, because *ri* ("sun") and *yue* ("moon") are the two main heavenly bodies. Furthermore, the characters used to write *ri* and *yue* both consist of four strokes and are very similar in appearance; when written quickly, they are easily confused.

In n24 on p. 252, it is said that *piji* is "A transliteration of Sanskrit probably meaning something like 'personal attendant,' 'younger brother,' or 'younger cousin.'" Again, this note is less than what is required to clarify the term *piji*. Just what is it a transcription of? Can we even be absolutely certain that it is a transcription of a Sanskrit word?

The appendices are followed by six pages of references, a word index for Dhp-G[L], and a word index for the *pūrvayoga* text. The indices give the Gāndhārī entry as the headword, then its Pali and/or Sanskrit equivalent, an English translation, and line references to its occurrence(s) in the transcribed texts.

Like the other volumes in the Gandhāran Buddhist Text Series, this one on the *Dharmapada* and five *pūrvayogas* is of excellent quality. Timothy Lenz and his colleagues deserve our warm congratulation for the conscientious work that they are doing on these very important texts. The British Library is fortunate to have chosen the Early Buddhist Manuscripts Project at the University of Washington as its center for the study and publication of the Gandhāran Buddhist texts that have come into its possession. Kudos also to the University of Washington Press for producing these quality volumes.

---

1. The first three paragraphs of the present review draw heavily, in places almost verbatim (*sans* some references) on the "Preface" of Lenz's monograph. It would have been difficult for me to improve upon their succinct and informative quality.

2. See the series introduction in Richard Salomon (with contributions by Andrew Glass), *A Gāndhārī Version of the Rhinoceros Sūtra: British Library Kharoṣṭhī Fragment 5B*, Gandhāran Buddhist Texts, Vol. 1 (Seattle: University of Washington Press, 2000), pp. xi-xiii and Richard Salomon (with contributions by Raymond Allchin and Mark Barnard), *Ancient Buddhist Scrolls from Gandhāra: The British Library Kharoṣṭhī Fragments* (London: British Library; Seattle: University of Washington Press, 1999). For non-specialists, I should note that Gāndhārī is a Prakrit (i.e., ancient vernacular language) of the northwest corner of the South Asian subcontinent and Kharoṣṭhī is one of India's two ancient scripts, the other being Brāhmī.

3. *Gāndhārī Dharmapada*, London Oriental Series, 7 (London: Oxford University Press, 1962).

4. See Victor H. Mair, "Lay Students and the Making of Written Vernacular Narrative: An Inventory of Tun-huang Manuscripts," *Chinoperl Papers*, 10 (1981), 5-96.