

THE PAGEANT OF CHINESE HISTORY. By ELIZABETH SEEGER.
Illustrated by BERNARD WATKINS. pp. 414. London :
Routledge, 1934. 8s. 6d.

It was an excellent idea to write a history of China for children, and we therefore welcome this volume. But if children are to learn only the traditional view of early Chinese civilization they will miss a great deal. An introduction to the modern scientific view of China's beginnings, to archæological field-work in China parallel with that undertaken in Egypt, in Mesopotamia, in India, suitable material for a review of which now exists in book form as well as in journals, would have lifted the legendary period of ancient China out of the realm of faery into the modern child's fairy-land of science, and shown Chinese origins as they are at present conceived.

Nevertheless, though much has been omitted from this volume, much has been included which must evoke in childish minds a clearer picture of some aspects of Chinese civilization than is commonly found. The writer is evidently sympathically disposed towards the Chinese ; there is indeed a tendency to prejudice in favour of China, noticeable, for instance, in the account of the Opium Wars, and we feel also that the Chinese would deprecate the author's implied identification of *Shang Ti* with the Christian God.

This is a book for the younger generation, whose thanks Miss Seeger merits for this introduction to a problem to which they will almost certainly be called upon to supply a solution at some future date. The volume is attractively produced and the illustrations will delight childish readers.

E. EDWARDS.

WORD FAMILIES IN CHINESE. By BERNHARD KARLGREN. Reprint from the Bulletin of the Museum of Far Eastern Antiquities, No. 5. 10½ × 7½, pp. 112. Stockholm, 1934.

It is universally recognized that Chinese is genetically related to the languages of the Tibetans and of many of the Indo-Chinese, but precisely how they are connected is as yet obscure. True, attempts have been made to compare Chinese words with resembling terms in the T'ai languages and the Tibeto-Burman family of languages, and some very convincing equivalences have been proposed. Dr. W. Simon's study, *Tibetisch-Chinesische Wortgleichungen, Ein Versuch*,¹ is a case in point. But, in fact, a comparison of isolated words can

¹ *Mitt. Sem. Or Spr. Berl.*, Bd. xxxii, 1929, Abt. 1.

With especial caution the author avoided "dictionary words" and the words which consist of two elements such as *ku*, *pá*, etc., for these are too risky for comparison owing to the shortness of their word bodies. Instead he wisely selected the commonest words composed of three elements: initial, vowel (diphthong), and final, such as are to be found in Soothill's Pocket Dictionary. These he has classified into ten different types: A. *k-ng* (369 words), B. *t-ng* (673 words), C. *n-ng* (73 words), D. *p-ng* (188 words), E. *k-n* (334 words), F. *t-n* (353 words), G. *n-n* (51 words), H. *p-n* (155 words), I. *k-m* (88 words), and K. *t-m* (86 words), *n-m* (4 words), *p-m* (2 words). The *k*-group includes words with *k'*-, *g*-, *g'*-, *ng*-, *χ*-, *·*-; the *t*-group words with *t'*-, *d*-, *d'*-, *t̂*-, *t̂'*-, *đ*-, *đ'*-, *ts*-, *ts'*-, *dz*-, *dz'*-, *tʂ*-, *tʂ'*-, *dʒ*-, *ʂ*-, *s*-, *z*-, *ʃ*-, *l*-; the *n*-group words with *n*-, *l*-; the *p*-group words with *p'*-, *b*-, *m*-. Similarly, the *-ng* group embraces words ending in *-k*-, *-g*; the *-n* group words ending in *-t*-, *-d*-, *-r*; the *-m* group words ending in *-p*-, *-b*. Under each of the above-mentioned ten types words that are proposed to be cognate by the author are placed together, and it is quite easy to see that the words belonging to each word-family thus arranged have related meanings. Phonetically, however, many words that are assumed to be akin appear dissimilar, e.g. *g'wáng* "bright", *kog* "bright", and *χiuk* "brightness" (p. 60), where the initial

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consonant, the principal vowel, and the final consonant differ in each case. That such a grouping is justifiable notwithstanding is clearly illustrated by the “Laws of Alternations” (pp. 98–118) deduced from copious examples.

The whole study is based on the materials taken from one and the same archaic dialect, and is so extensively and systematically carried out that there is no room for doubt as to its accuracy, even though some of the word-families thus arrived at may yet prove to be subject to necessary modifications when comparative Sinitic linguistics has attained a more advanced stage. In order, however, to provide us with this valuable study Professor Karlgren has had to reconsider certain phonetic categories in Archaic Chinese which he had treated in his *Shī King Researches*, and to take up certain other rhyme categories which he had reserved for future discussion.

Dealing first with “Categories ending in Arch. Dental Consonant” (pp. 10–39), he tells us how well the rhyme category A ending in Arch. *-ân* (with a long *a* grave), *-an* (with a long *a* aigu), and *-ǎn* (with a short *a*) is distinguished from the rhyme categories B ending in Anc. *-ien*, *-iĕn* (with or without a ho k’ou vowel *w* or *u*), and C ending in Anc. *-ən*, *-iĕn*, *-iĕn*, *-ien*, *-an* (with a short *a* aigu), *-iĕn* (with or without a ho k’ou vowel *w* or *u*). The problem is: Why do we find the Anc. endings *-ien* and *-iĕn* in both B and C which were strictly kept apart in Archaic Chinese? Seeing that these endings in cat. C formed a rhyme group with the endings *-ən* and *-an* they were in all probability pronounced *-iĕn* and *-iĕn* respectively in Archaic Chinese. If so, the similar Anc. endings in B could be archaic. This supposition, thinks Professor Karlgren, accounts for the reason why Arch. *-iĕn* was kept only after the gutturals and the labials (with ho k’ou only) down to the Ts’ie yün time, whereas Arch. *-iĕn* was preserved unaltered after all consonants. In other words, Arch. *g’iĕn*, *k’iĕn*, *p’iĕn* of cat. C suffered no changes, whilst Arch. *t’iĕn* and *l’iĕn* became Anc. *t’siĕn* and *t’siĕn* respectively, thus coinciding with the Arch. *-iĕn*, *-iĕn* of cat. B. Naturally, just as Arch. *s’iĕn* (with a short *i*) became Anc. *s’iĕn* (after dental), so did Arch. *siĕn* (with a long *i*) become Anc. *siĕn* (equally after dental). The *-an* of cat. C, according to the author, goes back to Arch. *-ən* with the vowel *ɛ* which regularly went together with *ə* in the Shī rhymes, e.g. 戒 *kɛg* (> Anc. *kai*): 國 *kwək* (> Anc. *kwək*).

This reconstruction of the Arch. *-ən* has enabled Professor Karlgren to explain the seemingly mysterious presence in cat. C of Anc. *k’iĕn*,

which appears to contradict his belief that the Anc. *-iĕn* after gutturals is derived from Arch. *-iĕn*, not *-iĕn*. The Anc. *-iĕn* of cat. C is found in the forms *tɕiĕn*, *mĕn*, and *giĕn*, but the k'ai k'ou final *-iĕn* after gutturals and laryngals is missing. It is clear, then, that here in Anc. *kĕĕn* we have the missing type Arch. *kĕn*, the *i* correspondence to the *-en* as in Arch. *ken* (> Anc. *kān*). This deduction is supported by the fact that, whereas the Arch. *-iĕn* of cat. B has given Go-on *in*, the Arch. *-iĕn* of cat. C has Go-on *on*. Thus Professor Karlgren concludes that "in cat. C the *-ən* vocalism is primary and principal, and that all the *-ĕn* and *-en* are secondary" (p. 12).

The reconstruction here put forward seems perfect except on one small point. Judging from the fact that the two Arch. vowels *ɛ* and *ə* regularly went together in the Shī rhymes, they must have had a similar acoustic effect. If so, how are we to explain Arch. *kĕn* > Anc. *kĕĕn* and Arch. *tɕiĕn* > Anc. *tɕiĕn* in contrast to Arch. *kĕn* > Anc. *kĕn* and Arch. *iĕn* > Anc. *tɕiĕn*? In the first instance the Arch. *ɛ* is preserved after *tɕ*, but is changed into Anc. *ĕ* after *k*, whereas in the second the Arch. *ə* is kept intact after *k*, but is turned into Anc. *ĕ* after a dental. There must be a strong reason for this strange phenomenon, which, it would seem, requires explanation.

Corresponding to the three *-n* categories—A, B, and C—we have three categories—D, E, and F—ending in Arch. *-t* and *-d*. Here it must be noted that Professor Karlgren has reverted to his older theory, according to which the Anc. final *i* with a falling tone as in 害 Anc. *γăi* and 例 Anc. *liăi* evolved from Arch. *-d*, but which he later modified by proposing a *-t* with a falling tone in place of *-d*. The parallelism between A, B, and C, on the one hand, and D, E, and F, on the other, is beautifully illustrated by the author (pp. 14–19).

The twenty-one pages that follow the above discussion are devoted to the most intricate problem, namely the curious rhymes in which Anc. *-ən* goes together with Anc. *-ei*, e.g. 晨 : 輝 : 旂 Anc. *ziĕn* (< Arch. *dĕn*) : 𣎵 *wei* : 𣎵 *gĕi* : 芹 : 旂 Anc. *g'iĕn* : 𣎵 *gĕi*. The first words in these rhymes, i.e. 晨 and 芹, belong to cat. C, while both 輝 and 旂 belong to cat. G, which comprises words mostly ending in Anc. *-i*. Professor Karlgren once suggested that certain Arch. *-iĕn* became *-iĕn* > *-iĕn* > *-iĕi*, just as certain Arch. *-ān* became *-ān* > *-ā*, on the ground that certain words with *-n* have rhyming or hie sheng connections with words ending in a vowel, e.g. 難 Anc. *nā* with phonetic 難 *nān*, 𣎵 *d'ā* with phon. 單 *tān* and rhyming with 𣎵 *γān*. This assumption, as he has since noticed, fails to give a satisfactory

explanation as to why e.g. 𪛗 (Arch. **d'ân* according to this hypothesis) should get its *-n* eliminated by nasalization and become Anc. *d'â*, while 單 (Arch. *tân*) has always kept its *-n*. The contacts of *-n* words with words ending in a vowel are too numerous to allow us to consider this discrepancy as being due to a dialectal difference. Besides, to assume that 旂 Anc. *g'jɛi* originally ended in *-n*, hence got its phonetic 斤 (Arch. *kjɛn*) and rhymed with 晨 (Arch. *âjɛn*), but dialectally developed into **g'jɛn* > *g'jɛi*, whilst 鮮 Anc. *sjɛn* had been nasalized in some archaic dialect (thus *sjɛn* > *sjɛñ* > *sjɛi*) and therefore could rhyme with the *-i* word 泚 Anc. *ts'i*, would imply two different nasalization theories, which is very disturbing. "If," the author continues to controvert, "冠 *kuân* > dial. **kuâi*, in order to rhyme with *kjwɛi*¹ (with original *-i*), how could 讎 **nân* > dial. **nâ* in order to rhyme with 左 *tsá*, and not *nâi*? All this is plainly impossible" (p. 26).

Although his rationalization on this particular point is to my mind not perfect, the trend of his argument is quite clear, and his conclusions acceptable. We can be certain, as he maintains, that the contact between *-n* words and vowel-ending words cannot have been a question of the vocalism. Nor can we suppose it to have had anything to do with tone. Can we, then, assume a palatalized *-ñ*: 旂 **g'jɛñ*: 近 *g'jɛñ*? In answer to this question Professor Karlgren says: "This would explain very nicely why *g'jɛñ* has become *g'jɛi* but *g'jɛñ* kept its *-ñ*: *g'jɛñ*. On the other hand, it would furnish a passable explanation why a supposed 頤 **g'jɛñ* could rhyme with a 衣 *jɛi*—because of its yodicized (*i*-tasting) final *-ñ*. But we realize immediately the impossibility of this explanation. It would explain only a few cases. It could never be applied to cases like 山 Arch. *sǎn* rhyming with 歸 *kjwɛi*, or 匪 *pjwɛi* *kia tsie* for 分 *pjwɛn*, for we cannot suppose a palatal *-ñ* in *sǎn* and *pjwɛn*, which have their *-n* preserved in Ts'ie yün and down to our time; nor would it be applicable to cases like 讎 *nâ* (< **nân*?) rhyming with 左 *tsá*, 蟠 *b'ua* rhyming with 睥 *γán*" (p. 27). This, I regret to confess, I do not quite understand. Do not both 頤 and 衣 belong to one and the same rhyme category, G? Why, then, should we assume an *-ñ* final for 頤 and not for 衣? Again, could 山 Arch. *sǎn* not rhyme with 歸 Anc. *kjwɛi* (cat. G), if the latter ended in *-ñ* in Archaic Chinese? On the other hand, I agree with Professor Karlgren in his contention that "it would be very bold to construct an Archaic antithesis 旂 *g'jɛñ*: 近 *g'jɛñ*,

¹ This seems to be a misprint for *jɛi*.

for then we should have to find a reason why *-n* in the one case was 'mouillé': *-ń*, in the other not: *-n*; simply to say that this is due to unknown earlier phenomena (in Proto-Chinese) would be very unsatisfactory" (p. 27).

For a similar reason and on the ground that cat. G in normal cases is well distinguished from cat. C (*-ən* group) we cannot imagine an *-n* that was weaker than *-n* that was preserved. However, we know that Anc. *-i* frequently goes back to Arch. *-g* or *-d*. If the Anc. *-i* of cat. G were of consonantal origin, it must have been a dental consonant, since the words of this category often interchanged with words in *-n*. This assumption is well supported by the fact that, besides the numerous contacts between *-i* and *-n* words in rhymes, hie sheng, and kia tsie (as illustrated on pp. 21-5), an etymological connection between *-i* and *-n* words can also be traced with a great amount of certainty in many cases, e.g. between 衣 Anc. *ʹjɛi* "clothes" and 隱 Arch. *ʹjən* "to cover, conceal". The dental final cannot have been *-d* or *-ḍ* (as Dr. Simon has assumed for 旂, thus *gʹjɛḍ*), for then there would have been an interchange with *-t* in rhymes and hie sheng instead of with *-n* as we actually find. Nor can it have been *-t*, for as a rule the *-i* words of cat. G do not rhyme with ju sheng *-t*. If the final dental consonant cannot have been *-t*, *-d*, or *-n*, it must have been *-r*, *-l*, or *-s*. But since the words of cat. G all rhymed regularly and freely with each other in Shī king time, it is impossible to suppose that some of them ended in *-r* and others in *-l* or *-s*. Either all had *-r* or all had *-l* or all had *-s*. Professor Karlgren has decided upon *-r* for the following reasons. First, an *-s* is impossible from the point of view of rhymes (with *-n*), hie sheng, and kia tsie, whilst *-r* and *-l* are equally possible in these connections. Secondly, it is easier to imagine an evolution Proto-Chinese *-s* > Arch. *-r* (e.g. = *ńjəs* > *ńjər*) than Proto-Chinese *-s* > Arch. *-l* (*ńjəs* > *ńjəl*). The latter would go against all linguistic experience, whereas the former is a common and well known transition similar to the "rhotacism" in Latin. In support of his argument Professor Karlgren quotes seven Tibetan words ending in *-r*, *-l*, and *-s* in comparison with the Chinese words ending in Anc. *-i* as probable cognates, and also Professor Pelliot's interpretation of 師 Anc. *ʃi*, occurring in the Hsiung-nu name 師比 Anc. *ʃi-pji*, which is usually known in the form 鮮卑 *Sien-pi*, but which is also transcribed 犀毗 Anc. *siei-bʹji*, 私鉞 Anc. *si-bʹji*, etc. (where both 犀 and 私, like 師, belong to our cat. G), as representing the sound *sār* or *ser*.

The *-r* final thus proposed by Professor Karlgren for the words of cat. G tallies beautifully with *-d* of cat. F and *-n* of cat. C, with the exception of a few Anc. *-ie*, *-wie* words (cat. G) which must be regarded as irregular. Besides, it speaks strongly in favour of Arch. *-d* (not *-t'*) for Anc. *-i* words of cats. D, E, and F as Professor Karlgren first suggested in his *Analytic Dictionary of Chinese*. Thus he concludes: "an *-i* as final and principal vowel of an Arch. syllable did not exist at all; *i* (strong, vocalic) or *ɨ* (short, consonantic) occurred exclusively as a 'medial *i*', a subordinate element inside the syllable, combined with other vowels" (p. 36).

The above discussion is followed by a further study on the word-groups ending in Arch. *-k*, *-g*, and *-ng* (pp. 39-55). In his *Shī King Researches* Professor Karlgren supposed an implosive final for 路 *glō* (< *glāg*), since type 路 rhymes with type 故 *ko* but not with type 家 *kā* which rhymes with type 故. He has now abandoned this theory of implosive final and, following Professor Li Fang-kuei's suggestion, proposes a glottal stop in its stead, thus *kā*: *ko* and *ko*: *glō*, but never *kā*: *glō*. His conclusion is: "final *-g* was still living, in Shī times, after *e*, *ə*, *o*, and *u* (e.g. 來 *lāg*, rhyming with *-k*), but after the vowel *a* it very early became ' (glottal stop): 路 *glāg*, 怕 *p'āg*, 夜 *ziāg* became *glā*', *p'a*', *ziā*', and these again *glō*', *p'o*', *ziō*' in the Shī language" (pp. 40-1).

Next comes the question of Anc. *-ɤu* (occurring after labials only) which in his *Shī King Researches* he traced back to Arch. *-ug*, e.g. 母 Anc. *mɤu* (< Arch. *mug*). This he now considers as answering to Anc. *-ái* (occurring after gutturals and dentals, but not after labials) which goes back to *-ag*, that is to say that Anc. *-ɤu* also comes from Arch. *-ag*; thus 母 Arch. *māg*. This hypothesis, Professor Karlgren reminds us, does not in the least contradict the statement of a general rule in the hie sheng characters, according to which k'ai k'ou and ho k'ou words do not serve for each other, for the words with labial initials are exceptions from the general rule; 母 Arch. *māg* can therefore be phonetic in 每 Arch. *mūwag* as well as in 海 Arch. *χmāg*.

The author then proceeds to discuss the much-debated problem whether Anc. *-āng*: *-ung*: *-iung*: *-uong*: *-iungwong* form one rhyme category in Shī king or two, and to determine their principal vowels in Archaic Chinese. He endorses Professor Li's view that Anc. *-āng*: *-ung*: *-iungwong* had one kind of principal vowel in Archaic Chinese, *-uong*: *-iung* another. Whilst realizing the unsatisfactoriness of his earlier reconstruction:—

Arch.	- <i>ǎng</i>	- <i>ong</i>	- <i>ǐong</i>	- <i>uong</i>	- <i>ǐwong</i>
Anc.	- <i>ǎng</i>	- <i>ung</i>	- <i>ǐung</i>	- <i>uong</i>	- <i>ǐwong</i>

Professor Karlgren refuses to accept Professor Li's suggestion Anc. -*ǐung* < Arch. -*ǐung*, Anc. -*uong* < Arch. -*ung*, Anc. -*ǐwong* < Arch. -*ǐong*, and adheres to his own opinion that Anc. -*ǐung* was Arch. -*ǐong* of some kind and Anc. -*uong* had some kind of *o*. In order to explain his objections to Li's hypothesis, Professor Karlgren compares the -*ng* series with the corresponding -*k* and -*u* (< Arch. -*g*) series, because the latter two series present themselves in three different categories, I, II, and III, while the -*ng* series occur only in cats. I and III. For cat. II Professor Li has proposed a principal vowel which lies "half-way between" the vowel sounds in French *or* and English *all*. "This," Professor Karlgren disapproves, "is of course phonetically extremely unnatural and impossible" (p. 48). Besides, the assumption of such a vowel for cat. II fails to explain why this category does not interchange frequently with words of type 作 Arch. *tsák*, etc., and with cat. III (-*ǎk* according to Li) instead of having contact with -*u* words of cat. I as it actually does. Furthermore, Professor Li's reconstruction system leaves several empty spaces which cannot possibly be filled in logically.

However, Professor Karlgren himself has had to acknowledge the fault he had committed in his *Shī King Researches*, i.e. 谷 Arch. *kok* (> Anc. *kuk*), 曲 Arch. *k'ïok* (> Anc. *k'ïwok*). He has now derived Arch. -*uk*, -*ǐuk* for words of these types on the ground of the following two facts:—

"(1) Whereas the *ǎk*, *uok*, *ǐuk* of I and II have frequent connections, in rhymes and hie sheng, with words of types Anc. *ǎk*, *ǐak*, *iek*, *ǐǎu*, *ieu*, words which obviously all had *k'ai k'ou*, the *ǎk*, *uk*, *ǐwok* of III have no such connections.

"(2) In irregular rhymes, III often (but I and II never) mixes with Tuan Yü-ts'ai's cat. 4, which quite certainly was Arch. -*u'* -*ǐu*" (p. 49).

These newly proposed finals -*uk*, -*ǐuk* for cat. III at once tell us that -*ǎk* III, which was clearly distinguished from -*ǎk* I and -*ǎk* II, must have had some kind of *u* in order to rhyme with -*uk*, -*ǐuk*, and to have constant interchange with them in the hie sheng. But what kind of a *u* was it? Was it different from the *u* in -*uk*, -*ǐuk*? Professor Karlgren thinks that the difference was one of quantity, not of quality. Just as in *ang* : *ǎng*, *iang* : *ǐǎng*, *an* : *ǎn*, *ian* : *ǐǎn*,

etc., the short-vowelled rhymes with medial $\dot{\imath}$ existed only after gutturals (with laryngals) and labials but not after palatals and dentals, whilst those without medial $\dot{\imath}$ occurred after the said gutturals and labials (as well as after certain dentals, but not after other dentals), so do we find here in cats. I, II, and III the three Anc. $\dot{a}k$ types occurring principally after gutturals and labials. Similarly, the two Anc. $\dot{a}ng$ types of cats. I and III ($\dot{a}ng$ II being lacking) are mainly $k\dot{a}ng$ and $p\dot{a}ng$. From this reason Professor Karlgren concludes that the $\dot{a}k$ of cats. I, II, and III and the $\dot{a}ng$ of cats. I and III each had a $\check{u}$, a short u . Thus Anc. $\dot{a}k$ III < $\check{o}k$ < Arch. $-\check{u}k$ as a contrast to Anc. $-\dot{u}k$ < Arch. $-\dot{u}k$ and Anc. $-\dot{\imath}wok$ < Arch. $-\dot{\imath}uk$. Likewise, Anc. $-\dot{a}u$ < $-u$ < Arch. $-\check{u}g$ in contrast to another Anc. $-\dot{a}u$ < $-u$ < $-ug$ and Anc. $-\dot{\imath}u$ < Arch. $-\dot{\imath}ug$. So also Anc. $-\dot{a}ng$ < $-\check{o}ng$ < Arch. $-\check{u}ng$ as against Anc. $-\dot{u}ng$ < Arch. $-\dot{u}ng$ and Anc. $-\dot{\imath}wong$ < Arch. $-\dot{\imath}ung$.

This derivation incidentally shows us that Arch. $-\dot{\imath}ung$, $-\dot{\imath}uk$, $-\dot{\imath}ug$ which are found under $-\dot{a}$ category are really the short-vowel correspondences, i.e. $-\dot{\imath}\check{u}ng$, $-\dot{\imath}\check{u}k$, $-\dot{\imath}\check{u}g$, which are missing in cat. III. The reason why they should rhyme, not with $-\check{u}ng$, $-\check{u}k$, $-\check{u}g$ in cat. III, but with $-\dot{a}ng$, $-\dot{a}k$, $-\dot{a}g$ in the $-\dot{a}$ category is, according to Professor Karlgren, that the short $\check{u}$ when preceded by an $\dot{\imath}$ must have sounded something like u in English *value*, which “stands genetically and acoustically fairly close to $\check{a}$ ”, and hence in rhymes and hie sheng it went together rather with $\check{a}$ than with “a narrowly labialized and strongly velar $\check{u}$ and u ” (pp. 51-2). Thus he has reconstructed 𪛗 Arch. $k\check{u}ng$, 𪛗 Arch. $g\check{u}k$, 𪛗 Arch. $k\check{u}g$, with an explanation that the $\check{u}$ in these types had “a different and more open timbre than the $\check{u}$ in types $k\check{u}ng$, $k\check{u}k$, $k\check{u}g$ ” (p. 52).

The categories I and II have a strong similarity, but seeing that Anc. $-\dot{\imath}\dot{a}u$, regular and frequent in cat. II, does not as a rule exist in cat. I, just as $-\dot{\imath}\dot{a}u$, regular and frequent in cat. I, does not exist in cat. II, there must be a fundamental difference between I and II. Since cat. III had u , I and II cannot possibly have had the same. And since $\dot{a}k$, $\dot{e}k$, $\dot{a}k$, $\dot{a}k$, $\dot{e}k$ have already been suitably proposed for other Shī king rhyme categories, the two categories under consideration must have had some kind of o for principal vowels. Whilst differing from Professor Li on many points, Professor Karlgren agrees with him in considering that cat. II had a more open principal vowel than cat. I, and has arrived at $\hat{o}$ (a closed o) for I, o (an open o) and $\hat{a}$ for II, distinguishing at the same time the short-vowelled syllable from the long-vowelled: $\check{o}$ as against o and $\hat{o}$ as against $\hat{o}$ (p. 53).

A passing mention is made of Anc. *-eng* (*-ek*, *-qi*). These finals, according to Professor Karlgren, go back to two different Arch. origins. He states that “one of them, with an open, slack *ä* sound : Arch. *-eng*, *-ek*, rhymes with the neutral slack *a* ; *ang*, *ak* ; the other, which in Ancient Chinese coincided with the open *ε* (since 耕 *-eng* : 清 *-iäng* : 青 *-ieng* are different rhymes in the Ts’ie yün) must have been another kind of *ä* or *e* in Archaic Chinese ” (p. 54). On the analogy of cat. B quoted above, he concludes that the types 耕 *-eng*, 厄 *-ek*, and 解 *-qi* had Arch. *-ëng*, *-ëk*, and *-ëg* respectively, as a contrast to 橙 *-eng* (< Arch. *-eng*), 革 *-ek* (< Arch. *-ek*) and 戒 *-qi* (< Arch. *-eg*). Naturally, 清 *-iäng* is derived from Arch. *-iëng* and 青 *-ieng* from Arch. *-ieng*.

Lastly Professor Karlgren points out the difficulty of reconstructing Arch. initials, for here we have only one set of material at our disposal ; the poetry fails us entirely. “I am afraid,” says the author, “that many consonant groups may have existed where we can only discern single consonants ” (p. 56). In a case like 各 Anc. *kák*, 洛 *lák*, it is doubtful whether the consonant group existed in the *k* member or in the *l* member or in both members, which hints at the three possibilities : A 各 *klák* : 洛 *lák* ; B 各 *kák* : 洛 *klák* (*glák*) ; C 各 *klák* : 洛 *glák*. However, our knowledge of 藍 Anc. *lám* “indigo” (with 監 Anc. *kam* as phonetic) going back to Arch. *glám* which corresponds to Siamese *k’ram* (< *gram*) “indigo”, and of the probable Arch. sound *klák* of 閤 Anc. *kák* (which occurs in a phrase 約之閤閤 in the Shī king) speaks in favour of alternative C ; thus 各 Arch. *klák* : 洛 Arch. *glák*. This is, of course, but one isolated case, and, as Professor Karlgren warns us, we must not generalize too rigidly and conclude that the hie sheng creators always applied the C type.

What has been said above should be sufficient to show that Professor Karlgren’s analysis is very thorough and is of great value. Of particular importance is his reconstruction of the *-r* final. Even outside Chinese it will undoubtedly raise many interesting problems. In Japanese, for example, the character 播 is read *ha* (current reading *han*), and 敦 *ton*, *don*. But in the place-names 播摩 (*Harima*) and 敦賀 (*Tsuruga*) they represent the sounds *hari* and *tsuru* respectively. In the Kojiki (eighth century) the name 敦賀 is written 都奴賀 (*Tunuga*), in the Reiki (ninth century) 都魯賀 (*Turuga*), and in the Wamyōshō (tenth century) 都留我 (*Turuga*). The Japanese scholars, therefore, interpret the strange readings 播 *hari* for *han* and 敦 *tsuru* (< *turu*) for *ton* as instances of the *t~n~r* alternation

which is sometimes, though not frequently, met with in the language.¹ But is this the only possible explanation? Can we, on this single evidence of *Tunuga* > *Turuga*, safely conclude that 播摩, which is transcribed 波里萬 *Farima* in the Wamyōshō, was once called *Fanima*, hence the character 播 was used to represent the sound *fani*, or that the name was at one time pronounced *Farima* but the character 播 with the sound *fan* was used for *fari* by applying the law of *t~n~r* alternation? It would seem more appropriate to consider that the name 播摩 has always contained an *r* sound and that the character 播 was made to represent *fari* with its Archaic Japanese sound **far*, which had been derived from Arch. *pwār* (cf. pp. 21, 33, 92). But, then, how are we to account for the place-names 平群 *Heguri* (< 倍久里 *Feguri* in the Wamyōshō), 群馬 *Kuruma* (久留末 *Kuruma* in the Wamyōshō), 訓霸 *Kurube* (久留倍 *Kurube* in the W.), 訓竟 *Kurubeki* (久留倍木 *Kurubeki* in the W.) and 駿河 *Suruga* (須琉加 *Suruga* in the W.)? The characters 群 (Arch. *g'iwən* > Anc. *g'iuən*), 訓 (Arch. *χ'iwən* > Anc. *χ'iuən*), and 駿 (Arch. *ts'iwən* > Anc. *ts'iuən*) all have always had an *-n* final, according to Professor Karlgren. Then, again, the drama 散樂, which was pronounced *sarugaku* or *sarugau* in the Heian epoch, has the character 散 (Arch. *sān* > Anc. *sān*) for *saru*. Whether we must adhere to the alternation theory for the explanation of these peculiar readings in Japanese or must interpret them as reflecting variant pronunciations in Archaic Chinese, we may anticipate that Professor Karlgren will settle for us.

The word-families in Chinese, as grouped together by the author, will not only serve as a basis for comparative Sinitic linguistics of the future, but will also provide Japanese linguists with useful material for the investigation of early Chinese loan-words in Japanese and Korean. We eagerly look forward to a still more comprehensive work which the author promises to publish in due course, and to which the present book is intended to be an introduction.

S. YOSHITAKE.

¹ Professor S. Ogura goes so far as to consider that the difference between the Kan-on and Go-on of such characters as 男, 奴, and 女 is due to the same alternation (*Kokugo oyobi Chōsengo Hatsuon Gaisetsu*, 1923, p. 95).