Haudricourt’s main legacies to the field of Chinese historical phonology are his systematic account of tonogenesis, and his reconstruction of final *-s and of labiovelars. The method that he proposed under the term of Panchronic Phonology holds special promise for the study of the languages of China in their universal context.

### André-Georges Haudricourt (1911-1996)

1. Biography

André-Georges Haudricourt was born in 1911. He grew up on his parents’ farm, in a remote area of Picardie. He was curious of techniques, plants and languages from his early childhood. After he passed the Baccalauréat in 1928, his father advised him to enter the National Institute of Agriculture (Institut national agronomique), in the hope that he would obtain a prestigious position in the administration. But at graduation, Haudricourt got the worst mark of the entire year group (1931): unlike his peers, he was not interested in promoting modern tools and techniques, but in understanding traditional techniques, societies, and languages. He attended classes in geography, phonetics and ethnology. Marcel Mauss obtained funding for him to go to Leningrad for one year to pursue studies in genetics with Nikolaj I. Vavilov (1887-1943), whose classes he had attended with great interest at the National Institute of Agriculture. In 1940, Haudricourt was awarded a position in the newly created Centre national de la recherche scientifique, in the Botany department; he switched to the Linguistics department in 1945. His special interest in Asia led him to volunteer to work at the library of the École française d'Extrême-Orient in Hanoi from 1948 to 1949. His sympathy for the People’s Republic of China earned him a chance to visit the country briefly in 1955.

Haudricourt’s impressive scientific production includes phonological work on a variety of languages of China. The full bibliography provided by Dufour 1997 testifies to the breadth of his research interests. To him, science was interdisciplinary as a matter of course. Within the Centre National de la Recherche Scientifique (CNRS), Haudricourt co-founded in 1976 a research centre whose goal is to investigate little-documented languages within their cultural environment, combining ethnological and linguistic work: the LACITO research centre (Langues et Civilisations à Tradition Orale).
He investigated a variety of language groups – European, as well as Asian and Oceanic. As his fragile health did not allow him to conduct much fieldwork himself, he mostly worked on the basis of available reports, which at the time were relatively deficient. He excelled at identifying the shortcomings of these sources by taking into account the language background of the persons who collected the data: reconstructing, as it were, the investigators’ analytic process. He also applied this approach to the analysis of the origin of the peculiarities of the Vietnamese alphabet (1949, translated 2010).

He is remembered as an impressive mentor, at his best in informal exchanges, going straight to the heart of scientific issues. His unpolished style often makes his articles hard to read, but reflects the precision and vividness of his insights. A translation of his most seminal papers is currently in preparation (ed. by Martine Mazaudon and Alexis Michaud, Berlin: De Gruyter Mouton, forthcoming); his more anecdotal pieces, including interviews (Haudricourt and Dibie 1987; Haudricourt and Jacquesson 1989; Haudricourt, Dessein, and Swiggers 1997), are also extremely instructive, reflecting his profound erudition and commitment to down-to-earth scientific method, as well as his nonconformism and acute sense of irony.

2. Contribution to Chinese linguistics

2.1. The relationship between Vietnamese and Chinese

Haudricourt demonstrated (pace Maspero 1912) that Vietnamese and Chinese are not genetically related, teasing out layers of borrowings, and emphasizing that typological similarities, such as the presence of lexical tone, do not constitute evidence for phylogenetic groupings (1953). This represents an important contribution towards defining the boundaries of the Sino-Tibetan family.

2.2. Systematic account of tonogenesis in Chinese

Haudricourt’s account of the origin of tones in Vietnamese (1954) addresses issues of tonogenesis in a range of Asian languages, including Chinese. The discussion takes one step further the insights of previous scholars (most prominently Maspero 1912), concluding:

“Old Chinese only had three tones up until the 9th century. At that time, the voiced stops /g/, /j/ [IPA: j], /d/ and /b/ devoiced to /k/, /c/, /t/, /p/, aspirated or not depending on dialects and on tones. From that point on, the musical height [as opposed to the contour] of the tone became a contrastive phonological property used to distinguish words. Two words which used to be distinct because one had an onset /k/ and the other had an onset /g/ came to be distinguished solely by the higher tone of the former. The three-tone system thus became a six-tone system” (translation by Marc Brunelle).
A systematic account of the two stages of tonogenesis in Chinese was provided by Haudricourt as part of his general model of tonogenesis in Asia (1961), including important observations on the behavior of the mid series of initials in tonogenesis:

“We have seen that Ancient Chinese [=Middle Chinese] had only one series of sonorants. These sonorants were not involved when the voiced and voiceless initial stops merged, and so they form a “mid” series of initials. For example, in Sino-Vietnamese, [=Sino-Annamese], a Chinese dialect of the 10th century preserved in Vietnam as a language of high culture (Maspero 1912:91-93):

\[
\begin{array}{c|ccc}
\text{(*p>) ?b, (*t>) ?d, pʰ, tʰ, (*s>) t, (*ś>) tʰ} & A & B & C \\
m, n, ŋ, l, (*y>) z, (*w>) v & a & ţ & ţ \\
\text{(*b>) ?b, (*d>) ?d, (*z>) t, (*z>)tʰ} & à & â & â \\
\end{array}
\]

We see the paradox that B and C have been confused in the low series, while they remained distinct in the “mid” series. The paradox is only apparent: the tonemes of the “mid” series had no reason to be modified, whereas those of the “low” series had to be distinguished from whose of the “high” series.

Modern Chinese has an analogous treatment (Egerod 1956:24):

\[
\begin{array}{c|ccc}
\text{p, pʰ, t, tʰ, k, kʰ} & 33 ˧˧˧ & 13 ˩˧ & 53 ˥˧ \\
m, n, ŋ, l & 35 ˧˥ & 13 ˩˧ & 53 ˥˧ \\
\text{(* b>) p~pʰ, (*d>) t~tʰ, (*g>) k~kʰ} & 35 ˧˥ & 53 ˥˧ & 53 ˥˧ \\
\end{array}
\]

It should be noted that the treatment of the old voiced stops depends on the tonal category, A, B or C. For words of category A the old voiced stops had become voiceless aspirates, while for the words of category C with which B had been confused, the old voiced stops had become voiceless non-aspirates. The confusions of tones which are produced before the tones are phonemicized into tonemes are thus produced between tones of the same horizontal or vertical series.” (Translation by Christopher Court, published in 1972).

Haudricourt’s model was recently expanded into a generalized model of registrogenesis and tonogenesis, which also ushers in a hypothesis about the origin of the four divisions (sì děng 四等) of Middle Chinese (MC) (Ferlus 2009). This analysis, which is inspired by facts about phonation-type registers that are not familiar to most readers, is not yet widely discussed in sinological circles. Haudricourt did not speak Chinese, and neither does Ferlus. Their
proposals are based on an understanding of Asian languages other than Chinese: mainly Austroasiatic, and also, in the case of Ferlus’s proposal, the Oceanic languages Cèmuhî and Paicî, where simple-vs.-geminate oppositions evolved into tonal oppositions (as noted by Haudricourt 1968 and further studied by Rivierre 1993, 2001). This demonstrates the usefulness of a cross-language approach to address problems found in the study of one specific language. Haudricourt referred to this approach as “panchronic” (Haudricourt 1940, 1978; Hagège and Haudricourt 1978). The aim is to formulate generalizations about sound change that are independent of any particular language or language group. Panchronic laws are obtained by induction from a typological survey of precise diachronic events whose analysis brings out their common conditions of appearance. In turn, these laws can be used to shed light on individual historical situations. (About panchronic phonology, one may also consult a detailed epistemological discussion: Mazaudon and Michailovsky 2007; and recent case studies: Jacques 2011; Michaud 2012; Michaud, Jacques and Rankin 2012.)

2.3. Other contributions to the reconstruction of Old Chinese

Haudricourt’s contribution to Old Chinese reconstruction is not limited to his account of tones. He clarified several rhyming patterns found in the Book of Odes. Words with final stops */-p/-t/-k/ rhyme with words in departing tone (去聲 qùshēng) according to their MC pronunciation: for instance, words in the zhà 乍 and zuò 昨 series (MC: *dzraeH and *dzak, respectively) rhyme, as do words in the bì 敝 and piē 警 series (MC: *bjiecH and *phiet). To solve this puzzle, Karlgren reconstructed a voiced series of finals: /*-d/, /*-g/, and also /*-b/ in some cases.

“Already the fact that Ancient Chinese [=Middle Chinese] possessed -p, -t, -k, -m, -n, -ng but not -b, -d, -g suggests these latter; And this seems so much the more natural as the experience from other languages shows that the mediae [i.e. voiced stops] more easily fall than the tenues. To cite my own language again, there are many Swedish dialects where bēd > bē but bēt > bēt. It is therefore rather likely that it is a final g and a final d we have to expect in words like 乍, 敝” (Karlgren 1923:27-28, cited in Baxter 1992:332).

Some years later, Karlgren realized that the words that he reconstructed with final *-g sometimes rhyme with words whose phonetic series in Old Chinese has no trace of a final stop. At that point, he concluded that final *-g must be generalized to the entire set of syllables that rhymed with his *-g-final syllables. This resulted in a reconstructed language that had almost no open syllables. Karlgren’s reconstruction was adopted by many scholars.

Haudricourt’s theory (1954b) that the departing tone comes from *-s explains this phenomenon: the words with departing tone rhyming with words in final stop should be reconstructed with final clusters *-ks, *-ts or *-ps. Moreover, from the point of view of historical morphology, Haudricourt’s theory of tonogenesis leads to the reconstruction of
several *-s suffixes (in particular a nominalizing suffix) which can be shown to be cognate with those found in conservative languages of the Sino-Tibetan family, such as Tibetan.

This theory has been accepted by nearly all specialists in Chinese historical phonology, with the exception of some scholars in China. Li Fang-Kuei (1971:33-34) mentions Haudricourt’s hypothesis but considers that the internal evidence from Chinese does not allow for any hard-and-fast conclusion, and provisionally chooses to retain Karlgren’s reconstructions with final *-g. This cautious choice tends to be reinterpreted by some of Li Fang-Kuei’s epigones as an outright rejection of Haudricourt’s analysis. As for Wang Li (1989: vol. XVII, pp. 213-247), he points out that the reconstructions of final voiced stops by Bernhard Karlgren and Walter Simon (1928-1929) are problematic, but he is apparently unaware of Haudricourt’s proposal.

A second major finding, also reported in the 1954b article, consists in the hypothesis that there were labiovelars in Old Chinese:

“…it seems that scholars have overlooked the fact that some rhymes in the Analytic Dictionary only appear with velar initials (/k/, /kʰ/, /g/, /x/ and /ŋ/), for instance -i"ei [MC *-wej] 齊, -i"ăng [*-wang] 唐, -i"äng [*-jweng] 清, -i"ák [*-wak] 鐸, -i"et [*-wel] 舌 etc.” (translation by Guillaume Jacques; the Middle Chinese reconstructions added in square brackets are from Baxter 1992).

This idea was used later by Yakhontov 1960a and Pulleyblank 1962 to revise the reconstruction of the Old Chinese vowel system, and is the basis for the six-vowel system that is common to the recent systems of Starostin 1989, Baxter 1992 and Zhengzhāng Shàngfāng 鄭張尚芳 2003.

On the other hand, two of the ideas proposed by Haudricourt have been disproved since the time of publication.

First, in his discussion of the MC initials *dzy- (常 cháng) and *zy- (船 chuán), he argues that the contrast is only due to dialect mixture. However, we now know that these two initials have entirely distinct origins in Old Chinese, and reflect a genuine contrast, though this contrast is poorly preserved in modern dialects. The phonetic reconstruction of these initials in MC by Karlgren was erroneous: it was based on misleading evidence found in the切韻 Qièyùn. The rhyme tables in the Qièyùn clearly suggest an interpretation as voiced palatal affricate and voiced palatal fricative for these two initials, but this agrees neither with earlier texts, nor with transcriptions of Sanskrit in Chinese characters (see Lù Zhīwéi 陸志韋 1947 and Pulleyblank 1962:67-68).
Second, his hypothesis concerning the existence of spirants, which he set up to solve the issues raised by Karlgren’s reconstruction of voiced stops in Archaic Chinese, is now known to be mistaken. Yakhontov 1960b and Pulleyblank 1962 put forward another interpretation, which is now accepted by most scholars: that Karlgren’s *d- should instead be reconstructed as a lateral. A clear account of the necessity of reconstructing laterals in Old Chinese is provided by Baxter (1992:196-199).

This overview has attained its goal if it has shown (i) that Haudricourt’s legacy to the field of Chinese historical phonology is not limited to advances in the study of tonogenesis, and (ii) that the method proposed by Haudricourt under the term of Panchronic Phonology holds special promise for the study of the languages of China in their universal context.

References:


Ferlus, Michel, “What were the four divisions of Middle Chinese?” *Diachronica* 26/2, 2009, 184–213.


Yakhontov, S.E. [Jaxontov, S.E.], “Fonetika kitajskogo jazyka 1ogo tysjacheletija do n.e. (labializovannye glasnye).” *Problemy vostokovedeniya* 6, 1960a, 102-115.

