Chinese ‘buy’ and ‘sell’ and the direction of borrowings between Chinese and Miao-Yao
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Recently André-G. Haudricourt and David Strecker have argued that agriculture is not an original element in Chinese culture, but was acquired when the earliest speakers of Chinese, allegedly nomadic pastoralists speaking a language closely related to Proto-Tibeto-Burman, descended "with their flocks of sheep" from the interior regions of Asia into the irrigated coastal plains, there coming into contact with Hmong-Mien peoples who -Haudricourt and Strecker reason- were already settled agriculturalists.

Early, pre-literate Chinese society was, then, in their view, one in which a class of Sino-Tibetan nobles with a pastoral tradition reigned over a mass of Hmong-Mien peasants. Haudricourt and Strecker further speculate that the former, as pastoralists, were possessed of an ethic in which gifts were a source of prestige, while the latter, as peasants, were more commercially oriented. In their view, the language of the nobles, an early form of Chinese, lacked any agricultural and commercial vocabulary: the historical Chinese vocabulary of agriculture and commerce consists essentially of loans made from the language of the indigenous peasants, an early form of Hmong-Mien.

The article of Haudricourt and Strecker purports to provide support for this theory by adducing linguistic evidence of borrowing of agricultural and commercial vocabulary from Hmong-Mien into Chinese. Thus, they claimed a Hmong-Mien origin for the following Chinese words: 秧 'young rice plant'; 稻 'unhulled rice'; 粉 'flour'; 栎 'bread, pastry'; and 買 'buy' and 賣 'sell'. However, only in the case of the last pair of words, 'buy' and 'sell', did they bolster their view with linguistic arguments tending to establish the direction of borrowing from Hmong-Mien into Chinese: borrowing into Chinese was suggested by them for the other words only "in the light of our agricultural hypothesis". From this one perceives that the case built by Haudricourt and Strecker around the words for 'buy' and 'sell' is crucial to their historical argument.

The new theory advanced by Haudricourt and Strecker is important because, if verified, it could solve a problem inherent with the class of theories which regard Chinese as intrusive in northern China: these theories clash with the evidence of archaeology, where continuity from the earliest neolithic down to modern times is evident. Thus, if one wishes to maintain that Chinese is not indigenous to north China, one needs to answer the question "who were the
early farmers of north China?". The answer of Haudricourt and Strecker is that they were early Hmong-Mien speakers.

But were they really? There are strong grounds, linguistic and other, for rejecting their general hypothesis. In sections 1. and 2. I will show that there is every reason to think that the commercial and agricultural vocabulary shared by Chinese and Hmong-Mien (including and especially the key items 'buy' and 'sell') was actually borrowed by Hmong-Mien rather than the other way around. In section 3. I will discuss some graphic evidence cited by Haudricourt and Strecker in support of their historical model. In section 4., I will discuss some issues of archaeology and anthropology which are directly relevant to the question of Chinese origins.

1. The commercial vocabulary: 'buy' and 'sell'.

Haudricourt and Strecker pointed out that the Proto-Hmong-Mien words for 'buy' and 'sell' - something like *maiB and *maiC - were quite similar to the corresponding Chinese words: maiB and maiC, respectively, in Li's Middle Chinese notation. They argued that "in Chinese the words for 'buy' and 'sell' have no connection with any other word", while "in Hmong-Mien they appear to be derived from the verb 'to have'" (p. 340). This last word, according to Haudricourt and Strecker, differs from 'buy' and 'sell' only in that it has tone A. Accordingly, Haudricourt and Strecker interpreted 'buy' semantically as 'come to have', and 'sell' as 'cause to have'.

Martha Ratliff has presented some evidence which may suggest that Proto-Hmong-Mien, like Old Chinese, had a morphological process capable of deriving tone C words out of words in other tones. However, evidence for a Proto-Hmong-Mien derivational process having tone B words for its output - let alone one with the requisite semantic description - has yet to be presented. Thus, it is an open question whether in fact Proto-Hmong-Mien had the means of deriving a form such as maiB 'to buy', be it from *maiA 'to have', or from *maiC 'to sell'.

On the Chinese side, it is well established and generally uncontroversial that tone C served as a derivation tone: morphological alternations having tone C words as their output have been widely studied. Although many aspects of tone C derivation remain unclear, there is solid evidence that one of its functions was to derive verbs of outwardly directed action (Mei Tsulin calls these verbs exodirectional) out of verbs in which the same action is directed toward

4Unless otherwise indicated, Old Chinese (OC) transcriptions follow Baxter's system, and Middle Chinese (MC) transcriptions follow Li Fang-kui.
5In fact the correspondences are not regular throughout Hmong-Mien. In two varieties of Mun recorded by Therapan L. Thongkum "A view on Proto-Mjuenic (Yao)" (Mon-Khmer Studies 22 (1993): 163-230, esp. p. 190), and in Savina's Haininh Mun as well, the word 'to have' has initial n-, while 'buy' and 'sell' both have the expected m-. The word 'to go' exhibits the same behavior as 'to have':

<table>
<thead>
<tr>
<th>have</th>
<th>go</th>
<th>buy</th>
<th>sell</th>
</tr>
</thead>
<tbody>
<tr>
<td>E.MUN</td>
<td>na:i11</td>
<td>nin11</td>
<td>ma:i31</td>
</tr>
<tr>
<td>W.MUN</td>
<td>na:i11</td>
<td>nin11</td>
<td>ma:i31</td>
</tr>
<tr>
<td>HAININH</td>
<td>naai1</td>
<td>ning1</td>
<td>maa3</td>
</tr>
</tbody>
</table>

(Haininh data as cited by Purnell).
the subject (called endodirectional by Mei). The following examples, which include our 'buy' and 'sell', may be presented:

| 聽 mjun > mjwănA 'hear' | 聽 mjun > mjwănC 'ask' |
| 受 dju > zjauB 'receive' | 授 dju(?) > zjauC 'transmit' |
| 學 gruk > γok 'study' | 學 gruks > γauC 'teach' |
| 貸 thˆk > thâk 'beg, demand' | 貸 thâks > tháiC 'lend' |
| 乞 khjˆt > khjei 'beg' | 乞 khjits > khjeiC 'give alms' |
| 買 mre > maiB 'buy' | 買 mre(?) > maiC 'sell' |

From these examples is it clear, then, that maiC 'sell' was derived from maiB 'buy' within Chinese. Unless all the above pairs are treated as borrowings from Hmong-Mien (an unlikely event, since only the pair for 'buy/sell' has matching forms in Hmong-Mien), the Chinese word for 'sell' cannot be a Hmong-Mien loan.

This can be confirmed by the dates of first occurrence of these two words. The character 買 occurs in the Shang oracular inscriptions, and the meaning 'buy' is undoubtedly attached to it in such classical works as the Zuo Zhuan and Zhuang Zi. In contrast, the earliest evidence for a word meaning 'sell' in a pronunciation corresponding to Middle Chinese *maiC appears in the Shuo Wen Jie Zi (ca. 100 C.E.): the character is there written as 銲A, with 出 'go out' placed over 買 'buy', obviously as an indication of the outward direction of the action. This character is listed in the Middle Chinese rhyme dictionaries (Guang Yun, Ji Yun) with the pronunciation *maiC. Thus the pair 購 maiB 'buy': 銲A maiC 'sell' was established by the 1st century C.E. (and perhaps even earlier, though probably not much earlier, for otherwise the word 'sell' would not fail to occur in the abundant literature of the time) in the standard language.

These dates, by themselves, would be sufficient to cast grave doubt on the interpretation of Haudricourt and Strecker, which probably requires both words to have been borrowed from Hmong-Mien more or less simultaneously: had the words been borrowed at an interval of time such as is implied by the difference in dates of first occurrence, it is doubtful if the parallelism of segmentals in the Hmong-Mien source could have been preserved in Chinese.

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8 ibid., pp. 438-439.

9The character, which originally consisted of a 'net' 网 over a 'cowrie' 貝, appears in a number of Shang inscriptions. Even though their texts are too fragmentary or too obscure to allow the meaning of the character at the time to be determined with certainty, it may be safely concluded from them that the word was a transitive verb, capable of taking quantified objects, and negatable by 弗. The 'cowrie' element was very seldom used as a phonetic in early graphs, and presumably served here as a signfic, most likely with its usual meaning of 'valuable, currency'. The role and meaning of the 'net' element, however, have not been elucidated (See Li Hsiao-ting, Chia-ku-wen Tzu Chi-Shih, vol. 6).

10The character 銲A was later changed to the modern 購 through confusion with a graphically similar character for an earlier word, Middle Chinese *jiwok 'sell', that maiC had replaced in that meaning.
If, as argued above, 'buy' and 'sell' are indigenous Chinese words, what is the origin of the Hmong-Mien forms? There is well-known to exist in Hmong-Mien a large number of Chinese loanwords, among which several successive layers of borrowings may be distinguished: it would not be too surprising if our words belonged to one of these layers. The words would have been borrowed either into Proto-Hmong-Mien, which would account for the (approximative) regularity of sound correspondences between the words for 'have', 'buy' and 'sell' across branches of the Hmong-Mien family; or separately after the break-up of Proto-Hmong-Mien, though soon enough after the break-up for the sound correspondences to conform (by and large) to the regularity pattern.

Two other words of the commercial vocabulary shared by Chinese and Hmong-Mien show clear evidence of borrowing from Chinese: they are the words for 'price' and 'money'.

'Price'.
Proto-Hmong\textsuperscript{11} *NqaC 'price' corresponds to Chinese 價 *kra(?)s > kaC 'id.'. For an exact phonetic parallel, compare Proto-Hmong *NGaB 'to go down', Chinese 下 *gra? > yaB 'to go down'. Mienic has a similar form, Mien \textit{t\'ia5}, Biao Min ka\textsuperscript{5} etc.: Purnell reconstructs PY *t\textit{c}aa\textsuperscript{5} 'price'.\textsuperscript{12} The Hmongic and Mienic forms do not correspond regularly (in particular the Hmongic prenasalization does not appear in Mienic): we are probably in the presence of separate borrowings. The direction of borrowing here is further indicated by the fact that in Hmong-Mien the word for 'price' is morphologically isolated, while in Chinese it belongs to a word family including \textit{賈} *ka? > kuoB 'merchant, buy', *k-r-a? > kaB 'price' (-r- infix), and \textit{酤} *ka? > kuoB 'buy or sell wine'.

'Money'.
Purnell reconstructed Proto-Miao-Yao *dziNA 'money'. This is the same word as 錢 MC dz\textit{j}a\textit{n}A 'coin money'. The earliest occurrence of this word appears to be in \textit{Guo Yu}. The word is never used for cowrie money, which preceded metal coins in China. Chinese metal coins are the earliest in East Asia. This word is evidently a Chinese loan into Hmong-Mien.

From this it appears that the claim of Haudricourt and Strecker that Chinese borrowed some of its commercial vocabulary from Hmong-Mien is not founded in fact. Rather, much of the commercial vocabulary of Hmong-Mien was borrowed from Chinese, most likely during the southward expansion of Chinese during late archaic, Qin and Han times.\textsuperscript{13}

2. The agricultural vocabulary: 'field' and 'flour'.

'Field'.

\textsuperscript{12}Purnell, Herbert C. \textit{Toward a reconstruction of Proto-Miao-Yao}. PhD dissertation, Cornell University (1970). She ka4 t\textit{shin2} and Bunu ca1 c\textit{ien4} 'price' obviously represent recent loans, the former from Hakka ka\textit{s} t\textit{shjen2} or Cantonese ka\textit{s} t\textit{shin2}, and the latter from Mandarin \textit{t\textit{c}ia5 t\textit{shjen2}.}
\textsuperscript{13} Germanic offers a close analogue to the borrowing of words for 'buy' and 'sell' by Hmong-Mien: German \textit{kaufen} 'buy' and \textit{Kaufmann} 'merchant' ultimately reflect Lat. \textit{caupo} 'petty tradesman, huckster, tavern-keeper', introduced during imperial times. Also 'coin', NHG \textit{Münze}, from Lat. \textit{moneta}. 
Haudricourt and Strecker observed that Chinese has only one word for 'field', while separate words for 'wet rice field' and 'dry field' are reconstructible in Proto-Hmong-Mien. From this they concluded that agriculture was practiced longer by Hmong-Mien speakers than by Chinese speakers.

However, if, instead of assuming that Chinese is originally the language of a group of intrusive sheep-herders from Central Asia, we make the simple (and archaeologically transparent) assumption that Chinese developed in situ from the speech of the early Huang Ho agriculturists, the reason for this situation soon becomes clear: Chinese agriculture has from the earliest times (ca. 6000 B.C.E. according to current archaeological evidence) been based on millet, with rice entering the archaeological record considerably later. Millet remained the principal cereal in antiquity, losing ground to other cereals (rice, wheat, maize, sorghum) only in historical times.

In view of this, the fact that Chinese does not have different terms for 'wet field' and 'dry field' may not indicate that "agriculture was practiced longer by Hmong-Mien speakers than by Chinese speakers" but, rather, that Chinese speakers had until a relatively late date been almost exclusively dry-field agriculturists.

The Chinese word for 'field' is 田 (GSR 362a) lin/dienA. The character is also employed in the meanings 'to cultivate the land' (Shi Jing), 'to hunt' (Shi Jing), and as the name of a kind of drum (Shi Jing, Zhou Song, Ode 280). The reconstruction of initial l- rather than d- in the series is supported by interchange with l- words: in the meaning 'kind of drum' (in Ode 280) the Zheng version of the Shi Jing has a hapax character corresponding to 田 in the Mao version, and the Jing Dian Shi Wen gives that character the reading 胤 MC jienC, which can only reflect OC ljin; also, 甸 lin/dienC (GSR 362gh) in the meaning 'carriage' is used as a loan character for 乗 (GSR 895a) L jN/dzjN A. Use of carriages in royal hunts in antiquity probably led to the character 田 being used in the meaning 'to hunt'. The alternance between finals -in and -ŋ, which has some parallels, is usually interpreted as reflecting palatalization of final velars after /i/.

Although 田 in early China probably referred to millet fields, the word was later applied to wet rice fields after Chinese colonists expanded into the Huai and Yangzi basins, and further into south China, where the principal crop is rice. In the Pearl river delta in Guangdong

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15Haudricourt and Strecker, op. cit., p. 338.
17note also the closely related word 擊 (GSR 385l) ljin/jienA 'small drum'.
18This is in any case more probable than Karlgren's etymology 'to go out in the fields', cited by Haudricourt and Strecker in support of their claim that "the Chinese word might originally have referred to fields of any sort, not specifically cultivated fields" (ibid., p. 338).
province, 田 thin2 usually refers to wet rice fields, while the commonest name of the dry field is 地 tei6. There is some evidence, however, that at least some of the early colonists used for the wet field an 'old' pronunciation of 田 with initial l- and a final velar: this would be the source of the loan to Be leg4 'rice field'. The general Min term for 'wet rice field' Fuzhou tshei2, Fuding tshe2, Putian tshe2, Jian'ou tshai5, Jianyang t'ai2 may also belong there, although the etymology proposed by Chen Zhangtai and Li Rulong19 is also possible. Above all, the Hmong-Mien word for 'wet rice field' (Purnell Proto-Hmong-Mien *liN, Wang Fushi Proto-Hmong *linA, Therapan Proto-Mjueinic *rinA) appears also to correspond. There are no clear indications of the direction of borrowing here, but we should note that Be leg4 'rice field' is more likely a Chinese loan than a Hmong-Mien loan, since Hainan Mun has initial g- in this word (a regular development). The same root is found in Tibeto-Burman20, which might suggest Sino-Tibetan antiquity, and hence a loan into Hmong-Mien: but the Tibeto-Burman word might have been borrowed from Hmong-Mien -or, indeed, from Chinese-.

'Flour'.

Haudricourt and Strecker claimed that the Chinese word 粉 (GSR 471d) pjñ > phjuanB 'flour' is a loanword, the source of which is Proto-Miao-Yao *mpanB 'flour'. It is useful to discuss the history of that word in connection with another of similar pronunciation, Proto-Hmong-Mien *mpanC 'snow'21. That word generally means 'snow' in Hmong-Mien languages but its reflexes in Hainan Mun and in the variety of Mien recorded by Downer22 mean 'cloud'. The She reflex means both 'snow' and 'ice', and the same undifferenciated meaning 'snow/ice' is found in the varieties of Mien and Biao Min Yao recorded by the Central Institute of Minorities in Beijing23. Martha Ratliff24 proposed that it is a tone-C derivative in Hmong-Mien of *mpanB 'flour', already cited. If so, then the direction of borrowing could only be from Hmong-Mien into Chinese. The semantic shift from 'flour' to 'snow', however, looks somewhat peculiar, and a further shift from 'snow' to 'cloud', also apparently unparalleled, has to be assumed under Martha Ratliff's hypothesis in order to account for the Mien and Hainan Mun reflexes.

In the same phonetic series as the Chinese word 'flour' (GSR 471) we find the word 霧 phjin > phjuanA 'mist, haze, hoar-frost'. The Chinese glossists consider the two meanings 'hoar-frost' and 'mist' to be closely related, being two aspects of the same substance. It is noteworthy that the word occurs in the meaning 'hoarfrost' in Qu Yuan's Chu Ci

19Chen Zhangtai and Li Rulong (Min Yu Yanjiu. Beijing: Yuwen., 1991, p. 24) argued that the Min word for 'field' is derived from a word (GSR 893no) Ljín/dzjénA meaning 'raised path between rice fields' (稻中畦也: Shuo Wen).
20WT zin < ly- 'field'; also Cuona Menba.
24op. cit., p. 2.
(九章。悲回風), a late Zhou work associated with the state of Chu 楚 in the mid-Yangzi valley area where early Hmong-Mien speakers are known to have concentrated.

The semantics of Chinese *phjın: 'hoar-frost, mist' and Miao-Yao *mpanC 'snow, ice, cloud' correspond tolerably well, including names of both frozen and gaseous forms of water, on each side. This leads us to the parallel equations:

\[
\text{PHM } *\text{mpanC 'snow, ice, cloud'} : \text{OC 霧 *phjın > phjuənA 'mist, haze, hoar-frost'}
\]

\[
\text{PHM } *\text{mpanB 'flour'} : \text{OC 粉 *pjin > pjuaənB 'flour'}
\]

The tone discrepancy in the first comparison is not decisive, as tone C in the Proto-Hmong-Mien form could either reflect an unattested Chinese variant in tone C, or a secondary development within Hmong-Mien, according to M. Ratliff's hypothesis. Discrepancy in aspiration is not regular, yet has parallels\(^25\).

The word 霧 *phjın 'mist, haze, hoar-frost' has a likely etymology within Chinese: in the same phonetic series, GSR 471, we find its exact homophone: 紛 (GSR 471h) *phjın > phjuənA 'mixed, confused': compare Fr. brouillard 'mist, haze', from brouiller 'to mix up'. The likely path of semantic shifts is through 'dim', a well-attested pattern in Indo-European. If this etymology is correct, the Hmong-Mien word for 'snow' corresponds to a secondary Chinese meaning, and must be a Chinese loanword. The word was presumably loaned to Hmong-Mien in the meanings 'mist' and 'hoar-frost'. Further shifts from 'hoar-frost' to 'ice', then 'snow', and from 'mist' to 'cloud', all with good parallels in other languages, occurred within Hmong-Mien. The loan of a word meaning 'snow' from Chinese to Hmong-Mien is more likely than the reverse, for obvious reasons.

Since the Proto-Hmong-Mien word for 'snow' appears to be a Chinese loanword, we are justified in doubting both Martha Ratliff's etymology and the explanation of Haudricourt and Strecker for the phonetically parallel 'flour': that word is probably also a Chinese loanword. Note that another word for the same meaning exists in Hmong (though not apparently in the Mien or She branches): Proto-Hmong *plouB 'rice flour'. As a last remark, we might observe that the vowel correspondence between the Chinese and Hmong-Mien words is better explained by a loan into Hmong-Mien than the other way around: Hmong-Mien may have lacked a nonhigh central vowel and rendered Chinese /ɨ/ (phonetically perhaps [a]) by /a/.

So far we have found no clear-cut cases of agricultural words borrowed by Chinese from Hmong-Mien: even the Hmong-Mien word for 'wet rice field' might turn out to be a Chinese loanword. Yet the hypothesis that some of the Chinese vocabulary of rice cultivation was borrowed from Hmong-Mien is worthy of consideration, as rice cultivation was acquired by Chinese culture through diffusion, doubtlessly from the south. As noted by Haudricourt and Strecker, the Chinese name of the rice plant, 稻 *lu? may be related to Proto-Hmong-Mien *mblauA 'rice plant; unhusked rice'; if so, this must be a very early loan.

\(^{25}\) compare Proto-Hmong *mpauC 'put on' (clothes) : OC 披 phjar 'id.;' Proto-Hmong *paC 'to lay down a mat' : OC 麵 pha 'to spread out'; pha-s 'a berth, a sleeping place'.
3. The evidence of the script.

In support of their two-class, two-people model of early Chinese society, Haudricourt and Strecker, relying on Jacques Gernet\textsuperscript{26}, argued that the difference in the life-styles and ethics of the "dominating Sino-Tibetans" and "lower-class Hmong-Miens" is reflected in the early Chinese script: a few characters including the 'sheep/mutton' graph 羊 (such as 義 'justice', 美 'beautiful', 善 'good') have a positive semantic content, while two characters including the 'growing grain, cereal' graph 禾 have negative semantics: 利 'profit' and 私 'private'.

Counter-examples immediately come to mind: distinctly positive shades of meaning are attached to some characters having the 'cereal' graph 禾, for instance 秀 xiù 'elegant, flourishing, accomplished, refined, graceful', all secondary meanings deriving from 'ear of grain, go into ear, flourish': while words like 羞 xiù 'shame' include the graph 羊 'sheep, mutton'.

It is true that in classical texts, especially in the Confucian tradition, the notions of Yi 義 and Li 利 refer to motivations of gentlemanly and popular behaviour respectively, whence positive connotations for the former and negative connotations for the latter. The two notions were not antithetical, however: witness the following passage from the Zuo Zhuan (2nd year of Duke Cheng, 4.), where both are cited among the objectives of good government:

"The rites should inspire Yi (justice, honourable behaviour, etc.); Yi generates Li (profit, benefit); Li keeps the people peaceful."

It is moreover highly doubtful if the graphs for 'sheep/mutton' and 'growing grain, cereal' figure in the characters 義 'justice', 美 'beautiful', 善 'good', 利 'profit' and 私 'private', etc. because of their moral overtones. The primary meaning of 利, preserved in some Mandarin disyllables, as well as dialectally and in foreign loans -including a loan to Hmong-Mien-, is 'sharp, keen' (of blades): whence the derived meanings of 'keen on profit', and ultimately 'profitable, profit'. The function of the 'growing grain, cereal' graph 禾 in association with 刀 'knife' in the character 利 was to help suggest the notion 'sharp' through a depiction of cereals being harvested with a knife. Morally negative connotations became attached to the word only after it had shifted its meaning to 'profit'. Even in the meaning 'profit, advantage', the earliest occurrences of 利 carry no negative overtones\textsuperscript{27}. In any case, the morpheme


\textsuperscript{27}witness this passage in Shi Jing, Xiao Ya, Ode 212 Da tian 大田, where both 利 and 私 occur: 雨我公田,遂及我私, 彼有不穫稚, 彼有不聯斂穧, 彼有遺秉, 此有滯穗,伊寡婦之利: "it rains on our public field, and then comes to our private fields; there is some uncut (young grain:) unripe grain , there are some unharvested bunches, there are handfuls forgotten, here are some ears left behind; they are the grain [i.e. the benefit] of the widows" (translated by Karlgren); or (Zuo Zhuan, 28th year of Duke Xi): 死而利國, 猶或為之 "If you had to give your life for [the benefit of] your country, you would certainly do it".
represented by 利 certainly did not belong to the commercial vocabulary in the pre-literary period.

The graph 羊 'sheep/mutton' occurs in the character 義 *ŋjar?-s in combination with 我 *ŋar? 'we, us, our', the latter serving as phonetic (alternations involving the presence or absence of medial -j- and final -s are exceedingly common in phonetic series). While the meaning of 義 in canonical texts is often translated by 'justice', 'righteousness', etc., the character occurs in the oracular inscriptions exclusively as the name of a Chinese city, Yi, which, judging from the texts of the oracular charges in which it occurs, seems to have been located in, near, or on the way to, the land of the Qiang 圭方 who are generally regarded as a people of TB-speaking sheep-herders. The meaning 'justice', loyalty', etc. does not occur before the Zhou bronzes and early archaic texts. Since the early Chinese were not in the habit of giving names of moral ideals to their cities, it seems that 義, originally a character writing the name of a city, was later applied to an abstract notion (justice, etc.) with which it was homophonous. The reason why the character which writes the name of the city included the graph 羊 cannot at present be recovered. Perhaps the reason, whatever it was, had to do with the presence of the same graph, 羊, in the character 圭 writing the name of the Qiang. In any case, the use by Haudricourt and Strecker of the graphs for 'cereal' and 'sheep' in the Chinese script as evidence for social and ethnic stratification in early China seems very forced.

4. Related issues.
Recent work by China archaeologists and anthropologists has direct relevance to the issues discussed by Haudricourt and Strecker.

According to Chang Kwang-chih29 Chinese civilization grew out of an "interaction sphere" resulting from the interlinkage of previously independent neolithic cultures in the interior and on the coast, in the period 4000-3000 B.C.E.. The notion, once favored by archaeologists and cultural historians (among whom Chang Kwang-chih himself figured prominently), that an eastward movement of populations out of the "nuclear area" in the mid-Huang He and Wei Ho valleys is at the origin of the so-called "Longshan expansion" of the 4th millenium B.C.E., and ultimately of Chinese civilization, is now abandoned. Chang30, however, raised the possibility that a down-river movement from the nuclear area brought millet cultivation and the neolithic way of life into Shandong during the 6th millenium B.C.E.. Such a movement, in any case, would be too early for Haudricourt and Srecker, and involve neolithic millet farmers rather than central Asian sheep-herders.

In archaeological terms, the duality advocated by Haudricourt and Strecker between interior, livestock-raising cultures and coastal, cereal-growing cultures appears artificial. In north

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28 Gernet (ibid., 35) interpreted the character 義 as a picture of a ram sacrifice, with 我 representing a ritual hatchet. In his view, ram sacrifices were part of the ritual of oaths and agreements, whence a semantic connection with 義 'justice', or, in Gernet's words, 'ce que l'on doit'. Gernet's interpretation ignores the phonetic role of 我 in 義, and must for that reason be rejected.


30 ibid., p. 160.
China, agriculture arose around 6000 B.C.E. not in the coastal plains but "on the lower terraces on the eastern edges of the western highland of north China (...) and along the Weishui valley into the western interior at least to eastern Kansu". Animal husbandry is evident from the earliest level on. Sheep and goats, which appear to have been domesticated later than dogs and pigs, quite possibly through diffusion from central Asia, have been found in well-characterized agricultural sites of both the Yang-shao and Longshan traditions. This would be difficult to understand if one accepted the hypothesis of Haudricourt and Strecker: did the livestock-raising, upper-class "Sino-Tibetans" live in the same villages as their subjects, the Hmong-Mien peasants? The evidence suggests, rather, that in neolithic times the same people practiced agriculture and animal husbandry, a commonplace pattern, even today, in East Asian agrarian communities.

In East Asia, agriculture began almost simultaneously, around 6000 B.C.E., in the Huang He basin and in the Yangzi basin. These two areas differ in their geology, climate, flora, and are separated by the Qin Ling and Da Bie Shan ranges of mountains. The Huang He agriculturists domesticated millets (both *Setaria italica* and *Panicum miliaceum*). In antiquity millet also played an important role in religious beliefs and rituals (recall the mythical Zhou ancestor, 侯稷 'lord Millet'). In the Yangzi basin rice was domesticated. Expansion of these cereals from their respective centers occurred at a similar pace, and at first the most natural direction was downstream: millet-cultivating neolithic cultures flourished in the 5th millenium B.C.E. around Dawenkou in Shandong, and rice was cultivated at a similarly early date in Hangzhou Bay, at Hemudu. Later rice cultivation spread from the Yangzi area to northern China. There is also evidence that millet cultivation spread south. Remarkably, however, despite its increasing importance as a staple in northern China, rice never acquired the importance of millet in religious rituals. Remarkably, the only East Asian group among which millet can be shown to have a great antiquity is the Austronesian family.

Converging evidence from history, linguistics and human genetics suggests that the rice-growing speakers of Proto-Hmong-Mien should be counted among the distant descendants of the early domesticators of rice in the Yangzi basin, rather than of the early millet farmers in the Huang He basin, as implied by the hypothesis of Haudricourt and Strecker. Chinese historical records mentioning them as the *Man* reliably place them in the mid-Yangzi basin in Han times; the rice-growing tradition of the Hmong-Mien people, evident in the reconstructed vocabulary, as emphasized by Haudricourt and Strecker, goes in the same direction; finally, recent work by human geneticists has brought evidence for two great centers of development of populations in present-day China: one of these centers is the Huang He basin, and the other, the Yangzi basin. Their data show Hmong-Mien speakers to relate massively to the second center.

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31 *ibid.*, p. 90.
32 It still did at the eve of the Cultural Revolution in northern China, where millet was the target of an important campaign of eradication, probably in view of its ritual associations (Georges Métailié, p.c.).
33 Chang Te-tzu, *op. cit.*, p. 73.
34 That these *Man* peoples were early Hmong-Mien speakers is indicated by their belief in a dog ancestor, mentioned in the Chinese records. This highly characteristic tradition still exists among some Miao-Yao speaking peoples today.
In contrast, evidence linking the Hmong-Mien peoples with the Yellow river basin seems to be missing altogether: there is no mention in historical records of Hmong-Mien speakers in the Huang He basin. Although millet is grown by Hmong-Mien speaking peoples, Proto-Hmong-Mien does not appear to have had a word for 'millet'\textsuperscript{36} or other words relating exclusively to millet cultivation. Conversely, Chinese possesses an abundant vocabulary of millet which is without equivalent in Hmong-Mien. Under the hypothesis of Haudricourt and Strecker, it is a mystery what the origins of this vocabulary is.

Another assumption of Haudricourt and Strecker -that the ancestor group of Chinese and Tibeto-Burman speakers led a nomadic, pastoral way of life in the interior of Asia- is not easily reconciled with the evidence of the proto-vocabulary either: Chinese and the Tibeto-Burman languages have no shared word for 'sheep', and generally little shared vocabulary relating to the pastoral way of life.

Only the hypothesis of \textit{in situ} development of Chinese culture from groups of early millet agriculturists in the mid-Huang He valley permits a unified account of linguistic, archaeological and anthropological data. It requires recognizing that the direction of borrowings in East Asia is overwhelmingly from Chinese into Hmong-Mien, Kam-Tai, Austroasiatic, and Tibeto-Burman.

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\textsuperscript{36}Proto-Hmong *tshanB 'millet' (小米) may be related with Written Burmese \textit{tshan} 'husked rice'.