ARTICLE

Another character for the word “rice plant” in Old Chinese

Masaki Nohara

Institute for Research in Humanities, Kyoto University, Kyoto, Japan
Email: noharam@zinbun.kyoto-u.ac.jp

Abstract

Two kinds of grain, “millet, 穀米 sùmǐ” and “husked rice, 稻 dào”, frequently appear in the Liye Qin Slips. Aside from these grains, another character seen in the Liye Qin Slips, nǎo, is thought to represent grain. It also represents the words for “brain, 腦 nǎo” in other excavated documents. Since the archaeological data show that rice cultivation was practised around the middle and lower Yangtze Valley, the homeland of Proto-Hmong Mien (formerly the state of Chu 楚地), the word for “rice plant, 稻 dào” seems to be a loanword from Proto-Hmong Mien *mbləu. The character nǎo is reconstructed as *nˤuʔ, which bears the same onset as the sound for “rice plant (or husked rice)” in North and East Hmongic languages nu (< *mbləu). Hence, we propose that the assimilation (*mbl- > *n-) in these languages could have occurred at the latest just before or after the Qin dynasty.

Keywords: Old Chinese; Excavated documents; Liye Qin Slips; Hmong-Mien; Proto-Min; Rice plant

1. Introduction

In July 2002, more than 37,000 bamboo and wooden slips were found in the old well in Liye Gucheng 里耶古城 in Longshan County 龍山, Xiangxi Tujia and Miao Autonomous Prefecture 湘西土家族苗族自治州, Hunan Province 湖南 (see Figure 1).¹ These slips belong to the so-called Qin Slips 秦簡 and are known as the Liye Qin Slips 里耶秦簡 (Liye Qinjian). They cover a wide range of topics, including legal documents, the administration of the commandery 郡 jùn, and the grain supply system before and after the Qin dynasty.² According to philologists who have studied the Liye Qin Slips, since Liye was used to be within the state of Chu 楚地, some slips reflect the influence of the writing system of the Chu State in the Warring States period.³ Regarding the scribes of the Liye Qin Slips, there must have been several writers.⁴

The Liye Qin Slips include references to several kinds of grain, including 穀米 sùmǐ “millet”, 稻 dào “rice (or rice plant)”, 需(nuò)米 nuòmǐ “glutinous rice”, 林 shù “glutinous millet”, and 麥 mài “wheat”. Note that among these grains, 穀米 sùmǐ “millet” appears...
most frequently, followed by 稻 dào “rice (or rice plant)”\(^5\). Other grains only appear a few times in the Liye Qin Slips. This distribution indicates that “millet” and “rice” were the main staples in the Liye district. Although the character 稻 dào refers to the rice plant in Classical Chinese texts, Chen Wei (2012: 30) noted that 稻 dào means “unhusked rice 稻穀”, while Huang Haobo (2015: 126) regarded it as “husked rice 稻米” based on the study of the conversion rate of 稻 dào in the Liye Qin Slips,\(^6\) and this latter interpretation appears to be most likely.

Aside from these four types of grain, there are other characters representing grain: ǎo and ǎo. These characters appear once with a record of the amount on the slips (see Table 1).

The purpose of this article is to trace the history of the character ǎ and discuss the word for “rice” in Old Chinese (hereafter OC) and Hmongic before and after the Qin dynasty. As mentioned, “millet” and “rice” appear most frequently in the Liye Qin Slips, so the character ǎ probably represents one of them.

The following sections will mainly focus on the character ǎ and related characters seen in the Liye Qin Slips and seek to determine what the character ǎ represents.

2. The character ǎ in the Liye Qin Slips

2.1. The characters ǎ and ǎ

The characters ǎ and ǎ each appear once on the Liye Qin Slips; see (1) and (2) in Table 1.

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\(^5\) Although we regard 穀米 sūmī as “millet” in this paper, what the characters 穀米 sūmī actually represent is still unknown. 穀米 sūmī in classical texts is a general term for grain. Chugoku kosannsho Kennkyukai 中國古算書研究會 (2016: 74–5), however, regarded 穀米 sūmī in the Zhangjiashan Han Slips 張家山漢簡 as “unhusked millet”.

\(^6\) Notably, Huang Haobo (2015: 117–39) pointed out that rice tends to have been provided to officials and bond-servant infants (Lìchén Ying’ér 隸臣嬰兒), while “millet” was supplied to other enslaved people or servants. In addition, see texts with the character 稻 dào in the Statutes on Granaries 35–6 倉律 in the ShuihuÒ Qin Slips 睡虎地秦簡: as rice ripens after grain, rice is to be accounted for the next year. When the harvest is finished, the figures are to be reported, distinguishing between non-glutinous rice plants and glutinous rice plants (稻後禾孰(熟), 計稻後年。已獲上數，別粲(粍)穤(秈)秈(秈), 秫穊). Additionally, see Hulsewé 1985: 40.
The two figures in (1) and (2) were converted into the modern characters 稻 nǎo and 稲 nuò, which are composed of 禾 bǐ, 止 zhǐ, and 山 shān (the latter is composed of 止 zhǐ and 山 shān). It is generally agreed that these two characters are variants of the characters 稻 nǎo and 稲 nuò.

According to the annotator of the Liye Qin Slips, the character 稻 nǎo should be read as the word “glutinous rice, 稲 nuò” by phonetic loan, as the word 稲 nuò means “rice (or rice plant), 稲 dào” in the Pei state 泊國; therefore, the character 稻 nǎo here might represent the word “rice, 稲 dào”.

However, the characters 稻 nǎo and 稲 nuò are not interchangeable by phonetic loan. 稻 nǎo came from *-u (or *-aw) in OC, and 稲 nuò descended from *-or (or *-o). Therefore, it is unlikely that the character 稻 nǎo represents the word 稲 nuò “glutinous rice” here; see Table 2.

While 稻 nǎo and 稲 dào bear the same vowel *-u with the same tone category, they do have different initials *n- and *r-. For this reason, 稻 nǎo in the Liye Qin Slips does not represent the word “rice, 稲 dào” directly.

In addition, since the character 稲 dào itself appears in the Liye Qin Slips, it does not seem that 稻 nǎo and 稲 dào represent the same word, as seen in Table 3.

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Table 1. 稻 nǎo and 稲 nuò in the Liye Qin Slips

<table>
<thead>
<tr>
<th>Figure</th>
<th>Character</th>
<th>Sentence</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>稻 nǎo</td>
<td>稻 nǎo</td>
<td>Liye 8–660</td>
</tr>
<tr>
<td>(2)</td>
<td>稲 nuò</td>
<td>稻 nuò</td>
<td>Liye 8–1145</td>
</tr>
</tbody>
</table>

Table 2. Reconstruction compared: 稻 nǎo, 稲 nuò, and 稲 dào

<table>
<thead>
<tr>
<th>Old Chinese</th>
<th>Middle Chinese</th>
<th>Mandarin</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>稻 nǎo</td>
<td>*n̥uʔ</td>
<td>nawnX</td>
<td>nǎo</td>
</tr>
<tr>
<td>稲 nuò</td>
<td>*n̥orʔ</td>
<td>nwanX</td>
<td>-</td>
</tr>
<tr>
<td>稻 nuò-s</td>
<td>*n̥orʔ-s</td>
<td>nwaH</td>
<td>nuò</td>
</tr>
<tr>
<td>稻 dào</td>
<td>*l̥uʔ</td>
<td>dawX</td>
<td>dào</td>
</tr>
</tbody>
</table>

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7 See Chen Wei (2012: 238). 校注：“稲，古釋文作”，此字與秦漢簡帛中數見，即“稲”，通作“艤”；簡文中有穀物名，疑當讀為“稲”（稻、稲為泥母雙聲）。說文“稲，沛國謂稻曰稲。从禾，屲聲。”《集韻·換韵》“稲，或作稲。” In addition, Guo Pu 郭璞 annotated that 稻 dào is called 稲 dào in Pei state in Er'ya 尋雅.

8 As for the relationships between 稲 nuò “glutinous rice” and 稲 dào “rice plant”, Xu Shen 許慎 in his famous dictionary Shuowén jiezi 說文解字, composed in the Han dynasty, included an annotation that 稲 dào is called 稲 nuò in the Pei state 沛國 as is mentioned above. Based on the study of OC phonology, however, 稲 dào cannot be read as 稲 nuò through phonetic loan; it might be read based on a semantic loan (e.g. 訓讀, 同義換讀). The word for 稲 dào descended from OC *-u; see the reconstructed form in Table 2.

9 There might be another possibility of a Chinese internal development of *l̥uʔ > *n̥uʔ in the Chu dialect, but we do not have a parallel development in OC at present. In this case, we cannot explain why P-Min *diu⁴9 has a semivowel *-i-, see Table 15.
It is possible that 稻 dào is a standard form for “rice”, while 脳 nǎo is a substratum form (local languages). In what follows, we will examine related characters to confirm the reconstructed form of 脳 nǎo.

### 2.2. Related characters in other excavated documents

In addition to the Liye Qin Slips, related texts with 脳 nǎo appeared in other excavated documents (see Table 4).

As seen in Table 4, the characters 脳 nǎo and nǎo represent the word for “brain, 脳 nǎo” in (3), (4), and (5). The character nǎo in (6) represents the word for 柔 rǒu, meaning “supple, soft, and flexible”. As 柔 rǒu unambiguously came from OC *nuʔ according to rhyme evidence, it is *nuʔ (or *n’uʔ) as well. As discussed below (§2.3), the bottom part of the character nǎo, which is nǎo, is the phonetic element. Note that the character 脳 nǎo is considered a variant of 脳 nǎo (see §2.3 for details). Based on these phonetic loans, the character 脳 nǎo and 脳 nǎo simultaneously can be reconstructed as *n’uʔ in OC.

#### Table 3. 稻 dào in the Liye Qin Slips

<table>
<thead>
<tr>
<th>Figure</th>
<th>Modern character</th>
<th>Sentence</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>稻 dào</td>
<td>稻一石少半斗 dào yí dàn shǎo bàn dòu</td>
<td>Liye 8–275</td>
</tr>
<tr>
<td>2</td>
<td>稻 dào</td>
<td>稻一石二斗半 dào yí dàn èr dòu bàn dòu</td>
<td>Liye 8–1794</td>
</tr>
</tbody>
</table>

#### Table 4. Related characters

| Figure | Character | Sentence | Source
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(3)</td>
<td>出 (脳角出)皆血出 bleeding from the brain, head, and cheekbones</td>
<td>Shuihudi 57</td>
<td></td>
</tr>
<tr>
<td>(4)</td>
<td>章 (脳與地眩蟲相半 mix turtle’s brain and dishånchóng</td>
<td>Mawangdui 247</td>
<td></td>
</tr>
<tr>
<td>(5)</td>
<td>以兔產 （脳塗之 apply raw rabbit brain</td>
<td>Mawangdui 432</td>
<td></td>
</tr>
<tr>
<td>(6)</td>
<td>仁類 （柔）而速 Rén is flexible, but it is bundled</td>
<td>Guodian 31–33</td>
<td></td>
</tr>
</tbody>
</table>

It is possible that 稻 dào is a standard form for “rice”, while 脳 nǎo is a substratum form (local languages).

In what follows, we will examine related characters to confirm the reconstructed form of 脳 nǎo.

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11 There is a character 出 seen in the Zhouli 周禮 Kaogongji 考工記, Gongron 弓人, which is annotated as “卄” by the Fan-qie spelling is nojX-lawX. It is written as 脳 nǎo in other texts”. (Jingdian Shiwen 經典釋文).

12 柔 rǒu rhymes with 愛 yǒu, 求 qiú, 劉 liú, and 休 xiū in the Shijing 詩經.

13 The word for “brain, 脳” belongs to the -aw group 象韻 in Middle Chinese (hereafter MC). Since the MC -aw group should have descended from both *-u and *-aw, it had been unclear to which OC rhyme group 脳 nǎo and (脳) nǎo belong.

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2.3. The development of the character 奚 (nǎo) and its phonetic element

In addition to the Liye Qin Slips, Chen Jian (2008/2019) provided another document that records a character related to 奚 nǎo in the Western Zhou Bronze scripts (dated at the latest to the late Western Zhou); see Figure 2 and Table 6.

The character in (7) is composed of the elements 米 mǐ, 萝 cáo, and 刀 dāo. The original annotator of Liang Ji Guan pointed out that the right-hand element of the character (艹 cáo and 刀 dāo) is a pictograph meaning the act of “cutting the grass with a knife”.

Notably, Chen Jian (2008/2019: 97–105) presented a hypothesis that the character 奚 in (7) is an antecedent of the character 奚 nǎo. The transformation of the shape from 奚 to 奚 nǎo is summarized in Table 7.

The middle part of the character 奚 in (8) has transformed to 止 zhǐ in (9) and to 止 zhǐ in (10), (11), and (12). These characters seem to have been transformed to 止 zhǐ or 止 shān in the Qin and the early Han dynasties. Finally, the character 奚 nǎo is transformed to 奚 nǎo, as shown in (13); see Table 8.

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Table 5. The reconstructions compared: 柔, 脳, and 奚 (nǎo)

<table>
<thead>
<tr>
<th>Old Chinese</th>
<th>Middle Chinese</th>
<th>Mandarin</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>柔</td>
<td>*nuʔ &gt; nyuwX</td>
<td>rǒu</td>
<td>supple</td>
</tr>
<tr>
<td>脳</td>
<td>*nˤuʔ &gt; nawX</td>
<td>nǎo</td>
<td>brain</td>
</tr>
<tr>
<td>奚</td>
<td>*nˤuʔ &gt; nawX</td>
<td>nǎo</td>
<td>-</td>
</tr>
</tbody>
</table>

Figure 2. Liang Ji Guan 梁姬罐 (Tomb M2012 of Guo State 鄢国墓地 M2012)

Table 6. The character 奚 in the late Western Zhou bronze scripts

<table>
<thead>
<tr>
<th>Figure</th>
<th>Lading</th>
<th>Sentence</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>(7)</td>
<td></td>
<td>奚</td>
<td>Liang Ji Guan14</td>
</tr>
</tbody>
</table>

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14 The Liang Ji Guan was unearthed in the Tomb M2012 of Guo State, but its origin is still unknown. It might have come from the Liang State 梁國.


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In addition, the characters 刀 nǎo in (8) and (9) are replaced by 戽 bǐ in (11) and (12); see Table 9.

Since the characters 刀 nǎo and 米 nǎo almost always represent the word for “brain”, the semantic unit “肉 (月)” might have been added instead of “刀” as in (13).

As seen in the contexts in (1) and (2), it is generally agreed that 刀 nǎo represents a kind of grain; however, what kind of grain it stands for precisely remains unclear. The shapes of the characters might be key to determining their evolution. The character 刀 nǎo was regarded as a pictograph meaning the act of “cutting the grass with a knife”. If true, the character 刀 nǎo might originally have represented the word “cutting the rice plant” or the noun “rice plant” and then changed so that it could also represent “husked rice” and “unhusked rice” at the latest shortly before or after the Qin dynasty.

In contrast, the components of the character 稻 dào, as Sagart (2011: 128) has argued, have the meaning of “dehusked rice grains out of the mortar”.22 Compare the characters shown in Table 10.

According to the components, the former probably initially meant “rice plant” and the latter “husked rice (or its process)”. The character 稻 dào initially referred to “husked rice” and changed so that it could also represent “rice plant” at a later stage.

In section 3, we examine the word “rice” in OC and the Hmong-Mien languages (hereafter HM).

### 3. Rice or rice plant” in Old Chinese and Hmong-Mien

#### 3.1. Rice Dao in OC

稻 Dao is reconstructed as *[l]ˤuʔ* based on the rhyme evidence in the texts of the Shijing and Xièshēng connections.23

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22 The phonetic舀 yǎo is a verb meaning “to scoop husked grain out of the mortar”.

23 稻 dào rhymes with 早 zǎo, 酒 jiǔ, and 壽 shòu bearing OC *-u in the Binfeng Qiyue 飴風 七月. It is composed of a semantic component 禾 hé and phonetic component舀 yǎo, which belongs to y- 以母 in MC.
Previous studies considered the Chinese word for “rice (or rice plant), 稻 dào” to be a loan word from HM. For example, Haudricourt and Strecker (1991: 335–41) expected that agricultural words were borrowed from HM and that “husked rice” was one of them. Haudricourt and Strecker regard these words as HM substrata in Chinese. Ratliff (2018: 131–2) adduced three reasons why rice is regarded as a loan from HM into Chinese: (1) “... the archeological record shows that rice cultivation occurred in the south before it was known to the ancient Chinese,26 who cultivated millet, and that the ancestors of the Hmong-Mien people were in the right location to have been the first rice cultivators”;27 (2) “... there is no evidence of an initial nasal in Old Chinese”; and (3) “... the word does not appear in Tibeto-Burman”. There is no internal evidence for rice (or rice plant) to reconstruct the prenasalized obstruent in Chinese. Hence, it is highly probable that the Chinese language adopted the word “rice (or rice plant)” from Proto-HM.28 However, the tone is irregular; the OC Shǎngshēng (rising tone) tone typically corresponds to Tone B in HM.29

Table 12 shows the “rice plant” data for Hmongic languages.30 As demonstrated, the proto-form of onsets for “rice plant” is reconstructed as *mbl- based on the data.31 If “rice (or rice plant), 稻 dào” is a loan word from HM, it is assumed that the prenasalized obstruent was dropped and simplified to *[l]%- when the ancient Chinese people borrowed it (*mbl- > *[l]%-).

Notably, the word for “rice plant” in Proto-Min (hereafter P-Min) is reconstructed as *diu2tone2 粟. P-Min Tone 2 corresponds with OC Shǎngshēng, with no problem with tonal correspondences. The problem is that the P-Min form has a semivowel -i-, whereas

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24 This bronze ware is estimated to date to the late Western Zhou.
25 Baxter also considered the possibility that 稻 dào is a loan word from HM (quoted in Haudricourt and Strecker 1991: 339).
26 Another study suggests that the earliest rice cultivation occurred in Henan; see Deng, Qin and Gao 2015.
27 See Bellwood 2005: 90: “... the HM family is the one most likely to have originated closest to the central Yangzi early rice zone”. Additionally, see Sagart, Blench and Sanchez-Mazas (2005: 2–3) and van Driem (2012).
28 Nevertheless, whether Chinese or Hmong-Mien is the donor language has been a controversial issue (see Sagart 1999: 181–2; 2011: 128). Sagart concluded that Chinese is the donor language based on the study of semantics.
29 The same problems are seen in other words such as “egg”; OC Shǎngshēng: P-HM tone C.
30 Some of the data in Hmongic do not distinguish “rice grain” and “rice plant”. In most Mienic languages, the onsets are bl- and bj-.
31 Ostapirat (2014: 350) reconstructed it as *ml-.
the MC 稻 dào belongs to division 1, which does not reflect -i-. The semivowel -i- in Min might have come from *dl- within certain stages of P-HM as follows: *mbl- > *ndl- > *dl- > *dj- (P-Min *diutone2).33 The semivowel *-i- indicates that P-Min might have borrowed the word “rice plant” from a different stratum with OC and that the word for “rice (rice plant)” was borrowed from HM.

3.2. The distribution of “rice plant” among the Hmongic languages

The data from Table 12 are converted into Figure 3. This map shows minimal data only.34 In the southern parts (places 4 and 6), prenasalized clusters remain (*mbl- > mpl-), while in East Hmongic and North Hmongic (places 1 and 2), the dental nasal *n- appears more often (*mbl- > n-).35 In addition to these data, other dialects have a prenasalized dental obstruent, such as ndl- and ntl-.36 These data show that *mbl- had assimilated to ndl- and ntl- before the lateral *-l-.

3.3. Nǎo in the Liye Qin Slips and “rice plant” in North Hmongic languages

In a fascinating detail, no. 0 in Figure 3 indicates the location of Liye Gucheng where the Liye Qin Slips were unearthed. It is obviously near no. 2 “Jiwei 吉衛 (North Hmongic)” with the dental nasal *n- for onsets. The straight-line distance between Liye Gucheng and Jiwei is only 50 km. Most of the data from the North Hmongic subgroups have the nasal n- for unhusked rice (or rice plants), as shown in Table 13.

Figure 4 shows the distribution of the data from North Hmongic (no. 0 indicates the location of Liye Gucheng).

Table 11. Semantic changes

<table>
<thead>
<tr>
<th></th>
<th>Original meanings</th>
<th>Later meanings</th>
</tr>
</thead>
<tbody>
<tr>
<td>稻 (dào)</td>
<td>rice plants</td>
<td>husked and unhusked rice (+ rice plants)</td>
</tr>
<tr>
<td>稻 (dào)</td>
<td>husked rice</td>
<td>rice plant (+ husked and unhusked rice)</td>
</tr>
</tbody>
</table>

Table 12. “Rice plant” data in Hmongic, from Ratliff 2010: 48

<table>
<thead>
<tr>
<th></th>
<th>P-HM 1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice plant</td>
<td>*mblau</td>
<td>na²</td>
<td>nu²</td>
<td>mple²</td>
<td>mple²</td>
<td>-</td>
<td>mpla²</td>
</tr>
</tbody>
</table>

32 1: East Hmongic (Qiandong 黔東) Yanghao 普萬 (Kaili County, Guizhou); 2: North Hmongic (Xiangxi 湘西) Jiwei 吉衛 (Huayuan County, Hunan); 3: West Hmongic (Chuanqiandian) White Hmong (Laos and Thailand); 4: West Hmongic (Chuanqiandian 川黔滇) Zongdi 宗地 (Ziyun County, Guizhou); 5: West Hmongic (Chuanqiandian) Fuyuan 复員 (Fuyuan County, Yunnan); 6: Hmongic Jiongnai 長垌 (Jinxiu County, Guangxi); 7: Hmongic Pa-Hng 巴哼 (Rongshui County, Guangxi).

33 The sound change from *-l- to *-i- in the word for “rice plant” is also seen in both Hmongic and Mienic dialects; see Ratliff 2010: 48.


35 Chen Qiguang (2012: 640) noted that the labial initial m- also appears in 小章 (Xiangxi, Luxi, Hunan) mɯ31; also see Yang Zaibiao (2004: 278) mɯ21.

36 右門坎 (Chuanqiandian, Weining, Guizhou) ndli²⁴, 梅珠 (Bunu, Du’an, Guangxi) ntle¹²; see Li Yunbing 2018: 295.

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As mentioned in §2 above, the characters ǎo and ǎo are reconstructed as *nˤuʔ, and this intriguingly coincides with Jiwei [nu²], Yangmeng [nu³¹], and Zhongxin [nu³⁵]. Hence, it is assumed that the character ǎo in the Liye Qin Slips represents the same word as “rice or rice plant” in these languages. Although it is difficult to determine whose word it was originally, if this assumption holds, we can deduce that OC borrowed at least two varieties of “rice plant”: *mblau in P-HM (or P-Hmongic) and *nau in “Proto-North Hmongic (provisional) or certain groups of North and East Hmongic speakers”.38 The former dropped *mbl- when the Chinese borrowed it; the latter is a substratum word, and the word itself was lost in the ancestor of Middle Chinese and modern Chinese dialects (when the character ǎo became used for the word “brain 腦 ǎo” instead), as shown in Table 14.

As mentioned above, the P-Min “rice plant” is reconstructed as *du¹ˈone². This could have come from the different HM dialects with OC, as shown in Table 15.

Since the characters ǎo and ǎo, which initially referred to “rice or rice plant”, represent the word for “brain, 腦 ǎo” bearing the onset *n⁻ in the Qin Slips and the Mawangdui silk manuscript, we can estimate that the assimilation (*mbl- > *n-) must

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38 As Table 13 shows, a labial initial m- appears in Xiaozhang, and the P-North Hmongic might not have been a simple *n-. We still do not know what Proto-North Hmongic looked like. Further studies are needed.
The Proto-Hmong-Mien homeland was thought to be in the middle and lower Yangzi Valley (coinciding with the state of Chu 楚). Sagart et al. (2005: 2–3) date Proto-Hmong-Mien to approximately 2500 BP. The phonetic is descended from the character in the Liye Qin Slips, which was cast in the Western Zhou period (approximately 800 BCE). Therefore, the assimilation (*mbl- > *n-) might have taken place much earlier.  

4. Conclusion

Two kinds of grain, “millet, 粟米 sùmǐ” and “husked rice, 稻 dào”, appear most frequently in the Liye Qin Slips. In addition to these grains, another character is seen in the Liye Qin Slips: 脳 nào. It represents the words for “brain, 脳 nào” and “supple, 柔 rōu” in other

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Figure 4. Rice in North Hmongic

Table 14. The direction of loanwords: OC

<table>
<thead>
<tr>
<th>P-Hmong</th>
<th>P-North Hm?</th>
<th>Borrowed by</th>
<th>Old Chinese</th>
<th>Middle Chinese</th>
</tr>
</thead>
<tbody>
<tr>
<td>*mblur</td>
<td>-</td>
<td>→</td>
<td>*lū?</td>
<td>dawX</td>
</tr>
<tr>
<td>&gt; *nau</td>
<td>→</td>
<td>*nâu?</td>
<td>-</td>
<td>nâuX</td>
</tr>
</tbody>
</table>

Table 15. The direction of loanwords: P-Min “rice plant”

<table>
<thead>
<tr>
<th>P-HM</th>
<th>?</th>
<th>Borrowed by</th>
<th>P-Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>*mblur</td>
<td>*mbl- &gt; *ndl- &gt; *dl- &gt; dj-</td>
<td>→</td>
<td>*diu Lange2</td>
</tr>
</tbody>
</table>

39 The Proto-Hmong-Mien homeland was thought to be in the middle and lower Yangzi Valley (coinciding with the state of Chu 楚). Sagart et al. (2005: 2–3) date Proto-Hmong-Mien to approximately 2500 BP. The phonetic is descended from the character in the Liang Ji Guan, which was cast in the Western Zhou period (approximately 800 BCE). Therefore, the assimilation (*mbl- > *n-) might have taken place much earlier.
excavated documents. Since 柔 rōu is reconstructed as *nʼuʔ based on the rhyme data, both 脳 nǎo and 脳 nǎo are thought to have had the same sound at the time.

The archaeological data suggest that rice cultivation occurred around the middle and lower Yangtze Valley, the homeland of Proto-HM (formerly the state of Chu 楚地). The word “rice or rice plant, 稲 dāo” seems to be a loanword from HM into OC, and the “rice plant” proto-form in Hmongic is reconstructed as *mblau (OC *nuʔ).

What interests us is that the proto-form of nǎo, which is *nʼuʔ, bears the same onset as the sound of “rice plant” in North and East Hmongic (n- < *mblau). It is assumed that OC *nʼuʔ (n-<*mblau) probably cognates with the word [nu] in these languages, and it represents the word “rice or rice plant” in the Liye Qin Slips. Hence, we estimate that the assimilation (*mbl- > *n-) in certain groups of North and East Hmongic must have taken place at the latest just before or after the Qin dynasty (approximately 200 BCE).

References


40 In the official documents of the Liye Qin Slips, the character 稲 dāo is officially used to refer to “rice or rice plant”, the substratum word *nʼuʔ (n-) just happened to appear only twice in the Liye Qin Slips.

41 Considering the major split between Hmongic and Mienic, the assumed time (200 BCE) might be slightly early. Baxter and Sagart (2014: 146) estimated the borrowing time to be before the Wei-Jin period (third century) based on the rhyme evidence (note that they regard OC as the donor in this case). However, Baxter and Sagart (2014) cautioned that this is only a rough estimate.


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