

3 Calendar and Timekeeping Systems

Postal and logistic services in Qiānlíng County maintained lively contact with other regions via extensive land and water networks. Petty records detailing the creation, dispatch or reception times of documents indicate that effective communication was vital to the Qín dynasty, especially for land cultivation, bureaucratic operations and upholding cooperation across different counties and commanderies.²⁰³ A sense of how accurate time was measured and recorded is illustrated in the last two lines on the *recto* of manuscript 8-60+8-656+8-665+8-748:

8-60+8-656+8-665+8-748 rIII-IV: 六月庚辰[17]水十一刻刻下六, 守府快行少内。𠄎𠄎 六月乙亥[12]水十一刻刻下二, 佐同以來。ノ元手。𠄎²⁰⁴

In month 6 on a *gēngchén*, at water below mark 6 of 11 marks, Governor Kuài dispatches (the document) to the Lesser Treasury. 𠄎𠄎 In month 6 on a *yǐhài*, at water below mark 2 of 11 marks, (the document) is brought by Assistant Tóng. / By the hand of Yuán. 𠄎

Comment: Between ‘*gēngchén* 庚辰’ and ‘*yǐhài* 乙亥’ within the same month and year, there are 56 positions, which cannot be correct and could indicate either a clerical error or a missing interrelation between the two lines.

Calendars and established timekeeping methods provided the foundation for communication within the imperial government. Almost every year, events in the *Lǐyě* corpus are systematically recorded.²⁰⁵ The explicit reference to exact dates and times allows us to confine the *Lǐyě* documents to the period between the 25th year of King Zhèng in 222 BC (one year before the Qín unification) and the 2nd year of the Second Emperor in 209 BC (one year before the inglorious collapse of the Qín dynasty). To clarify, the *Lǐyě* corpus does not introduce a new official calendar but rather continues the administrative tradition of the Warring States period. Entries identify the year in relation to the ruler’s ascension to power and employ sequential numbering of lunar months, starting with the ‘1st month’ (*zhēng yuè* 正月 or *duān yuè* 端月) and ending with ‘month 12’ (*shí’èr yuè* 十二月) of an annual cycle. Additionally, the day of the respective month is expressed as dictated by the ‘sexagenary cycle’ (*gānzhī* 干支).²⁰⁶ The Warring States notion

²⁰³ For a discussion of the ‘event calendars’ (*zhì rì* 質日) compiled by local authorities in the Qín and Hàn dynasties, refer to Chén Wěi 2018.

²⁰⁴ Chén Wěi 2012: 43.

²⁰⁵ For a discussion of calendar and planetary calculations in ancient Greece (ca. 80–50 BC), see Bitsakis and Hartz 2015; Iversen 2017; Lobell 2007.

²⁰⁶ For more information on the origins of the ‘sexagenary cycle’ (*gānzhī* 干支) in early Chinese astronomy and hemerology, see Smith 2011a, 2020.

that “all phenomena and human activity were linked in microcosmic synchronicity” seems to have been adopted and appropriated by the Qín dynasty.²⁰⁷

Interestingly, the reference year to King Zhèng's ascension to power did not change after he declared himself the First Emperor and was maintained throughout his reign until his succession by the Second Emperor. After unification, the reference date for any record written during the First Emperor's reign remains, without exceptions, the year of his ascension to the throne as a 13-year-old King in 246 BC. An entry on manuscript 8-757 from King Zhèng's 34th regnal year (213 BC), regarding the cultivation of ‘agricultural fields’ (*tián* 田) between his 26th and 29th year of reign (221–218 BC), reads:²⁰⁸

8-757 II: [. . .] 廿九年田廿六年盡廿八年當田 [. . .]²⁰⁹

[. . .] In the 29th year (of King Zhèng) [218 BC], the agricultural fields [were cultivated], (but) from the 26th year to the 28th year (of King Zhèng) [221–219 BC], the agricultural fields should have been (cultivated also) [. . .]

Five entries in the *Lǐyě* corpus record the Emperor's ‘1st year’ (*yuán nián* 元年) of reign.²¹⁰ Based on the context, including the officials' names and titles as well as the total time span covered by the *Lǐyě* texts, these records refer to the first year of the Second Emperor. There is no apparent correlation between the layers in which the documents were found and the temporal sequence of text entries. The earliest or latest documents were not located at the top or bottom of well J1 but were found in layers 5 to 17. Layer 5, which was the highest layer containing Qín documents, also held the largest cache of Chǔ bamboo fragments. Claims of missing documents from King Zhèng's 36th regnal year (211 BC) can be challenged on the basis of at least three texts.²¹¹ For instance, manuscript 8-500, uncovered in layer 8, is dated to the First Emperor's year of passing, in other words, his 37th regnal year (210 BC). This entry must have been added before news of his death

²⁰⁷ Harper 1999: 831.

²⁰⁸ The 34th year of King Zhèng is recorded in the first line of manuscript 8-755, which forms part of a larger text spanning multiple writing carriers.

²⁰⁹ Chén Wěi 2012: 217.

²¹⁰ Refers to manuscripts numbers 5-1, 6-3, 8-653, 8-860 and 8-2131.

²¹¹ See Yates 2012–2013: 303. Proof to the contrary can be found on manuscripts 8-1041+8-1043, 8-1437 and 8-2234.

had reached Qiānlíng or Dòngtíng, or before the Second Emperor's succession to the throne was announced.²¹²

Nowhere are the Emperors named personally, even though there is no indication that public use of Qín Shǐhuáng's personal name 'Zhèng 政' was taboo during his reign as First Emperor. References to the '1st month' (*zhēng yuè* 正月) are common, as verified on manuscript 8-253, for example:

8-253: 尉曹卅四年正月已事𠄎²¹³

The Bureau of the Military Commandant, in the 34th year (of King Zhèng) [213 BC], 1st month, the finished matter 𠄎

Only after the First Emperor's death may a ban on his personal name 'Zhèng 政' have been enforced more rigorously in official documents. Manuscript 6-3 dates back to the last year of the First Emperor or the first year of the Second Emperor (209 BC) and replaces the term '*zhēng yuè* 正月' with '*duān yuè* 端月' to denote the '1st month' or 'beginning month' of the year:

6-3: [. . .] 元年端月癸卯[40]朔𠄎𠄎, 司空𠄎𠄎受倉𠄎²¹⁴

[. . .] In the first year (of the Second Emperor), beginning month [month 1], new moon on a *guīmǎo*, 𠄎𠄎, the Commissioner of Public Works 𠄎𠄎 receives the Granary 𠄎

One possible reason '*zhēng/zhèng* 正' (**teŋ/teŋh*) was avoided and replaced with '*duān* 端' (**tôn*) could be its homophony with 'Zhèng 政' (**teŋh*) at the time.²¹⁵

Lǐ Xuéqín (1933–2019) argued that examining tabooed characters is one of the most reliable methods for determining the age of early writings.²¹⁶ The replacement of '*zhèng* 正' with '*duān* 端' is frequent in the *Shuǐhǔdì* texts, particularly in the "Book of Discourses" (*Yǔ shū* 語書), where phrases like 'to rectify oneself' (*zì zhèng* 自正), 'to rectify the public' (*gōng zhèng* 公正) and 'to rectify' (*jiǎo zhèng* 矯正) give way to the synonyms '*zì duān* 自端', '*gōng duān* 公端' and '*jiǎo duān* 矯端'. Similarly, the term and official title 'Township Principal' (*lǐzhèng* 里正) is repeatedly interchanged with the compound noun '*lǐdiǎn* 里典' in the "Qín lǚ shíbā zhǒng" and "Models for Sealing and Investigating" (*Fēng zhēn shì* 封診式) from the same corpus.

²¹² Apparently, two other *Lǚ* texts from layers 7 and 9 are dated to the 37th year of King Zhèng (210 BC) (Yates 2012–2013: 302).

²¹³ Chén Wěi 2012: 122.

²¹⁴ Chén Wěi 2012: 18.

²¹⁵ Phonological reconstructions are taken from Schuessler 2009: 138, 270.

²¹⁶ Lǐ Xuéqín 1981: 337–338.

Some scholars contend that certain *Shuihǔdì* documents were originally compiled during the Late Warring States period and transmitted through written sources to the Qín empire.²¹⁷ In this context, the use, avoidance or substitution of the term ‘zhèng 正’ is often treated as a criterion for dating texts. Its presence is generally considered an indication that the text was compiled in the Late Warring States, as observed in works like “Statutes Concerning Crosschecking” (*Xiào lǜ 效律*) and “Miscellaneous Excerpts from Qín Statutes” (*Qín lǜ zá chāo 秦律雜抄*). Conversely, its absence supposedly dates the text to the very late Qín state or the imperial Qín period.

However, based on my own research of the *Lǐyě* corpus, relying solely on the examination of taboo characters to determine the chronological sequencing of written material is not entirely reliable. One could argue that the practice of tabooing particular terms spread gradually, much like the unification of the writing system, and that the factors of this process were more geographical than temporal. Also, the use of either ‘zhēng/zhèng 正’ or ‘duān 端’ in official documents seems to have been less rigid than previously assumed.²¹⁸ ‘Zhēng yuè’, designating the ‘1st month’ of the annual cycle, appears 32 times across 24 manuscripts written in the 29th year of King Zhèng (218 BC) and between his 31st and 35th years (216–212 BC) (Tab. 3.1). In contrast, ‘duān yuè 端月’, a synonym of ‘zhēng yuè’, appears only three times across three different documents excavated from layers 5, 6 and 8 – roughly ten times less frequent than ‘zhēng yuè’. One instance is dated to the 26th year of King Zhèng (221 BC), another to his final year as First Emperor (or the first year of the Second Emperor) (209 BC), and the third occurs on a heavily damaged manuscript with an unidentified date.²¹⁹

I am not convinced that the appearance of ‘duān yuè’ on fragment 8-213 is part of manuscript 8-198+8-213+8-2013.²²⁰ Moreover, Chén Wěi’s argument that the Second Emperor introduced the term only *after* his father’s death seems unfounded.²²¹ The use of ‘duān yuè’ in the 26th year of King Zhèng (221 BC) occurs on the earlier manuscript 8-138+8-174+8-522+8-523 and is more plausibly attributed to the First Emperor’s ascension to the imperial throne, as well as the proclamation of his successor in 209 BC. Textual evidence in the *Lǐyě* corpus is too scarce to be conclusive, but dated

217 Huáng Shèngzhāng 1979. For a study on taboo characters in the Qín dynasty see, for example, Venture 2012.

218 See Mittag 2003: 550–551.

219 This refers specifically to manuscripts 6-3, 8-138+8-174+8-522+8-523 and 8-1555.

220 See Yates 2012–2013: 303.

221 See Chén Wěi 2014b.

Tab. 3.1: Appearances of terms for the ‘1st month’ (*zhēng yuè* 正月 and *duān yuè* 端月) of the annual cycle in the *Lǐyě* texts from layers 5, 6 and 8 (sorted by term, occurrence(s) and manuscript number).

‘zhēng yuè 正月’			‘duān yuè 端月’		
Occurrence(s)	Manuscript number ²²²	Year [conversion]	Occurrence(s)	Manuscript number	Year [conversion]
1	8-157	32nd year of King Zhèng [215 BC]	1	6-3	1st year of Second Emperor [209 BC]
3	8-157r	32nd year of King Zhèng [215 BC]	1	8-138r +8-174r +8-522r +8-523r	26th year of King Zhèng [221 BC]
1	8-175r	–	1	8-1555	–
1	8-197	34th year of King Zhèng [213 BC]			
1	8-197r	34th year of King Zhèng [213 BC]			
1	8-212+8-426+8-1632	31st year of King Zhèng [216 BC]			
1	8-214	33rd year of King Zhèng [214 BC]			
1	8-253	34th year of King Zhèng [213 BC]			
1	8-259	35th year of King Zhèng [212 BC]			
1	8-464	–			
1	8-474+8-2075	31st year of King Zhèng [216 BC]			
1	8-478	32nd year of King Zhèng [215 BC]			
2	8-651	33rd year of King Zhèng [214 BC]			

²²² ‘R’ stands for the ‘recto’ of the manuscript.

Tab. 3.1 (continued)

‘zhēng yuè 正月’			‘duān yuè 端月’		
Occurrence(s)	Manuscript number	Year [conversion]	Occurrence(s)	Manuscript number	Year [conversion]
1	8-651r	33rd year of King Zhèng [214 BC]			
1	8-744	–			
1	8-764	31st year of King Zhèng [216 BC]			
2	8-765r	35th year of King Zhèng [212 BC]			
1	8-839+8-901+8-926	35th year of King Zhèng [212 BC]			
2	8-925+8-2195	31st year of King Zhèng [216 BC]			
1	8-1207+8-1255+8-1323	33rd year of King Zhèng [214 BC]			
1	8-1241	31st year of King Zhèng [216 BC]			
1	8-1246	29th year of King Zhèng [218 BC]			
1	8-1457+8-1458	35th year of King Zhèng [212 BC]			
1	8-1580	–			
1	8-1738	35th year of King Zhèng [212 BC]			
1	8-2203	–			
1	8-2453	34th year of King Zhèng [213 BC]			
TOTAL			TOTAL		
32	27	29th, 31–35th year of King Zhèng [218, 216–212 BC]	3	3	26th year of King Zhèng [221 BC], 1st year of Second Emperor [209 BC]

manuscripts discovered in a Qín tomb at Zhōujiātái 周家台 and those acquired by the Yuèlù Academy may lend additional support to the hypothesis.²²³

Manuscript 8-141+8-668 from the 30th year of King Zhèng (217 BC) and manuscript 8-157 from the 32nd year of King Zhèng (215 BC) are particularly revealing regarding the widely accepted view that the official title ‘Township Principal’ (*lǐ-diǎn* 里典) is a tabooed version of ‘*lǐzhèng* 里正’.²²⁴

8-141+8-668 I–III, rI: 卅年十一月庚申[57]朔丙子[13], 發弩守涓敢言之: 廷下御史書曰縣¹ □治獄及覆獄者, 或一人獨訊囚, 嗇夫長、丞、正、監非能與¹ □□殿, 不參不便. 書到尉言. • 今已到, 敢言之. ¹十一月丙子[13]旦食, 守府定以來. / 連手. 萃手.

In the 30th year (of King Zhèng) [217 BC], month 11, new moon on a *gēngshēn*, *bǐngzǐ* [day 17], Juān, Head of the Crossbow Archers, dares to say: The (County) Court sent the document of the Prosecutor to the lower authorities. It states: Concerning the counties¹ □ the one who executes the lawsuit and the one who reviews the lawsuit, if only one person interrogates a prisoner, the Commanding Official of the Overseers, the Prefect, the Administrators and the Supervisors are not the ones able to¹ □□ if there are not three, it is not according to the procedure. The document has reached the Military Commandant and has been communicated orally. • Now that it has already arrived, he dares to communicate orally ¹In month 11 on a *bǐngzǐ* [day 17], at morning meal, (the document) is brought by Governor Dìng. / By the hand of Lián. By the hand of Cui.

Comments: ‘Administrators’ (*(tíng wèi) zhèng* (廷尉)正) and ‘Supervisors’ (*(tíng wèi) jiān* (廷尉)監) also appear on strip 184 of the “Zòuyànshū” and were officials within the Imperial Court.²²⁵ Since this manuscript deals with interrogation procedures at the county level, I assume that the ‘Administrators’ (*zhèng* 正) and ‘Supervisors’ (*jiàn* 監) mentioned are officials operating at commandery and/or county level. For a discussion of Supervisors, see chapter four.

‘*Gǎn yán zhī* 敢言之’ (dare to say, dare to report) is a respectful, formulaic expression or bureaucratic marker used in reports orally recited by a subordinate official or agency to a higher authority.

Lau and Staack translate ‘*sēfū* 嗇夫’ as ‘Overseer of a Prefecture’.²²⁶ As confirmed by the *Lǐyē* corpus and Yínquèshān Hàn tomb bamboo strips (*Yínquèshān Hàn mù zhújiǎn* 銀雀山漢墓竹簡), ‘Overseers’ (*sēfū* 嗇夫) were employed across various units of the empire, including ‘Granaries’ (*cāng* 倉), ‘Warehouses’ (*kù* 庫), ‘Stables’ (*jiù* 廄), ‘marketplaces’ (*shì* 市) and ‘kitchens’ (*chú* 廚).²²⁷

223 See Chén Wěi 2014b. For more information on the Zhōujiātái 周家台 documents discovered in 1993 in Húběi Province, refer to Húběi shěng Jīngzhōushì Zhōuliángyùqiáo yǐzhǐ bówùguǎn 2001; Wáng Guìyuán 2007.

224 See also Beck 1987.

225 Lau and Staack 2016: 311.

226 Lau and Staack 2016: 114.

227 Lander 2015: 304.

8-157 I–III: 卅二年正月戊寅[15]朔甲午[31], 啓陵鄉夫敢言之: 成里典、啓陵¹ 郵人缺。除士五(伍)成里勾、成, 成爲典, 勾爲郵人, 謁令¹ 尉以從事。敢言之。²²⁸

In the 32nd year (of King Zhèng) [215 BC], 1st month, new moon on a *wùyín, jiǎwǔ* [day 17], the Overseer of Qǐlíng District dares to say: The (positions of the) Principal of the township of Chéng and the Postman¹ of Qǐlíng (District) are vacant. Appoint Gài from a Unit of Five People and Chéng from the township of Chéng. Chéng becomes Principal, and Gài becomes Postman. Request an ordinance¹ of the Military Commander to follow up on the matter. (He) dares to say.

The official title ‘Overseer of a District’ (*xiāng fū* 鄉夫) is an abbreviation of ‘*xiāng sīfū* 鄉嗇夫’ in this context.²²⁹ As outlined by Wáng Huànlín, ‘*fū* 夫’ could also be interpreted as the name of an official in Qǐlíng District.²³⁰ While his proposed reading of the character is syntactically plausible, I find the original interpretation more convincing for two reasons: 1) official titles and responsibilities are usually prioritized over personal names in these types of documents, and 2) ‘*xiāng fū* 鄉夫’ is a common abbreviation for ‘*xiāng sīfū* 鄉嗇夫’ in other Qín and Hàn dynasty manuscripts.²³¹

From the readings of manuscripts 8-141+8-668 and 8-157, it can be concluded that ‘zhèng 正’ was not avoided in imperial correspondence. In fact, the former manuscript shows that the term was an official title, possibly subordinate to the ‘Commanding Official of the Overseers’ (*sèfūzhǎng* 嗇夫長) at the ‘(County) Court’ (*tíng* 廷) and the ‘Prefect’ (*chéng* 丞). On the latter manuscript, ‘zhēng 正’ – used as a temporal designation – appears alongside the official title ‘Township Principal’ (*lǐ-diǎn* 里典). This would not occur if ‘*lǐ-diǎn* 里典’ were a tabooed variant of ‘*lǐzhèng* 里正’. On strips 201 and 329 of the “Èrnián lǜlǐng”, the term is again listed as an official title with ‘*diǎn* 典’, occupying a similar or even higher hierarchical position.

Zhāngjiāshān, “Èrnián lǜlǐng”, “Statutes On Cash” (*Qián lǜ* 錢律), strip 201: 盜鑄錢及佐者: 棄市。同居不告: 贖耐。正、典、田典、伍人不告: 罰金四兩。²³²

For the one who thievishly casts cash, as well as the one who assists: cast (the criminal) away in the marketplace. For the co-resident who does not make a denunciation: (order him or her) to redeem shaving. For the Township Principal, the Township Administrator and people in the (mutually responsible) Unit of Five People who do not make a denunciation: fine four ounces of gold.²³³

²²⁸ Chén Wěi 2012: 94.

²²⁹ *Húnán shěng wénwù kǎogǔ yánjiūsuǒ, Xiāngxī Tǔjiāzú Miáozú zìzhìzhōu wénwù chū* 2003.

²³⁰ Wáng Huànlín 2007: 52.

²³¹ Chén Wěi 2012: 95.

²³² Barbieri-Low and Yates 2015: 632.

²³³ Translation taken from Barbieri-Low and Yates 2015: 635, with minor modifications. Barbieri-Low and Yates translate ‘zhèng 正’ as ‘Village Chief’, and ‘diǎn 典’ as ‘Chief of the Fields’.

Zhāngjiāshān, “Èrnián lǜlǜ”, “Statutes On Households” (*Hù lǜ* 戶律), strip 329: 數在所正、典弗告: 與同罪.²³⁴

When the Chief and the Township Principal of the place (where people are) counted do not report, (they) are likewise liable to punishment.

A closer look at the calendar format has led to noteworthy inferences about the status of certain terms and expressions in the *Lǐyě* cache. In most cases, homophones of the Emperor’s personal name were not strictly prohibited in administrative writing but continued as part of the official vocabulary.

The calendar system adopted in the *Lǐyě* texts was developed and established during the Warring States period. In its most complete form, it records the regnal year of King Zhèng (x), the month, starting from ‘month 1’ (*zhèng yuè* 正月 or *duān yuè* 端月) of 12 or 13 months (including the intercalary month 9 at irregular intervals every 2–3 years) (y), the ‘new moon day’ (*shuò(rì)* 朔(日)) (z1), and the day of the event or document entry (z2) (Tabs. 3.2, 3.3). Each annual cycle began in ‘month 10’ (*shí yuè* 十月). Building upon this format, so-called ‘event cal-

Tab. 3.2: Calendar structure based on the *Lǐyě* manuscripts from layers 5, 6 and 8.

Year x [conversion]	Month y	Day z1, z2
25th–37th year of King Zhèng [222–210 BC]	‘Month 1’ (<i>zhèng yuè</i> 正月) to ‘month 12’ (<i>shíèr yuè</i> 十二月) of the lunar calendar with ‘intercalary month 9’ (<i>hòu jiǔ yuè</i> 後九月) every two to three years; the annual cycle began in ‘month 10’ (<i>shí yuè</i> 十月).	Definition of the ‘new moon’ (<i>shuò(rì)</i> 朔(日)) reference day and calculation of the event day in accordance with the sexagenary cycle.
1st year of the Second Emperor [209 BC]	‘Month 1’ (<i>zhèng yuè</i> 正月 or <i>duān yuè</i> 端月) to ‘month 12’ (<i>shíèr yuè</i> 十二月) of the lunar calendar with ‘intercalary month 9’ (<i>hòu jiǔ yuè</i> 後九月) in the first year of the Second Emperor’s reign; the annual cycle began in ‘month 10’ (<i>shí yuè</i> 十月); in the excavated manuscripts, only reference to ‘month 1’ (<i>duān yuè</i> 端月), ‘month 4’ (<i>sì yuè</i> 四月), ‘month 7’ (<i>qī yuè</i> 七月), ‘month 8’ (<i>bā yuè</i> 八月) and ‘intercalary month 9’ (<i>hòu jiǔ yuè</i> 後九月) is made.	Definition of the ‘new moon’ (<i>shuò(rì)</i> 朔(日)) reference day and calculation of the event day in accordance with the sexagenary cycle.

²³⁴ Barbieri-Low and Yates 2015: 798.

endars' (*zhì rì* 質日), limited to a narrower range of tasks, were employed for planning, coordinating and supervising the specific duties of government officials in the Qín and Hàn dynasties.

For modern readers, the ordering of days based on the sexagenary cycle is not intuitive and requires careful calculation. This complexity is best illustrated by a few text excerpts:

8-73 I: 卅四年後九月壬辰[29]朔壬寅[39], 司空𠄎²³⁵

In the 34th year (of King Zhèng) [213 BC], intercalary month 9, new moon on a *rénchén*, *rén-yín* [day 11], the Commissioner of Public Works 𠄎

8-1514 I: 廿九年四月甲子[1]朔辛巳[18], 庫守惲敢言之 [. . .]²³⁶

In the 29th year (of King Zhèng) [218 BC], month 4, new moon on a *jiǎzǐ*, *xīnsì* [day 18], Warehouse Incumbent Hàn dares to say [. . .]

8-1515 I: 卅年十月辛卯[28]朔乙未[32], 貳春鄉守綽敢告司空主 [. . .]²³⁷

In the 30th year (of King Zhèng) [217 BC], month 10, new moon on a *xīnmǎo*, *yǐwèi* [day 5], Chuò, Incumbent of Èrchūn District, dares to report the Commissioner of Public Works [. . .]

8-1560 I: 卅一年後九月庚辰[17]朔辛巳[18], 遷陵丞昌謂倉嗇夫 [. . .]²³⁸

In the 31st year (of King Zhèng) [216 BC], intercalary month 9, new moon on a *gēngchén*, *xīnsì* [day 2], Chāng, Governor of Qiānlíng, addressed the Overseer of the Granary [. . .]

8-2194 I: [. . .] 卅二年三月丁丑[14]朔癸巳[30], 貳 𠄎²³⁹

[. . .] In the 32nd year (of King Zhèng) [215 BC], month 3, new moon on a *dīngchǒu*, *guǐsì* [day 17], Èr 𠄎

8-2441 I: 卅三年十月甲辰[41]朔庚申[57], 啓陵 𠄎²⁴⁰

In the 33rd year (of King Zhèng) [214 BC], month 10, new moon on a *jiǎchén*, *gēngshēn* [day 17], Qǐlíng 𠄎

²³⁵ Chén Wěi 2012: 55.

²³⁶ Chén Wěi 2012: 342.

²³⁷ Chén Wěi 2012: 343.

²³⁸ Chén Wěi 2012: 359.

²³⁹ Chén Wěi 2012: 443.

²⁴⁰ Chén Wěi 2012: 469.

To calculate the exact day, one must first identify the ‘1st day of the lunar month’, or ‘new moon day’ (*shuò(ri)* 朔(日)), and then count the days between this 1st day (or new moon day) and the day on which the event was recorded.²⁴¹ For example, the entry on manuscript 8-1514 occurred on a ‘*xīnsì* 辛巳’, which is 18 days after the new moon day ‘*jiǎzǐ* 甲子’ in month 4 of the 29th year of King Zhèng (218 BC). Counting from *jiǎzǐ* in position 1 to *xīnsì* gives 18 days, making ‘*xīnsì*’ equivalent to ‘day 18’ (see Tab. 3.3).

On manuscript 8-1515, the 1st day of month 10 in the 31st year of King Zhèng (216 BC) is a ‘*xīnmǎo* 辛卯’ in position 28. The actual day of the entry is a ‘*yǐwèi* 乙未’ in position 32. Therefore, *yǐwèi* is equal to day 5 of month 10. Manuscript 8-1560 is dated to the 2nd day of the intercalary month 9 in the 31st year of King Zhèng (216 BC). In this month, the new moon day was a ‘*gēngchén* 庚辰’ in position 17. ‘*Xīnsì* 辛巳’ follows immediately in position 18, and is thus equal to ‘day 2’. For manuscripts 8-2194 and 8-2441, ‘*dīngchǒu* 丁丑’ in position 14 and ‘*guīsì* 癸巳’ in position 30 (8-2194), as well as ‘*jiǎchén* 甲辰’ in position 41 and ‘*gēngshēn* 庚申’ in position 57 (8-2441), are each 17 days apart. The new moon day on manuscript 8-73 is a ‘*rénchén* 壬辰’ in position 29, making ‘*rényín* 壬寅’ equal to ‘day 11’.

There are also examples where reference to the new moon day is omitted, as seen on manuscript 8-1041+8-1043. In such cases, either the official recording the entry left it out, or the event day itself was day 1. Cross-referencing with other manuscripts usually helps resolve these ambiguities. For example, with manuscript 8-1173+8-1420, we can determine that the 1st day of month 1 in the 36th year of King Zhèng (211 BC) was a ‘*bǐngxū* 丙戌’.

8-1173+8-1420: [. . .] 卅六年十一月丙戌[23]朔壬辰[29]☐²⁴²

[. . .] In the 36th year (of King Zhèng) [211 BC], month 11, new moon on a *bǐngxū*, *rénchén* [day 7] ☐

Every day can be identified using the method described above, although there are a few manuscripts where these calculations do not align. Manuscript 8-768, for instance, presents an unresolved issue. It cites the new moon day as a ‘*gēngzǐ* 庚子’ in position 37, and the event day as a ‘*dīngwèi* 丁未’ in position 44, which would make ‘*dīngwèi* 丁未’ equal to ‘day 8’. Strangely, the last entry containing the day and time of the delivery is identified as a ‘*yǐsì* 乙巳’ in position 42. This implies that the document was dispatched before the entry was made. Chén Wěi’s transcription of the pa-

²⁴¹ For a discussion and reconstruction of the ‘new moon days’ (*shuò(ri)* 朔(日)) during the reigns of the First and Second Emperor’s, see Xǔ Míngqiāng 2013b.

²⁴² Chén Wěi 2012: 287.

leographic material seems to be accurate, yet this contradiction has been overlooked.²⁴³ This discrepancy could be either a miscalculation by the official in charge or a mismatch between the *recto* and *verso* of the document.

Manuscript 8-1449+8-1484 cites the new moon day in intercalary month 9 of the 34th year of King Zhèng (213 BC) as a ‘*rénxū* 壬戌’ in position 59. However, in line with manuscripts 8-73, 8-838 and the “Event Calendar of the 34th Year” (*Sānshísì nián zhì rì* 三十四年質日) in the *Yuèlù* strips, the new moon day for this particular month and year is a ‘*rénchén* 壬辰’ in position 29.²⁴⁴ Asserting the new moon day as a ‘*rénxū* 壬戌’ in this case is problematic, as it would place the entry one day earlier, on a ‘*xīnyǒu* 辛酉’ in position 58. Chén Wěi acknowledges the new moon day provided in the *Lǐyē* and *Yuèlù* manuscripts, but leaves the inconsistency on the *recto* unaddressed. Specifically, ‘*yǐmǎo* 乙卯’ in position 52 is four days ahead of the new moon day ‘*wùwǔ* 戊午’ in month 10, as cited on manuscript 8-183+8-290-8-530. Manuscript 8-1449+8-1484 reads:²⁴⁵

8-1449+8-1484 I–II, rI: 卅四年後九月壬戌〔辰〕[29]朔辛酉[58], 遷陵守丞茲敢言之: 遷陵道里毋蠻更者。敢言之。〔十月己卯[16]旦, 令佐平行。平手。〕²⁴⁶

In the 34th year (of King Zhèng) [213 BC], intercalary month 9, new moon on a *rénchén*, *xīnyǒu* [day 30], Zi, Deputy Prefect of Qiānlíng, dares²⁴⁷ to say: The marches and townships of Qiānlíng do not have Mán people assuming military service. (He) dares to say. 〔In the morning of month 10 on a *jǐmǎo* [day 18], Prefectural Assistant Ping dispatches (the document). By the hand of Ping.

Comments: According to Chén Wěi, the ‘marches and townships’ (*dào lǐ* 道里) of Qiānlíng can be understood as the territories overseen by the officials of Qiānlíng.²⁴⁷ In transmitted literature, ‘*dào lǐ* 道里’ is generally understood as ‘villages/townships along the way’ or ‘lands’.²⁴⁸

In Hàn culture, ‘*Mán gèng* 蠻更’ signifies “Mán people assuming a turn of duty or statute labor.”²⁴⁹ Here, ‘*gèng* 更’ is interpreted as ‘turn of duty’ and appears in *Shuihǔdì* strips 13–14, 54, 109 and 134–135.²⁵⁰

Consistent with a passage in the “Event Calendar of the 35th Year” (*Sānshíwǔ nián zhì rì* 三十五年質日) found in the *Yuèlù* documents, the new moon day in month 10 of the 34th year of King Zhèng (213 BC) was a ‘*rénxū* 壬戌’, which places ‘*jǐmǎo* 己卯’ on ‘day 18’.²⁵¹

243 Compare with Chén Wěi 2012: 222; *Húnán shěng wénwù kǎogǔ yánjiūsuǒ* 2012a: 114.

244 Compare with Chén Wěi 2012: 328.

245 Chén Wěi 2012: 106.

246 Chén Wěi 2012: 328.

247 Chén Wěi 2012: 328.

248 Lǚ Jiāliàng 2013: 104–106; Lycas 2019: 155–156.

249 Chén Wěi 2012: 328.

250 Hulseyé 1985.

251 Compare with Xǔ Míngqiāng 2013b.

Unless these contradictory day calculations and labels were intentionally produced for reasons unknown, these examples indicate that the *Lǐyē* corpus contains several clerical errors that either went unnoticed or were deliberately left uncorrected by the various government officials handling, examining and archiving the documents. These inconsistencies may highlight the practical challenges and human errors inherent in the daily operations of ancient bureaucracies, providing insights into the administrative complexities and potential leniencies within the Qín dynasty's record-keeping practices.

Tab. 3.3: The 60 days of the ‘sexagenary cycle’ (*gānzhī* 干支).

1	<i>jiǎzǐ</i> 甲子	2	<i>yǐchǒu</i> 乙丑	3	<i>bīngyín</i> 丙寅	4	<i>dīngmǎo</i> 丁卯	5	<i>wùchén</i> 戊辰
6	<i>jǐsì</i> 己巳	7	<i>gēngwǔ</i> 庚午	8	<i>xīnwèi</i> 辛未	9	<i>rénshēn</i> 壬申	10	<i>guīyǒu</i> 癸酉
11	<i>jiǎxū</i> 甲戌	12	<i>yǐhài</i> 乙亥	13	<i>bǐngzǐ</i> 丙子	14	<i>dīngchǒu</i> 丁丑	15	<i>wùyín</i> 戊寅
16	<i>jǐmǎo</i> 己卯	17	<i>gēngchén</i> 庚辰	18	<i>xīnsì</i> 辛巳	19	<i>rénwǔ</i> 壬午	20	<i>guǐwèi</i> 癸未
21	<i>jiǎshēn</i> 甲申	22	<i>yǐyǒu</i> 乙酉	23	<i>bīngxū</i> 丙戌	24	<i>dīnghài</i> 丁亥	25	<i>wùzǐ</i> 戊子
26	<i>jǐchǒu</i> 己丑	27	<i>gēngyín</i> 庚寅	28	<i>xīnmǎo</i> 辛卯	29	<i>rénchén</i> 壬辰	30	<i>guīsì</i> 癸巳
31	<i>jiǎwǔ</i> 甲午	32	<i>yǐwèi</i> 乙未	33	<i>bǐngshēn</i> 丙申	34	<i>dīngyǒu</i> 丁酉	35	<i>wùxū</i> 戊戌
36	<i>jǐhài</i> 己亥	37	<i>gēngzǐ</i> 庚子	38	<i>xīnchǒu</i> 辛丑	39	<i>rényín</i> 壬寅	40	<i>guīmǎo</i> 癸卯
41	<i>jiǎchén</i> 甲辰	42	<i>yǐsì</i> 乙巳	43	<i>bīngwǔ</i> 丙午	44	<i>dīngwèi</i> 丁未	45	<i>wùshēn</i> 戊申
46	<i>jǐyǒu</i> 己酉	47	<i>gēngxū</i> 庚戌	48	<i>xīnhài</i> 辛亥	49	<i>rénzǐ</i> 壬子	50	<i>guǐchǒu</i> 癸丑
51	<i>jiǎyín</i> 甲寅	52	<i>yǐmǎo</i> 乙卯	53	<i>bīngchén</i> 丙辰	54	<i>dīngsì</i> 丁巳	55	<i>wùwǔ</i> 戊午
56	<i>jǐwèi</i> 己未	57	<i>gēngshēn</i> 庚申	58	<i>xīnyǒu</i> 辛酉	59	<i>rénxū</i> 壬戌	60	<i>guīhài</i> 癸亥

In addition to the years, months and days of the imperial calendar, the hours of the day were also subject to meticulous timekeeping. Qín officials relied on a double-hour clock system marked by scaled water clocks, or clepsydrae, which had hour ‘notches’ or ‘marks’ (*kè* 刻) carved into their sides.²⁵² Unfortunately, no water clock has yet been discovered in or around Lǐyē, but a replica, based on Hàn dynasty findings, is on display at the Lǐyē Museum of Qín Slips (*Lǐyē Qín jiǎn bówùguǎn* 里耶秦簡博物館) (Figs. 3.1, 3.2).

A slow, constant flow of water into the clepsydra caused a rod floating inside to indicate the passing of time relative to the notches and water level. As the Hàn dynasty philosopher and politician Huán Tán 桓譚 (43 BC–28 CE) observed, the working accuracy of clepsydrae was influenced by weather conditions, atmospheric humidity

²⁵² One of the earliest references to simpler forms of clepsydrae in Ancient China is arguably found in a passage from the *Book of Odes* (*Shījīng* 詩經) (see Needham and Wang 1959: 315; Needham 2000). A particularly notable mention of a clepsydra is in the *Rites of Zhōu* (*Zhōulǐ* 周禮) (see Needham and Wang 1959: 319). ‘clepsydra’ is of Greek origin (κλεψύδρα) and literally means ‘water-stealer’ (Needham and Wang 1959: 313).



Fig. 3.1: Replica of a water clock displayed at the Lǐyē Museum of Qín Slips.²⁵³

and air temperature. For these reasons, these devices had to be regularly calibrated using sundials during the day and star constellations at night to ensure precise functioning.²⁵⁴

New Discourses (*Xīn lùn* 新論), “On Separate Matters” (*Lí shì* 離事): 余前爲郎。典漏刻。燥，濕，寒，溫，輒異度。故有昏明晝夜。晝日參以晷景。夜分參以星宿。則得其正。²⁵⁵

Formerly, when I served as a Gentleman, I was in charge of the marks on the clepsydra. If (conditions varied between) dry and humid, cold and warm, then there were different (ways to) measure (the marks) on the sides. Therefore, (in order to) have (the timings) for dusk and dawn, daylight and nighttime, I checked against the solar shadow in the daytime, and in the night part (of the clepsydra circle), I checked against the stellar lodges. Thus, I attained the correct (measurement).²⁵⁶

²⁵³ My photograph, taken at the Lǐyē Museum of Qín Slips (*Lǐyē Qín jiǎn bówùguǎn* 里耶秦簡博物館) on May 14, 2019.

²⁵⁴ Needham 1995: 321–322.

²⁵⁵ Huán Tán 1977: 44.

²⁵⁶ Translation is taken from Cullen 2018: 184, with minor modifications. My *pīnyīn* transcriptions.

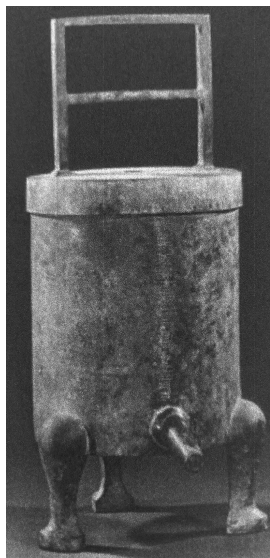


Fig. 3.2: Monochrome photograph of a Western Hàn dynasty bronze water clock, dated to 27 BC, excavated in Inner Mongolia in 1977. Dimensions: 479 mm x 187 mm. The side inscription reads: “Bronze clepsydra (from) Qiānzhang. One weighs 32 ‘catties’ (*jīn* 斤). Manufactured in the 2nd year of the Héping period in month 4” (*Qiānzhang tónglòu yī zhòng shìèr jīn Héping èr nián sì yuè zào* 千章銅漏一重卅二斤河平二年四月造).²⁵⁷

Comment: Cullen notes that “in the context of observations of the ‘stellar lodges’ (*xīngxiǔ* 星宿), ‘dù 度’ seems very likely to be referring to [. . .] a measure of movement of the sun and other heavenly bodies [. . .].”²⁵⁸

Joseph Needham (1900–1995) argues that, from the Late Zhōu to the Former Hàn dynasty, a day was divided into 12 equal ‘double-hours’ (*shí* 時) and 100 equal ‘quarters’ (*kè* 刻).²⁵⁹ In reference to Robin Yates, double-hours were divided into ‘quarters’ (*kè* 刻), with each quarter subdivided into 10 ‘marks’ (*kè* 刻).²⁶⁰ Yates has also published a time chart for Qín officials, comprising 12 work and leisure hours, which is on display at the Lǐyē Museum of Qín Slips (Fig. 3.3).

According to this chart, ‘midnight’ (*yèbàn* 夜半), ‘cock crow’ (*jī míng* 雞鳴) and ‘dawn’ (*píngdàn* 平旦) were consecutive double-hours between 11 pm and 5 am. At 5 am, Qín officials started their 12-hour workday, which lasted until 5 pm. The early evening spanned from 5 pm to 9 pm and included ‘sunset’ (*rìrù* 日入) and ‘dusk’ (*huánghūn* 黃昏), followed by the ‘settling of people’ (*réndìng* 人定) from 9 pm to 11 pm. Conversions into modern time only make sense if we assume that

²⁵⁷ Cullen 2018: 184. Photograph is taken from Cullen 2018: 185. For a discussion of this particular water clock, see Chén Měidōng 1989.

²⁵⁸ Cullen 2018: 186.

²⁵⁹ Needham and Wang 1959: 322.

²⁶⁰ Yates 2012–2013: 302. Robin Yates translates ‘*kè* 刻’ as both ‘quarters’ and ‘marks’.

Chrononym	Name	Qin Time for Work	Modern Time	Activity
zi 子	yeban 夜半		23:00–01:00	
chou 丑	jiming 雞鳴		01:00–03:00	
yin 寅	pingdan 平旦		03:00–05:00	
mao 卯	richu 日出	Shuixia yi zhi erke 水下一至二刻 ^a	05:00–07:00	Office open
chen 辰	shishi 食時	Shuixia san zhi sike 水下三至四刻	07:00–09:00	Morning meal
si 巳	yuzhong 隅中	Shuixia wu zhi liuke 水下五至六刻	09:00–11:00	
wu 午	rizhong 日中	Shuixia qi zhi bake 水下七至八刻	11:00–13:00	
wei 未	riyi 日昃	Shuixia jiu zhi shike 水下九至十刻	13:00–15:00	
shen 申	bushi 晡時	Shuixia shi zhi shiyi ke 水下十至十一刻	15:00–17:00	Office closed; Evening meal
you 酉	riru 日入		17:00–19:00	
xu 戌	huanghun 黃昏		19:00–21:00	
hai 亥	rending 人定		21:00–23:00	Bedtime

Fig. 3.3: Time schedule for Qín dynasty officials according to the table by Robin Yates, on display at the Lǐyē Museum of Qín Slips.²⁶¹

the imperial Qín workday consistently began at 5 am and did not depend, as is arguably much more likely, on the actual time of ‘sunrise’ (*richū* 日出). For simplicity’s sake, I will continue to use these time conversions throughout the remainder of the book.

Judging from the manuscripts transcribed by Chén Wěi, the *Lǐyē* corpus does not entirely align with the time formats described above. While double-hours are utilized, they are neither assigned specific chrononyms nor divided into 100 equal ‘quarters’. The further division of ‘quarters’ into 10 ‘marks’ is also absent from the texts. Instead, water clocks seem to have displayed 11 one-hour ‘marks’ (*kè* 刻), dividing the time between 5 am and 5 pm, or the 12 hours starting from sunrise.²⁶² Some *Lǐyē* texts mention the complete daytime scale, consisting of ‘11 marks’ (*shíyī kè* 十一刻), followed by the actual time, specified as “mark below mark x” (*kè xià x* 刻下X). Others omit the scale and state the time directly, using phrases like “water below mark x” (*shuǐ xià x kè* 水下X刻), “water below x” (*shuǐ*

²⁶¹ Yates 2012–2013: 302.

²⁶² This hypothesis can be compared with similar theories on timekeeping in the early empires, as presented in Lǐ Xuéqín 2003.

xià x 水下X) or “water below below x” (*shuǐ xià xià x* 水下下X). The following examples illustrate these timekeeping variants in the *Lǐyē* documents.²⁶³

Instances of “water below mark x of 11 marks” (*shuǐ shíyī kè kè xià x* 水十一刻刻下X):

8-60+8-656+8-665+8-748 rIII-IV: 六月庚辰[17]水十一刻刻下六, 守府快行少内。𠄎 六月乙亥[12]水十一刻刻下二, 佐同以來。ノ元手。𠄎²⁶⁴

In month 6 on a *gēngchén*, at water below mark 6 of 11 marks, Governor Kuài dispatches (the document) to the Lesser Treasury. 𠄎 In month 6 on a *yǐhài*, at water below mark 2 of 11 marks, (the document) is brought by Assistant Tóng. / By the hand of Yuán. 𠄎

Comments: Since neither the year nor the 1st day of the lunar month is specified, it is not possible to reconstruct the numerical values for the days ‘*gēngchén*’ and ‘*yǐhài*’. The ‘Lesser Treasuries’ (*shǎonèi* 少内) were responsible for the finances of the counties.²⁶⁵ Based on my reconstructions of timekeeping within the *Lǐyē* corpus, as detailed above, the phrase “mark below mark 6 of 11 marks” converts to the period between 11:00 am and 11:59 am, whereas “water below mark 2 of 11” corresponds to the period between 7:00 am and 7:59 am.

8-71 I-II, rI: 卅一年二月癸未[20]朔丙戌[23], 遷陵丞昌敢言之: 遷 𠄎 佐日備者, 士五(伍)梓潼長親欣補, 謁令 𠄎 二月丙戌[23]水十一刻刻下八, 守府快行尉曹。𠄎²⁶⁶

In the 31st year (of King Zhèng) [216 BC], month 2, new moon on a *guǐwèi*, *bǐngxū* [day 4], Chāng, Prefect of Qiānlíng, dares to say: Qiān 𠄎 Assistant comes to the end of his term. Xīnbǔ from a Unit of Five People of ChángX [pronunciation unknown] (township) in Zītóng, requests an ordinance 𠄎 In month 2 on a *bǐngxū* [day 4], at water below mark 8 of 11 marks, Governor Kuài dispatches (the document) to the Bureau of the Military Commandant. 𠄎

Zītóng 梓潼 was the name of a county in Shǔ Commandery (*Shǔ jùn* 蜀郡), with its government seat in what is now modern-day Sichuān Province.²⁶⁷ It is also mentioned on manuscript 8-1445, in conjunction with the township of Wǔchāng 武昌.²⁶⁸ The township of ChángX [pronunciation unknown] is not known from any other sources, so this interpretation should be approached with caution. The phrase “water below mark 8 of 11 marks” converts to the period between 1:00 pm and 1:59 pm.

²⁶³ These and the following conversions into modern time are derived from Fig. 3.3 in Yates 2012–2013: 302.

²⁶⁴ Chén Wěi 2012: 43.

²⁶⁵ For a discussion of the ‘Lesser Treasury’ (*shǎonèi* 少内) based on transmitted textual passages, see Hulsewé 1985: 195–200.

²⁶⁶ Chén Wěi 2012: 54.

²⁶⁷ Chén Wěi 2012: 54. For a discussion of the counties and commanderies included in the *Lǐyē* corpus, see chapter four.

²⁶⁸ Chén Wěi 2012: 327.

8-154 I-II, r1: 卅三年二月壬寅[39]朔朔日, 遷陵守丞都敢言之: 令曰恒以¹朔日上所買徒隸數。•問之, 毋當令者, 敢言之。²⁶⁹ 二月壬寅[39]水十一刻刻下二, 郵人得行。圉手。

In the 33rd year (of King Zhèng) [214 BC], month 2, new moon on a *rényn*, new moon day [day 1], Dù, Deputy Governor of Qiānlíng, dares to say: The ordinance states to regularly submit (a document)¹ to the higher authorities on the 1st day (of the lunar month) with the number of convict servants that have been bought. • Clarify whether there is no corresponding ordinance. (He) dares to say. ¹In month 2 on a *rényn* [day 1], at water below mark 2 of 11 marks, Postman Dē dispatches (the document). By the hand of Hùn.

“Water below mark 2 of 11 marks” converts to the period between 7:00 am and 7:59 am (see manuscript 8-60+8-656+8-665+8-748 above for comparison).

8-155 I-II: 四月丙午[43]朔癸丑[50], 遷陵守丞色下: 少內謹案致之。書到言, 署金布發, 它如¹律令。ノ欣手。ノ四月癸丑[50]水十一刻刻下五, 守府快行少內。²⁷⁰

In month 4, new moon on a *bǐngwǔ*, *guǐchǒu* [day 8], Sè, Deputy Prefect of Qiānlíng, (sends a document to) the lower authorities: The Lesser Treasury should investigate and establish firmly. The document needs to be communicated orally upon delivery, and then forwarded by all Finance Departments. Everything else (should be handled) in accordance with the¹ statutes and ordinances. / By the hand of Xīn. / In month 4 on a *guǐchǒu* [day 8], at water below mark 5 of 11 marks, Governor Kuài dispatches (the document) to the Lesser Treasury.

This excerpt reveals that the ‘Finance Department’ (*jīnbù* 金布) was a county-level unit subordinate to the ‘Lesser Treasury’ (*shǎonèi* 少內).²⁷¹ The phrase “water below mark 5 of 11 marks” converts to the period between 10:00 am and 10:59 am.

8-164+8-1475 I-III, r1: □□年後九月辛酉[58]朔丁亥[24], 少內武敢言之: 上計□□□□而後論者獄校廿一牒, 謁告遷陵將計丞□□上校。敢言之。□¹□九月丁亥[24]水十一刻刻下三, 佐欣行廷。欣手。□²⁷²

□□ year, intercalary month 9, new moon on a *xīnyǒu*, *dīnghài* [day 27], Wǔ of the Lesser Treasury dares to say: Submit the statistics to the higher authorities □□□□ and judgments in the future, when (settling) criminal cases, examine the 21 official documents, respectfully report the statistics of Qiānlíng to the Governor □□□□ submit the evaluation results to the higher authorities. (He) dares to say. □¹□ in month 9 on a *dīnghài* [day 27], at water below mark 3 of 11 marks, Assistant Xīn dispatches (the document) to the Court. By the hand of Xīn. □

²⁶⁹ Chén Wěi 2012: 93.

²⁷⁰ Chén Wěi 2012: 94.

²⁷¹ For more information on this manuscript text, refer to *Húnán shěng wénwù kǎogǔ yánjiūsuo* 2012b: 19.

²⁷² Chén Wěi 2012: 100.

Chén Wěi believes that the missing character before ‘year’ (*nián* 年) is ‘first’ (*yuán* 元), which would date the manuscript to the first year of the Second Emperor (209 BC).²⁷³ According to Zhāng Péiyú, the first year of the Second Emperor did not have an intercalary month, unlike the 29th year of King Zhèng (218 BC), as recorded on manuscript 8-1450: “In the 29th year (of King Zhèng) [218 BC], intercalary month 9 on a *xīnwèi*” (*niànjiǔ nián hòu jiǔ yuè xīnwèi* 廿九年後九月辛未).²⁷⁴ Xǔ Míngqiāng further notes that the 1st day of intercalary month 9 in the 29th year of King Zhèng was a ‘*xīnyǒu* 辛酉’. We can further determine that an official named Xīn was active in the 32nd year of King Zhèng (215 BC) (see Tab. 2.1).²⁷⁵ As a result, this entry was most likely recorded in the 29th year of King Zhèng, and Xīn was active from at least the 29th to the 32nd regnal year (218–215 BC).

During the Warring States period, as well as the Qín and Hàn periods, imperial officials compiled ‘statistics’ (*jì* 計) at the end of the year. These statistics contained comprehensive data on households and population within their jurisdiction, as well as information on taxes, criminal records, lawsuits, and other relevant matters, which were submitted to the Courts. This process was known as “submission of statistics to the higher authorities” (*shàng jì* 上計). For more on these statistics, see chapters four and six.

The phrase “water below mark 3 of 11 marks” converts to the period between 8:00 am and 8:59 am.

Instances of “water below mark x” (*shuǐ xià x kè* 水下X刻):

5-22: 獄東曹書一封, 丞印, 詣無陽。• 九月己亥[36]水下三刻, □□以來。²⁷⁶

There is one document from the Judiciary Bureau of the East with the seal of the Prefect. It is addressed to Wúyáng. • In month 9 on a *jǐhài*, at water below mark 3, (the document) is brought by □□.

In a collection of documents titled “Models for Sealing and Investigating” (*Fēng zhēn shì* 封診式) from the *Shuihǔdì* texts, strip 48 already features ‘*fēng* 封’ as a measure word for ‘documents’ (*shū* 書).²⁷⁷

Wúyáng was a county in the Qín and Hàn dynasties.²⁷⁸ It also appears on manuscript 8-1555, in conjunction with Zhòngyáng 衆陽, one of its districts.²⁷⁹ Wúyáng County belonged to Wǔlíng 武陵 Commandery, with its government seat located in what is now the north-east of Zhǐjiāng Dōng Minority Autonomous County (*Zhǐjiāng Dōngzú Zìzhìxiàn* 芷江侗族自治縣) in Húnán Province.

The phrase “water below mark 3” converts to the period between 8:00 am and 8:59 am (see manuscript 8-164+8-1475 above for comparison).

273 Chén Wěi 2012: 100.

274 Zhāng Péiyú 1987.

275 Xǔ Míngqiāng 2013b.

276 Chén Wěi 2012: 13.

277 Lǐ Jiànpíng and Zhāng Xiǎnchéng 2009: 73.

278 Chén Wěi 2012: 13.

279 Chén Wěi 2012: 357.

8-453 AI–IV, B: A 尉曹書三封, 令印。其一詣銷, 一丹陽, 一□陵。 B 廿八年九月庚子[37]水下二刻, 走祿以來。²⁸⁰

There are three documents from the Bureau of the Military Commandant with the seal of the ordinance. Of these (documents), one (is addressed) to Xiāo, one to Dānyáng (County) and one to □líng. B In the 29th year (of King Zhèng) [218 BC], month 9 on a *gēngzǐ*, at water below mark 2, (the document) is brought by Runner Lù.

Xiāo was a county in Nán 南 Commandery during the Qín dynasty and the Early Hàn dynasty.²⁸¹ This is its only mention in the *Lǚē* corpus. The county's government seat was located near modern-day Jīngmén 荊門, a prefecture-level city in Húběi Province.²⁸² Dānyáng was another county of the imperial Qín dynasty, with its government seat situated in the northeast of present-day Dāngtú 當塗 County, Ānhuī Province.²⁸³ It also referenced on manuscripts 8-430 and 8-1807, the latter linking the township of Xiàlǐ 下里 to Dānyáng.²⁸⁴

The phrase “water below mark 2” converts to the period between 7:00 am and 7:59 am (see manuscripts 8-60+8-656+8-665+8-748 and 8-154 above for comparison).

8-1155: 獄東曹書一封, 丞印, 詣泰守府。廿八年九月己亥[36]水下四刻, 隸臣申以來。²⁸⁵

There is one document from the Judiciary Bureau of the East with the Prefect's seal. It is addressed to the Governor. In the 28th year, month 9 on a *jǐhài*, at water below mark 4, (the document) is brought by Bondservant Shēn.

The phrase “water below mark 4” converts to the period between 9:00 am and 9:59 am.

Instances of “water below x” (*shuǐ xià x* 水下X):

8-78 rII: □□酉水下盡, 隸臣隸以□²⁸⁶

□□ yǒu, water at exhaustion, (male) Bondservant X [pronunciation unknown] □

The term ‘yǒu 酉’ possibly forms part of a day name. When the water reached the bottom of the scale at 5 pm, this was called ‘exhaustion’ (*jìn* 盡). This expression also appears on manuscript 9-1867.²⁸⁷

The structural parallelism in these sentences evokes the Bondservant X (pronunciation unknown) “bringing (the document)” (*yǐ lái* 以來) at the end of the text.

280 Chén Wěi 2012: 152.

281 Chén Wěi 2012: 152.

282 Chén Wěi 2011b.

283 Chén Wěi 2012: 147.

284 Chén Wěi 2012: 394.

285 Chén Wěi 2012: 285.

286 Chén Wěi 2012: 57.

287 Yates 2012–2013: 302.

8-1671: 𠂔𠂔𠂔𠂔水下一, 隸妾【强】𠂔²⁸⁸

𠂔𠂔𠂔𠂔 at water below one, (female) Bondservant 【Qiáng】 𠂔

Instance of “water below below x” (*shuǐ xià xià x* 水下下X):

8-1510 rIII: 三月己酉[46]水下下九, 佐𠂔以來. / 鉤手.²⁸⁹

In month 3 on a *jǐyǒu*, at water below (mark) 9, (the document) is brought by Assistant X [pronunciation unknown]. / By the hand of Kòu.

The commencement of each water clock cycle was labeled as ‘beginning’ (*qǐ* 起), whereas its end was referred to as ‘exhaustion’ (*jìn* 盡).²⁹⁰ Consequently, the marks ‘0’ and ‘12’ do not appear in the *Lǐyē* corpus, as they would be redundant on the clepsydra scale. Dividing a 12-hour cycle into 11 marks is logical only when the top and bottom of the clepsydra are incorporated into the timekeeping system (Fig. 3.4).

The time is always given at the end of an entry, typically written by an unidentified individual on the left side of the *recto* (Fig. 3.5). The main text begins in the top right corner of the front side of the writing carrier and usually includes the ‘year’ (*nián* 年), ‘month’ (*yuè* 月), ‘new moon day’ (*shuò(ri)* 朔(日)) and the actual day of the entry, without the time. The officials responsible for producing the texts are identified by their signature at the bottom of the *verso*. The line recording the month, day and exact time at the end of the text, without reiterating the year or the new moon day, suggests that logistical decisions regarding document movement or personnel reassignment had already been acknowledged by the authorities and were in progress. This method, in addition to concluding the case at hand, likely facilitated efficient document retrieval.

All surviving entries featuring the designations “water below mark x” (*shuǐ xià x kè* 水下X刻), “water below x” (*shuǐ xià x* 水下X) or “water below below x” (*shuǐ xià xià x* 水下下X) date from the 26th to the 30th year of King Zhèng (221–217 BC). In comparison, ten out of the eleven entries (or 91%) containing “water below mark x of 11 marks” (*shuǐ shíyī kè kè xià x* 水十一刻刻下X) were written between the 30th and the 33rd year of King Zhèng (217–214 BC). Only one entry (8-1452) dates back to the 26th year of King Zhèng (221 BC), confirmed by the presence of the official Cǎo 操, who was active during that year (see Tab. 2.1). It is reasonable to assume that the more detailed designation, “water below mark x of 11 marks”

²⁸⁸ Chén Wěi 2012: 376.

²⁸⁹ Chén Wěi 2012: 341.

²⁹⁰ See *Lǐyē* manuscripts 8-792, 9-1867 and 12-1799. See also Mǎ Yǐ 2005; Yates 2012–2013: 302.

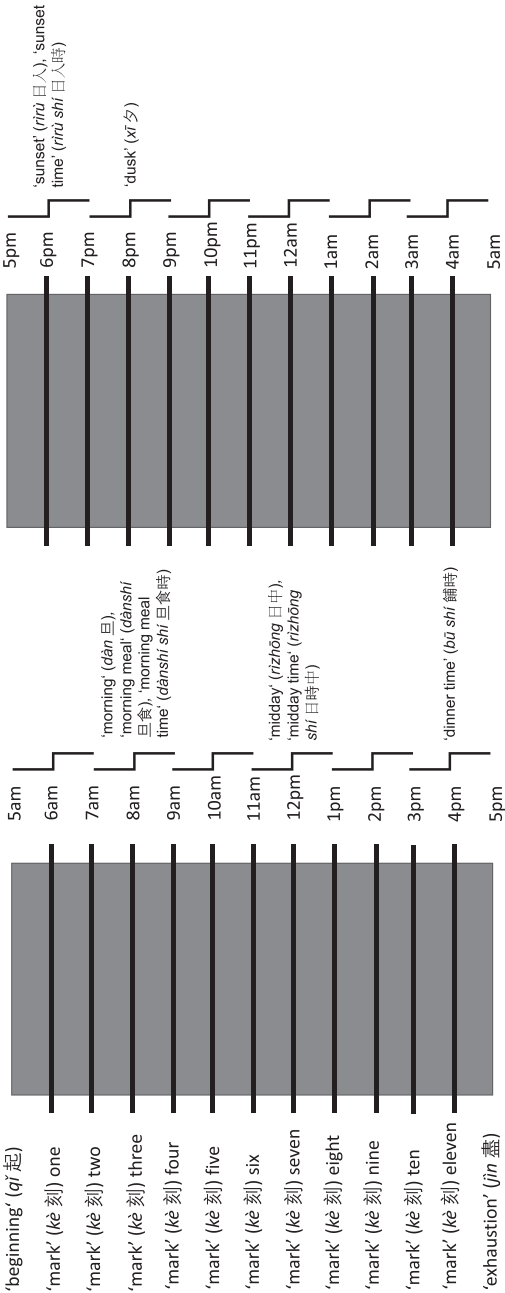


Fig. 3.4: Chart of a 24-hour cycle (5 am to 5 am, or sunrise to sunrise) with the addition of double-hours on Qin dynasty clepsydrae, as reflected in the *Liyé* manuscripts from layers 5, 6, 8, 9 and 12. The top and bottom sections of the chart mark the 'beginning' (qi) and 'exhaustion' (jin) of the 12-hour working day.

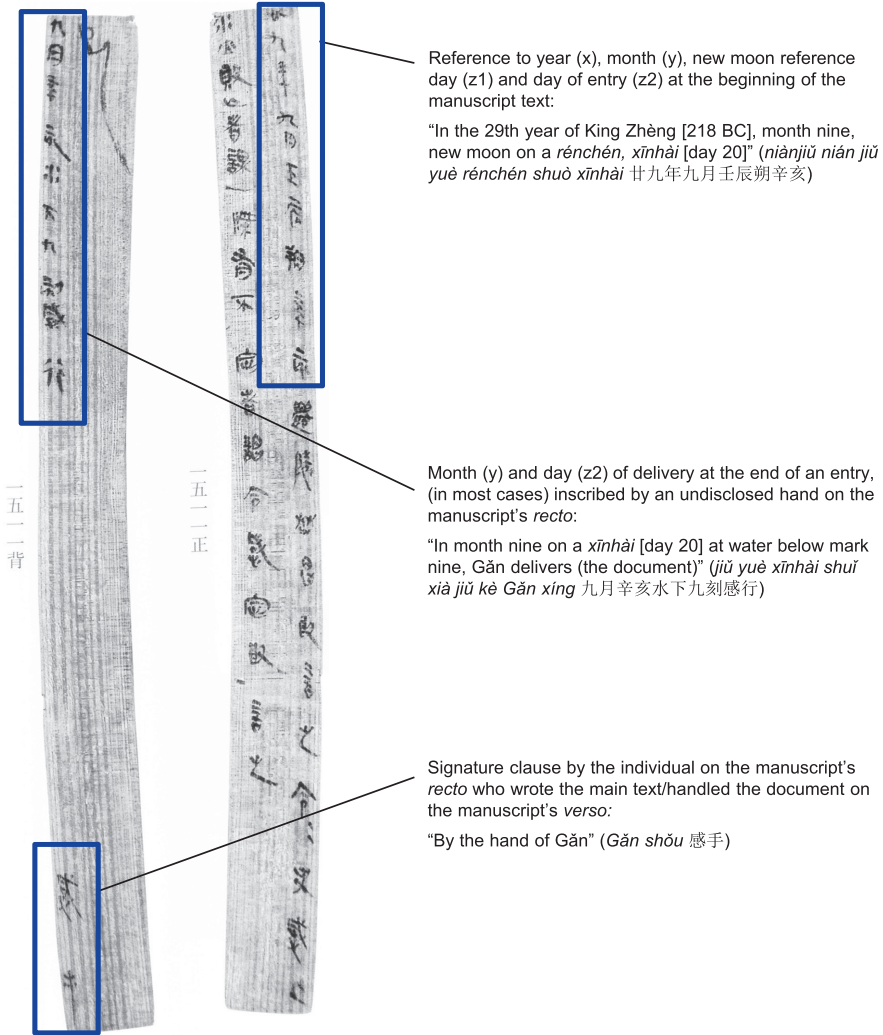


Fig. 3.5: Monochrome photograph of manuscript 8-1511, *verso* (r) and *recto* (l). The *verso* was written by Gǎn 感, who recorded his name on the *recto*'s bottom left. The exact time is written on the *recto*'s top left by an undisclosed person.²⁹¹

²⁹¹ For a transcription of manuscript 8-1511, see Chén Wěi 2012: 341–342.

(*shuǐ shíyī kè kè xià* 水十一刻刻下X), replaced earlier formats and became more widely institutionalized from the 30th year of King Zhèng (217 BC) onwards.

Of the 12 double-hour designations shown in Fig. 3.3, only a fraction are present on the *Lǐyě* manuscripts from layers 5, 6 and 8. The term ‘morning meal’ (*shí shí* 食時) appears once on manuscript 8-1432, but is twice replaced with the seemingly synonymous collocation ‘morning meal’ (*dànshí* 旦食).²⁹² Additionally, it is replaced by the more concise term ‘morning’ (*dàn* 旦) in 25 other instances.²⁹³ Four manuscripts combine both terms, ‘morning’ (*dàn* 旦) and ‘morning meal’ (*shí shí* 食時), to form ‘morning meal time’ (*dànshí shí* 旦食時).²⁹⁴ The term ‘mid-day’ (*rìzhōng* 日中) appears eight times, three of which are suffixed with ‘time’ (*shí* 時), resulting in ‘midday time’ (*rìzhōng shí* 日中時).²⁹⁵ The term ‘sunset’ (*rìrù* 日入) is mentioned seven times, with one instance featuring the variant ‘sunset time’ (*rìrù shí* 日入時).²⁹⁶ ‘*Xī* 夕’ may have served as a monosyllabic substitute for ‘dusk’ (*huánghūn* 黃昏) on manuscripts 8-1432 and 8-1823. Manuscript 8-728+8-1474 con-

²⁹² In order to avoid inaccuracies, manuscript 8-716 is not taken into consideration because the character following ‘*dànshí* 旦食’ is illegible (*dànshí* 旦食□).

²⁹³ ‘Morning meal’ (*dànshí* 旦食) appears on manuscripts 8-141+8-668, 8-157, 8-130+8-190+8-193, 8-657, 8-664+8-1053+8-2167, 8-716, 8-770 and 8-1886. ‘Morning’ (*dàn* 旦) appears on manuscripts 5-1, possibly 6-21 (the preceding characters are illegible), 8-63, 8-140, 8-142, 8-143, 8-158, 8-170, 8-196+8-1521, 8-197, 8-645, 8-651, 8-672, 8-686+8-973, 8-736, 8-768, 8-1432 (twice), 8-1449+8-1484, 8-1482, 8-1515, 8-1523, 8-1525 (twice), 8-1559 and 8-1560. The year of the entry on manuscript 8-140 can be reconstructed by knowing that the new moon day in month 9 of the 31st year of King Zhèng (216 BC) was a ‘*gēngxū* 庚戌’ (see Xǔ Míngqiāng 2013b). In line one on the *verso* of manuscript 8-738, the ‘new moon day’ (*shuò* 朔) is a ‘*gēngzǐ* 庚子’ in position 37, while the event day is on a ‘*dīngwèi* 丁未’ in position 44, making ‘*dīngwèi* 丁未’ ‘day 8’. Strangely, the last entry containing the day and time of Governor Jǐ’s departure is identified as a ‘*yǐsì* 乙巳’ in position 42. This would imply that the document was sent before the entry was made. Chén Wěi’s transcription seems accurate, although he does not address this discrepancy (see Chén Wěi 2012: 222). The entry on manuscript 8-1449+8-1484 was made in the 1st lunar month, or month 10, of the 35th year of King Zhèng (212 BC). According to the “Event Calendar of the 35th Year” (*Sānshíwǔ nián zhì rì* 三十五年質日) in the *Yuèlù* corpus, the new moon day was a ‘*rénxū* 壬戌’, making ‘*jǐmǎo* 己卯’ ‘day 18’ (compare with Xǔ Míngqiāng 2013b). The text on manuscript 8-1523 does not explicitly mention the year, although manuscript 8-759 cites the new moon day in month 7 of the 34th year of King Zhèng (213 BC) as a ‘*jiǎzǐ* 甲子’ in position 1.

²⁹⁴ This refers to manuscripts 8-130+8-190+8-193, 8-157, 8-664+8-1053+8-2167 and 8-1886. Regarding the dating on manuscript 8-1886, manuscript 8-525 provides a clue: it indicates that the new moon day in month 9 of the 30th year of King Zhèng (217 BC) was a ‘*bǐngchén* 丙辰’, making ‘*bǐngzǐ* 丙子’ correspond to ‘day 21’ (see Chén Wěi 2012: 173).

²⁹⁵ ‘Midday’ (*rìzhōng* 日中) appears on manuscripts 8-51, 8-152, 8-157, 8-173 and 8-252, and ‘mid-day time’ (*rìzhōng shí* 日中時) on manuscripts 8-890+8-1583, 8-1069+8-1434+8-1520 and 8-1439.

²⁹⁶ ‘Sunset’ (*rìrù* 日入) appears on manuscripts 8-69, 8-1459, 8-1468, 8-1538, 8-1554 and 8-1971, and ‘sunset time’ (*rìrù shí* 日入時) on manuscript 8-274+8-2138.

tains the term ‘dinner time’ (*bū shí* 鋪時). However, due to its poor physical condition, cross-comparisons cannot be made, nor can definitive conclusions be drawn about its use and significance in an administrative context. In all cases discussed, the more accurate clepsydra timescale is absent and replaced by corresponding designations.

8-728+8-1474 I, rI: 獄南曹書二封, 遷陵印: 一洞庭泰守府, 一洞庭尉府. • 九月 𠄎 𠄎 己亥[36] 鋪時, 牢人誤以來. 𠄎²⁹⁷

𠄎 There are two documents by the Judiciary Bureau of the South with the seal of Qiānlíng: One (is addressed to) the Governor of Dòngtíng, and one (is addressed to) the administrative unit of the Military Commandant of Dòngtíng. • Month 9 𠄎 𠄎 on a *jìhài*, at dinner time, (the document) is brought by Prisoner Wù. 𠄎

Comments: As indicated by this manuscript, the ‘Judiciary Bureau of the South’ (*yùnnáncǎo* 獄南曹) was a county level institution that maintained correspondence with the Governor and Military Commandant of Dòngtíng. This Bureau is also mentioned on manuscripts 8-1760 and 8-1886. While manuscript 8-1760 provides limited information containing only the characters ‘*yùnnáncǎo* 獄南曹’, manuscript 8-1886 reveals that letters sent on behalf of the Judiciary Bureau of the South necessitated the “seal of the (County) Prefect” (*chéng yìn* 丞印). The ‘Judiciary Bureau of the East’ (*yùdōngcǎo* 獄東曹) fulfilled similar obligations in Qiānlíng County.²⁹⁸

Outside the official working day, and excluding the aforementioned ‘dinner time’ (*bū shí* 鋪時), ‘sunset’ (*rìrù* 日入) and ‘dusk’ (*xī* 夕), the method for measuring hours and double-hours remains unclear. Entries recording the latter hours of the day using the 11-mark scale are found on manuscripts 8-1510, 8-1511 and 8-78. It is possible that refilling the clepsydra at 5 pm (or 12 hours after sunrise) provided a consistent reference point throughout the night until the start of the following working day at 5 am (or sunrise).

In summary, the calendar and timekeeping systems utilized by the Qín dynasty were paramount to the large-scale standardization and synchronization of administrative processes. These systems underpinned the processing of information and the creation, dispatch and reception of documents. Moreover, timekeeping introduced a level of consistency to government operations and individual daily routines. This consistency is evident in the construction and maintenance of public sites, the cultivation of agricultural land and the clear demarcation between work and leisure time.

²⁹⁷ Chén Wěi 2012: 211.

²⁹⁸ See manuscripts 5-22, 8-273+8-2138, 8-959+8-1291, 8-996 and 8-1155.

Future analysis of the *Lǐyē* corpus regarding calendar and timekeeping systems may offer additional insights into the duration of various processes within the imperial administration. It may also clarify the geographical distances between administrative units, the strategic priorities of the imperial government, the dating of damaged or incomplete documents and issues related to the unification of the early empire, including political, writing, land and other reforms.