Bulletin of the School of Oriental and African Studies (2023), **86**, 147–173
doi:10.1017/S0041977X23000228

ARTICLE

The pragmatics of standardization: document standards and their implementation in Qin administration (late third century BCE)

Thies Staack

University of Hamburg, Hamburg, Germany
Email: thies.staack@uni-hamburg.de

Abstract

With a view to the necessities as well as the possible problems of a document-based administration, this paper approaches the area of conflict between standardization and flexibility in the production of administrative documents in ancient China. Recently published sources from the imperial Qin period (221–207 BCE) have provided the opportunity to compare administrative documents excavated at Liye with standards regulating their production. With the help of two case studies, the paper explores to what extent official document standards were implemented in everyday practice or purposefully neglected in ancient Qianling county. It also discusses which standards were followed more closely than others, and what might be the reasons behind this. Shedding light on the large grey zone between faithful adherence and complete neglect, the paper suggests that officials chose a pragmatic way influenced by both economic considerations informed by the local circumstances and the requirements imposed by the central government.

Keywords: Qin period; Standardization; Administrative documents; Ordinances; Liye; Yuelu Academy

1. Introduction

Between 2002 and 2005, archaeological excavations at Liye 里耶, Longshan county in the north-western part of Hunan province of the People's Republic of China, yielded more than 38,000 pieces of wood, nearly half of which carry writing applied with brush and ink.[1] Most were excavated from an ancient well inside of the remains of a fortress.[2] Beside very few bamboo pieces, which exhibit writing characteristic of the Warring States (403–221 BCE) kingdom of Chu 楚, all others were made of wood[3] and show a type

[1] The data provided in this overview was drawn from the preface of Hunan sheng wenwu kaogu yanjiusuo 2012 and supplemented with additional data from Hunan sheng wenwu kaogu yanjiusuo 2006: 179–80. For introductions to the Liye corpus in English, see Yates 2012–13; Korolkov 2021.

[2] The well, labelled "J1" (*jing* 井 1), contained 18 archaeological layers. Pieces with writing were excavated from layers 5 through 17, with a concentration in layers 6, 8, 9, 10, 12, 15, and 16 (depth of 5.8 to 13.7 m from the well opening). See Hunan sheng wenwu kaogu yanjiusuo 2006: 43 (fig. 26), 179; Yates 2012–13: 292. The layer from which a piece was excavated is reflected by the number before the dash in both its excavation number (*chutu dengjihao* 出土登記號) and edition number (*zhenglihao* 整理號). Throughout this paper, the edition numbers of the Liye pieces are cited without brackets, the excavation numbers in square brackets, in order to avoid confusion.

[3] Mostly fir (*shan* 杉), but also pine (*song* 松) and others.

of script typically used in the kingdom and later empire of Qin 秦. Most can be classified as administrative documents or fragments of such documents, dating to the time of the Qin Empire or the year directly preceding its establishment – more precisely the years 222 to 208 BCE. It has been proposed that the documents derive from the former archives of the Qin county Qianling 遷陵.[4]

The two volumes of Liye documents published to date contain a general overview of the various shapes and measurements of the wood pieces, followed by a second categorization by content (Hunan sheng wenwu kaogu yanjiusuo 2012 and 2017: preface, 1–3). Despite the stunning variety in both categorizations, for some kinds of documents a correlation between shape and measurements of the writing support and content has been established, at least implicitly. For example, identical labels such as "register category" (*buji lei* 簿籍類) or "tallies" (*quan* 券), with different degrees of specificity, occur in both the "material" and the content categorizations. Although our understanding of the regulations that may have informed the production of administrative documents is still fragmentary, it has been argued that the frequent occurrence of particular lengths such as 23 or 46 cm suggests that certain underlying document standards must have existed (Liye Qinjian bowuguan et al. 2016: preface, 7).

After the military campaigns of the late Warring States period, the control and maintenance of the newly established Qin Empire depended on an efficient bureaucracy involving the production, processing, and archiving of an enormous number of administrative documents. In view of the Qin's overarching project of political and cultural "unification", it does not come as a surprise that attempts at standardization seem to have extended into the administrative realm.[5] In addition, standardization of administrative documents likely also served practical purposes, for example increasing efficiency and facilitating the work of officials by screening out diversity.

The importance of standards for the workings of the administration is known from other ancient cultures. For example, the Assyriologist Cancik-Kirschbaum has not only stressed the significance of material – in addition to textual – features of clay tablet documents for the administration of the Middle Assyrian Empire (14th–10th c. BCE), she also pointed to the fact that these features conformed to a "general standard":

> The physical nature of the document thus conveys important information to the clerk on a visual, material even haptic level. The "nature" of the text, even its "administrative level", must have been largely clear from the outer appearance of the tablet. The format of the document [...], the presence or absence of an envelope, the sealing practice and the textual layout are four of the major external (or extrinsic) features. [...] The features mentioned convey a basic set of information to the user. Moreover, these external features conform to a general standard, a set of norms and rules, which were observed in scribal practice. (Cancik-Kirschbaum 2012: 26)

However, Cancik-Kirschbaum likewise points to related aspects that still deserve more attention:

> A closer examination of the increasing documentation will perhaps allow one to understand how much leeway the individual scribe was allowed and to what extent his scribal habits were circumscribed by the adherence to centralized rules, and thus, to the institution behind them. (Cancik-Kirschbaum 2012: 29–30)

[4] It seems that the bulk of the documents may have been thrown into the well over a comparatively short period of time, with no clear correlation between archaeological layers and the dates of the documents. See Yates 2012–13: 302–3.

[5] On Qin's ideology and government policies in the late third century BCE, see Bodde 1986: 40–72; Pines et al. 2014. On the creation of standards and their publication during the Qin period, see Sanft 2014: 57–76.

https://doi.org/10.1017/S0041977X23000228 Published online by Cambridge University Press

This shows that the exact scope as well as the pervasiveness of document standards in the Middle Assyrian Empire remain to be determined. In a similar vein, it has been acknowledged for the case of early imperial China that, despite the obvious existence of certain standards, it is an open question to which degree pragmatic considerations may have led to a certain flexibility with regard to the application of these document standards (Liye Qinjian bowuguan et al. 2016: preface, 7).

In order to approach this and other questions related to standardization, the present paper investigates the degree of standardization in Qin administrative documents with the help of two case studies. The first focuses on documents written on a particular type of tablet (*du* 牘, see part 2); the second discusses tallies (*quan*) produced in the context of grain disbursal (see part 3). The choice of these two groups of documents was based mainly on the availability of contemporary document standards. Together with Qin statutes discovered previously in the manuscripts excavated from Shuihudi 睡虎地 tomb no. 11, recently published Qin ordinances from the unprovenanced manuscript collection of Yuelu Academy provide the opportunity to compare the actual documents with "ideal documents" described in the former and to examine to what extent standards for the drafting of official documents were actually implemented in local administration.

Following up on earlier work that compared particular features of the Liye documents and traced them back to standards prescribed in Qin written law (Chen Wei 2017: 27–81; Aoki 2017), the present study sheds light on the large grey zone between the two extremes of faithful adherence and complete neglect. As the case studies will show, some standards were followed more consistently than others, which is likely suggestive of the degree to which the respective standards "made sense" during daily administrative practice. In reality, certain features of documents seem to have been more important for a proper functioning of the administration than others. Identifying these features can help to reconstruct aspects of early imperial administration for which we might be lacking direct textual evidence. In addition, the present study indicates that actual administrative practice was always a compromise between different, often conflicting, factors. On the one hand, local officials were required to follow document standards set by the central government in order to unify the content and form of administrative documents; on the other, economic considerations must have obliged them to save material, manpower and time. Hence, the findings of the present paper also serve to exhibit the area of conflict between the design and the enforcement of Qin government policies.

2. Measurements and layout of *du* 牘-tablets

2.1. Defining the corpus

Although administrative documents written on individual wood tablets have long been known from finds dating to the Western Han (206 BCE–9 CE), the Liye documents suggest that the practice of using such "single-piece manuscripts" – instead of "multi-piece manuscripts" consisting of tied-together slips – was more widespread in the previous Qin period (Sumiya 2012; Takamura 2013).[6] The wood tablets that were used to produce single-piece manuscripts were usually called *du* by the Qin, as shown by a Qin ordinance found among the Yuelu Academy Qin manuscripts.[7] This ordinance includes detailed prescriptions for the format and layout of documents drafted on these tablets (see sections 2.2 and 2.3 below). As it was likely enacted around the Qin unification of 221 BCE, it should

[6] On the concepts "single-piece manuscript" and "multi-piece manuscript", see Staack 2018.

[7] For an overview of these manuscripts, see Chen 2009. The ordinance in question was published in Chen Songchang 2017: 105–8, slips 112–22.

https://doi.org/10.1017/S0041977X23000228 Published online by Cambridge University Press

pre-date at least a significant part of the Liye documents, produced between 222 and 208 BCE.[8] Because the Yuelu Academy manuscripts were not archaeologically excavated, their exact provenance remains unclear.[9] However, judging from their various contents and a comparison with archaeologically excavated finds, the Yuelu Academy manuscripts likely stem from an ancient tomb rather than the site of a former administrative office or military post (Shi 2016: 11–12).[10] In addition, the place names mentioned in some of the manuscripts further suggest that they might derive from the region that during Qin times was named "Nan commandery" (Nanjun 南郡), possibly the Jiangling 江陵 area (Chen Wei 2017: 216–22; Mizuma 2017: 662–3). At the time, Nan commandery was adjacent to Dongting 洞庭 commandery, where the county of Qianling was located (Hou 2009: 440–41).

In order to compare the document standards found in the Yuelu ordinance with the Liye documents, it was first necessary to collect all unfragmented pieces and to isolate those among them that qualified as *du*. To date, more than 6,000 pieces have been published with measurements provided or in a form that allows retrieval of this information by measuring the original-sized photographs.[11] Close observation of the photographs in these volumes reveals that only slightly more than 5 per cent (roughly 330 pieces) of the material published so far is in a state that enables us to draw conclusions on the original measurements and likewise falls into the category of flat rectangular shape – excluding other shapes usually used for more specific purposes such as tags, address labels, or sealing pieces. Pieces where, for example, only a corner is broken off, were included if the full length and width could still be ascertained. On the other hand, pieces that clearly contained writing exercises or partly deleted content were omitted, as they cannot be considered proper administrative documents. The same is true for pieces with non-administrative content.

From these around 330 pieces, I further subtracted those with a length of more than 27.5 cm (or one foot and two inches). The reason for setting this length limit is that the Qin ordinance with the prescriptions on format and layout of documents drafted on these tablets only mentions *du* of up to 27.5 cm length.[12] In addition to pieces

[8] The supplemented version of the ordinance – with several additions – was probably enacted between 220 and 217 BCE (Staack 2018: 279–82). The part regulating the features to be discussed in this paper was already contained in the earlier version of the ordinance.

[9] The circumstances of acquisition as well as the results of material analysis conducted on some of the bamboo slips are described in Chen 2009 as well as Zhu and Chen 2010: 197–201. For a brief discussion of the topic of authenticity, see Lau and Staack 2016: 12–13.

[10] Of course, it cannot be ruled out entirely that the Yuelu Academy manuscripts come from more than one site, but it has been shown that the three event calendars (*zhiri* 質日) from the corpus are likely related to the same person (Chen Wei 2017: 224–7; Shi 2016: 12–15). Formerly, the supposed unrelatedness between the calendars had given rise to doubts about whether the manuscripts could really come from the same excavation site. Chen Wei (2017: 227) assumes that not only the three calendars but also the other manuscripts should have belonged to the same person.

[11] See the two volumes from the "regular series", Hunan sheng wenwu kaogu yanjiusuo 2012 and 2017. An additional volume, published by the Liye museum, shows significant overlap if compared with the two previous volumes, but contains around 100 additional pieces. See Liye Qinjian bowuguan et al. 2016. It is also the only publication to date that conveniently provides measurements for all pieces in that volume in an appendix.

[12] For these "*du* of one foot and two inches [length]" (*chi er cun du* 尺二寸牘), see Chen Songchang 2017: 106, slip 116. A decision by the emperor appended at the end of the ordinance newly sets the length of "imperial *du*" (*yu du* 御牘), probably used only for documents submitted to or sent by the emperor, to 25 cm. Therefore, it is highly likely that "normal" *du* employed in everyday administration were actually shorter than 25 cm – at least after the enactment of the supplemented version of the ordinance. See Chen Songchang 2017: 108, slip 121 and the discussion in Staack 2018: 275, n. 101, 279, n. 110. In fact, the only complete pieces with a "self-reference" as *du* (8-1517 and 8-1566) are around 23 cm long. See Sumiya 2012: 109–10.

https://doi.org/10.1017/S0041977X23000228 Published online by Cambridge University Press

above this length,[13] I also excluded two specimens (8-461 and 9-2282) with a rare "landscape format", meaning that their "length" is much smaller than their "width". This yielded overall 284 pieces with a remarkably uniform length between 22.2 and 23.9 cm (+/- 1 cm of one foot or 23 cm), which of course included many narrow pieces (*die* 牒) that were originally part of multi-piece manuscripts. After removing all pieces with only one (160 pieces) or two (33 pieces) columns of writing, to which the ordinance does not apply (see section 2.2), this left 91 pieces with three or more columns on at least one side that would potentially qualify as *du*.

Now the Yuelu ordinance regulating the layout and measurements of documents drafted on *du*, does not seem to be directed to *all* kinds of documents produced on such tablets. The beginning of the ordinance specifies its scope of relevance by referring to the "submission of answers [to enquiries or decisions], requests, or memorials" (*shang dui, qing, zou* 上對、請、奏) (Chen Songchang 2017: 105, slip 112). It can be gathered that it was mainly – if not only – relevant for documents submitted to a superior (Staack 2018: 267, n. 70). Some scholars in fact assume that the ordinance merely regulated documents submitted to the imperial court and stated that it is yet unclear to what extent documents produced during daily administrative work at lower levels were also supposed to adhere to it (Tsuchiguchi 2018: 31; Zhou 2020: 131). At the same time, it has been correctly pointed out that the terms *dui*, *qing*, and *zou*, apart from submissions to the imperial court, were also used in Qin and Han administration to refer to three common types of documents submitted to superiors (Chen 2020: 70). Although neither of the two possibilities can be ruled out entirely, it appears more likely that the ordinance is not merely pertaining to documents submitted to the imperial court but contains regulations of more general applicability. First, the supplement to the ordinance admittedly contains a proposal that clearly refers to "imperial *du*", which might indeed mean *du* used for submissions to the imperial court. However, there is no reason to assume that all regulations concerning *du* in the preceding text, i.e. the part of the ordinance without the supplement, are relevant only for such "imperial *du*". Rather, the latter may well be only one particular subset of all *du* discussed in the ordinance. Second, the ordinance also regulates the length of official tallies (Chen Songchang 2017: 108, slip 121; Staack 2018: 275), and the given length accords with the examples of actual tallies excavated at Liye (see part 3 below).

Among the Liye documents, upward communication is usually recognizable from the use of the formula *gan yan zhi* 敢言之 "to venture to report it", which frames the actual content of the official correspondence. In contrast, the phrase *gan gao* 敢告 "to venture to inform", marks communication on the same level, whereas *gao* 告 "to inform" or *wei* 謂 "to instruct" designate downward communication (Takatori 2015: 98–107). Of the remaining 91 pieces, at least 25 can be identified as reports of a subordinate office directed towards Qianling.[14] As the manuscripts were excavated at the former seat of Qianling

[13] Among the pieces exceeding the "length limit" of 27.5 cm are mainly tallies – with a normal length of about 37 cm (see below) – as well as pieces used for different kinds of registers (*buji*) or for documents recording the daily food rations received by officials during one month, which had a length of around 46 cm (or two foot). See the overviews on common formats among the Liye documents in Hunan sheng wenwu kaogu yanjiusuo 2012 and 2017: preface, 1–2.

[14] These 25 tablets should be considered the "minimum" or "core corpus". Documents with a complex layered structure that involved more than two offices and for which an in-depth analysis of scribal hands would have to be conducted in order to determine the office at which the tablet was selected and the original layer of the document drafted, have been left out for the time being. For an overview of the complexities of such layered documents, see Shan 2014.

https://doi.org/10.1017/S0041977X23000228 Published online by Cambridge University Press

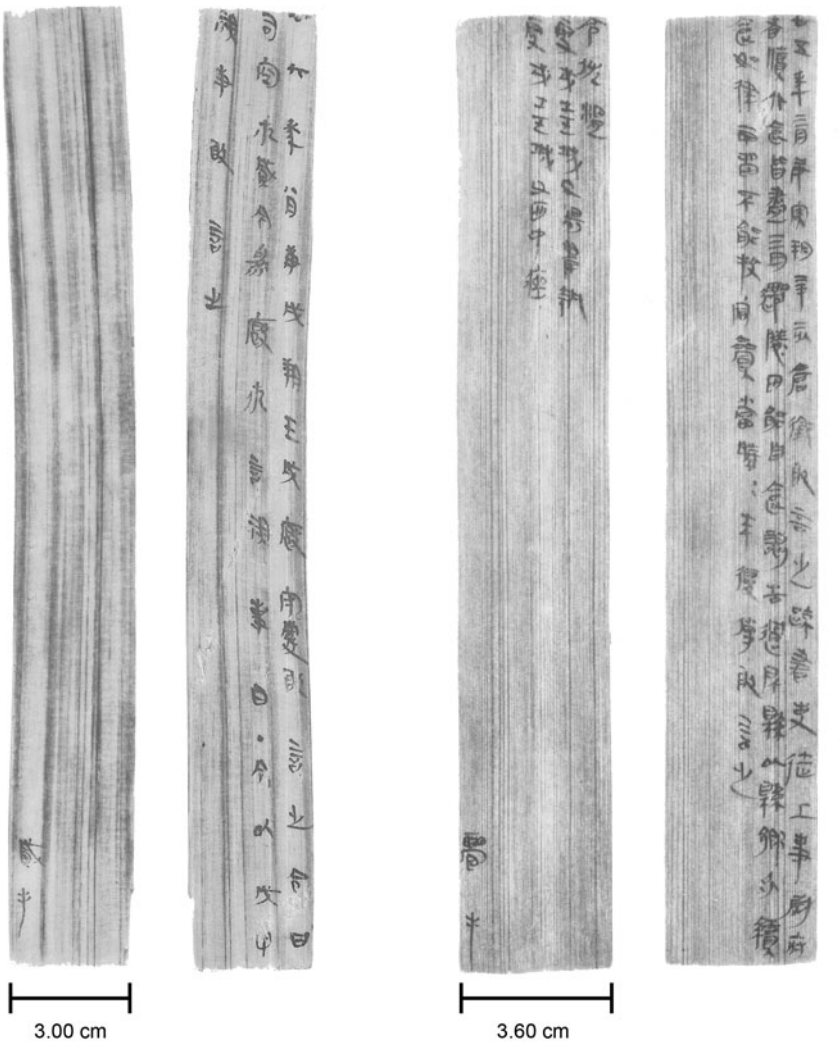

Figure 1. Liye tablet 8-163 verso and recto; tablet 8-1517 verso and recto (left to right)[15]

county and many of the tablets also carry notes on the receipt and opening of these documents added by a different hand – likely an official working at Qianling – it can be assumed with some certainty that these are the "originals" that arrived at Qianling rather than copies produced for archiving.[16] For photographs of two example tablets, see Figure 1. For an overview of all 25 tablets, see Table 2.

[15] The photographs were taken from Hunan sheng wenwu kaogu yanjiusuo 2012: 39, 192 (measurements added by the author).

[16] For originals, copies and the significance of scribal hands for distinguishing them in the Liye documents, see Tsuchiguchi 2014: 37–42. It is unclear whether the regulations in the mentioned ordinance would also be relevant for archival copies.

https://doi.org/10.1017/S0041977X23000228 Published online by Cambridge University Press

Table 1. Prescribed width to number of columns ratio for *du*[17]

Number of columns	Prescribed width (Qin *cun* 寸, "inch")	Prescribed width (cm)
3	$1^{1}/_{2}$	3.5
4	$1^{2}/_{3}$	3.9
5	$1^{8}/_{9}$	4.4

2.2. *Width and number of columns*

The Qin ordinance mentioned above stipulates the ratio between the width of the writing support and the number of columns supposed to be written on it (summarized in Table 1):

> 用牘者，一牘毋過五行。五行者，牘廣一寸九分寸八；四行者，牘廣一寸泰半寸；三行者，牘廣一寸半寸。 (Chen Songchang 2017: 106, slips 115–16)

> If *du* are used, one *du* shall not [contain] more than five columns [of writing per side]. For five columns, *du* shall have a width of one inch and eight ninths of an inch; for four columns, they shall have a width of one inch and two thirds of an inch; for three columns, they shall have a width of one and a half inches.[18]

According to the ordinance, tablets were supposed to contain between three and five columns of writing and to measure between 3.5 and 4.4 cm in width depending on the number of columns. Table 2 provides an overview on the *du*-tablets from Liye, and indicates their actual width, their prescribed width, and the deviation.

As many of the tablets contain later notes in addition to the writing applied by the official who originally drafted the document, it is important to distinguish between these two layers of writing. The choice of a tablet with a particular width would likely have depended on the amount of writing the original draft was supposed to contain; it would not necessarily have anticipated later additions. Hence, in Table 2, the column numbers without parentheses refer to the writing applied by the producer/sender of the document, the numbers in parentheses refer to writing added later by the recipient – in the present cases Qianling county.

With a view to the measurements of the tablets gathered in Table 2, there are a few things worth noting. First, not a single tablet exactly accords with the widths prescribed in the Qin ordinance. According to the relevant ordinance, a deviation of more than the accepted tolerance of merely 0.23 cm would already be fined:

> 不從令及牘廣不中過十分寸一，皆貲二甲。 (Chen Songchang 2017: 107, slip 119)

> If this ordinance is not followed or if the deviation in width of the *du* exceeds one tenth of an inch (i.e. 0.23 cm), this is in every case fined with two suits of armour.[19] (Staack 2018: 273–4)

[17] On the conversion of the (Warring States) Qin and Western Han "foot" (*chi* 尺) to 23.1 cm and "inch" (*cun* 寸) to 2.3 cm, see Qiu 1992: 10–11, 54–5.

[18] Translation based on Staack 2018: 270–71.

[19] During the Qin dynasty, fines were often used to punish smaller offences committed in office or in situations involving a lack of oversight by supervising officials. See Lau and Staack 2016: 116, n. 594. Two suits of armour were equivalent to 2,688 cash (*qian* 錢); see Yu 2010: 38.

https://doi.org/10.1017/S0041977X23000228 Published online by Cambridge University Press

Table 2. Complete *du*-documents, actual vs. prescribed width and number of columns (sorted according to deviation from prescribed width, low to high)[20]

Item number	Length (cm)	Width (cm)	Prescribed width (cm)	Deviation (cm)	Columns (recto)	Columns (verso)	Producing office/Sender	Year (BCE)
8-135	23.00	3.60	3.90	−0.30	4/(2)	1/(1)	司空	221
8-1517	23.20	3.60	3.90	−0.30	3	4	倉	212
8-1518	22.90	3.10	3.50	−0.40	3	?/(1)	倉	219
8-163	23.20	3.00	3.50	−0.50	3	1	廄	221
9-22	22.85	3.40	3.90	−0.50	4	2/(2)	貳春鄉	219
9-982	22.70	3.40	3.90	−0.50	4	1/(1)	田	217
[12-849]	23.30	3.00	3.50	−0.50	3	1/(3)	貳春鄉	220
9-1112	23.00	2.90	3.50	−0.60	3/(1)	1/(3)	唐亭	221
9-1872	23.00	2.90	3.50	−0.60	3	?/(1)	少內	221
8-648	23.30	2.80	3.50	−0.70	3	1	司空	216
8-767	23.50	2.80	3.50	−0.70	3	1/(1)	啓陵鄉	219
9-710	22.90	2.80	3.50	−0.70	3	3/(1)	田	216
9-2284	22.95	2.80	3.50	−0.70	3	1/(1)	貳春鄉	214
8-1525	23.00	2.70	3.50	−0.80	3/(2)	1/(1)	啓陵鄉	213

Table 2. Continued

9-31	23.00	2.70	3.50	−0.80	3	1/(1)	貳春鄉	219
9-50	22.85	3.10	3.90	−0.80	4	2/(1)	貳春鄉	213
9-450	22.70	2.60	3.50	−0.90	3	1/(3)	啓陵鄉	216
8-173	23.00	2.50	3.50	−1.00	3	1/(1)	庫	216
8-157	23.40	2.40	3.50	−1.10	3	1/(3)	啓陵鄉	215
8-1562	23.25	2.80	3.90	−1.10	4	2/(1)	啓陵鄉	219
9-452	22.85	2.40	3.50	−1.10	3	1/(1)	丹陽將奔命尉	?
8-769	22.80	2.30	3.50	−1.20	3	2/(1)	啓陵鄉	212
8-1510	23.00	2.30	3.50	−1.20	3	?/(3)	庫	220
9-48	22.70	2.20	3.50	−1.30	3	?/(3)	啓陵鄉	216
8-1566	23.00	1.80	3.50	−1.70	2	3/(1)	田	217

[20] Measurements of tablets 8-135, 8-157, 8-173, 8-648, 8-767, 8-1510, 8-1517, 8-1525, 8-1566, 9-1112, and [12-849] follow Liye Qinjian bowuguan et al. 2016: appendix 2. If not noted otherwise, all measurements of Liye pieces provided in this paper derive from hand measuring of the original size photographs in Hunan sheng wenwu kaogu yanjiusuo 2012 and 2017. Although the Liye editors state that the published photographs are the original size of the actual objects, it should be pointed out here that they appear to deviate at least slightly in scale in quite a few cases. This is obvious from the fact that for some pieces the length/width of the recto photograph differs from that of the verso photograph. However, since we are usually dealing with a difference of only one or two millimetres, this seems negligible. The same is true for possible shrinkage of the wood pieces due to the dehydration process (*tuoshui* 脫水) that was part of the conservation treatment (Liye Qinjian bowuguan et al. 2016: preface, 2). With modern dehydration techniques, especially if the wood is treated with a polymer during the process, the shrinkage can be reduced to (almost) zero. On dehydration techniques, see Zhao 2006: 63–6; Wu 2014: 7–8; Mao and Jin 2019. According to Zhang Chunlong, one of the excavators, the Liye documents were treated with hexadecanol (*shiliu chun* 十六醇) during the dehydration process, a method that is described in Zhao 2006: 66. He also stated that shrinkage of the wood pieces was minimal, certainly below the rate of 4% that had been determined as the acceptable maximum in the conservation scheme (email exchange between 15 and 17 March, 2021; I would like to thank Zhang Chunlong for supplying these additional details).

In fact, all of the 25 examples exceed the legally tolerated deviation, which means that the officials responsible for their drafting should have been fined according to law. The existence of a tolerance that grants the producers of administrative documents a certain leeway is certainly based on pragmatic considerations. Generally, stricter requirements with regard to measurements would increase the effort necessary to fulfil them – including measuring, more refined production techniques, etc.[21]

Second, tablets are slightly or even significantly *below* the width specified for the particular number of columns. In fact, quite a few of the tablets are as narrow as pieces typically used to produce multi-piece manuscripts. Generally, the use of smaller pieces of writing support is economically reasonable because fewer resources are necessary for their production. Maybe the "reward" gained by such economic use of raw materials was – if not actually higher than the fines – at least considered a justification for a breach of regulations. It also has to be borne in mind that the comparatively small pieces of wood used as writing support were most probably produced from leftover wood that was not suitable as timber for construction (Staack 2018: 289).

Third, the length of the tablets shows a much lower degree of deviation than their width. In fact, the length of all 25 tablets falls into a range of +/- 0.5 cm of the common standard length of 23 cm.[22] With regard to the three standard widths, the same degree of accuracy was only reached by less than a third of the tablets.[23] This could mean that in administrative practice adherence to the standardized length was considered more important than adherence to a particular width, for example due to the necessities of transport or storage. One decisive factor could be the shape and/or size of containers for documents. Sadly, we are lacking information on their properties as only the labels of such containers have been excavated at Liye.[24]

A question that arises from the above discussion is whether the officials who drafted the text of administrative documents also produced the writing support themselves.

[21] Even in the present age, law usually provides acceptable tolerances for paper formats. For example, according to the ISO standard no. 216, a deviation of 1.5 mm for dimensions up to 15 cm and of 2 mm for dimensions up to 60 cm is acceptable. See International Organization for Standardization 2007 as well as https://en.wikipedia.org/wiki/ISO_216 (accessed 20 October, 2021). Not surprisingly, compared with today's regulations for industrially produced paper, the Qin regulations for wood tablets were considerably less strict, allowing a deviation of up to 2.3 mm for measurements of no more than 4.4 cm (the prescribed width for a tablet with 5 columns of writing, see Table 1). Depending on the prescribed width, the tolerated deviation was between 5.2 and 6.5%. Cf. the allowances for Qin balance weights between only 0.13 and 0.8%, and those for capacity measures between 1 and 6.66% (Peng 2020: 137–8).

[22] On standard lengths of pieces of writing support in early China, see Hu 2004: 14–39.

[23] It should be pointed out here that wood does not shrink in a uniform manner from a green to oven-dry state. The percentages vary for different types of wood, but the longitudinal shrinkage, i.e. shrinkage parallel to the grain, of typically about 0.1 to 0.2% is generally much smaller than the shrinkage across the radial and tangential plane. These range between about 2–9% and 4–13%, respectively. See Forest Products Laboratory 2021: 91–4, with tables 4-3 and 4-4. For the Liye tablets it can be observed that their long side typically runs in the direction of the grain of the wood. Therefore, if the tablets were cut to the prescribed measurements from fresh wood and dried only afterwards, this could explain that the width of the pieces is usually "too small" – in contrast to their length. However, with regard to the fact that wood was of course not a new material at the time, it seems unlikely that such shrinkage would not have been anticipated by the producers of the tablets. Hence, the normal procedure may well have been to dry the wood *before* it was cut to the prescribed formats. Unfortunately, we are lacking information on the usual production process of writing tablets at the time and the publications of the Liye documents also do not specify the exact type of wood for each individual piece. In addition, any shrinkage might well have been reversed by a swelling expected to occur under the waterlogged circumstances inside the well from which the manuscripts were excavated. All this makes it difficult at present to further pursue this line of thought.

[24] For a recent survey of archaeological evidence for manuscript storage containers in pre-imperial and early imperial China, see Wang 2021.

https://doi.org/10.1017/S0041977X23000228 Published online by Cambridge University Press

Previous research has suggested that the act of "handling" (*shou* 手) a document, besides brushing the text probably also included actions such as carving the notches of a tally (Ma 2017: 327–9). From a Qin stipulation excavated from Shuihudi tomb no. 11 that is labelled *sikong* 司空, "[Statutes of the] Controller of Works", we know that counties (*xian* 縣) and metropolitan offices (*duguan* 都官) were supposed to organize the collection and processing of wood in order to produce writing support (Shuihudi Qinmu zhujian zhengli xiaozu 1990: 50 [transcription part], slips 131–2). In addition, a note stating *yi ren fa du* 一人伐牘 "one person cuts *du*[-tablets]" on a fragmentary document excavated at Liye, testifies to the fact that certain personnel were responsible especially for the production of stationery. It is likely that this fragment originally belonged to a "register of convict labourers" (*zuo tu bu* 作徒簿), which recorded the convicts working at a certain office as well as their tasks (Ma 2017: 327, n. 102). The fact that the mentioned stipulation from Shuihudi seems to have been addressed towards the Controller of Works together with the fact that these registers were only produced at the offices of granaries (*cang* 倉) and of the Controller of Works, hint at the possibility that convicts who worked for the latter – i.e. hard labour convicts of the two most severe categories – may have been assigned to produce at least a part of the stationery used for administrative documents at various offices. Although we cannot rule out the possibility that officials produced tablets themselves if necessary, it does not seem likely that this was part of their everyday tasks.[25]

2.3. Length and number of characters per column

Beside the ratio between width and number of columns, the same Qin ordinance from the Yuelu Academy collection also specifies maximum numbers of characters per column for tablets of different lengths:

> 尺二寸牘，一行毋過廿六字；尺牘，一行毋過廿二字。 (Chen Songchang 2017: 106, slips 116–17)

> On *du* [with a length] of one foot and two inches, one column shall not exceed 26 characters; on *du* [with a length] of one foot, one column shall not exceed 22 characters. (Staack 2018: 271–2)

Obviously, the columns on *du* of about 23 cm length (i.e. one foot) should contain no more than 22 characters. Table 3 shows the number of characters per column for the complete *du* under discussion. As can be seen in Table 3, the maximum number of characters is exceeded on 14 tablets – more than half of the 25. Would the same fine of two suits of armour, which was imposed for significant deviations from the standard widths of *du*, also be due for such an excess of the character limit? The fact that the sentence stipulating that fine appears to fix the same fine for "not following this ordinance" (*bu cong ling* 不從令) in general (see above), speaks in favour of this.

There does not seem to be a discernible pattern with regard to the date of the documents, which could point to a year in which the restriction regarding the number of

[25] On deliveries of writing support and other materials necessary for the production of administrative documents in the north-western border areas of the Han Empire, see Ji 2007. For the case of Liye, there is to my knowledge no evidence for such deliveries, which seems to suggest that Qianling prefecture (including its subordinate offices) was self-sufficient with regard to the production of the necessary materials.

https://doi.org/10.1017/S0041977X23000228 Published online by Cambridge University Press

Table 3. Complete *du*-documents, actual vs. prescribed number of characters per column[26]

Item number	Prescribed number of characters per column	Actual number of characters per column (on recto)				Producing office/Sender	Year (BCE)
		1	**2**	**3**	**4**		
8-135	22	37	34	36	5	司空	221
8-157	22	22	18	7		啓陵鄉	215
8-163	22	17	16	5		廄	221
8-173	22	26	16	3		庫	216
8-648	22	22	19	16		司空	216
8-767	22	20	14	2		啓陵鄉	219
8-769	22	26	19	21		啓陵鄉	212
8-1510	22	? (>23)	27	1		庫	220
8-1517	22	22	23	18		倉	212
8-1518	22	? (>24)	22	8		倉	219
8-1525	22	23	22	7		啓陵鄉	213
8-1562	22	24	23	26	18	啓陵鄉	219
8-1566	22	23	3			田	217
9-22	22	22	20	20	21	貳春鄉	219

Table 3. Continued

9-31	22	33	27	24		貳春鄉	219
9-48	22	20	15	5		啓陵鄉	216
9-50	22	31(?)	29(?)	25(?)	24	貳春鄉	213
9-450	22	29	22	12		啓陵鄉	216
9-452	22	23	18	2		丹陽將奔命尉	?
9-710	22	21	19	6(?)		田	216
9-982	22	34	29	28	3	田	217
9-1112	22	20	18	6		唐亭	221
9-1872	22	18(?)	19	4		少內	221
9-2284	22	22	18	11		貳春鄉	214
[12-849]	22	17	17	5		貳春鄉	220

[26] Note that sometimes two characters were written into the space of one character, especially in phrases such as X *yue* 月 "month X", see, for example, 8-163 column 1. In such cases, the two characters were counted as one.

characters was implemented. The documents that deviate from the standard date to the years 221 through 212 BCE, the largest possible range of dates in the sample under scrutiny here. There appears to be neither a clear correlation between a violation against the character restriction and particular offices. In most cases where at least two documents were produced at the same office, there are examples that exceed the character limit as well as ones that stay below it. See, for example, the five documents produced by Erchun 貳春 district (*xiang* 鄉): in two of them the limit is exceeded, in three others not. The fact that all the documents deriving from the offices of the armoury (*ku* 庫) and granary (*cang* 倉) exceed the character limit, should maybe not be overestimated as the sample only includes two documents for each.

A closer look reveals that on six tablets (8-173, 8-769, 8-1518, 8-1525, 9-450, and 9-452) the character limit is only exceeded in the very first column, whereas the following columns curiously stay below the limit, even though they are completely filled with writing. In line with this, there are nine other tablets (8-157, 8-163, 8-648, 8-767, 9-22, 9-48, 9-710, 9-1112, and 9-2284) on which the number of characters in subsequent columns is lower than in the first column, although the number of characters in that column was already below the maximum of 22. This seems to suggest that there was a general tendency for more spacious writing once the scribe was sure that he would be able to fit the whole text onto the tablet. In general, experienced and well-trained scribes should have been able to stay below the character limit without counting, but it seems that a significant number of scribes employed at Qianling lacked formal training.[27] This could explain why the character limit was exceeded on more than half of the tablets in at least one of the columns.

Generally, the fact that the Qin regulations link the measurements of a wood tablet to both the number of columns to be written on it as well as to the maximum number of characters per column, suggests that a great deal of planning would be necessary on the part of the officials drafting or copying documents in order to fulfil the legal requirements. Therefore, it seems in order to ask how this could have worked in actual practice. First of all, one could hypothesize that the scribes had normed exemplars of tablets with different measurements and appropriate amounts of columns and characters per column before their eyes for reference purposes.[28] But even in this case, they would have had to count in the text they were about to copy – or even merely envision, if they were drafting a new document – how many characters the text to be written would contain, at least roughly. Considering that tablets were normally 23 cm long, this overall number would then have had to be divided by 22, yielding the number of columns that would be needed. According to this number, the scribe would then have had to select an appropriate piece of writing support with the correct measurements. While this may have been possible in theory, the evidence from the extant documents does clearly not support the existence of such a clear-cut procedure. But even though reality seems to have been much more "chaotic" or "messy", administration was obviously functioning. After all, the writing on the cited tablets is usually perfectly legible, even today. At least legibility is not seriously inhibited by the density of the writing on the tablets, although the spacing should have been more generous in quite a few cases, according to legal prescriptions. The reason behind these prescriptions probably was to ensure legibility, but there seems to have been

[27] For the argument that the lack of personnel led to the employment of a large number of "Assistants" (*zuo* 佐) in addition to more formally trained "Scribes" (*shi* 史), see Ma 2017.

[28] For possible exemplars probably used as reference for register division, position of binding strings and/or measurements during the Han period, see Qiu 1992: 12–53; Lin 1998. To date, no comparable pieces from the imperial Qin period seem to have been discovered.

https://doi.org/10.1017/S0041977X23000228 Published online by Cambridge University Press

a large grey zone between the "ideal" documents they described and documents that would not be suitable to fulfil their function.

3. Measurements and layout of grain disbursal tallies (*quan* 券)

As noted by the Liye editors in their preface, tallies – bi- or tripartite certificates that were handed out to the parties involved in transactions – were usually about 37 cm long, which corresponds to the standard length probably established sometime between 220 and 217 BCE.[29] Most but not all kinds of tallies had notches carved on their left or right side, which represented the amount of grain, cash, etc., also recorded on the tally in writing (Zhang et al. 2015: 54). According to extant examples, tallies were issued when cash or sacrificial goods were disbursed by government offices or when goods were bestowed by one person to another. However, judging from the tallies published to date, by far the most were produced in the context of grain disbursal.[30] The tallies excavated at Liye were apparently those parts of the certificates that were once kept in the county archive for later reference (Zhang et al. 2015: 61). In contrast to the corpus of *du*-tablets used in upward communication that was discussed above, the grain disbursal tallies are comparatively easy to identify on the basis of their particular form. In addition, many of them had already been collected by previous scholarship (Zhang et al. 2015; Xie 2021). The following discussion is focused only on complete grain disbursal tallies, of which 22 specimens seem to have been published to date (see Table 4).

The grain disbursal tallies collected in Table 4 generally seem to conform to the standard length of 37 cm. While most tallies deviate from this length by less than 1 cm, one example (8-1551) shows a significant deviation of 2.4 cm, which might reflect a historical change in the underlying standards.[31] The text on the grain disbursal tallies is highly formulaic and usually comprises the following pieces of information:[32]

1) grainstore;
2) type and amount of grain disbursed;
3) date of disbursal;
4) disbursing officials (Overseer of the responsible office, Assistant/Scribe, Grain-Disburser);
5) recipient(s);
6) supervising official;
7) official who handled the document.

The actual records as seen on the tallies closely match Qin prescriptions on how to record the entering or disbursal of grain in the corresponding register (*ji* 籍) (Kim 2016: 563–4). An article of the "Statutes on Checking" (*Xiaolü* 效律) excavated from Shuihudi tomb no. 11 mentions at least items 1), 2), and 4) of the above list. It states:

[29] See the supplemented part of the Qin ordinance mentioned previously (Chen Songchang 2017: 108, slip 121): 御史上議：[...]官券牒尺六寸。 "The Chief Prosecutor submits the following proposal [as an addendum to the requested revision/supplementation of the existing regulations]: [...] *die* used for the production of official tallies shall have a length of one foot and six inches (*c.* 37 cm)." For an overview on tallies from layer 8 of Liye well no. 1, see Zhang et al. 2015.

[30] On grain disbursal tallies, the groups of persons who received grain rations, the size of monthly rations, etc., see Huang 2015 and Xie 2021.

[31] For the argument that the standard length of tallies may have been changed from one foot five inches (*c.* 34.7 cm) to one foot six inches (*c.* 37 cm) through the above-mentioned ordinance, see Staack 2018: 281–2.

[32] Cf. the list provided in Zhang et al. 2015: 57.

https://doi.org/10.1017/S0041977X23000228 Published online by Cambridge University Press

Table 4. Complete tallies for grain disbursal[33]

Item number	Length (cm)	Width (cm)	Number of columns	Handled by	Year (BCE)
8-217	37.00	1.40	2	Gan 感	216
8-760	36.70	1.30	2	[Jing 敬]	216
8-761	36.70	1.40	2	Guo 過	214
8-762	37.40	1.80	2	[Gan 感]	216
8-763	37.20	1.60	2	Gan 感	216
8-764	37.80	1.40	2	Ren 壬	216
8-766	36.70	1.50	2	Gan 感	216
8-1540	36.50	1.80	2	Gan 感	216
8-1544	36.80	1.70	1	?	212
8-1545	36.60	1.40	2	Fu 富	216
8-1550	36.50	1.50	2	Ju 取	216
8-1551	34.60	1.70	2	[Chen 辰]	220
8-1557	36.90	1.80	2	[Wu 吾]	216
8-2246	37.20	1.10	2	Ren 壬	216
8-2247	37.00	1.40	1	Gan 敢	215
8-2249	37.00	1.80	2	Gan 感	216
9-13	36.60	1.90	2	Gan 感	216
9-16	37.50	1.60	2	Gan 感	216
9-761	37.80	1.60	2	[Wu 吾]	216
9-762	37.60	1.60	2	Ren 壬	216
9-2334	37.00	1.50	2	Gan 感	216
9-2337	36.60	1.50	2	[Ju 取]	216

入禾，[...]籍之曰：「某廩禾若干石，倉嗇夫某、佐某、史某、稟人 某。」[...]其出禾，有（又）書其出者，如入禾然。 (Shuihudi Qinmu zhujian zhengli xiaozu 1990: 73 [transcription part], slips 27–9)[34]

[When] grain is entered [into a granary], [...] make an entry in the register stating: "Grainstore X, so and so many bushels of grain, Overseer of the Granaries X, Assistant X, Scribe X, Grain-Disburser X." [...] In case grain is issued, also make a record about the disbursal, in the same way as when entering grain.[35]

[33] Measurements for pieces from layer 8 (except 8-762 and 8-763) follow Zhang et al. 2015: table 1. Measurements for pieces 8-762, 8-763, and 9-762 follow Liye Qinjian bowuguan et al. 2016: appendix 2. In case the name of the official who handled the document is mentioned with the help of the note "handled by X" (X *shou* 手), it is given without brackets; if his name only occurs in the list of the disbursing officials (as Scribe, *shi*, or Assistant, *zuo*), his name is given in brackets. In fact, the name of the person who is noted as having "handled" the tally is always the same as the person listed among the disbursing officials. Hence, the Scribes and Assistants appear to be responsible for the drafting of the text (Zhang et al. 2015: 58, 61).

[34] Cf. a textual parallel in Shuihudi Qinmu zhujian zhengli xiaozu 1990: 58 (transcription part), slips 168–70.

[35] Translation based on Hulsewé 1985: 79–80/A85 (=95/B11).

https://doi.org/10.1017/S0041977X23000228 Published online by Cambridge University Press

Although the cited formulaic expression is not labelled as a "model" (*shi* 式), it closely resembles known models from early imperial China, which provided forms to adhere to when drafting official documents.[36] It seems that the statutes occasionally quoted models or that at least some models were derived from statutes such as the one just cited. Another statute article that is found among the Yuelu Academy manuscripts and belongs to the "Statutes on Granaries" (*Canglü* 倉律) mentions that the entering and disbursal of grain have to be supervised:

> 縣官縣料出入必平，稟禾美惡相襍，大輸令、丞視，令史、官嗇夫視平，稍稟，令令史視平。 (Chen 2015: 122, slips 163–4 [punctuation modified])

> The issuing and entering of government grain at government offices must be fair.[37] When disbursing grain, excellent and inferior [qualities] shall be mixed. Major transports are overseen by the Magistrate or the Vice-Magistrate, while a Scribe Director and the Overseer of the responsible office oversee the fairness; for minor disbursals, a Scribe Director oversees the fairness.

This or a similar regulation likely provided the legal basis for the notes on the supervising officials – item 6) of the above list – which are found on the grain disbursal tallies from Liye. At least the Yuelu Academy manuscripts have been dated to the same period, which means that the statutes and ordinances found in the manuscripts were in all likelihood legally binding at the time the Liye documents were drafted.[38]

As can be seen, the grain disbursal tallies are fairly standardized with regard to both their material features and the text inscribed on them. However, there are also differences, especially with regard to the layout of the writing on tallies, which clearly suggest that a certain leeway in the production of official documents was tolerated. As will be demonstrated, these differences seem to be connected to habits or preferences of particular individuals, whereas changes in the respective regulations or models over time can be ruled out as reasons for this phenomenon. The seven items that constitute the text of a grain disbursal tally are normally visually organized into only four larger text blocks separated by blank space on the writing surface:

Block 1: Grainstore + type and amount of grain disbursed
Block 2: Date of disbursal + disbursing officials + recipient(s)
Block 3: Supervising official
Block 4: Official who handled the document

Layout A

Table 5 illustrates the usual sequence of the four text blocks, which shall be called layout A. Of the 22 tallies, 16 show this layout (see Figures 2 and 3 and Table 8 below for an overview of the different layout types).

[36] On Qin and Han models, see Gao 2008; Hsing 2011; Barbieri-Low 2011.

[37] Another possible understanding of *ping* 平 in this context is "to level", referring to the levelling off of the grain in a container, to ensure that the exact amount of grain is issued, neither more, nor less. I would like to thank one of the anonymous reviewers for pointing this out.

[38] For the point that the Yuelu Academy manuscripts were produced no later than 212 BCE, see Chen Wei 2017: 227. He also argued that some of the ordinances recorded in the manuscripts were already enacted (or re-enacted) several decades before (Chen Wei 2017: 82–104).

https://doi.org/10.1017/S0041977X23000228 Published online by Cambridge University Press

Table 5. Tabular view of textual sequence on tally 8-766 (layout A)[39]

Text block	Original text	Translation
1	徑廩粟米一石二斗少半斗。	Jing grainstore, unhusked grain, 1 *shi*, $2^{1}/_{3}$ *dou* (*c.* 24 litres in total).
2	卅一年十一月丙辰，倉守妃、史感、稟人援出稟大隸妾始。	In the 31st year, the 11th month, on day *bingchen*, incumbent [Overseer] of the granary Fei, Scribe Gan and Grain-Disburser Yuan issued a ration to the adult bondwoman Shi.
3	令史扁視平。	Scribe Director Bian oversaw the fairness.
4	感手。	Handled by Gan.

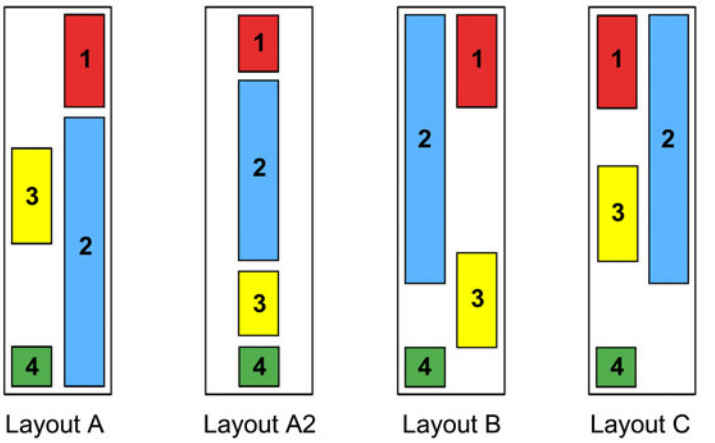

Figure 2. Arrangement of text blocks in the layout types A, A2, B, and C

In layout A, block 1 is placed on the top of the first (right) column, followed by block 2, which – depending on its length – might fill the entire remainder of the first column and even extend to the second (left) column. Blocks 3 and 4 are placed in the middle and bottom of the second column, respectively (see Figures 2 and 3). The layout on two further tallies (8-1544 and 8-2247) is similar, but stands out in so far as the scribe fitted all the writing into a single column. The blocks of text, however, come in the same sequence as in layout A – it shall therefore be called layout A2.[40] Layout A was employed by six individuals responsible for record keeping: Gan 感, Jing 敬, Guo 過, Ren 壬, Ju 冣, and Chen 辰. Layout A2 was used by Gan 敢 and an unnamed other (see the overview in Table 8).

Layout B

Two scribes by the names of Fu 富 and Wu 吾, however, employed a different sequence of the text blocks, which is illustrated in Table 6.

[39] The original text follows the edition in Chen et al. 2012: 220–21.

[40] Note that the records on the supervising official and the scribe who handled the tally (blocks 3 and 4) are missing on 8-1544. The reason for this is still unclear.

https://doi.org/10.1017/S0041977X23000228 Published online by Cambridge University Press

Table 6. Tabular view of textual sequence on tally 8-1545 (layout B)[41]

Text block	Original text	Translation
1	丙廩粟米二石。	Bing grainstore, unhusked grain, 2 *shi* (*c.* 40 litres).
3	令史扁視平。	Scribe Director Bian oversaw the fairness.
2	卅一年十月乙酉，倉守妃、佐富、稟人援出稟屯戍士五（伍）孱陵咸陰敝臣。	In the 31st year, the 10th month, on day *yiyou*, incumbent [Overseer] of the granary Fei, Assistant Fu and Grain-Disburser Yuan issued a ration to the rank-and-file man Changchen from Xianyin [village] in Chanling [county], who is performing military service.
4	富手。	Handled by Fu.

In comparison to layout A, blocks 2 and 3 traded places here (see Figures 2 and 3). Hence, the second column starts with the date of disbursal, directly to the left of the grainstore and the amount of disbursed grain at the top of the first column. It should be noted that the grain disbursal recorded on tally 8-1545 (layout B) was undertaken by the same team of officials as the disbursal recorded on 8-766 above (layout A), with the exception of the scribe – Assistant Fu, instead of Scribe Gan 感. The writing on two other tallies drafted by Wu 吾 (8-1557 and 9-761) also shows layout B.

Layout C

Now Scribe Gan 感 apparently is the only individual that – beside layout A – also used yet another layout at least once (see Table 7).

Table 7. Tabular view of textual sequence on tally 9-2334 (layout C)[42]

Text block	Original text	Translation
2	卅一年十二月甲申，倉妃、史感、稟人堂出稟屯戍士五（伍）巫狼旁久戠（鐵）。	In the 31st year, the 12th month, on day *jiashen*, incumbent [Overseer] of the granary Fei, Scribe Gan and Grain-Disburser Tang issued a ration to the rank-and-file man Jiutie from Langpang [village] in Wu [county], who is performing military service.
1	粟米二石。	Unhusked grain, 2 *shi* (*c.* 40 litres).
3	令史[犭+于]視平。	Scribe Director Yu(?) oversaw the fairness.
	和出。	Issued in mutual consent(?).
4	感手。	Handled by Gan.

[41] The original text follows the edition in Chen et al. 2012: 354–5.

[42] The original text follows the edition in Chen et al. 2018: 475. Note that this is the only tally discovered so far with the occurrence of an additional text block containing the phrase *he chu* 和出, tentatively translated as "issued in mutual consent". The reason why this emphasis was made in this particular case remains unclear.

https://doi.org/10.1017/S0041977X23000228 Published online by Cambridge University Press

Table 8. Complete tallies for grain disbursal, layout types and responsible individuals

Item number	Layout	Handled by	Year (BCE)
8-217	A	Gan 感	216
8-760	A	[Jing 敬]	216
8-761	A	Guo 過	214
8-762	A	[Gan 感]	216
8-763	A	Gan 感	216
8-764	A	Ren 壬	216
8-766	A	Gan 感	216
8-1540	A	Gan 感	216
8-1544	A2	?	212
8-1545	B	Fu 富	216
8-1550	A	Ju 取	216
8-1551	A	[Chen 辰]	220
8-1557	B	[Wu 吾]	216
8-2246	A	Ren 壬	216
8-2247	A2	Gan 敢	215
8-2249	A	Gan 感	216
9-13	A	Gan 感	216
9-16	A	Gan 感	216
9-761	B	[Wu 吾]	216
9-762	A	Ren 壬	216
9-2334	C	Gan 感	216
9-2337	A	[Ju 取]	216

The difference between this and layout A is that the text starts with the date of disbursal (block 2) instead of the amount of grain disbursed (block 1). The latter is placed at the top of the second column (see Figures 2 and 3).[43] When comparing the scribal hand on this tally 9-2334 with a tally exhibiting layout A and also handled by Gan 感 (8-766, both shown in Figure 3 below), it seems in fact possible that the writing on them was brushed by different individuals. Whether this may have been caused by the presence of two scribes of the same name at Qianling, or a different reason, remains a question to be explored.[44]

[43] Note that 9-2334 does not record the grainstore from which the grain was disbursed, which is usually part of block 1.

[44] Although he agrees that *shou* 手 normally indicates the individual who actually brushed a particular document, Zhang Chi (2017: 127–9) has argued for the existence of two different hands on tallies "handled by Gan 感" and suggested that some of the middle parts of tripartite tallies that were submitted to Qianling by the granaries for later checking may have been later copies of the documents that had been produced "on the spot" when grain was issued. Could this have been done in order to save time during the disbursal process?

https://doi.org/10.1017/S0041977X23000228 Published online by Cambridge University Press

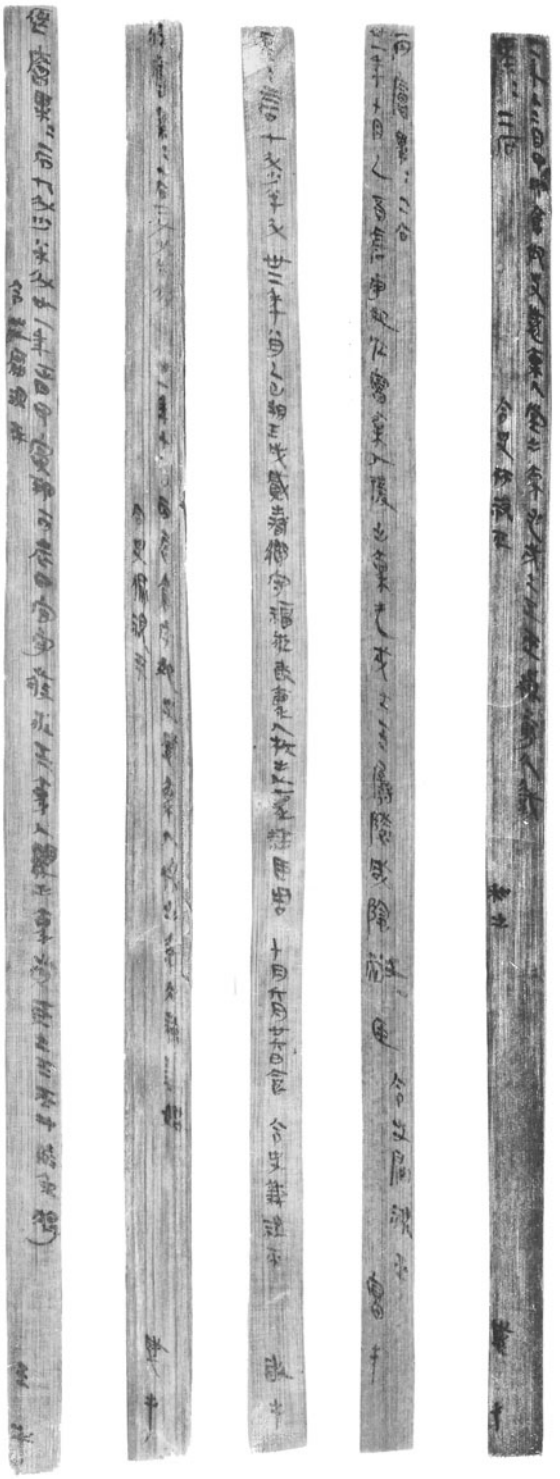

Figure 3. Tallies 8-764 and 8-766 (layout A), 8-2247 (layout A2), 8-1545 (layout B) and 9-2334 (layout C) (left to right)[45]

[45] The photographs were taken from Hunan sheng wenwu kaogu yanjiusuo 2012: 111, 200, and 265; Hunan sheng wenwu kaogu yanjiusuo 2017: 256 (the two parts, into which each of the photographs had been separated in the original publications, were joined for this figure by the author).

https://doi.org/10.1017/S0041977X23000228 Published online by Cambridge University Press

With a view to numbers, layout A can certainly be considered as the standard for the grain disbursal tallies produced in the Qianling offices. This layout – as well as A2 – also seems to come closest to the form stipulated by the Shuihudi statutes, according to which text block 1 (grainstore + amount of grain disbursed) is directly followed by content belonging to block 2 (disbursing officials). Although this prescription concerns grain disbursal records in the registers rather than the corresponding tallies, it seems likely that the records made on tallies were supposed to follow the same sequence.

From a pragmatic point of view, layout A also seems most reasonable. Assuming that the amount of grain disbursed is the most crucial piece of information to be recorded on a tally (as this will be important for accounting),[46] it seems generally reasonable to put block 1 at the very beginning of the record (i.e. on the top right) in the direct vicinity of the notches also carved on the top left or right side.[47] As block 2 is usually the longest and therefore most difficult to fit entry, it makes sense to write it next. Starting block 2 at the top of the left-hand column – as in layout B – brings with it the general danger of block 2 not fitting into the left-hand column completely if it is too long. In that case, the scribe would have nowhere to continue except the verso of the tally in order not to go against the normal reading direction. A similar problem might occur in layout C, where block 1 is written on the very top of the left-hand column. If the text of block 2 is too long to fit into the first column completely, this would mean that block 1 has to be written further towards the bottom of the tally. As there is only one instance in which layout C was used, one could speculate that this is the result of a scribal mistake. If Gan (on 9-2334) accidentally started the record with block 2 (instead of block 1, as usual), the present layout may have been a viable alternative in which block 1 was still easily visible at the very top – albeit on the left rather than on the right side. In layout A, the scribe can continue block 2 on the top of the left-hand column, if the space after block 1 in the right-hand column is insufficient.

Block 4, with the note on the scribe who drafted the tally, would naturally be written last and hence be placed on the bottom left side.[48] This leaves the relatively small block 3, with the note on the supervising official, which is written on the opposite side of the longest block 2. It so happens that block 3 is frequently written directly beside the part of block 2, where the – usually three – disbursing officials are recorded. This actually enables the reader to view all officials involved at one glance as their names are written in direct proximity.

The reason why the scribes Fu and Wu consistently used a less reasonable layout than layout A can only be guessed. Perhaps it is not a coincidence that both individuals have the status of Assistants rather than formally trained Scribes, as can be gathered from the records on the respective tallies.[49] What seems clear is that: a) they deliberately employed

[46] The tallies discussed here are one type of document on the basis of which accounts were compiled. On the Qin and Han *shangji* 上計 or "submission of accounts" system, in which once per year all sorts of accounts on state assets had to be submitted from the lowest offices to the county and commandery courts, and eventually up to the imperial court, see Loewe 2004: 44–6.

[47] The fact that the amount of grain is recorded with the help of two independent sign systems (writing and notches) also underlines the high importance of this piece of information. On the meaning of the different types of notches in the Liye tallies, see Zhang et al. 2015. For the point that the same person who wrote on the tallies probably also carved the notches and that both activities were included in the act of "handling", see Ma 2017: 325–9.

[48] These notes of accountability were usually placed on the bottom left side of a document, either on the same side as the rest of the writing (on tallies) or on the other (verso) side (in other types of documents) (see Ma 2021: 12–15). It should be pointed out, however, that the position of these notes was adjusted in case an original document was quoted in a follow-up document, or if additions were made to the original document. See Giele 2005: 362–5.

[49] On these two classes of officials, see Ma 2017.

https://doi.org/10.1017/S0041977X23000228 Published online by Cambridge University Press

this layout; and b) that it was obviously acceptable for the administrative apparatus. The fact that the layout types A, B, and C all occur on tallies produced in the same year (216 BCE, see Table 8) shows that this clearly does not reflect changes in layout over time.

4. Conclusions

The above analysis has not provided a simple answer to the question of whether the detailed rules fixed in Qin document standards were actually followed for the production of administrative documents. Rather, it has shed some light on the large grey zone, or continuum, between the two extremes of faithful adherence and complete neglect. Whereas some standards appear to have been followed quite consistently, such as the length of wood tablets or the fixed pieces of information that had to be written on grain disbursal tallies, the persons involved in the production of the documents seem to have deviated more frequently and extensively from others.

But these observations help to complement our still fragmentary understanding of how the administration in early imperial China really worked at the grassroots level. After all, there are reasons behind the establishment of document standards by the central government. That local officials follow or disregard them likewise happens for a reason. Apparently, the imposition of fines alone did not lead to a universal acceptance of the document standards created by the central government. Therefore, it has to be assumed that the main reason for local officials to follow or disregard these standards was whether they "made sense" in daily practice. If the length of wooden tablets was much more uniform than their width – although both were in theory regulated by law – this probably indicates that the length had a significant influence on how well documents could be processed or handled. This in turn could have to do with storage facilities or containers, or with practices of tying multiple documents or pieces of writing support together, in other words the "compatibility" between documents. Multi-piece manuscripts may usually have required pieces with the same length – but not necessarily the exact same width.[50] If wood tablets were not only by default narrower but officials also regularly fit more writing on them than allowed by law, this probably served to save resources without necessarily asserting a negative influence on legibility. And exactly securing legibility was presumably at least one of the prime motives behind the establishment of standards for the number of columns per tablet as well as the maximum number of characters per column. From all we know, the named deviations were not a hindrance during administrative work at the former Qianling county and seem to have been regarded as acceptable, even in the face of imminent punishments. However, it should be kept in mind that violations would have to be reported in order to be punished. Other phenomena such as the significant variance concerning the layout of grain disbursal tallies – contrasting their very consistent measurements – suggest that certain features were not regulated and that a certain degree of variance was tolerated in favour of flexibility.[51]

[50] Cf. examples of Western Han administrative documents, in which wider tablets were occasionally tied together with narrow slips – although all these pieces seem to have had a uniform length (Hou 2014). However, recent finds of Han manuscripts from Shuihudi tomb no. 77 suggest that even pieces with quite different lengths were at times combined in one manuscript (Chen and Xiong 2019: 53–9). Whether this practice was limited to funerary contexts, and – if not – how widespread it may have been, remains to be determined.

[51] After his investigation on Qin and Han models (*shi*), Barbieri-Low (2011: 134–5) concluded: "Based on a comparison of model document forms and actual documents from the same genre, it appears that real documents often did follow the models very closely. Sometimes, certain portions of the model were abbreviated or omitted, or the order of the particulars was rearranged, but generally real documents were faithful to the models." The evidence from the grain disbursal tallies investigated in the present paper seems to confirm this conclusion. However, one might ask if models such as those from Shuihudi, which were recorded on tied-together bamboo

https://doi.org/10.1017/S0041977X23000228 Published online by Cambridge University Press

The different writing habits of individuals that are hence visible could go back to differences in scribal training. Most of the personnel seem to have come to newly conquered territories via state-induced migration from the Qin heartland, including areas that had been conquered earlier (Korolkov and Hein 2021: 210–11). These individuals may already have been familiar with the Qin regulations for administrative documents. Others were probably recruited from the local population of the former kingdom of Chu. Hence, the scribes working in the Qianling administration may have had very different educational backgrounds, which would naturally have influenced the way they drafted administrative documents, if not even the format and shape of the pieces of writing support in cases in which these were not prepared by other persons such as convict labourers.[52]

Generally, it seems that administrative practice as reflected by the Liye documents was always a compromise between different factors: on the one hand, numerous legal standards, which were informed by the central government's attempts to unify the content and form of administrative documents, and likely influenced by the ideology of the architects of the first unified empire; on the other hand, quite mundane economic considerations with regard to material and human resources as well as time. It seems likely that, based on previous experience with a large number of documents, the central government fixed general rules on document properties that were deemed "ideal", without necessarily considering what an implementation of these requirements, if taken seriously, would mean for actual administrative practice: namely, a significant amount of planning, measuring, and calculating that would take away time from more important tasks. As other studies of the Liye documents have shown, there was a continuous lack of qualified personnel at Qianling,[53] which suggests that adherence to specific document standards may not have been one of the top priorities on the everyday agenda, with much more serious problems looming large. Whether the regulations were followed more or even less closely in other areas of the Qin Empire remains a question to be dealt with once additional materials hopefully come to light. For the time being, the extant documents clearly show the limits of standardization and suggest that the officials chose a pragmatic way influenced by both economic considerations informed by the local circumstances and the requirements imposed by the central government.[54]

The present paper shows some of the possible benefits of this kind of analysis, which focuses on the materiality of administrative manuscripts. However, in order to complement further our picture of exactly how local officials conducted their everyday work and what factors influenced their production and use of documents in what ways, additional studies are needed. It would be worthwhile to conduct a more extensive analysis once the Liye documents have been published in their entirety. Especially with regard to aspects of administrative documents, for which no standards have been discovered yet, it could also be worthwhile to attempt a reconstruction of underlying standards through an inductive approach, only from the evidence of the extant documents.[55]

slips, were really suitable (or even supposed) to determine a particular kind of layout – especially if it comes to wider tablets that offer far more possibilities of layout variation.

[52] For a discussion of some hybrid documents from Liye as well as Tuzishan 兔子山 well no. 9, which exhibit both Qin and Chu influence, see Tong 2020: 234–7. This at least hints at the possibility that some of the scribes may have been trained in the earlier Chu administration, although this is difficult to prove at this point.

[53] On shortage of administrative personnel, especially scribes, see Ma 2017: 313–15. See also Ye 2013; Tong 2020: 249–325 (chapter 3).

[54] On a comparable dilemma of local officials, having to choose between the state's regulations and the orders of their immediate superiors, see Ma 2020.

[55] For example, this could be done for tablets with documents sent from higher authorities to subordinate offices, which would enable a comparison with the documents used in upward communication that were

https://doi.org/10.1017/S0041977X23000228 Published online by Cambridge University Press

Acknowledgements. An earlier version of this paper was presented to the 2021 annual conference of the Association for Asian Studies as part of the panel "Between evolving standards and persistent diversity: manuscripts and inscriptions in pre-imperial and early imperial China". I would like to express my gratitude to the other participants of the panel, Enno Giele, Ondřej Škrabal, Olivier Venture, and Xiao Yunxiao 肖芸曉, as well as to the audience for their stimulating questions and comments. I would also like to thank Michael Friedrich, Ma Tsang Wing 馬增榮, and Tong Chun Fung 唐俊峰, as well as the anonymous reviewers whose criticism and suggestions helped further improve this paper. Special thanks are due to Tong Chun Fung also for his tireless help in supplying relevant literature that I had difficulties accessing at the time of writing. Finally, I would like to express my gratitude to Zhang Chunlong 張春龍, the archaeologist responsible for the excavation of the Liye 里耶 site, for permission to use some of the published photographs of the Liye documents in this paper.

The research for this paper was funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) under Germany's Excellence Strategy – EXC 2176 "Understanding written artefacts: material, interaction and transmission in manuscript cultures", project no. 390893796. The research was conducted within the scope of the Centre for the Study of Manuscript Cultures (CSMC) at Universität Hamburg.

References

Aoki, Shunsuke 青木俊介. 2017. "Gakuroku Shin kan 'kyōritsu' no kaihōsha tsūchi ni kan suru kitei" 嶽麓秦簡「興律」の開封者通知に関する規定, http://www.aa.tufs.ac.jp/users/Ejina/note/note23(Aoki).html, accessed 20 October, 2021.

Barbieri-Low, Anthony J. 2011. "Model legal and administrative forms from the Qin, Han, and Tang and their role in the facilitation of bureaucracy and literacy", *Oriens Extremus* 50, 125–56.

Bodde, Derk. 1986. "The state and empire of Ch'in", in Denis Twitchett and John K. Fairbank (eds), *The Cambridge History of China. Vol. 1: The Ch'in and Han Empires, 221 B.C –A.D. 220*. Cambridge: Cambridge University Press, 20–102.

Cancik-Kirschbaum, Eva. 2012. "Middle Assyrian administrative documents and diplomatics: preliminary remarks towards an analysis of scribal norms and habits", in Elena Devecchi (ed.), *Palaeography and Scribal Practices in Syro-Palestine and Anatolia in the Late Bronze Age: Papers Read at a Symposium in Leiden, 17–18 December 2009*. Leiden: Nederlands Instituut voor het Nabije Oosten, 19–32.

Chen, Songchang 陳松長. 2009. "Yuelu shuyuan suo cang Qinjian zongshu" 嶽麓書院所藏秦簡綜述, *Wenwu* 2009/3, 75–88.

Chen, Songchang 陳松長 (ed.). 2015. *Yuelu shuyuan cang Qinjian (si)* 嶽麓書院藏秦簡（肆). Shanghai: Shanghai cishu.

Chen, Songchang 陳松長 (ed.). 2017. *Yuelu shuyuan cang Qinjian (wu)* 嶽麓書院藏秦簡（伍). Shanghai: Shanghai cishu.

Chen, Songchang 陳松長. 2020. "Yuelu Qinjian zhong de dui, qing, zou wenshu ji xiangguan wenti tanlun" 嶽麓秦簡中的對、請、奏文書及相關問題探論, *Wenwu* 2020/3, 69–73.

Chen, Wei 陳偉. 2017. *Qin jiandu jiaodu ji suojian zhidu kaocha* 秦簡牘校讀及所見制度考察. Wuhan: Wuhan daxue.

Chen, Wei 陳偉, Lu Jialiang 魯家亮, He Youzu 何有祖 and Fan Guodong 凡國棟 (eds). 2012. *Liye Qin jiandu jiaoshi (di yi juan)* 里耶秦簡牘校釋（第一卷). Wuhan: Wuhan daxue.

Chen, Wei 陳偉, Lu Jialiang 魯家亮, He Youzu 何有祖, Fan Guodong 凡國棟 (eds). 2018. *Liye Qin jiandu jiaoshi (di er juan)* 里耶秦簡牘校釋（第二卷). Wuhan: Wuhan daxue.

Chen, Wei 陳偉 and Xiong Beisheng 熊北生. 2019. "Shuihudi Hanjian zhong de quan yu xiangguan wenshu" 睡虎地漢簡中的券與相關文書, *Wenwu* 文物 2019/12, 53–62.

Forest Products Laboratory. 2021. *Wood Handbook: Wood as an Engineering Material*. General Technical Report FPL-GTR-282. Madison, WI: U.S. Department of Agriculture, Forest Service, Forest Products Laboratory. https://www.fpl.fs.usda.gov/documnts/fplgtr/fplgtr282/fpl_gtr282.pdf, accessed 20 October, 2021.

Gao, Heng 高恆. 2008. "Han jiandu zhong suojian de 'shi'" 漢簡牘中所見的 "式", in *Qin Han jiandu zhong fazhi wenshu jikao* 秦漢簡牘中法制文書輯考. Beijing: Shehui kexue, 216–38.

Giele, Enno. 2005. "Signatures of 'scribes' in early Imperial China", *Asiatische Studien/Etudes Asiatiques* 59/1, 353–87.

Hou, Xiaorong 后曉榮. 2009. *Qindai zhengqu dili* 秦代政區地理. Beijing: Shehui kexue wenxian.

Hou, Xudong 侯旭東. 2014. "Xibei suochu Handai buji ceshu jian de pailie yu fuyuan: Cong Dong-Han Yongyuan bingwu bu shuoqi" 西北所出漢代簿籍冊書簡的排列與復原——從東漢永元兵物簿說起, *Shixue jikan* 2014/1, 58–73.

analysed in the present paper. Another valuable follow-up would be to extend the investigation diachronically to documents produced during the Han (206 BCE–220 CE) or even later periods.

https://doi.org/10.1017/S0041977X23000228 Published online by Cambridge University Press

Hsing, I-tien 邢義田. 2011. "Cong jiandu kan Handai de xingzheng wenshu fanben: 'Shi'" 從簡牘看漢代的行政文書範本——"式", in *Zhi guo an bang: Fazhi, xingzheng yu junshi* 治國安邦——法制、行政與軍事. Beijing: Zhonghua, 450–72.

Hu, Pingsheng 胡平生. 2004. "'Jiandu jianshu kao' daoyan" 《簡牘檢署考》導言, in Hu Pingsheng 胡平生 and Ma Yuehua 馬月華 (eds), Wang Guowei 王國維, *Jiandu jianshu kao jiaozhu* 簡牘檢署考校注. Shanghai: Shanghai guji, 1–39.

Huang, Haobo 黃浩波. 2015. "'Liye Qinjian (yi)' suojian linshi jilu" 《里耶秦簡（一）》所見稟食記錄, *Jianbo* 11, 117–39.

Hulsewé, A.F.P. 1985. *Remnants of Ch'in Law: An Annotated Translation of the Ch'in Legal and Administrative Rules of the 3rd Century B.C. Discovered in Yün-meng Prefecture, Hu-pei Province, in 1975*. Leiden: Brill.

Hunan sheng wenwu kaogu yanjiusuo 湖南省文物考古研究所 (ed.). 2006. *Liye fajue baogao* 里耶發掘報告. Changsha: Yuelu shushe.

Hunan sheng wenwu kaogu yanjiusuo 湖南省文物考古研究所 (ed.). 2012. *Liye Qinjian (yi)* 里耶秦簡（壹）. Beijing: Wenwu.

Hunan sheng wenwu kaogu yanjiusuo 湖南省文物考古研究所 (ed.). 2017. *Liye Qinjian (er)* 里耶秦簡（貳）. Beijing: Wenwu.

International Organization for Standardization. 2007. *Writing Paper and Certain Classes of Printed matter – Trimmed Sizes – A and B Series, and Indication of Machine Direction* (ISO Standard No. 216:2007). https://www.iso.org/standard/36631.html, accessed 20 October, 2021.

Ji, Annuo 紀安諾 (= Enno Giele). 2007. "Handai biansai beiyong shuxie cailiao ji qi shehuishi yiyi" 漢代邊塞備用書寫材料及其社會史意義, *Jianbo* 2, 475–500.

Kim, Moonsil Lee. 2016. "Discrepancy between laws and their implementation: an analysis of granaries, statutes, and rations during China's Qin and Han periods", *Journal of the Economic and Social History of the Orient* 59, 555–89.

Korolkov, Maxim. 2021. "Liye", in D.T. Potts, Ethan Harkness, Jason Neelis, and Roderick McIntosh (eds), *The Encyclopedia of Ancient History: Asia and Africa*. Hoboken: John Wiley & Sons, 1–4.

Korolkov, Maxim and Anke Hein. 2021. "State-induced migration and the creation of state spaces in early Chinese empires: perspectives from history and archaeology", *Journal of Chinese History* 5/2, 203–25.

Lau, Ulrich and Thies Staack. 2016. *Legal Practice in the Formative Stages of the Chinese Empire: An Annotated Translation of the Exemplary Qin Criminal Cases from the Yuelu Academy Collection*. Leiden: Brill.

Lin, Su-ching 林素清. 1998. "'Juyan Hanjian bubian' shixiao er ze" 《居延漢簡補編》識小二則, in Jiandu zhengli xiaozu 簡牘整理小組 (ed.), *Juyan Hanjian bubian* 居延漢簡補編. Taibei: Zhongyang yanjiuyuan lishi yuyan yanjiusuo, 57–65.

Liye Qinjian bowuguan 里耶秦簡博物館 and Chutu wenxian yu Zhongguo gudai wenming yanjiu xietong chuangxin zhongxin Zhongguo renmin daxue zhongxin 出土文獻與中國古代文明研究協同創新中心中國人民大學中心 (eds). 2016. *Liye Qinjian bowuguan cang Qinjian* 里耶秦簡博物館藏秦簡. Shanghai: Zhongxi shuju.

Loewe, Michael. 2004. *The Men Who Governed Han China. Companion to A Biographical Dictionary of the Qin, Former Han and Xin Periods*. Leiden: Brill.

Ma, Tsang Wing. 2017. "Scribes, assistants, and the materiality of administrative documents in Qin–early Han China: excavated evidence from Liye, Shuihudi, and Zhangjiashan", *T'oung Pao* 103/4–5, 297–333.

Ma, Tsang Wing. 2020. "Between the state and their superiors: the anxiety of low-ranked scribes in the Qin and Han bureaucracies", *Asia Major* 33/2, 25–59.

Ma, Tsang Wing. 2021. "Categorizing laborers: glimpses of Qin management of human resources from an administrative document from Liye, Hunan Province", *Early China*, 1–41.

Mao, Zhiping 毛志平 and Jin Ping 金平. 2019. "Changsha Zoumalou Xi-Han baoshui jiandu de baohu chuli" 長沙走馬樓西漢飽水簡牘的保護處理, *Jiang Han kaogu* 2019/S01, 15–20.

Mizuma, Daisuke 水間大輔. 2017. "Chōkasan Kan kan 'Sōgensho' to Gakuroku shoin zō Shinkan 'Igokutō jō shi shu' no keisei katei" 張家山漢簡「奏讞書」と嶽麓書院藏秦簡「爲獄等狀四種」の形成過程, *Tōyō shi kenkyū* 75/4, 637–75.

Peng, Hao 彭浩. 2020. "Official salaries and state taxes as seen in Qin-Han manuscripts, with a focus on mathematical texts", in Cécile Michel and Karine Chemla (eds), *Mathematics, Administrative and Economic Activities in Ancient Worlds*. Cham: Springer Nature, 125–55.

Pines, Yuri, with Lothar von Falkenhausen, Gideon Shelach, and Robin D.S. Yates. 2014. "General introduction: Qin history revisited", in Yuri Pines, Lothar von Falkenhausen, Gideon Shelach, and Robin D.S. Yates (eds), *Birth of an Empire: The State of Qin Revisited*. Berkeley: University of California Press, 1–34.

Qiu, Guangming 丘光明. 1992. *Zhongguo lidai du liang heng kao* 中國歷代度量衡考. Beijing: Kexue chubanshe.

https://doi.org/10.1017/S0041977X23000228 Published online by Cambridge University Press

Sanft, Charles. 2014. *Communication and Cooperation in Early Imperial China: Publicizing the Qin Dynasty*. Albany: State University of New York Press.
Shan, Yuchen 單育辰. 2014. "Liye Qin gongwen liuzhuan yanjiu" 里耶秦公文流轉研究, *Jianbo* 9, 199–209.
Shi, Da 史達 (= Thies Staack). 2016. "Yuelu Qinjian 'Nianqi nian zhiri' suofu guanli lüli yu san juan 'Zhiri' yongyouzhe de shenfen" 嶽麓秦簡《廿七年質日》所附官吏履歷與三卷《質日》擁有者的身份, *Hunan daxue xuebao* (*shehui kexue ban*) 30/4, 10–17.
Shuihudi Qinmu zhujian zhengli xiaozu 睡虎地秦墓竹簡整理小組 (ed). 1990. *Shuihudi Qinmu zhujian* 睡虎地秦墓竹簡. Beijing: Wenwu.
Staack, Thies. 2018. "Single- and multi-piece manuscripts in early imperial China: on the background and significance of a terminological distinction", *Early China* 41, 245–95.
Sumiya, Tsuneko 角谷常子. 2012. "Riya Shin kan ni okeru tandoku kan ni tsuite" 里耶秦簡における単独簡について, *Nara shigaku* 30, 107–30.
Takamura, Takeyuki 高村武幸. 2013. "Shin Kan jidai no toku ni tsuite" 秦漢時代の牘について, *Jinbun ronsō: Mie daigaku jinbun gakubu bunka gakka kenkyū kiyō* 30, 57–71.
Takatori, Yūji 鷹取祐司. 2015. *Shin Kan kanbunsho no kisoteki kenkyū* 秦漢官文書の基礎的研究. Tōkyō: Kyūko shoin.
Tong, Chun Fung 唐俊峰. 2020. "Fall of an empire: state power and governance of the Qin empire", PhD dissertation, University of Heidelberg.
Tsuchiguchi, Fuminori 土口史記. 2014. "Relaying and copying documents in the Warring States, Qin, and Han periods", in Nagata Tomoyuki 永田知之 (ed.), *Documents and Writing Materials in East Asia*. Kyoto: Institute for Research in Humanities, Kyoto University, 29–51.
Tsuchiguchi, Fuminori 土口史記. 2018. "Shin kantoku kenkyū no shin tenkai" 秦簡牘研究の新展開, *Kodai bunka* 70/3, 29–39.
Wang, Guihai 汪桂海. 2021. "Kaogu ziliao suojian jianbo shidai shuji zhuangju" 考古資料所見簡帛時代書籍裝具, *Wenxian* 2021/1, 166–89.
Wu, Shunqing 吳順清. 2014. "Chutu zhu mu qi qi lei wenwu baohu yanjiu liushi nian shulüe" 出土竹木漆器類文物保護研究六十年述略, *Jiang Han kaogu* 2014/S01, 3–13.
Xie, Kun 謝坤. 2021. *Qin jiandu suojian cangchu zhidu yanjiu* 秦簡牘所見倉儲制度研究. Shanghai: Shanghai guji.
Yates, Robin D.S. 2012–13. "The Qin slips and boards from well no. 1, Liye, Hunan: a brief introduction to the Qin Qianling county archives", *Early China* 35–36, 291–329.
Ye, Shan 葉山 (= Robin D.S. Yates). 2013. "Jiedu Liye Qinjian: Qindai difang xingzheng zhidu" 解讀里耶秦簡——秦代地方行政制度, *Jianbo* 8, 89–137.
Yu, Zhenbo 于振波. 2010. "Qinlü zhong de jia dun bijia ji xiangguan wenti" 秦律中的甲盾比價及相關問題, *Shixue jikan* 2010/5, 36–8.
Zhang, Chi 張馳. 2017. "Liye Qinjian suojian quan lei wenshu de jige wenti" 里耶秦簡所見券類文書的幾個問題, *Jianbo yanjiu* 2016 (qiu/dong), 125–39.
Zhang, Chunlong 張春龍, Ōkawa Toshitaka 大川俊隆 and Momiyama Akira 籾山明. 2015. "Liye Qinjian kechi jian yanjiu: Jianlun Yuelu Qinjian 'Shu' zhong de wei jiedu jian" 里耶秦簡刻齒簡研究——兼論嶽麓秦簡《數》中的未解讀簡, *Wenwu* 2015/3, 53–69, 96.
Zhao, Guifang 趙桂芳. 2006. "Jiandu baohu gailun" 簡牘保護概論, *Zhongguo wenwu kexue yanjiu* 2006/2, 59–67.
Zhou, Haifeng 周海鋒. 2020. "Yuelu Qinjian 'Zuling bing' yanjiu" 嶽麓秦簡《卒令丙》研究, in Wang Jie 王捷 (ed.), *Chutu wenxian yu falüshi yanjiu (di jiu ji)* 出土文獻與法律史研究（第九輯). Beijing: Falü chubanshe, 119–38.
Zhu, Hanmin 朱漢民 and Chen Songchang 陳松長 (eds). 2010. *Yuelu shuyuan cang Qinjian (yi)* 嶽麓書院藏秦簡（壹). Shanghai: Shanghai cishu.

Cite this article: Staack T (2023). The pragmatics of standardization: document standards and their implementation in Qin administration (late third century BCE). *Bulletin of the School of Oriental and African Studies* **86**, 147–173. https://doi.org/10.1017/S0041977X23000228