How to Read an Oracle Bone from Huayuanzhuang East Pit H3

Adam Craig SCHWARTZ

Department of Chinese Language and Literature and the Jao Tsung-I Academy of

Sinology, Hong Kong Baptist University

This paper focuses on the work habits and motives of the Shang recordkeepers who wrote the divination accounts discovered in 1991 in Pit 3 at Huayuanzhuang East. These scribes, who worked under the patronage of a head of one of the princely households, collaborated with diviners sanctioned under the same mandate and the two professional groups developed and employed technologies to micromanage their workloads economically and to do their jobs coherently and efficiently. The scribes who produced the divination accounts on this homogenous and unified collection of shells and bones demonstrated accurate divination recordkeeping and displayed a unique competency and innovation in how these specialized records were designed, written out, and formally presented. More crucially, the orientation of the divination accounts indicates a control of the materials, attests to scribal literacy, and implies that they were written to be read and consulted.

Keywords: Shang recordkeeping, professional work habits and motives, oracle bone divination, literacy in the ancient world

Introduction

The Huayuanzhuang East oracle bone inscriptions (花園莊東地甲骨), first discovered in 1991 and completely published in six folio volumes in 2003, are a synchronically compact corpus of several thousand individual late Shang (ca. 1250–1045 BC) divination accounts inscribed on hundreds of intact turtle shells and cattle scapulae.[1] Produced under the patronage of a prince of the royal family during the reign of the 27th Shang king, Wu Ding, these "princely communications" are undeniably one of the most important epigraphic finds in the history of Chinese archaeology, and the collection as a excavated type has now become a model for corpus-based and statistically-driven approaches to oracle bone study, particularly as it concerns the process of decision making and producing written accounts of it. What the field of early China has needed for quite some time is more intact oracle bone discoveries that demonstrate the operational methods and technical expertise of the diviners and scribes who worked collectively to produce these material documents. The Huayuanzhuang East oracle bone inscriptions provide an ideal corpus to know more about the habits and motives of Shang diviners and recordkeepers.[2]

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1 *Yinxu Huayuanzhuang dongdi jiagu* 殷墟花園莊東地甲骨 , ed. Zhongguo shehui kexueyuan Kaogu yanjiusuo 中國社會科學院考古研究所 , 6 vols. (Kunming: Yunnan renmin, 2003). Hereafter I use the abbreviation HYZ [**H**ua**Y**uan**Z**huang] in reference to the oracle bones. An abbreviation like HYZ 181.5 means piece 181, divination account 5. A total of 689 inscribed pieces were collected from the pit. The large majority were turtle plastrons (659); turtle carapaces (25) and a few cattle scapulae (5) comprised the remainder. After rejoins, the 2003 official publication included color photographs, enlarged sectional photographs, and rubbings and facsimiles of 561 inscribed surfaces. After the extraction of reduplications, further rejoins, and the subtraction of inscriptions on verso sides (30), the number of inscribed bones totals 529: 511 turtle plastrons, 13 turtle carapaces, and 5 cattle scapulae. For commentary and additional information on the HYZ inscriptions cited in this paper, see A.C. Schwartz, *The Oracle Bone Inscriptions from Huayuanzhuang East* (Berlin: De Gruyter Mouton, 2019).

2 David N. Keightley, "Theology and the Writing of History: Truth and the Ancestors in the Wu Ding Divination Records," in *These Bones Shall Rise Again: Selected Writings on Early China*, ed. Henry Rosemont Jr. (Albany, N.Y.: State University of New York Press, 2014), 207, says, "The oracle bone inscriptions of the Late Shang dynasty (ca. 1200 to ca. 1045 BCE) can on occasion provide us with an immediate sense, remarkable at a remove of over three thousand years, of the work habits and motives of the Shang diviners and record-keepers."

Exactly how much, if any, autonomy was in the hands of a Shang oracle bone scribe is a topic of considerable interest to the question of literacy the ancient world, and one that, hitherto, has not been adequately examined in scholarship. This paper understands oracle bone inscriptions as material documents and discusses them with a focus on epigraphy and orientation in order to demonstrate that the group of scribes who produced the oracle bone inscriptions found in Pit H3 were in fact much more than skilled engravers recording dictation, or copyists who mechanically reproduced materials given to them.[3]

Technologies employed by the scribes who worked in collaboration with diviners to produce a unified archive of 2,452 individual divination accounts recorded on 529 pieces of turtle shell and cattle scapulae not only confirm an expertise in accurate oracle bone divination recordkeeping, but perhaps more significantly for my argument here, attest to the gradual process of how written accounts recreated from performative spoken ones were designed and arranged back onto the surfaces of the cracked bones. Similar to scribes at Anyang who worked for the Shang kings, the Huayuanzhuang East scribes employed methods to micromanage their workload economically and to do their job coherently and efficiently while maintaining an aesthetic of form

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3   I have benefitted immensely from the work of Zhang Guiguang 張桂光 , "Huayuanzhuang dongdi bujia keci hangkuan lüeshuo" 花園莊東地卜甲刻辭行款略說 , in *Huayuanzhuang dongdi jiagu luncong* 花園莊東地甲骨論叢 , ed. Wang Chien-shen 王建生 and Chu Ki-cheung 朱岐祥 et al. (Banqiao, Taipei: Shenghuan tushu, 2006), 65–7. Liu Yuan 劉源 , "Shilun Yinxu Huayuanzhuang dongdi buci de hangkuan" 試論殷墟花園莊東地卜辭的行款 , *Gugong bowuyuan yuankan* 故宮博物院院刊 (2005: 1): 112–16; Zhang Xiuxia 章秀霞 , "Hua dong buci hangkuan zouxiang yu buzhao zuheshi de zhengli he yanjiu" 花東卜辭行款走向與卜兆組合式的整理和研究 , in *Jinian Wang Yirong faxian jiaguwen 110 zhounian guoji xueshu yantaohui lunwenji (2009 Zhongguo Fushan)* 紀念王懿榮發現甲骨文 110 周年國際學術研討會論文集（2009 中國福山）, ed. Wang Yuxin 王宇信 et al. (Beijing: Shehui kexue wenxian chubanshe, 2009), 174–92; and Sun Yabing 孫亞冰 , *Yinxu Huayuanzhuang dongdi jiagu wenli yanjiu* 殷墟花園莊東地甲骨文例研究 (Shanghai: Shanghai guji chubanshe, 2014), 34–98, are the other three studies I have consulted.

and design layout.[4] I propose that the scribes who arranged and wrote out the Huayuanzhuang East oracle bone divination accounts intended for them to be read and consulted.

The unified and intelligible collection of Huayuanzhuang East oracle bone inscriptions provides an ideal dataset by which to study the practice and mechanics of a group of specialized diviners and scribes who worked for someone other than a Shang king. This study reviews styles and habits of documentary expression and proposes how these criteria can be leveraged to supplement orthographic analyses as a methodology and as a means to extract scribal identity and determine levels of literate proficiency among

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4   Perhaps the best example of this among the Huayuanzhuang East inscriptions is how this group of scribes recorded judgments about divination cracks and their corresponding divination statements with the phrases *yong* 用 "Used" and *bu yong* 不用 "Not used," and not *zi yong* 茲用 "Used this" and *zi bu yong* 茲不用 "Did not use this." The demonstrative 茲 "this" referred to a specific divination crack, and the one it was written in closest proximity to on the bone, so that 茲用 meant "Used this [divination crack]." 用 was an abbreviation of 茲 用. Scribes presumably did not write *zi bu yong* 茲卜用 "Used this divination crack," adding the word *bu* 卜, because the material "crack" itself which was already present and visible in the bone could also serve as a word. (卜 is a pictograph depicting the image of a divination crack on bone.) Writing 用 instead of 茲卜用 was economical, coherent, efficient, and stylistically innovative. This type of abbreviation would not have been clear and discernible if the oracle bone divination accounts were recorded off the bone on perishable stationery. Figure 1 illustrates how scribes designed various layouts for 用 around a corresponding divination crack. For the seminal study on 茲用 in Shang oracle bone inscriptions, see Hu Houxuan 胡厚宣, "Shi ziyong ziyu" 釋茲用茲御, rpt. in *Jiagu wenxian jicheng* 甲骨文獻集成, comp. Song Zhenhao 宋鎮豪, Duan Zhihong 段志洪 et al. (Chengdu: Sichuan daxue chubanshe, 2001), 18:1–5. For the explanation that *yong*/*bu yong* were judgments, see Qiu Xigui 裘錫圭, "Guanyu Yinxu buci de mingci shifou wenju de kaocha" 關於殷墟卜辭的命辭是否問句的考察, in *Qiu Xigui xueshu wenji* 裘錫圭學術文集, vol. 1, *Jiaguwen juan* 甲骨文卷 (Shanghai: Fudan daxue chubanshe, 2012), 321–22; idem, "Shi 'e'" 釋「厄」, ibid., 457; Li Xueqin 李學勤, *Zhouyi suyuan* 周易溯源 (Chengdu: Bashu shushe, 2006), 198; and David N. Keightley, *Working for His Majesty* (Berkeley, Calif.: Institute of East Asian Studies, University of California, Berkeley, 2012), 366, who states, "It [i.e. 茲用] served as a reading of the crack."

scribal traditions at Anyang.[5] My focus seeks to refine how to read the Huayuanzhuang East oracle bone inscriptions by examining various modes of orientation (i.e., the arrangement and direction of text) and document or "page" design styles. As an integral, emic feature of Huayuanzhuang East oracle bone recordkeeping, an analysis of orientation and related habits illuminates details that reveal how professional scribes demonstrated their expertise and how they intended text to be read.[6]

The process of how a divination record was written is still not clear. One model posits that inscriptions on the bones and shells were copies transcribed from the notes of diviners.[7] In this model, the workers responsible for writing the content onto the bone and shell surfaces were engravers who mechanically reproduced materials given to them. A second model proposes the presence of scribes during actual bouts of divination and either through reliance on their own memory or with the aid of the diviner(s) reconstituted written records of the original spoken utterances sometime thereafter.[8] It is also of course entirely possible that some diviners wrote their own accounts, but since it has been well-demonstrated that diviners and scribes were two distinct professional groups, I maintain a separation between them two, although there was

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5 Micro-orthographic analysis is now a popular topic among oracle bone scholars. Sakikawa Takashi 崎川隆 , *Binzu jiaguwen fenlei yanjiu* 賓組甲骨文分類研究 (Shanghai: Shanghai renmin chubanshe, 2011) has divided Bin-diviner scribal types into 14 groups, and Zhou Zhongbing 周忠兵 , "Tan xin huafenchu de Li zu xiaolei" 談新劃分出的歷組小類 , *Jiaguwen yu Yin Shang shi (xin er ji)* 甲骨文與殷商史（新二輯）(Shanghai: Shanghai guji chubanshe, 2011), 222–29, has detected new scribes associated with the Li 歷 -diviner group. What is ever more apparent is that scholars have severely underestimated the number of scribes who worked in collaboration with diviners at Anyang and elsewhere.

6 The word "read" in the title of this article has this sense to it. It does not carry with it the promise of an introduction and philological explanation about how to decipher and understand the language and script of these inscriptions, since I have recently done this work elsewhere (Schwartz, *The Oracle Bone Inscriptions from Huayuanzhuang East*).

7 David N. Keightley, "The Diviners' Notebooks: Shang Oracle-Bone Inscriptions as Secondary Sources," in *Actes du colloque international commémorant le centenaire de la découverte des inscriptions sur os et carapaces/Proceedings of the International Symposium in Commemoration of the Oracle-Bone Inscriptions Discovery*, ed. Yau Shun-chiu and Chrystelle Maréchal (Paris: Centre de Recherches Linguistiques sur l'Asie Orientale Ecole des Hautes Etudes en Sciences Sociales, 2001), 11–25, introduces the idea of a "diviner's notebook."

8 Zhang Shichao 張世超 , *Yinxu jiagu ziji yanjiu: Dui zu buci pian* 殷墟甲骨字迹研究 ——自組卜辭篇 (Changchun: Dongbei shifan daxue chubanshe, 2002).

crossover.[9]

Without a "diviner's notebook" there is no access to the minutes of the divination event or to the process through which a scribe came to know what was said for each crack. However, ellipses and the orientation of a divination account are two indications that what eventually got written down on shells and bones could be an edited, reconstituted account.[10] What this recently discovered archive of oracle bones makes reasonably clear is that the scribes responsible for writing out the divination accounts had a tendency

9   Hu Houxuan 胡厚宣 , "Buci jishi wenzi shiguan qianming li" 卜辭記事文字史官簽名例 , rpt. in *Jiagu wenxian jicheng*, 18:29–33, first pointed out individual names occurring on highest, lowest, and outermost places of shells and bones and setting apart from divination accounts; he called the names signatures and said they belonged to the scribes responsible for writing the divination accounts on the shells and bones in which these names appeared. Hu noted that these names, like Ke 殼 , Zheng 爭 , and Gen 亘 , matched the names of Wu Ding's diviners. Jao Tsung-i 饒宗頤 , *Yindai zhenbu renwu tongkao* 殷代貞卜人物通考 (Hong Kong: Hong Kong University Press, 1959), 22–23, 27–29 countered that, unlike in Shang bronze inscriptions where scribes were called Shi 師 X "Scribe X," or in oracle bone inscriptions where occasionally diviner's names were preceded by the word *bu* 卜 "Diviner," there were no instances in the oracle bone inscriptions where these same names were ever preceded by the word 史 . (Jao cites two instances where a person's name was preceded by the office of *tai shi* 大（太）史 "grand scribe," but neither matched the names of any known Shang diviner.) Jao, ibid, 29, presented a theory that there was not a one-to-one correlation between diviners and scribes, although he recognized that there was overlap. His point of entry for this interpretation is individual plastrons with divination accounts written in a single handwriting style that recorded multiple names of diviners. Examples like these are evidence that not all diviners were scribes. The conservative view at present is to maintain a distinction between diviners and scribes even though there is certainly evidence of overlap, for instance in the case of the a diviner named 狄 whose signature often occurs at the bottom of recto sides on the set of turtle plastrons discovered at Houjiazhuang 後家莊 ; see Dong Zuobin 董作賓 , "Anyang Houjiazhuang chutu zhi jiagu wenzi" 安陽侯家莊出土之甲骨文字 , rpt. in *Jiagu wenxian jicheng*, 6:105–23.

There is one anomalous divination account among the Huayuanzhuang East inscriptions that records a divination performed by a "blind Musician": 辛亥瞽卜：家其匄又（有）妾又（有）畀 "On Xinhai, the blind Musician divined: If Jia (i.e., the name of a Dancer) requests to have female servants, some will be given" (HYZ 490.11). This blind Musician, who appears to have been the music director for the protagonist in the Huayuanzhuang East divinations, might have cracked the bone and uttered the divination statement, but it is inconceivable that he was the one who recorded it.

10 For a statement about how ellipses were an important characteristic and rhetorical device in written classical Chinese starting with Shang divination records, see Jao Tsung-i's introduction to his translated work *Jindong kaipi shishi* 近東開闢史詩 (Taipei: Xinwenfeng, 1991), 1.

to manipulate and regulate the length of a record in order for content to be arranged in symmetrical and numerically balanced proportion, and had the ability to parse it both by its grammatical parts (phrases, clauses, sentences) and formal units (preface, divination statement, judgment, verification). These methods of oracle bone recordkeeping demonstrate expertise and indicate literacy, and crucially, control of the materials.

I. The basics of how to read a Huayuanzhuang East oracle bone

Huayuanzhuang East inscriptions can be broadly divided into divination accounts and non-divination notations. (The latter were primarily administrative delivery receipts and signatures.) A complete Huayuanzhuang East divination account included a crack number,[11] a preface and/or postface recording historical information about the bout of divination,[12] a divination statement, a formal prediction, a judgment or evaluation about the divination crack(s), and a verification of what actually happened. The following two examples include all of these parts, and I make note of them in brackets:

1) 癸酉卜：子其擒。子占曰：其擒。用。四麋六兔。　HYZ 395+548.9
   [*Preface*:] Divined on Guiyou: [*Divination statement*:] Our lord is likely to make a capture. [*Formal prediction*:] Our lord read the crack and said, "Will likely make a capture." [*Judgment on the crack*:] Used. [*Verification*:] Four musk deer, six rabbits.

2) 壬申卜：子往于田，从昔所。用。擒四鹿。　HYZ 35.1
   [*Preface*:] Divined on Renshen: [*Divination statement*:] Our lord will go to the fields from the old location. [*Judgment on the crack*:] Used. [*Verification*:] Caught four deer. [*Crack number*:] ₁

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11 The highest count in the Huayuanzhuang East records was ten (HYZ 176.1; HYZ 310.2). Shang divination as a practice had a tendency to make divination in threes. Cracks were often made in multiples of three and never exceeded ten cracks in total. Diviners who worked for the Shang kings routinely used multiple shells and bones in odd number counts for divination about a single topic and sets of three shells and three bones were the most common. In general, the importance of a divination topic was indicated by how many cracks the diviner made and how many shells and bones he used for it.

12 Including the date, name of the diviner, location of the divination, type of divination, and previous divination results or statements needed to contextualize the divination being made.

As I understand it, diviners uttered statements (or *mingci* 命辭 "charges") either just before or while the bones were being cracked. (Whether or not the people responsible for cracking the bones were the diviners is another issue.)[13] In the Huayuanzhuang East divination accounts, only the benefactor of the divination workshop and the head of the house uttered and made formal predictions introduced by the word *zhan* 占 "read a divination crack; predict." It seems to have been the diviners who made judgments on whether or not divination cracks and their associated divination statements were fit to be used.[14] Numerous instances, one example being Figure 1 (right), where a divination account was only comprised of a divination crack + crack number + the word *yong* 用 "Used" indicates that either the diviners responsible for making the divination or the scribes working in collaboration with them recorded crack numbers and crack judgments directly onto the bone once the divination crack had appeared, and before the rest of the divination event was engraved.[15] Scribes wrote verifications once the event spoken of in the divination statement happened.

Among the parts of a divination account, verifications (*yanci* 驗辭) are a straightforward indicator of a scribe's literacy and confirm cooperation between scribes and diviners. Verifications corresponded to divination statements and predictions, validated the divination process, and were post-factum historical records of truth. Unlike divination statements and formal predictions, however, verifications rarely recorded spoken utterances, that

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13 Jao Tsung-i, *Yindai zhenbu renwu tongkao*, 14–28, maintains they were different specialists.

14 There is one instance, HYZ 467.7, with a judgment that says, 子不用 "Our lord did not use (this) [crack]"; it implies the benefactor of the divination workshop and head of the household was involved in reading divination cracks. Yao Xuan 姚萱, *Yinxu Huayuanzhuang dongdi jiagu buci de chubu yanjiu* 殷墟花園莊東地甲骨卜辭的初步研究 (Beijing: Xianzhuang shuju, 2006), 366, reads the divination account in a different orientation (i.e. " 隹（唯）𢖩鷹子。不用 ") and does not take 子 "Our lord" as the subject of 不用.

15 For a similar view of how divination accounts could have been written at different times, see Qiu Xigui, "Shi 'e,'" 457. Qiu provides evidence that crack judgments and verifications in the divination records of other diviner and scribal groups appear to have been written at different times by different scribes.

is unless formal predictions anticipated them.[16] The verifications in the two divination accounts cited above reveal a working method. In the first divination account, the divination statement ends with the predicate verb *qin* 擒 "capture (with a net)." A formal prediction by the patron and head of house simply endorsed the diviner's utterance. As indicated by both the divination statement and the prediction, the verb 擒 could function transitively, but it could also function intransitively, as in the verification in the second example.

In the first example, the scribe did not repeat the verb 擒 in the verification and intended for the list of animals to be read as its object. In the second example, however, the scribe had no choice but to add it in the verification in front of the direct object "four deer." This is because even though the divination statement was on the topic of hunting, it was only concerned in this particular bout with where to hunt from. When animals functioned as objects in divinations about hunting, diviners commonly used transitive verbs like capture and encounter (*gou* 遘). The rule seems to have been this: if a diviner used the word 擒 or 遘 as a coda in divinations about hunting, then a scribe could economize by eliding it in a verification which recorded how many animals were captured or encountered. Conversely, if a diviner did not use these two words as a coda, then the scribe had no choice but to write it into the verification in order for the record to be grammatically correct and linguistically coherent.

A prime example of a divination statement that had 遘 as a coda and then elided it in the verification is the following:

乙未卜：子其田从 ▟ 求豕，菁（遘）。用。不豕。_一二三   HYZ 50.3 (Figure 28)

Divined on Yiwei: If our lord hunts from Wei searching for pigs, [he] will make an encounter. Used. **Did not pigs.**"[123]

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16 An example would be a divination account like HJ 6057f (Wu Ding period; Bin diviner group): Crack making on *guisi* (day 30), Que divined: (*Charge*:) "In the (next) ten days there will be no disasters." (*Prognostication:*) The king read the cracks and said: "There will be calamities: there may be (someone) bringing alarming news." (*Verification:*) When it came to the fifth day, *dingyou* (day 34), there really was (someone) bringing alarming news from the west. Zhi Guo reported and said: The Tufang have attacked in our eastern borders and have seized two settlements. The Gongfang likewise invaded the fields of our western borders." (The translation is from Keightley, "Theology and the Writing of History," 208–9.) The king's prediction that "There may be (someone) bringing alarming news" was validated not only by stating someone had indeed brought alarming news but also by including a report of the person's name who brought the alarming news and a record of his direct speech. Keightley, ibid., 207, refers to this habit as a "commitment to the keeping of accurate historical records."
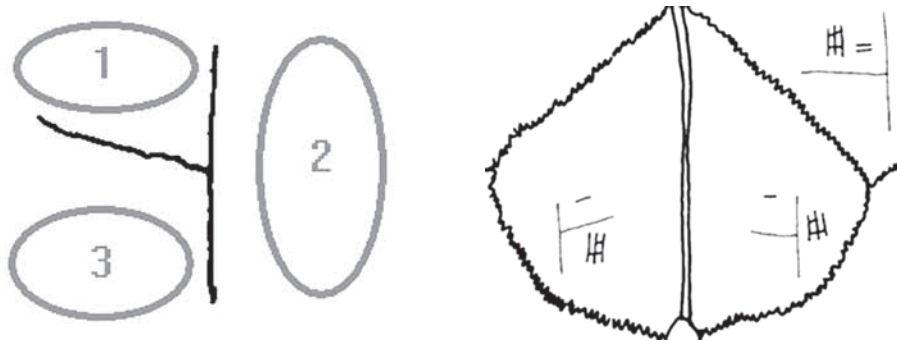
Figure 1: (left) The three organic sections of a crack; (right) the crack judgment *yong* 用 "Used (this) [crack]" on HYZ 15 as a model.

The verification, written with the stative negative *bu* 不 and the noun *shi* 豕 "pig," is missing a verb, and this, on the surface, causes the text to be linguistically incoherent. What the scribe did however was to elide the verb *gou* 遘 "encounter," since it was the coda of the divination statement. That the scribe understood to elide the verb demonstrates literacy in oracle bone recordkeeping. Hunting from a place called Wei and searching for pigs did not actually lead to encountering any. The scribe accurately recorded an incorrect judgment.[17]

As indicated by the statistics in footnote 1, reading a Huayuanzhuang East oracle bone is primarily a focus on how text was designed and arranged on turtle shell plastrons. The most notable feature of how this professional group of scribes wrote out content on turtle shell plastrons still in use by diviners was an emphasis on maintaining a strict proximity between an account and its corresponding crack(s). Innovative design layouts that manipulated the organic sectional spaces of a divination crack routinely utilized what I refer to as the crack's "image." As illustrated in Figure 1 (left), a crack consisted of a vertical crack and a transverse crack that branched out from it. The image of the crack can be divided into three organic sections, which I label (1), (2), and (3).

Figure 1 (right) illustrates how the judgment word 用 "Used," which I stated above was shorthand for 茲〔卜〕用 "Used this [crack]," was recorded in the three organic spaces created by the image of the divination crack. The three cracks on HYZ 15 (Figure 1) were likely part of a single divination series, and it is crucial to observe that the scribe intentionally utilized three different orientation styles to record the corresponding judgments. Doing so was an expression of his craft. It was a demonstration of the scribe's

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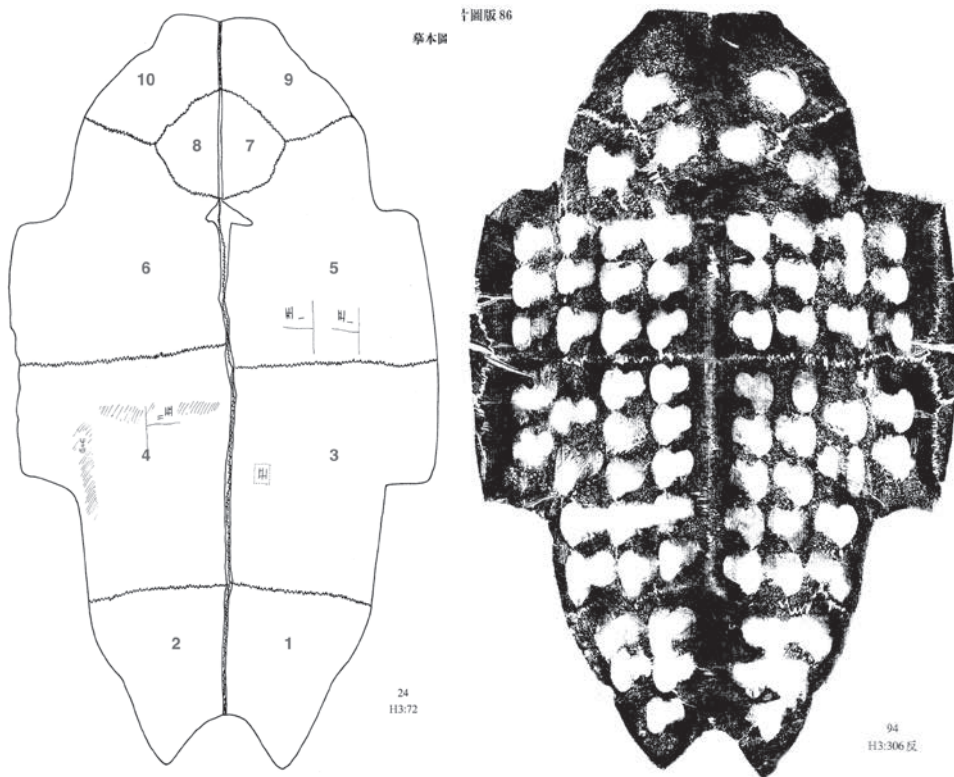17 Keightley, "Theology and the Writing of History," 207–27.

Figure 2: (left) Ten "organic" spaces for writing on a turtle shell plastron partitioned by natural boundary lines (scutes and hems) and framed by borders. Numbered cracks with crack judgments "Used" on HYZ 24; (right) hollow density on a plastron verso (HYZ 94).

proficiency in oracle bone recordkeeping.

The technical terms 用 and 不用 could not have been statements about whether or not the divination was actually carried out. For if they were, then how could 用 have been a response or verification to a divination statement that scribes did not even bother to record? On HYZ 15, and on others like it such as HYZ 24 in Figure 2, it is quite straightforward to see that the word 用 was recorded after the crack appeared in the shell and as a judgment about it.

Different hollow densities on a shell's verso side affected how much space there was to write on a shell's recto side (Figure 2, right). Scribes displayed a range of innovative design styles in order to manage challenging scenarios as it concerned the length of a divination account and how graphic content could be set out. This consideration was based mainly on the location of a crack and crack density. (I use the term crack density in reference to how many cracks were made in the same area of the shell.) At the same time, and as I will show later in this study, scribes also needed to account and plan for how to coordinate between burned hollows and cracks with their corresponding

accounts and hollows yet to be burned with their future cracks and corresponding accounts. Scribes either had to know in advance or guess where a diviner was going to move on the shell medium. (Again, this is assuming that scribes and diviners were two different people. If they were the same person then this consideration of course would not have applied.)

While other Shang diviners had a tendency to burn hollows starting on the right side and at the bottom of a turtle plastron and work up from inside hollows to outside hollows,[18] this was just one of several methods applied by Huayuanzhuang East diviners. They also had a tendency to start on the left side of a plastron, work down from the top, and to move from outside hollows to inside hollows. Charting divination sequences on single pieces and over multiple pieces in sets suggests that these diviners also selected hollows to be cracked at random.

Huayuanzhuang East scribes appear to have been more concerned with "crack design" (*zhaowen sheji* 兆璺設計), which is a term that I use in reference to the layout and style of how inscriptions correspond to single cracks and multiple-crack sets on a single shell or bone, than about "page design" (*banmian sheji* 版面設計), which is a term that I use in reference to the layout and style of how divination accounts appear together on intact shells and bones. While complete shells carrying inscriptions may not be as visually beautiful as some of the aesthetically designed "display inscriptions" from the contemporary Bin 賓 diviner group scribes who served king Wu Ding,[19] the Huayuanzhuang East scribes ought to be credited as experts in the "micro-layout" and "micro-display" of inscriptional content designed expressly to record divination accounts corresponding to single cracks and crack sets.

As a general rule, Huayuanzhuang East scribes show a tendency to start a divination account above the transverse crack, which always faced the central dividing line of the shell, and to write moving towards the vertical crack. Inscriptions corresponding to cracks in the innermost row of a shell were usually no longer than six to eight graphs and the entire divination account

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18 Lee Tat-leung 李達良 , *Guiban wenli yanjiu* 龜版文例研究 (Hong Kong: Xianggang zhongwendaxue Lianhe shuyuan Zhongwenxi, 1972; rpt. in *Jiagu wenxian jicheng*, 17:219–69) wrote a monograph with a focus on the placement and sequence of divination accounts on single turtle plastrons. Working from the *Bingbian* 丙編 corpus he selected 30+ examples and classified 11 different layout orientations. Sakikawa Takashi's *Binzu jiaguwen fenlei yanjiu* has presented a systematic overview of design layouts of the Bin 賓 diviner group scribes. See too Chou Hung-hsiang 周鴻翔 , *Buci duizhen shuli* 卜辭對貞述例 (Hong Kong: Wanyou tushu gongsi, 1969), 12–36.

19 Schwartz, *The Oracle Bone Inscriptions from Huayuanzhuang East*, 39–41.
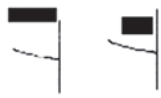
Figure 3   Figure 4   Figure 5

was arranged in crack section (1) (Figure 3). Three layouts were designed for longer inscriptions of more than six to eight graphs. The first layout started in the same direction as short, simple inscriptions, but was set slightly higher, and upon reaching the backside of the vertical crack the inscription moved downward (Figure 4, left). Inscriptions like these were arranged in crack sections (1) and (2), and I refer to its layout as a "r" orientation. The second layout was an extension of an "r" orientation. Reaching the lower tip of the vertical crack, the inscription continued to wrap around the crack and moved underneath the transverse crack (Figure 4, right). Inscriptions like these were arranged in crack sections (1), (2) and (3), and I refer to its layout as a "c" orientation. A third layout wrote the divination account behind the vertical crack in a column-set orientation (Figure 5).

Huayuanzhuang East scribes used five main strategies for writing out divination accounts around single cracks and integral sets of cracks.

1a) **Symmetrical and parallel orientations.** This refers both to content wrapping around a single crack and multiple cracks in a set that were arranged to face each other and start and finish on the same vertical axis, as well as to column-set orientations of equal length.

1b) **Numerically balanced orientations.** This refers to arranging content in rows and columns in an equal number or gradually reduced number of graphs (including ligatures). For instance, in a divination account of eight graphs, four graphs were written in crack section 1 and four graphs were written in crack section 2; in a divination account of fifteen graphs, five graphs were written in each of the three crack sections.

2) **Form-induced orientation.** This means that a scribe wrote each formal component of a divination record—the preface, divination statement, judgment/prognostication, and verification, in a different organic section of a divination crack. The natural sections of a divination crack served to partition a complete divination account into readable units.

3) **Grammar-induced orientation.** This means that a divination account

was arranged based on lexical units parsed grammatically. If not partitioned by organic crack sections, then scribes used subtle angles to make the account more easily decipherable.

4) **Free orientation.** This means that the layout of the divination account in correspondence to a single crack appears to have been basically unconcerned with its organic sections. Word clusters and chains of discourse appear to have been written without concern for breaks, and there is an overall awkwardness and lack of control in the handling of design layouts that other scribes in the group demonstrated with fluency and competency. Comparing this type of design layout, or actually the lack thereof, with the other three reveals the presence of a different hand.

II. An overview of the most frequently occurring spatial layouts of divination content

There is a difference between the location of a divination crack and the order by which divinations were made, and content-based crack and document design layout. The former belongs to the technique and mechanics of the diviner, while the latter belongs to the craft of the scribe.[20] Resting on the assumption that scribes and diviners were not only two coordinate groups, but also that scribes had no real control over the hollow-crack selection employed by diviners, at a minimum, scribes can be said to have been following the "footprints" of a diviner's hollow selection and bone cracking. The scribes were responsible for creating, in response to these cracks, stylized design layouts under the space constraints available to them. Yet the system of Huayuanzhuang East recordkeeping was not so simple. A deeper, more complex level of this scribal group's proficiency lies in orientation styles that indicate an understanding of aesthetics, and more importantly, a literacy with an awareness and knowledge of dialogue, syntax, and grammar. In addition to demonstrating expertise and innovation in how to write words, these oracle bone scribes were fluent or gaining fluency in *how to write* the Huayuanzhuang

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20 Lee Tat-leung, in *Guiban wenli yanjiu*, for instance, does not make this distinction. While his diagrams of "page designs" are useful for charting various modes of layout, what he really was doing was charting the sequence by which diviners selected hollows to burn. See too David N. Keightley, *Sources of Shang History: The Oracle-bone Inscriptions of Bronze Age China* (Berkeley, Calif.: University of California Press, 1978), 24–25.
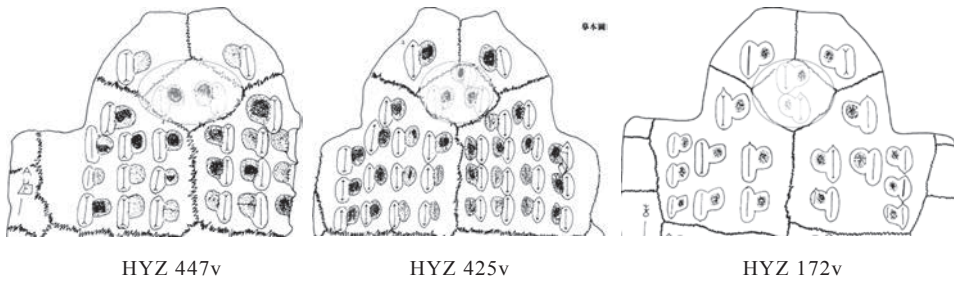
| HYZ 447v | HYZ 425v | HYZ 172v |

Figure 6: Three of the more frequently occurring hollow configurations in the entoplastron.

East way. A working hypothesis is that an elder scribe or elder scribes among the group was/were responsible for creating or transmitting the style and teaching it.

Oracle bone recordkeeping made directly onto the medium used for divination is of course vastly different and far more complex than writing on detached stationery. As far as orientation issues are concerned, one of the more important scribal competencies appears to have been to reconcile how spatial layouts would correspond to cracking on single pieces and consecutively over multiple pieces.

A good example is cracking and writing inside of the entoplastron (*zhongjia* 中甲) section of the shell, for which in the Huayuanzhuang East corpus there is a total of nine kinds of hollow configurations (Figure 6).[21]

This organic section of a turtle shell plastron affords the least amount of space for writing, and orientations used to write in this area of the shell differed from orientations used to write in other areas of the shell. The main difference between cracks made in the entoplastron and cracks made in other parts of the shell is that they could cross the central dividing line. This seems to have not been an ideal situation for the Huayuanzhuang East scribes, since there was a clear preference to not write an account started on one side of the shell and allow it to cross over this line onto the other side of the shell. However, since the group as a whole also rigorously maintained a principle of keeping cracks and their corresponding inscriptions together, the rule seems to have been if the transverse line of the divination crack crossed the central dividing line then its corresponding inscription usually did as well (Figure 7).

Generally speaking, spatial layouts for single cracks and crack sets on the same side of a shell can be summarized as:

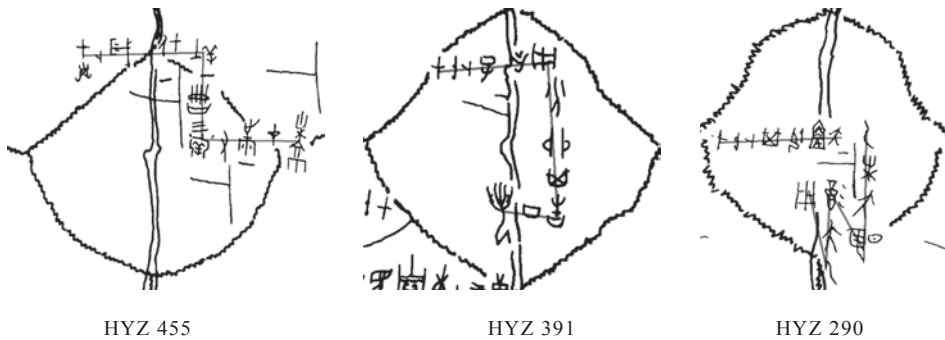21 Sun Yabing, *Yinxu Huayuanzhuang dongdi jiagu wenli yanjiu*, 71–76.

Figure 7: Examples of cracking and writing in the entoplastron.

Figure 8: (left and middle) Inscriptions on the same plastron arranged to follow along a transverse crack and away from a vertical crack; (right) an inscription written to go against a transverse crack and towards a vertical crack.

1) For short inscriptions, and usually corresponding either to a crack in the innermost column (the column closest to the central dividing line) or one in the outermost column near the edges, scribes had a tendency to write content in a single horizontal line that either went against the transverse crack (*nizhao* 逆兆) or followed along it (*shunzhao* 順兆). As illustrated in the three examples in Figure 8, inscriptions were most commonly arranged between an organic boundary line and the tip of the vertical crack.

2) The most common design was a "c" orientation. This design layout wrapped around all three organic sections of a crack. As illustrated in Figure 9, it was usually set out in an orientation that went against the direction of the transverse crack, and the first and last graphs were designed to start and finish in parallel alignment. What I termed an "r" orientation earlier is simply an inscription not long enough to make a "c" orientation and one that ended in crack section 2.

3) For inscriptions that corresponded to cracks made in an outside row of hollows in the hypoplastron and hyoplastron, there was a tendency to write in
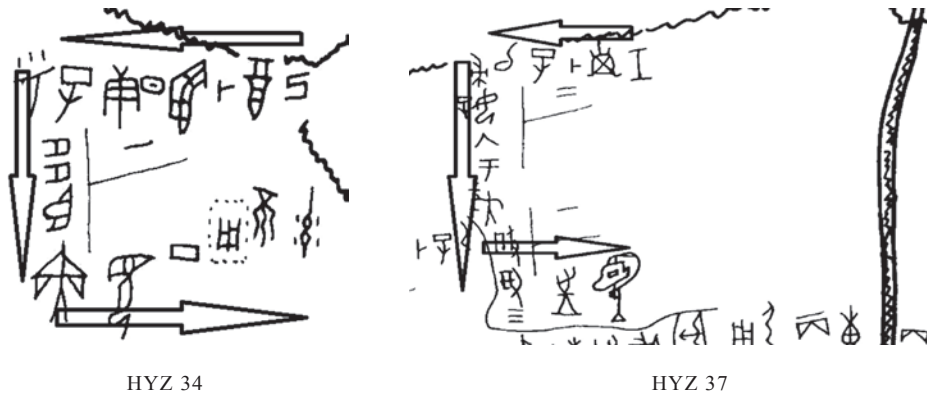
HYZ 34   HYZ 37

Figure 9: Symmetrical "c" orientations.
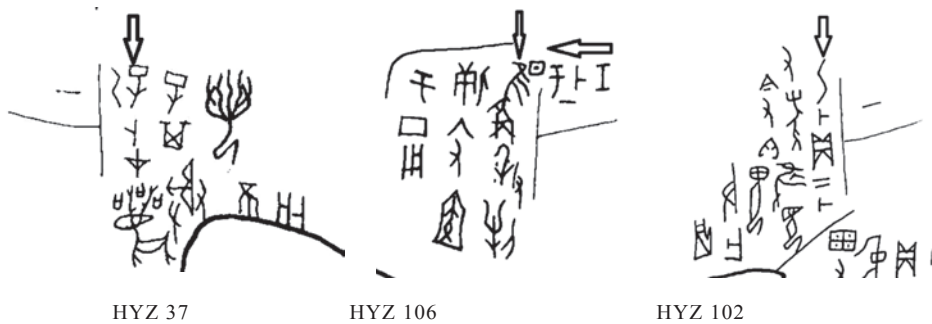

HYZ 37   HYZ 106   HYZ 102

Figure 10: Column-set orientation.

a column-set orientation behind the vertical crack (*beizhao* 背兆). The three examples in Figure 10 above illustrate this type of design layout.

III. The three basic orientations: Against the transverse crack, following along the transverse crack, and column-set behind the vertical crack

Since most divination accounts in the Huayuanzhuang East oracle bone inscriptions were written to correspond to a specific crack or set of cracks, scribes created stylistic innovations to manage various types of crack configurations. The three main modes of divinatory cracking were: single cracks, two cracks in a corresponding pair (this usually means a crack on the right side of the shell and a crack at the same place on the left side), and multiple-crack sets. As I just mentioned above, inscriptions were written in three basic directions. Modification from these basic orientations into hybrid

Figure 11: A divination account (HYZ 3) arranged in a horizontal orientation directly above its corresponding crack on the right side of a turtle plastron.

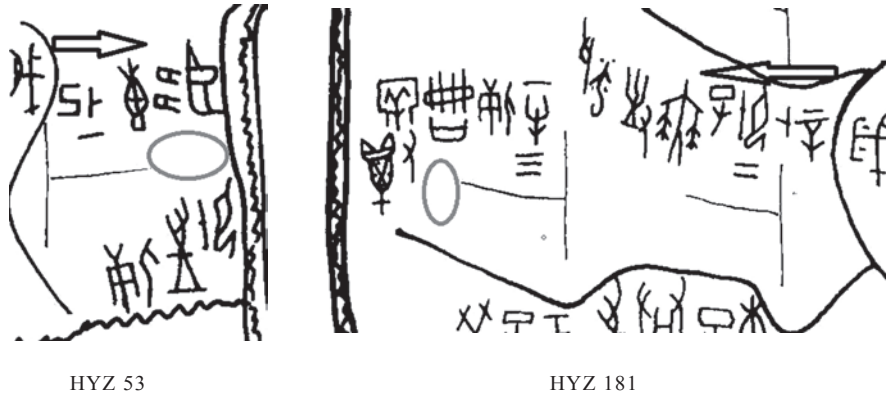HYZ 53   HYZ 181

Figure 12: Layouts running down the side where the transverse crack ended.

and more specialized styles were utilized and will be illustrated later.

The most common orientation for divination content was to write moving against the direction of the transverse crack (Figure 9) and towards the vertical crack. Where the inscription went once it encountered the vertical crack had to do with the length of the remaining content and the location of the crack on the bone. As another general rule, short inscriptions were written in a single line of text without breaks, while longer inscriptions wrapped around multiple organic sections of the crack.

Arranging a divination account in an orientation that followed along the direction of the transverse crack and moving away from the vertical crack was the opposite of the style just mentioned. This design layout was not used often but when it was the majority of the instances were short inscriptions written to correspond with divination cracks made in an inside column of a shell (Figure 11). It is significant to note that scribes appear to have not wanted longer inscriptions to run downwards along the side where the transverse crack ended. This might have been a mere stylistic concern, but my sense is that it had a deeper significance. In cases where divination content was arranged in this direction, scribes either left a gap in front of the transverse crack or wrote words at a distance away from it (Figure 12).

Arranging a divination count in a column-set orientation directly behind

the vertical crack was often utilized to manage inscriptions that corresponded to cracks in outer columns of the shell. In terms of visual design, there seems to have been a tendency to make use of the outside of the vertical crack as a guiding line. When multiple columns of text were needed, scribes liked to display content proportionally and in neatly balanced formats. Column-set inscriptions show a tendency to start a divination account exactly at the upper tip of the vertical crack and to arrange the length of the initial column of text to match the length of the vertical crack.

A. The effect of crack location and crack density on orientation

The location of a crack on a shell and how many cracks were made in the same area of a shell influenced and sometimes dictated which orientation style was applied. The organic contours and boundaries of a shell presented scribes with different sizes of spaces to write. Scribes appear to have considered the proximity of cracks with inscriptions in relation to how future inscriptions from still unused hollows would be managed. How the location of divination cracks dictated styles of orientation has already been discussed above with regard to inscriptions arranged in the entoplastron (Figure 6).

In general, and as mentioned earlier, short inscriptions (approximately 8 graphs or less), that corresponded to cracks in an innermost column of a shell, had a tendency to be written in one horizontal line of text that did not surpass the vertical crack (as a boundary). The reason for this practice seems to have been to avoid confusion with cracks and their associated inscriptions in the middle columns on the same side of a shell. On the other hand, lengthier inscriptions that corresponded to cracks in the outermost columns often made use of the extra space afforded by the bridges of the shell (*jiaqiao* 甲橋). Inscriptions written out in this part of the shell could flair out, especially when there were other cracks and inscriptions directly below it, for instance in the upper register in Figure 13 below.

Figure 13: Utilizing the bridge of a shell to avoid confusion (HYZ 286).

Figure 14: (left) An angled orientation written to correspond to a crack in the upper left hand corner of the hyoplastron on the left side of a shell (HYZ 3); (right) a slanted crack notation, 亖 "four," in the upper right hand corner of the hyoplastron on the right side of a shell (HYZ 182).

Inscriptions and sometimes even crack notations arranged in the outer areas of the shell were often written at an angle or curved (Figure 14). Angular and curved inscriptions were designed to mimic the shell's organic lines and its properties.

B. Turtle carapaces and cattle scapulae

The 529 inscribed oracle bones in Pit H3 contained 13 inscribed turtle carapaces and just 5 inscribed cattle scapulae. Statistics on the internal distribution of divination materials to diviners at Anyang is relatively undetermined, but several related questions would be: Why the Huayuanzhuang East diviners decided to even use turtle carapaces and cattle scapulae at all when it is evident that they had enough plastrons to do their work? Does the use of these two alternative mediums suggest the identity of multiple diviners? Did certain divination topics dictate which medium would be used? The limited dataset of burned and inscribed carapaces and scapulae among the inscribed material found in Pit H3 makes it somewhat easier to analyze how scribes recorded divination accounts on them.

Unlike turtle plastrons and cattle scapula that were usually kept intact, turtle carapaces used for divination were cut down the middle and split into two halves.[22] A unique feature of cracking and writing on a half carapace is that the medium as a stationery was naturally gridded and had more compartments than a turtle plastron did (Figure 15).

As I illustrated earlier, a turtle plastron without bridges contained ten organic sections. The half carapaces illustrated in Figure 15 (left, middle),
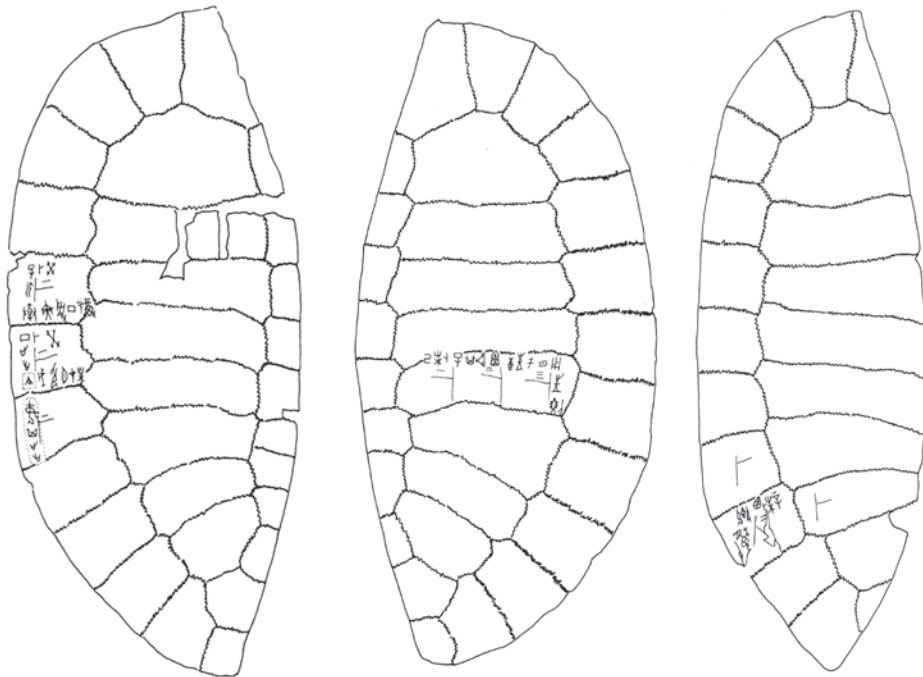
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22 Keightley, *Sources of Shang History*, 13–14.

Figure 15: (left and middle) Nearly intact left (HYZ 262) and intact right half carapaces (HYZ 297); (right) a slim left half carapace without an inside column of compartments (HYZ 332; 21 compartments in total).

each contain 30 organic sections. The compartments in the column closest to where the carapace was cut (11 compartments in total including two shared compartments) is the smallest and more or less uniform in size. The middle column contains the most space for cracking and writing (8 compartments in total). From the top of the shell to its bottom, the size of these compartments gradually gets smaller. The outer compartments have a natural curve (13 compartments in total including two shared compartments). Aside from the first and last compartment, which are shared, outer compartments are also relatively even in size and bigger than compartments in the inside column.

Simply judging from the size of these compartments, one can see that the inside compartments were more suited to make single cracks; the middle compartments for making multiple cracks—usually three—in a horizontal orientation (as in the three-crack set illustrated in Figure 17); and like the ones in Figure 15, each outside compartment, although there might have been multiple hollows bored into the verso side, were also usually cracked just once.

Below, I summarize the orientations most commonly used to write out divination accounts on half carapaces and cattle scapulae.

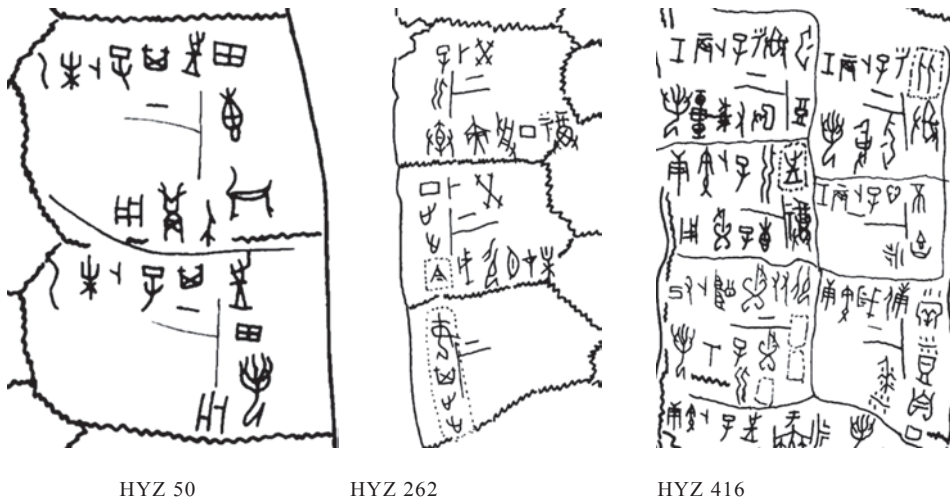As I just mentioned, single cracks were usually made in the innermost and

HYZ 50   HYZ 262   HYZ 416

Figure 16: (left) On the right half of a carapace, two divinations accounts dated the same day on the topic of hunting with a line drawn to separate them; (middle) on the left half of a carapace, three divination accounts all made on the same day and concerning the king Wu Ding without any partition lines; (right) on the right side of a plastron, six divination accounts spanning four days of the same week arranged in a grid style.

outermost compartments of a half carapace and, if long enough (Figure 16),[23] their corresponding accounts were arranged moving against the transverse crack and towards the vertical crack (Figure 16, left and middle). The boundary lines of these compartments formed natural grids and writing on this type of grid "stationery" might have influenced how scribes designed similar layouts on plastrons. In Figure 16 (right), a scribe seems to have mimicked the grids of a carapace to recreate a similar block style design layout on a plastron in order to manage six divination accounts made over a four-day period. Presumably, additional building blocks could be formed moving up the plastron by

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23 Schwartz, *The Oracle Bone Inscriptions from Huayuanzhuang East*, 259, following the proposed order in the *Yinxu Huayuanzhuang dongdi jiagu*, put the lowest divination account on HYZ 262 first, the middle one, second, and the top one, third. This is incorrect. Yao Xuan's transcription, in *Yinxu Huayuanzhuang dongdi jiagu buci de chubu yanjiu*, 307, correctly reordered them as (1) middle, (2) lower, (3) upper. It is uncertain whether the top one, third in the order, was made first or last, but judging from the fact that the middle divination account included a date (day Gui 癸 10/10) and a subject (the king), the divination account directly under it in the next compartment down which has omitted the date and the subject should have been made after the one that was dated and with an expressed subject. This better accords with how diviners and scribes abbreviated content as a divination sequence progressed. Another way to note the sequence would be 1a/b and 2.

Figure 17: A divination account arranged for a set of three cracks in a middle compartment on the right half of a turtle carapace (HYZ 297).

connecting boundary lines in a dot-to-dot style as future divinations were made.

Divination cracking and writing in individual compartments on a carapace is visually quite easy to recognize and usually there was no cause for confusing the text of one account with the text of another account. However, and as illustrated in Figure 16 (left), there were instances where a scribe apparently felt the need to draw an additional dividing line between divination accounts in order to avoid confusion and to keep from having parts of separate accounts read as though they were one.

The naturally wide area of the middle section of a half carapace was an ideal space to make crack sets and interrelated sequences arranged horizontally. Figure 17 shows how a scribe arranged a divination account of fourteen graphs for a set of three cracks.

None of the five pieces of inscribed cattle scapulae found in Pit H3 are intact. A few preliminary comments can be made, however, on the most complete one, HYZ 115 (Figure 18). No inscriptions were written on the "fan" area (infraspinous fossa) of the bone. (The wide part of the bone is referred to by this name because the shape of a cattle scapula loosely resembles the shape of a traditional Chinese fan.) Not writing in this area accorded with the habits of the Huayuanzhuang scribes to keep a close correspondence between a crack and text.

The manner by which Huayuanzhuang East scribes wrote on scapulae differs from how royal scribes from contemporary groups arranged inscriptions on scapulae. Especially when recording divinations for the Shang kings about ancestor sacrifice, scribes who worked directly under the mandate of Wu Ding and his immediate successors had the tendency to write accounts away from their corresponding cracks and to display them in in the center of the bone in long columns of text.[24] The divination account in the third register from the

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24 Keightley, *Sources of Shang History*, 51.
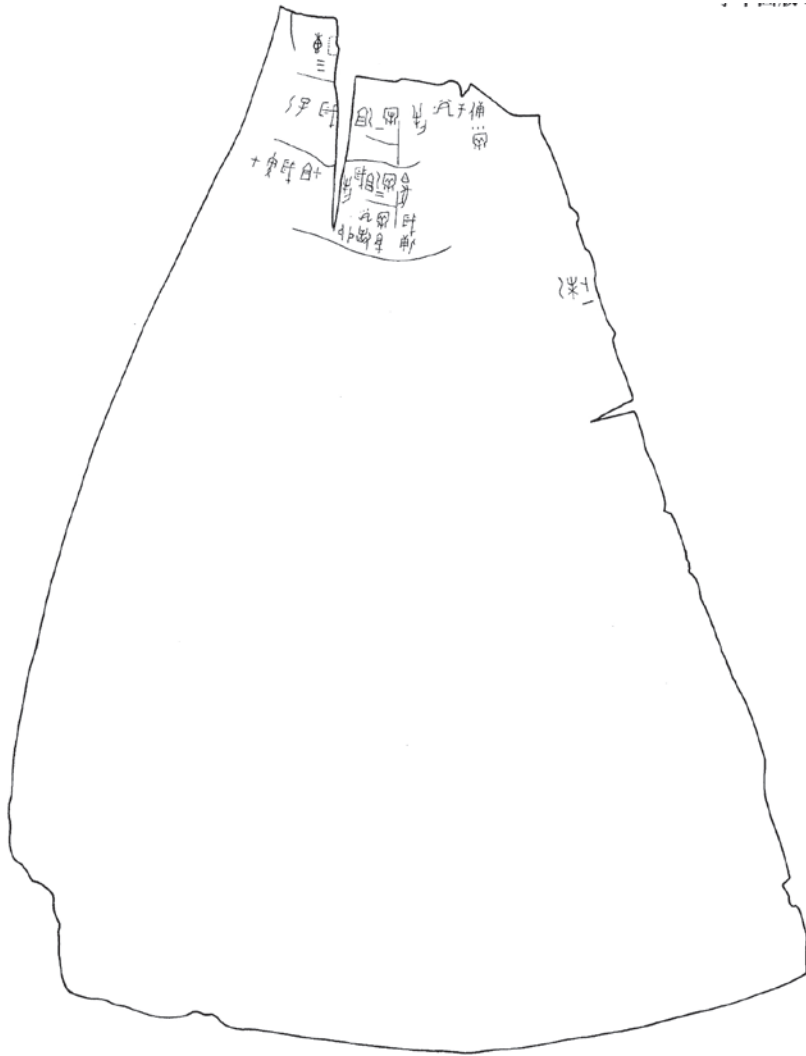
HYZ 115

Figure 18: Divination accounts on a cattle scapula

top on HYZ 115 is a rather lengthy divination about ancestor sacrifice. Albeit this one single example, keeping cracks together with their corresponding text together appears to have been more important than page design.

C. Orientation styles

1. Symmetrical and parallel orientations

a) Inscriptions for complementary pairs

Diviners during the reign of Wu Ding favored a form of divination in which they treated the topic at issue in complementary fashion. Rather than
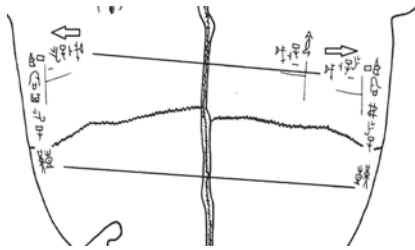
Figure 19: A complementary pair of divinations (HYZ 75).

HYZ 376   HYZ 125   HYZ 481

HYZ 21   HYZ 16   HYZ 289
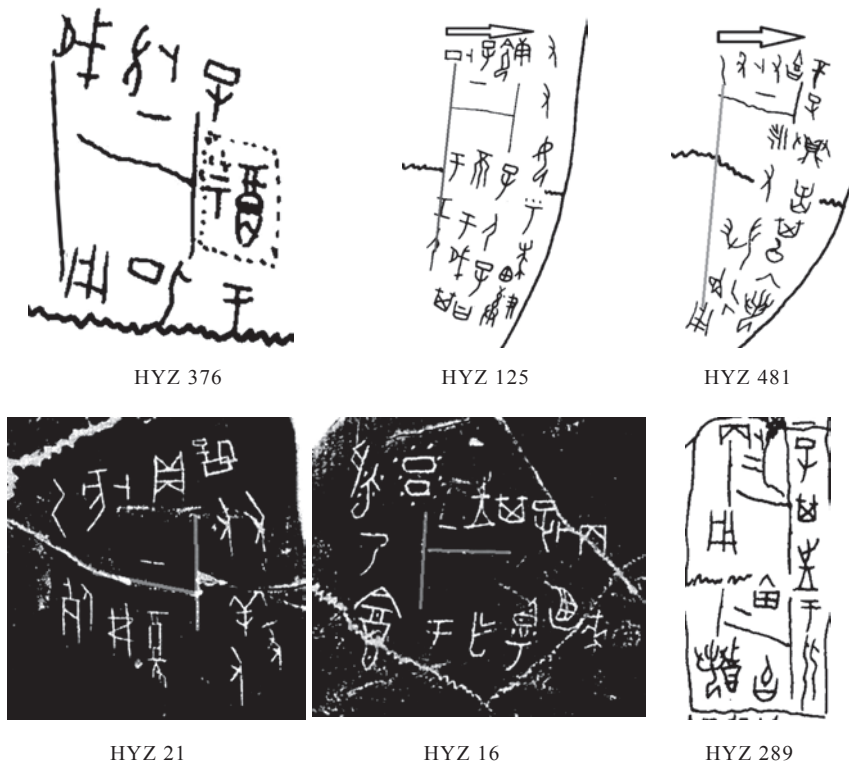
Figure 20: Start-finish symmetry

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proposing one outcome, they formulated a pair of statements, one positive and one negative.[25] These paired formulations of an issue were usually cracked and inscribed at the same place on the right and left sides of a turtle shell (Figure 19).

   b) Start-finish symmetry

   For inscriptions arranged to wrap around a crack, the most common layout was a symmetrical design that leveraged the image of the crack it was

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25 David N. Keightley, "The Shang: China's First Historical Dynasty," in *The Cambridge History of Ancient China: From the Origins of Civilization to 221 B.C.*, ed. Michael Loewe and Edward L. Shaughnessy (Cambridge: Cambridge University Press, 1999), 243.
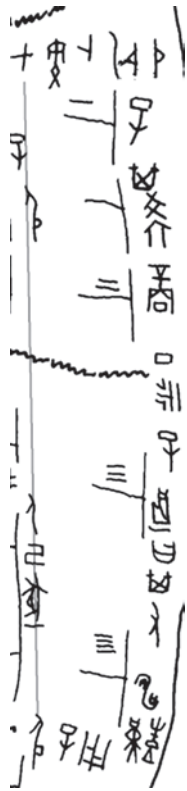
Figure 21: HYZ 336

writing around as a guide and had a start-finish on the same vertical axis. (Hereafter, I refer to this as a start-finish symmetry.) There appears to have been a conscious attempt in some cases to start and end precisely at the tip of the transverse crack, as in Figure 20. HYZ 481 (Figure 20) is an exceptional instance of a start-finish symmetry for an inscription that was arranged for a set of two divination cracks. The first word, *Bing* 丙 (day 3/10), the coda *ruo* 若 "favorable," and the crack judgment *yong* 用 "Used" were aligned on the same vertical axis and arranged on top, under, and in the middle of the two transverse cracks.

In order to achieve proportional and balanced designs, Huayuanzhuang East scribes often utilized graphic enlargement and spacing. As illustrated in Figure 20 (HYZ 376), this was achieved for a divination account in nine words by spacing out the words *guan yu bi Ding yong* 祼于妣丁用 "libate ale to Grandmother Ding. Used." The same strategy was utilized to write out inscriptions on other pieces. On both HYZ 21 and HYZ 16 (Figure 20) content arranged vertically (in crack section [2]) was enlarged and given additional space in order to maintain a start-finish symmetry.

The longest layout in this design occurs on HYZ 336 (Figure 21). The divination account, starting at the top left with the word *Jia* 甲 in the date Jiayin 甲寅 and ending at the bottom left with the word *bi* 髀 in the compound name 子髀 "lord Bi," runs down the entire right flank of a turtle plastron and wraps around a set of divination cracks arranged vertically.

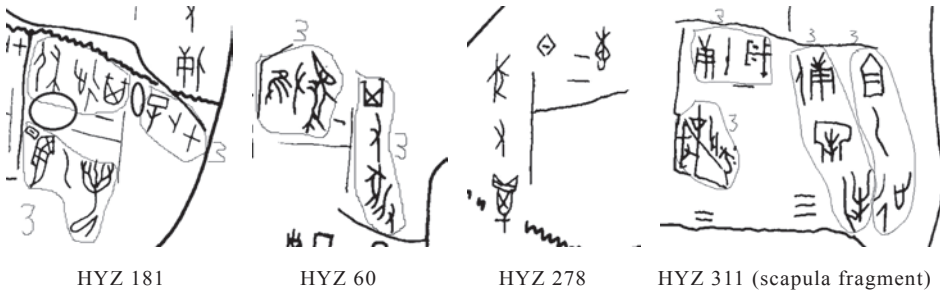c) Numerically balanced layouts for a single divination crack

As I said earlier, this refers to arranging content in rows and columns in an equal number or gradually reduced number of graphs (including ligatures). The divination crack functioned as a divider. The most common was a four-graph balanced layout, represented hereafter by the formula 4+4(+4), followed in turn by three-graph and five-graph arrangements. In certain cases, and especially with column-set arrangements, text that could not be evenly divided into proportional units were spatially modified in order to have the appearance that they were. Below are instances of numerically balanced layouts for a single divination crack. I have outlined and numbered units of text and added circles to show where scribes intentionally left gaps.

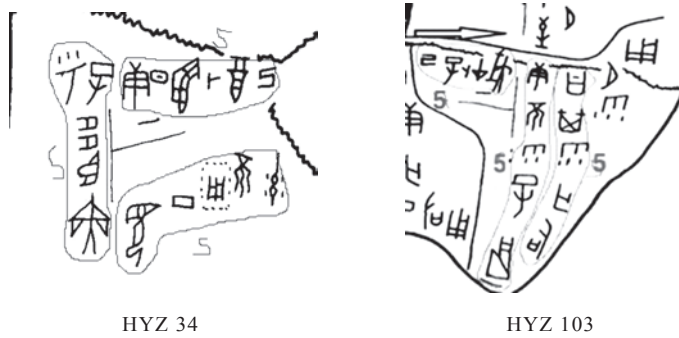(1) Examples of a numerically balanced 4-graph layout for a single

divination crack

HYZ 9   HYZ 4   HYZ 490   HYZ 103
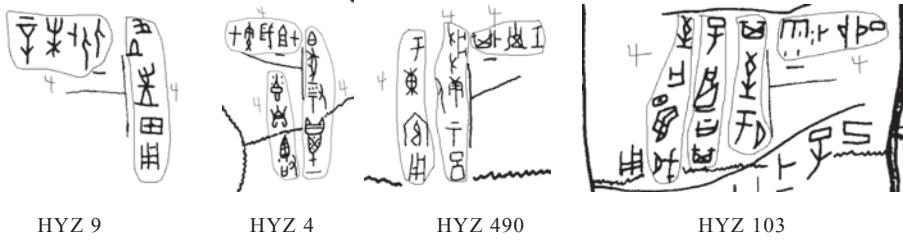
(2) Examples of numerically balanced 3-graph layouts for a single divination crack

HYZ 181   HYZ 60   HYZ 278   HYZ 311 (scapula fragment)

(3) Examples of numerically balanced 5-graph layout for a single divination crack

HYZ 34   HYZ 103

d) Numerically balanced layouts for multiple cracks in a divination set

This refers to arranging content in an equal number or gradually reduced number of graphs (including ligatures) for a set of divination cracks on the same side of a shell. In this case, multiple cracks functioned as dividers and guidelines. As illustrated in Figure 22 below, a divination account (HYZ 149.8) comprised of twelve graphs (with one ligature) and a divination account (HYZ 5.10) comprised of sixteen graphs (with one ligature, 王婦 "His Majesty's Lady") were each arranged for a horizontally orientated crack set in numerically balanced units of five graphs per organic crack section. The
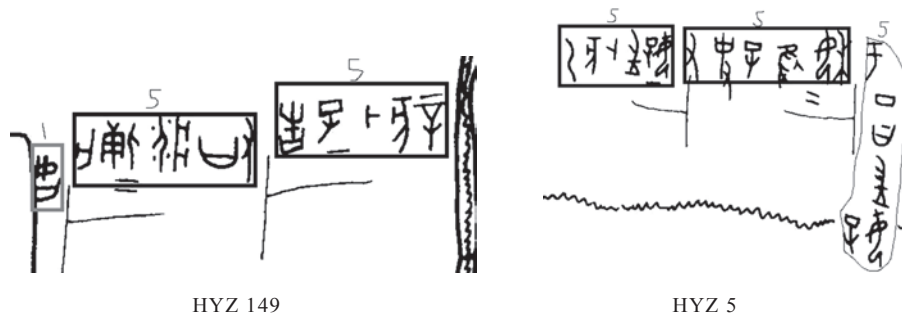
Figure 22: Numerically balanced 5-graph layouts for multiple cracks in a divination set.

Figure 23: Numerically balanced 4-graph layouts for multiple cracks in a divination set.

formula is 5+5+5 and 5+5+1.

The following two examples illustrate numerically balanced 4-graph layouts for multiple cracks in a horizontally orientated set.

The judgment *bu yong* 不用 "not used" occurs at the end of both divination accounts, but it was written out in different styles. On HYZ 29.3 (Figure 23), the two words were kept together and written as a lexical unit in order to maintain a numerically balanced layout. On HYZ 63.6 (Figure 23), however, the two words were separated, with *bu* 不 written in crack section (1) and *yong* 用 in crack section (2), also in order to maintain a numerically balanced layout.[26]

e) Numerically balanced layouts written in column-set behind a single divination crack

Royal oracle bone scribes at Anyang commonly used numerically balanced 4-graph column-set layouts to write divination accounts on the ridge of cattle scapulae and separated the accounts with a short horizontal

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26 Explaining HYZ 63.6 as being arranged in 4-graph layout reads *bai shi* 白豕 "white pig" (graphs 5–6) as a ligature, but *zu Jia* 祖甲 "Ancestor Jia" as two graphs. Ligatures formed from "days of the week," "color + object," "object + quantity," and "ancestor designation + temple name" were often manipulated to achieve numerically balanced layouts.
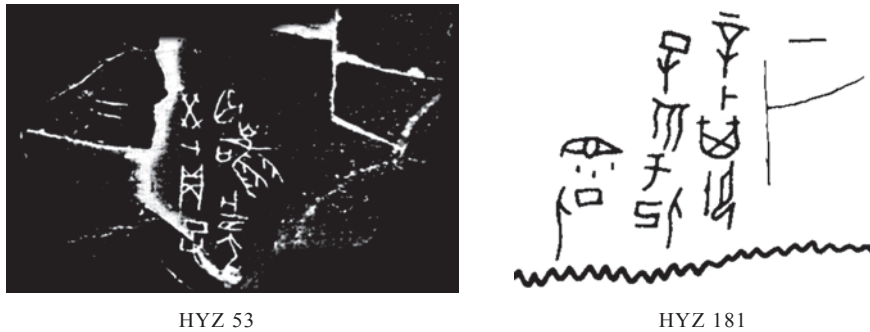
HYZ 53   HYZ 181

Figure 24: Numerically balanced 4-graph layout in column-set

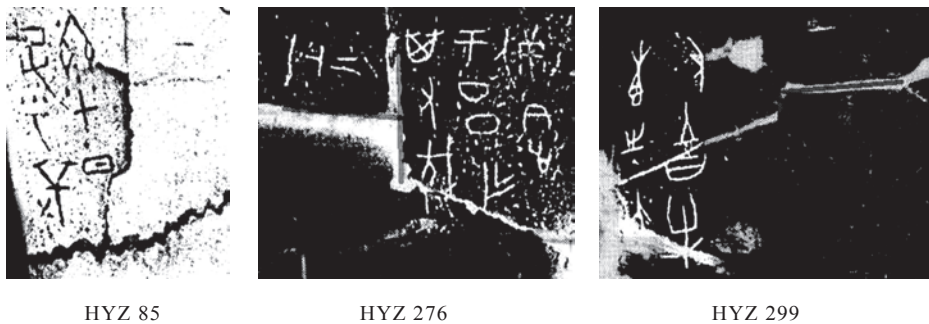HYZ 85   HYZ 276   HYZ 299

Figure 25: Numerically balanced 3-graph layout in column-set

boundary line. This same type of 4-graph column-set layout was also regularly used to write inscriptions on Shang and Western Zhou period ale vessels. Huayuanzhuang East scribes too favored a numerically balanced 4-graph layouts in column-set (Figure 24), but there were also 3-graph, 5-graph, and 2-graph (less common) layouts as well (see HYZ 468, HYZ 431, and HYZ 34).

HYZ 181.22 (Figure 24) is a twelve-graph inscription with two ligatures. The ligatures are *Bi Ji* 匕（妣）己 "Ancestress Ji," graphs 8–9 at the bottom of column 2, and *Bi Ding* 匕（妣）丁 "Ancestress Ding," graphs 11–12 at the bottom of column 3. The overall layout was designed to be numerically balanced, four graphs per column. Notice how the three graphs (with one ligature) in the column 3 were positioned to start halfway down the column in order for the divination account to have the appearance of being parallel, and to end at the organic boundary line just under it (the wavy line in the hand-copy). This type of modification occurs throughout the corpus.

Figure 25 provides several examples of numerically balanced 3-graph

Figure 26: (left) HYZ 449; (middle) HYZ 37; (right) the location of the hollow for which scribes wrote in divination accounts in a column-set design that gradually reduced the number of graphs per column by one.

layouts in column-set.[27]

Complex parallel layouts of more than two columns of text were sometimes composed by gradually reducing the number of graphs per column by one. If for instance there were five graphs in the first column, then the second column would have four graphs (−1), the third column would have three graphs (−1), and so on. The two examples in Figure 26 illustrate 5+4+3 and 4+3+2+1 arrangements. On HYZ 37, the scribe began the divination account by writing the date of the divination *Yisi* 乙巳 as a ligature in order to keep the preface together in one column of text and to achieve the intended layout design.

It seems significant to note here that only divination inscriptions corresponding to cracks made in an outermost column in the hypoplastron and nearest to the lower inside corner of the bridge (Figure 26, right, the hollow is outlined) ever utilized this numerically descending layout. I might also note that particular design clearly intended to accord with the organic contour of this unique space on a turtle plastron.

A more complex orientation style for longer inscriptions reduced the number of graphs per multiple columns by one. On HYZ 320.6 (Figure 27), a 19-graph divination account (with one ligature) in five columns of text was written out in three columns of four graph per column followed by two

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27 HYZ 276.3 in Figure 25 (middle) is actually a 2+3+3+2 layout. The text in crack section (1) recorded the date of the divination plus the word "divine." The number " 二 " above the transverse crack in crack section (1) was a crack number; it was written before the divination account. The divination statement, in nine graphs (with one ligature), was arranged in three columns; the first graphs at the top of each column were on the same horizontal axis as the text in crack section (1).
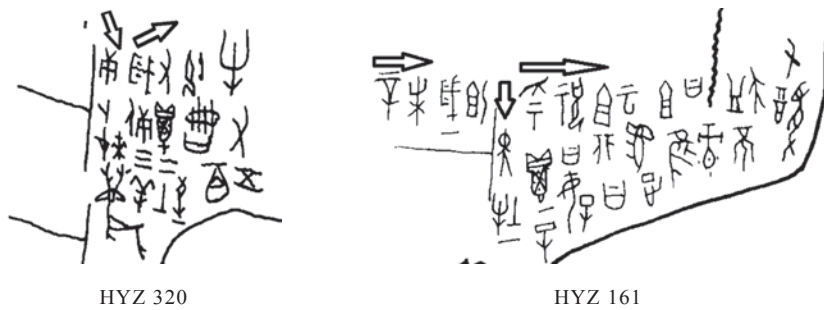
HYZ 320   HYZ 161

Figure 27: Layouts that reduced the number of graphs per multiple columns by one.

columns of three graphs per column (4+4+4+3+3).[28] In another example, on HYZ 161.1 (Figure 27), a 29-graph divination account (with three ligatures) was written out in one row (crack section [1]) and nine columns of text (crack section [2]). Columns 2–5 have three-graphs per column,[29] and the four columns that followed it, columns 6–9, have two-graphs per column (3+3+3+3+2+2+2+2).

f) Using the upper tip of the vertical crack as a balance

This type of design style is remarkable for its innovation. Scribes cleverly used the upper tip of a vertical crack as balance to maintain an equal number of graphs in each crack section.

In the example from HYZ 50.3 (Figure 28), a 14-graph inscription was arranged over four organic sections in a horizontally orientated set of three cracks. In order to keep a balance of three graphs per organic section, the scribe wrote graph four 子 and eight 圭 directly above the upper tip of cracks 1 and 2.

On HYZ 49.4 (Figure 29), for a 14-graph inscription (with four ligatures), a scribe sportively bisected the seventh graph *mao* 卯, a verb which means "to halve," so that it sat on both sides of the upper tip of the second vertical crack and achieved a numerically balanced 3+3+3 layout.

In a final example from HYZ 240 (Figure 30), a scribe ingeniously arranged text for two interrelated sets of cracks by placing the verbs *sui* 歲

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28 If the offerings 三 "three rams" in column 2 and 鬯二 "two bowls of aromatic ale" in column 3 are read as ligatures then the layout is 4+3+3+3+3. Notice too how in column 1 the scribe wrote the graph *lai* 來, the sound element in the compound 麷, to the immediate right of *zai* 在 and used the body of the deer 鹿 under it to help frame the text at the bottom.

29 Column 2 actually has four graphs with one ligature (鬯一 "one bowl of aromatic ale"), so it has the presentation of three graphs/words.
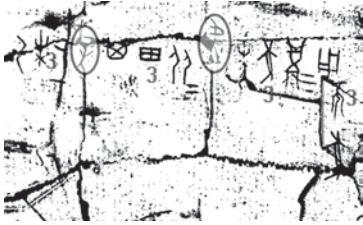
Figure 28: HYZ 50   Figure 29: HYZ 49   Figure 30: HYZ 240

"sacrifice" and *yi* 宜 "cut into viands" (circled in the Figure) in between cracks 1 and 2 in each series to achieve a numerically balanced 2+2 layout for both accounts.

2. Form-induced orientation

"Form-induced" orientation refers to the design and layout of a divination account with a consideration of its formal units—preface/postface, divination statement, formal prediction, crack judgment, and verification. Although occasionally both orientations could be achieved together, arranging and writing out a divination account by its formal units was usually given precedence over symmetrical and numerically balanced ones.

A simple mode of arranging a divination account by its formal units for a single divination crack was to use the vertical crack to partition the preface from the divination statement. Figure 31 (left) first shows this schematically and then with two marked-up examples.

In addition to partitioning the date of the divination (preface) from the divination statement, more complex orientations continued on to divide the

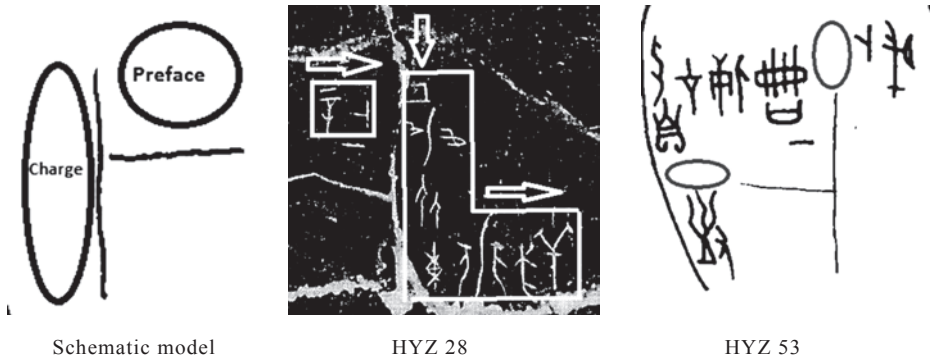Schematic model   HYZ 28   HYZ 53

Figure 31: Form-induced orientation in two sections of a single divination crack.
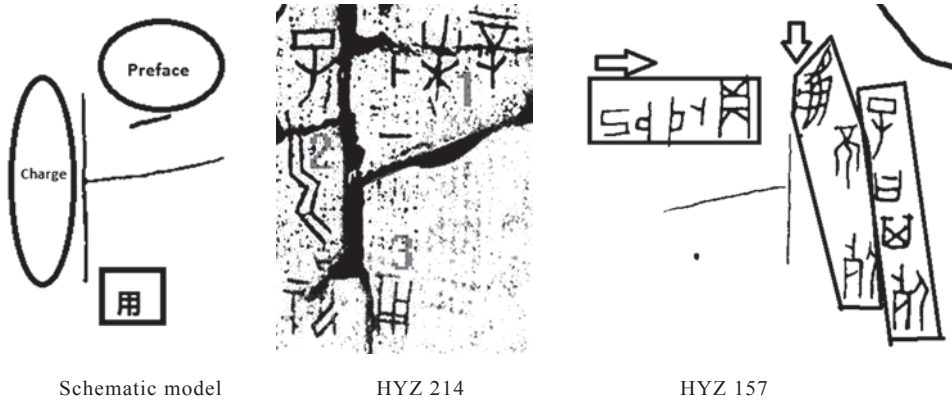
Figure 32: Form-induced orientation in three sections of a single divination crack.

other formal units (prediction/crack judgment) that followed. Figure 32 (left) again first shows this schematically, now by adding a judgment in crack section (3), and then with two marked-up examples.

In the divination account on HYZ 214.2 (Figure 32), a scribe wrote the preface 辛未卜 "Divined on Xinwei" in crack section (1), the divination statement 子弜（勿）祝 "Our lord should not pray" in crack section (2), and the crack judgment 用 "Used" in crack section (3).

In the divination account on HYZ 157.7 (Figure 32), a scribe wrote the preface 己卯卜貞 "Divined on Jimao, testing" in crack section (1), the divination statement 鼄不死 "Qiu is not going to die" in column 1, and the formal prediction 子曰其死 "Our lord said 'Likely dies'" in column 2.

Text written behind a divination crack in column-set was also arranged like this. Figure 33 once again shows this schematically, and then with one marked-up example.
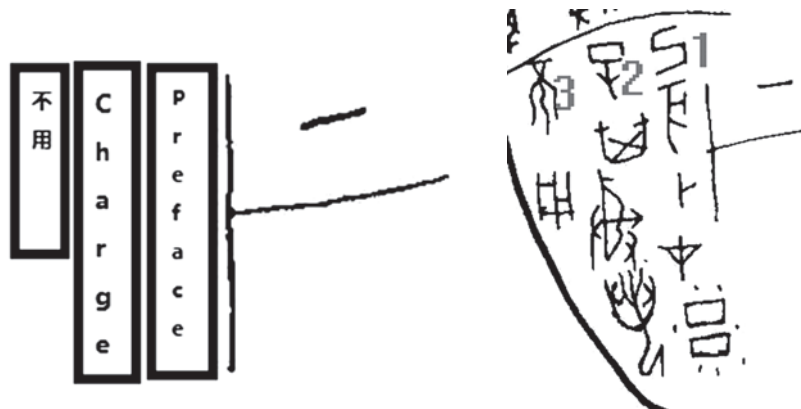

Figure 33: (left) A schematic model showing a form-based column-set orientation; (right) HYZ 37, with numbers indicating different formal units of a divination account.

In the divination account on HYZ 37.10 (Figure 33), a scribe wrote the preface 己亥卜在雝 "Divined on Jihai, at Yong" in column 1, the divination statement 子其射若 "If our lord shoots with bow and arrow, it will be favorable" in the column 2, and the crack judgment 不用 "Not used" in column 3. The text was designed to fit neatly in the space in between the back of the vertical crack and the edge of the shell. A boundary line was added above it to separate it from another record.

3. Grammar-induced orientation

"Grammar-induced" orientation refers to writing out divination statements and formal prognostications by dividing sentences into grammatical parts. In the absence of punctuation marks in Shang oracle bone inscriptions, parsing sentences this way could have intended to mimic how an utterance was originally delivered, or perhaps, it was designed to express how the scribe understood what he was writing. The result, whether intentional or not, indicates *how to read* these sentences. "Grammar-induced" orientations can help a reader identify the parts of a sentence and their relations to each other. The potential impact of a thesis like this of course is arguing in favor of scribal literacy. It proposes that these scribes were not only literate, but that at least one of them was also proficient in rhetorical grammar.

Regardless of whether or not one accepts that scribes wrote oracle bone inscriptions to be read and consulted, the very act of arranging a divination account by its formal units and parsing some of it by grammatical parts conveys *how the scribe understood* what he wrote. The intention and skill were there.

a) Grammar-induced orientation for inscriptions corresponding to a single crack

Example (1): HYZ 409.18 (Figure 34)
丁卜：子令。囚（思）心。⸗
Divined on Ding: Our lord will issue a command. Would that hearts [be in agreement].[30]1

Figure 34: HYZ 409

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30 The sense being that the recipients of the prince's command would be willing and compliant.

This 6-graph divination account was arranged in two columns behind the vertical crack of a single divination crack. A numerically balanced 3+3 layout appears to have been abandoned in favor of a grammatical one. The divination coda 由（思）心, which is the information that the diviner wanted an answer to, occurs in its own column and has been centered. Visually it is clear that this sentence, perhaps as a prayer, has been intentionally set off from the rest of the text.
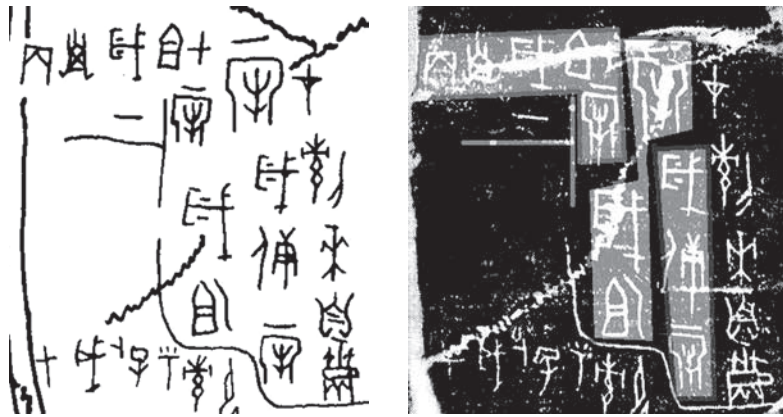

Figure 35: HYZ 480, facsimile (left) and rubbing (right).

Example (2): HYZ 480.6 (Figure 35)

丙子，歲且（祖）甲一牢，歲且（祖）乙一牢，歲匕（妣）庚一牢。才（在）割（葛），來自觴（唐）。﹍

On Bingzi, sacrifice [to] Ancestor Jia one head of pen-raised cattle, sacrifice [to] Ancestor Yi one head of pen-raised cattle, [and] sacrifice [to] Ancestress Geng one head of pen-raised cattle. At Ge. Returned from Tang. [1]

This complex divination statement started with a day of the week (2 graphs) followed by three parallel clauses. (The text in the last column was a postface.) Each of these three clauses was phrased in the exact same formula, "歲 (verb, "sacrifice") + indirect object (recipient) + direct object (sacrificial animal)." The scribe who wrote this divination account parsed them by leaving a gap in between the initial clause and the second clause and in between the second clause and the final clause. The second clause and the third clause were written out at slightly different angles in order to further differentiate them.
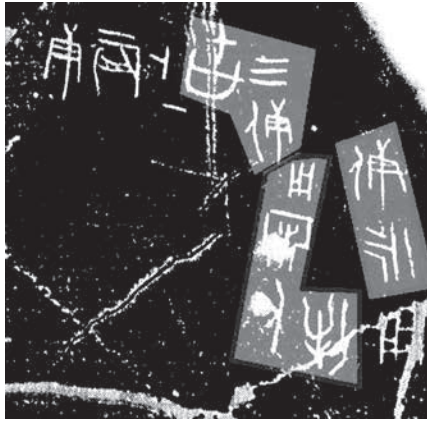
Figure 36: HYZ 226　　　　　　　　　　Figure 37: HYZ 6

Example (3): HYZ 226.11 (Figure 36)

庚辰卜：舌（刮）彡（肜）匕（妣）庚，用牢又牝。匕（妣）庚衍
（侃）。用。 ̣

Divined on Gengshen: Carving [sacrificial offerings for the] *Rong*-rite [to]
Ancestress Geng, use pen-raised cattle in addition to cows; Ancestress
Geng will be happy. Used. ₁

The divination statement consists of two sentences, one complex and
one simple. The main clause of the first sentence, which started with the
word 用 "use," was written at a different angle than the initial clause, which
ended with the ligature 妣庚 "Ancestress Geng," in order to indicate that it
was a separate grammatical part. The main clause, which ended with 又牝
"in addition to cows," was kept together because it was understood to be a
grammatical unit, even though writing out as such produced an imbalanced
and awkward orientation. The divination coda, 妣庚衍（侃）"Ancestress
Geng will be happy," which was the information that the diviner wanted
an answer to, was arranged in a separate column also in order to indicate
that it was a grammatical unit. Furthermore, the coda was set at a different
angle than the sentence preceding it in order to prevent confusion and avoid
misunderstanding.

Example (4): HYZ 6.1 (Figure 37)

甲辰夕，歲且（祖）乙黑牡一，叀（惠）子祝，若，且（祖）乙衍
（侃）。用。翌日舌（刮）。 ̣

On the evening of Jiachen, when sacrificing [to] Ancestor Yi one black bull, it should be our lord who prays, [for it] will be favorable; Ancestor Yi will be happy. Used. Carved [one black bull] [for] the *Yi*-day rite. ₁

To recreate this divination account, the scribe used the divination crack's image to partition the main clause in the first sentence from the circumstantial clause that preceded it. The circumstantial clause was arranged over crack sections (1) and (2) in an "r" orientation and the graphs in crack section (2) were spaced out so that the text ended where the vertical crack ended. The main clause in the first sentence, which started with the word 叀（惠）"it should be," and the divination coda that followed, which started with the word 且（祖）"Ancestor," both of which contained information that the diviner wanted an answer to, were then arranged and written out in crack section (3). Like with HYZ 226 in Example (3) above, the coda 祖乙衍（侃）"Ancestor Yi will be happy" was kept together and placed in its own column. The divination account ended with a crack judgment and an event notation in a fourth column. The text started and ended on the same vertical axis.

b) Grammar-induced orientation for inscriptions corresponding to a multiple crack series

Grammar-induced orientation styles designed for a multiple crack set on the same side of a shell differs from styles designed for single divination cracks. For single divination cracks, scribes could only delineate textual units by utilizing three organic crack sections, relatively small amounts of spacing, and disjointed, non-linear angles. For a multiple crack series, both in horizontal and vertical orientations, scribes had more organic spaces at their disposal, but it also meant that text had to be designed and written out over larger areas of the shell.

Example (1): HYZ 32.2 (Figure 38)
庚卜，才（在）麓：叀（惠）五羏又鬯二用，至（致）钔（禦）匕（妣）庚。₁₂₃
Divined on Geng, at Lai: It should be five rams and two bowls of aromatic ale that are used, when delivering the exorcism rite [to] Ancestress Geng. ₁₂₃

One of the strategies utilized to display a complex divination account for a horizontally aligned multiple crack set, was to cover each crack with a grammatical unit. On HYZ 32.2 (Figure 38), a 15-graph divination account (with two ligatures: 鬯二 "two bowls of aromatic ale" and 妣庚 "Ancestress Geng") was arranged for a horizontally aligned three-crack set. The preface to
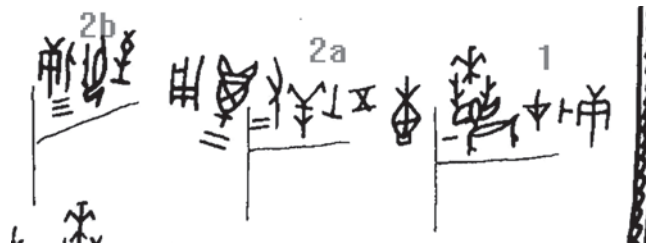
Figure 38: HYZ 32

the divination, 庚卜在麓 "Divined on Geng, at Lai," which included the date of the divination and the place it was performed, was written in crack section (1) of crack 1 (form-based orientation). The main clause of the divination statement, 叀（惠）五羒又鬯二用 "It should be five rams and two bowls of aromatic ale that are used," corresponded to crack section (1) of crack 2; and the post-positioned circumstantial clause, 至（致）御（禦）匕（妣）庚 "[when] delivering the exorcism rite [to] Ancestress Geng," corresponded to crack section (1) of crack 3. In writing out the divination account in this format, the scribe nestled the preface in between the central dividing line and the upper half of the first vertical crack in order to keep the textual unit together and to partition it from the beginning of the divination statement (starting with 叀). A space was left in between the last word of the initial clause, 用 "use" > "that are used," and the first word of the second clause, 至（致）"deliver."

Example (2): HYZ 209.1 (Figure 39)
庚申卜，歲匕（妣）庚牝一。子屍（髀）御（禦）坒（往）。一二三四五六
Divined on Gengshen: Sacrifice [to] Ancestress Geng one cow; lord Bi's exorcism rite will be directed [to Ancestress Geng].[123456]

This 12-graph divination account (with two ligatures) was arranged for a set of six vertically aligned cracks that extended to three different organic sections on the right side a shell. The first crack was made in the endoplastron and the scribe started the inscription by crossing over the central dividing line onto the left side of the shell precisely at the point where the transverse crack ended. The text covered cracks 1 through 4, and the two sentences that comprised the divination statement were clearly separated based on their grammatical parts. The first sentence, which started with the verb 歲 "sacrifice"
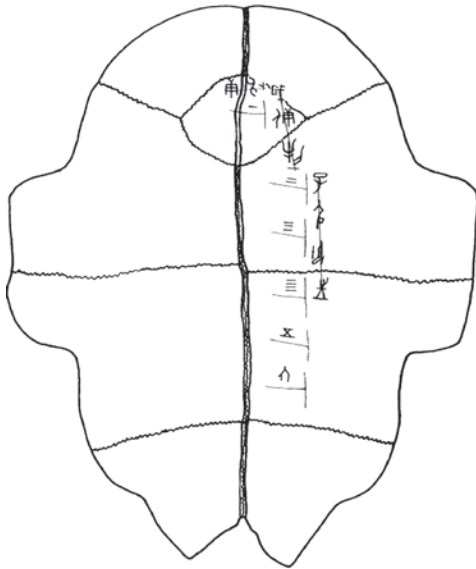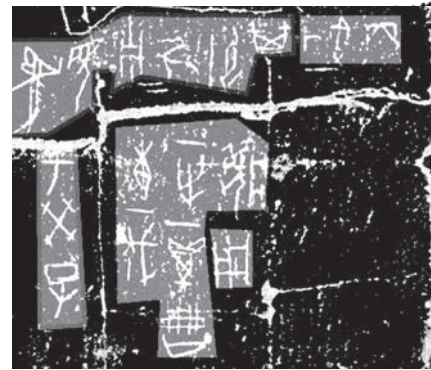
Figure 39: HYZ 209

Figure 40: HYZ 29, marked-up facsimile (above) and rubbing (below).

and ended with 牝一 "one cow," stopped just above the transverse crack of crack 2, while the next sentence, which started with the name 子髀 "lord Bi," was started at a different angle further over to the right and behind the vertical crack of crack 2.

Example (3): HYZ 29.1 (Figure 40)
丙寅卜：其知（禦），隹（唯）宁（賈）視馬于癸子，叀（惠）一伐、一牛、一鬯，𦥑夢。用。₁₂

Divined on Bingyin: If making an exorcism rite, it being for the trader-inspected horses to *Gui*-day Child (i.e., a juvenile spirit), it should be one human beheading, one head of cattle, [and] one bowl of aromatic ale that are announced by written record [as sacrificial offerings along with] the dream. Used. ₁₂

This is an example of a complex divination account that was arranged for a horizontally aligned two-crack set. The preface and the initial clause were

written in a single line of text across the top of the two cracks. The scribe separated the prepositional phrase 于癸子 "to *Gui*-day Child" from the content that preceded it by moving it slightly more inside towards the vertical crack. Doing so also created a way to transition the orientation of the remaining text into column-set. The main clause of the divination statement, 叀（惠）一伐 一牛一凸卣夢 "it should be one human beheading, one head of cattle, [and] one bowl of aromatic ale that are announced by written record [as sacrificial offerings along with] the dream," which is the information that the diviner wanted an answer to, along with the crack judgment, were displayed in three neat columns of text in between the organic space of the two vertical cracks. From a visual perspective, writing out the main clause and the crack judgment in columns in this central position drew focus to them.

> Example (4): HYZ 241.11 (Figure 41)
> 辛亥卜，貞：琡羌又（有）疾，不死。子㕚（占）曰：羌其死隹（唯） 今，其𤔲（瘳）亦隹（唯）今。₋₌
>
> Divining on Xinhai, tested: Lapidary Qiang, having illness, is not going to die. Our lord read the crack(s) and said, "If the Qiang dies, it will be today. If [the Qiang] recovers, it will also be today." ₁₂

The overall layout of this divination account wrapped around three sides of a horizontally aligned two-crack set and it was fluently written out in a start-finish symmetry. The challenge of designing this particular divination account was the relatively long prognostication. The scribe arranged the preface and divination statement above the cracks and then ran it downward along the outside of the vertical crack in crack 2. The coda of the divination statement, 不死 "is not going to die," was spatially modified to cover the entire length of the vertical crack, and its end point was then utilized to guide how the
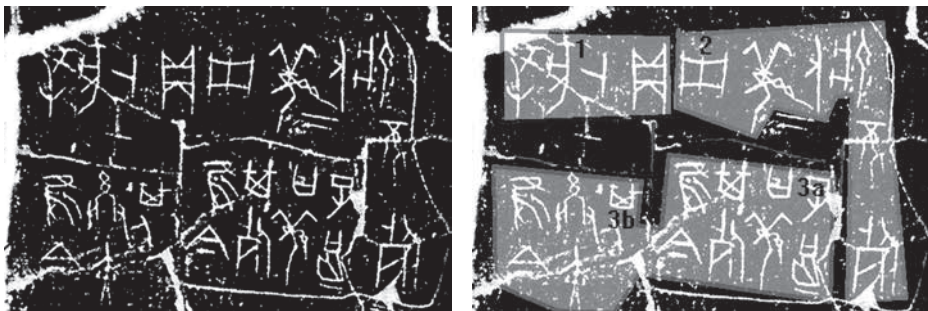
Figure 41: HYZ 241, rubbing, unmarked (left) and marked (right).

remaining text, the prediction, would be written out. The prediction, introduced by 子占曰 "Our lord read the crack(s) and said," was arranged under the two transverse cracks in the lower register and displayed in seven columns with two graphs per column. The text of the prediction consisted of two complete conditional sentences. The conditional clauses were contrasting but the consequences were the same. The scribe leveraged the organic vertical crack of crack 1 to parse the two sentences by their grammatical parts. Visually, the preface and the divination statement took up the outer spaces of the cracks, and the prediction filled the inner spaces.

D. Boundary lines

Scribes made boundary lines of various shapes and lengths, and their primary function served to partition divination accounts. Boundary lines kept individual accounts intact and coherent, and prevented confusing one account for another. The effort that scribes spent to delineate divination accounts suggests they served an important function.[31] In this paper I take the position that this function in part concerned the presentation of text and how text was understood by the scribes who wrote it.

Additional functions for these kinds of lines were to frame text, guide orientation layouts, reconstitute breached organic lines and reinforce existing ones, set detours, and make ruled lines for column-set text. Evidence in this corpus confirms that boundary lines were made either after an inscription was written or while the scribe was writing it.

The two main types of boundary lines that occurred in the Huayuanzhuang East divination accounts were:

1. Organic boundary lines (illustrated in Figure 2).
2. Boundary lines drawn by scribes.

1. Organic boundary lines

Huayuanzhuang East scribes developed creative applications for the lines and compartments that organically partitioned turtle plastrons and carapaces. The two main applications were:

1) To partition multiple divination accounts (Figure 42, left).
2) To frame individual divination accounts (Figure 42, right).

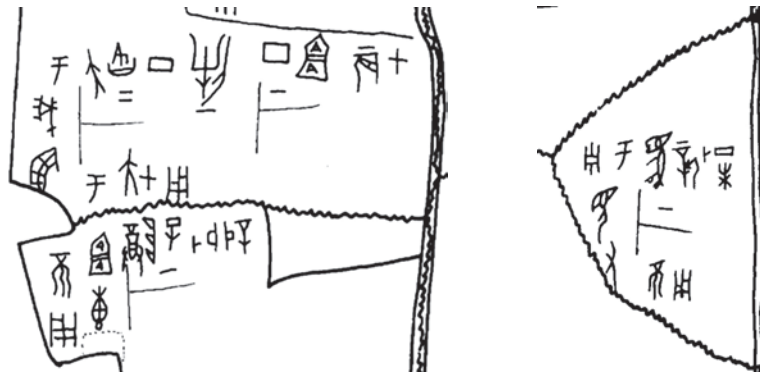31 Keightley, *Sources of Shang History*, 53–54.

Figure 42: (left) HYZ 34; (right) HYZ 7; jagged and double lines indicate organic lines in the shell.

2. Reconstituted and modified organic boundary lines

The scribe who wrote out the two divination accounts on HYZ 34 in Figure 42 cleverly took advantage of an organic line in the plastron as a way to partition them. Doing so implies that the scribe, from *the perspective of a reader*, understood that the words *yu da Jia yong* 于大甲用 (HYZ 34.4), in the upper register just above the (jagged) organic line, and the words *zi zun yi* 子

HYZ 6

HYZ 37

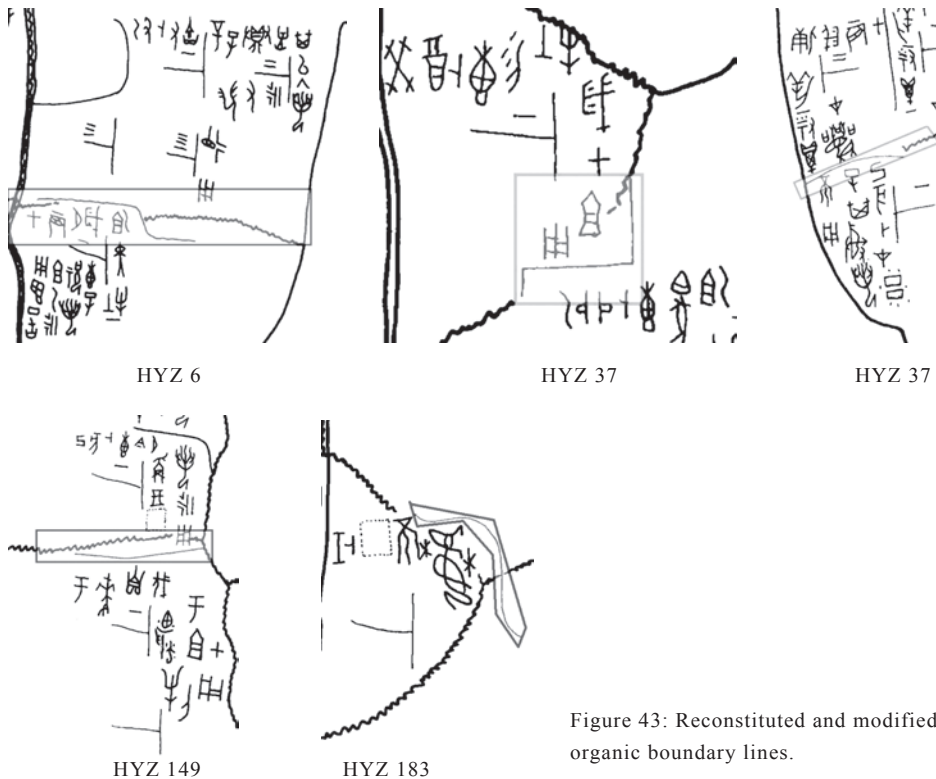

HYZ 37

HYZ 149

HYZ 183

Figure 43: Reconstituted and modified organic boundary lines.

尊宜 (HYZ 34.2), in the lower register and just under the (jagged) organic line, might be confused for a single divination account and read as columns of text.

None of the graphs in the examples shown in Figure 42 breached any organic dividing lines, and it was a collective habit among Huayuanzhuang East scribes not to do so. Text however did breach organic boundary lines on occasion and when it did, as a general rule, scribes engraved lines over existing organic lines to supplement or modify them. This presumably was done to maintain the integrity of each divination account and to avoid confusion with other accounts in the immediate proximity. Figure 43 above illustrates five such examples.

3. Additional types of boundary lines drawn by scribes

a) Simple partition lines

A simple way of partitioning one divination account from another was achieved by drawing short lines at the spot where graphs from different records

HYZ 19

HYZ 12

HYZ 9

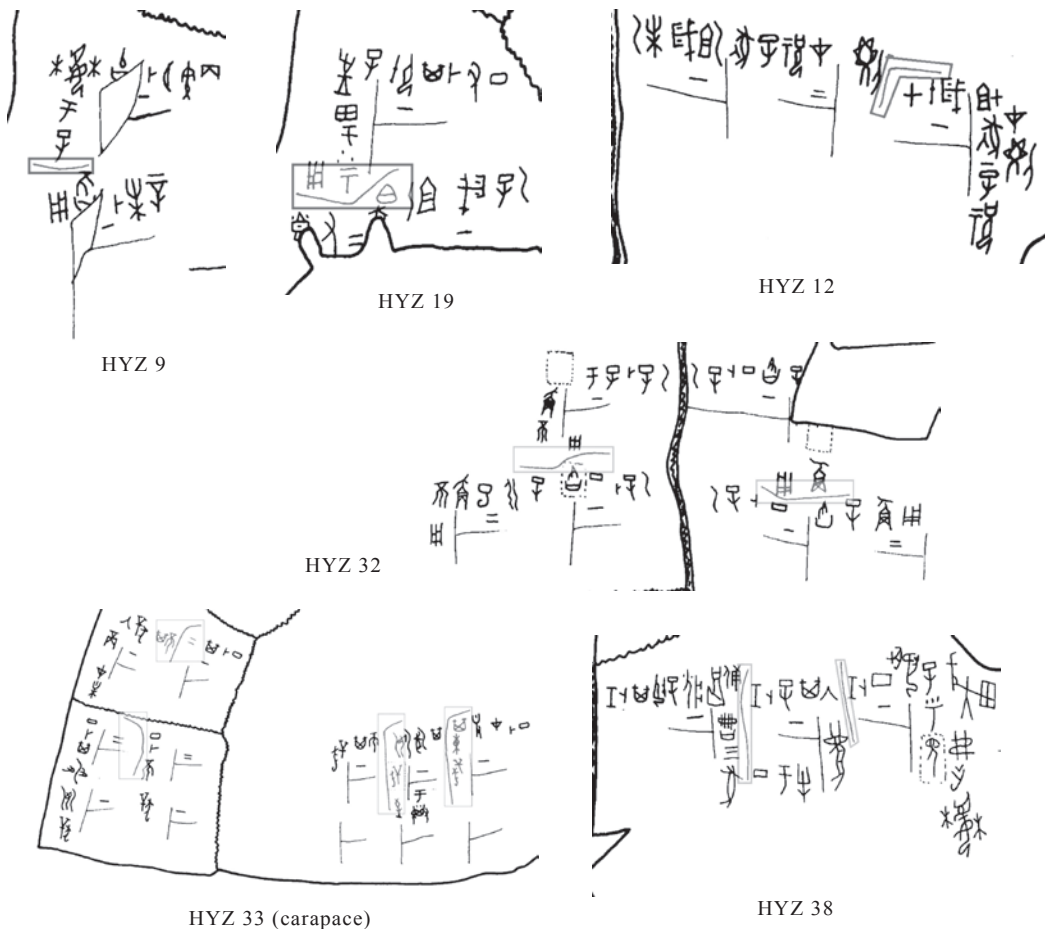HYZ 32

HYZ 33 (carapace)

HYZ 38

Figure 44: Simple partition lines

came close to intersecting. Figure 44 illustrates how scribes drew simple partition lines in various shapes and lengths.

b) Complex partition lines

Long, complex partition lines were drawn to outline sets of cracks in nonlinear orientations, and particularly when the length of the corresponding divination accounts could not be arranged in a way that made the relationship between the text and the cracks certain.

On HYZ 4 in Figure 45, a long and winding boundary line outlined a set of two cracks that were made in two different organic sections in upper area and on the left side of a turtle plastron. A partition line like this was needed not only because of there was distance separating the two cracks and the corresponding divination account was relatively short, but more importantly, because crack 2 on the left side of the entoplastron might have gotten confused with a crack (numbered 1) from another bout of divination made on the right side of the entoplastron with a corresponding text that crossed over the central dividing line.

On HYZ 150 in Figure 45, a long and curvy boundary line outlined a set of five cracks that also spanned two organic sections of a turtle plastron. A partition line like this was needed both to separate the text arranged above cracks 4 and 5 from being confused with text from a different bout of divination directly above it, and also in order to ensure that this nonlinear crack set was kept together.
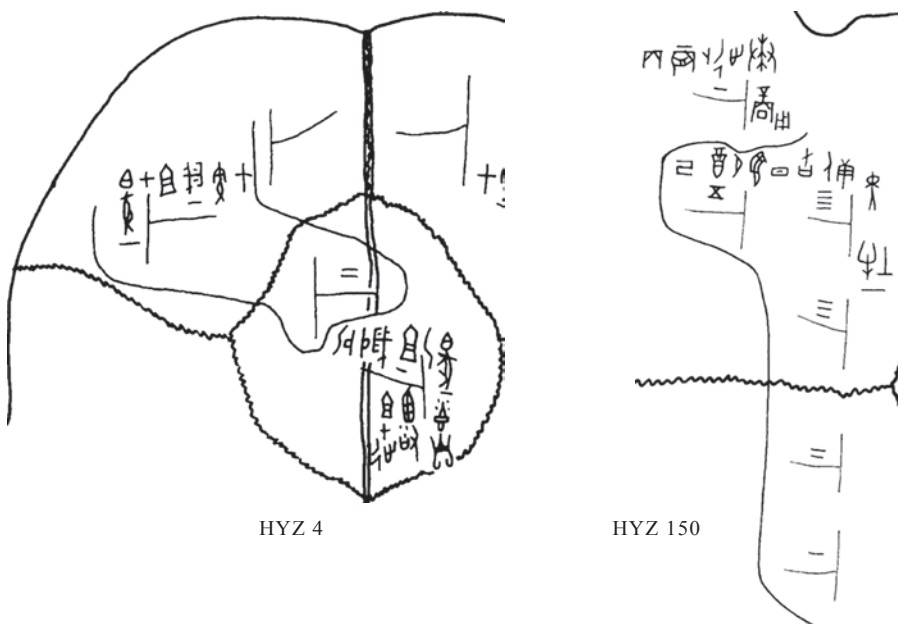

HYZ 4   HYZ 150

Figure 45: Complex partition lines
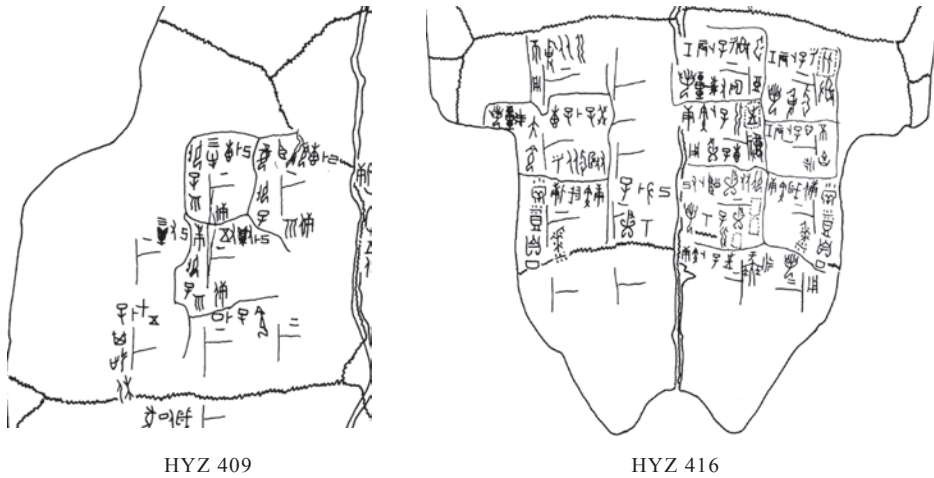
HYZ 409   HYZ 416

Figure 46: Building blocks

c) Building blocks

The incremental building of boundary "blocks" to separate individual divination accounts in the spacious hypoplastron and hyoplastron sections of the shell is a unique feature of Huayuanzhuang East recordkeeping. The style was designed to handle a high density and gradual proliferation of single divination cracks and their corresponding divination accounts in one area of a shell. HYZ 409 (Figure 46) shows how these blocks started and grew from a dense cluster of individual cracks and corresponding text made on the same day (Ji 己 ; day 6/10). In comparison with the incremental building of blocks containing cracks and text on HYZ 409, HYZ 416 (Figure 46) is the apex of this type of document or "page" design. The right side of the shell is a finished product; neat and uniform blocks of discernible text were made by gradually connecting lines to partition divinations made over a span of four days.

d) Columnar ruled text

Huayuanzhuang East scribes drew partition lines between lines of text written in column set for a single divination account (Figure 47). This unique type of partition line occurs just three times in the corpus, and the rarity of its application in Shang oracle bone inscriptions makes these new discoveries even more significant.[32] Scribes inserted lines to partition columns of text so that the orientation of the account was clear and well-defined. These interlinear insertions were not drawn to guide handwriting; they were drawn to guide reading.

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32 Sun Yabing, *Yinxu Huayuanzhuang dongdi jiagu wenli yanjiu*, 69.

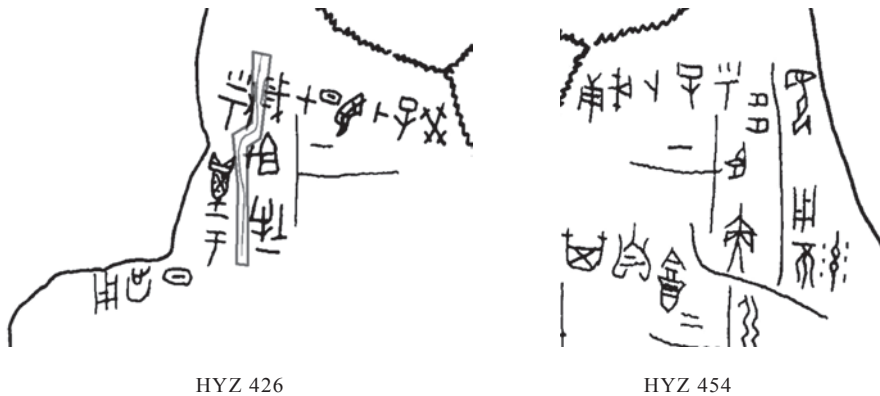HYZ 426   HYZ 454

Figure 47: Columnar ruled text

On HYZ 426.1 (Figure 47), the scribe who wrote out this text realized that *you* 犮 "offer," the word at the top of the second column of text (on the left side of the partition line), might get mistaken as following *sui* 歲 "sacrifice," the word in front of it (on the right side of the partition line). Since the text was arranged to run downwards in columns once it reached the word *sui* 歲 , the scribe inserted a line and ran it down the length of the two columns because he sensed, from the *perspective of a reader*, that not doing so might lead to confusion and misunderstanding.

On HYZ 454.1 (Figure 47), the scribe who wrote out the text realized that *jian* 見 "see," the word at the top of the second column of text (on the right side of the partition line), might get mistaken as following *duo* 多 "many," the word in front of it (on the left side of the partition line).

e) "Anticipatory" boundary lines

There are numerous instances in the Huayuanzhuang East oracle bone inscriptions where a scribe appears to have been drawn a boundary line *in anticipation* of a future crack and its corresponding inscription. This implies that scribes drew boundary lines not just to frame an account and to separate text, but also as a means to create a contour for an empty space near it. These lines, drawn with strong curved shapes, differ from other kinds of boundary lines. The special shapes of these lines show scribes anticipating, in real time, that the diviners who they worked with in collaboration would use these spots for divination in the future. (It turned out they were wrong.) Furthermore, drawing these "deictic" "c"-shaped curves facing away from existing divination accounts in their immediate vicinity appears to have been code indicating a plan to arrange and write out future divination accounts in a "c" orientation.
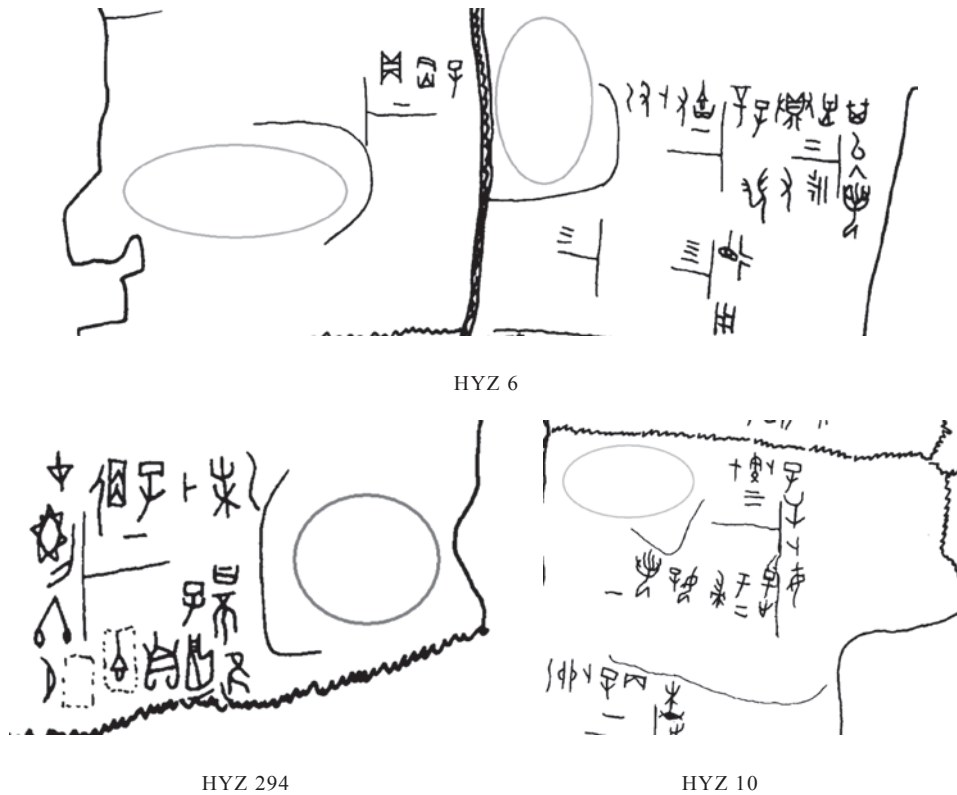
HYZ 6

HYZ 294   HYZ 10

Figure 48: "Anticipatory" boundary lines

Conclusion

The Shang oracle bones discovered in 1991 in Pit 3 at Huayuanzhuang East have not been seen since they were buried more than three thousand years ago. Only a handful of people saw them before they were buried.

This paper has focused on the motivation and intentionality of the Shang recordkeepers who produced these divination accounts by observing each detail which has been written. These Shang scribes, who worked under the patronage of a head of one of the princely households, collaborated with diviners sanctioned under the same mandate and the two professional groups developed and employed technologies to micromanage their workloads economically and to do their jobs coherently and efficiently. The scribes demonstrated accurate divination recordkeeping and displayed a unique competency and originality in how these specialized records were designed, written out, and formally presented. More crucially, the way by which the divination accounts were displayed indicate a control of the materials, attest to scribal literacy and

competency, and imply that they were written to be read and consulted.

This paper has demonstrated that this group of professional scribes were not just engravers, as has been suggested previously, mechanically recording dictation and reproducing materials given to them. Rather, as I have shown in detailed case studies, they were highly capable professionals who demonstrated a fluency and expertise in oracle bone recordkeeping. Not only do the case studies support high level of literacies on the part of the scribes, they furthermore show the high level of linguistic competence on their part with reference to grammatical structures.

While I acknowledge the methodological limitation of this study can only apply for sure to the divination accounts in the pit under review, at the same time, the consistency of my findings suggests a more widespread and more profound phenomenon. We have new evidence to suggest more profound conclusions about scribes in Shang China more widely.

Reading oracle bone inscriptions on their original surfaces can be challenging. Any advantage that can help us to better comprehend them is significant. My concentration has been to refine how to read the Huayuanzhuang East oracle bone inscriptions by looking carefully into integral and emic features of Huayuanzhuang East oracle bone recordkeeping. An examination of orientation complements philological study and a heavy dose of both makes conclusions about these unique material documents that reside at the depths of the scribal tradition in early China more comprehensive and more compelling.

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如何閱讀花園莊東地 H3 坑甲骨卜辭

史亞當
香港浸會大學中國語言文學系、饒宗頤國學院

　　本文以 1991 年花園莊東地 H3 坑出土的卜辭記錄為材料，集中探討其商代記事者的工作習慣和動機。這一群史官與另一群卜人同時受僱於當時某一位高權重的王子，兩個專業群體共同開發出一套作業技術並付諸實踐，以經濟簡便的方式具體而微地分工合作，連貫而有效地各自做好本職。這批甲骨刻辭體現出高度的同質性和統一性，反映當時史官已能精準地記錄卜筮內容，而就這些專門記錄的設計、書寫和展現方式所見，他們具備獨特的辦事能力和創造力。更關鍵的是，從刻辭行款走向可見他們對材料的把握，體現了商代史官的知識水平，並暗示刻寫卜辭實為了日後閱讀和翻查之用。

關鍵詞： 商代文字記事　專業工作習慣和動機　甲骨占卜　上古知識水平