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Revue de la société pour l'étude des cultures prépharaoniques de la vallée du Nil

**Naissance de l'état, naissance de l'administration:
le rôle de l'écriture en Égypte, au Proche-Orient et en Chine**

**Emergence of the state and development of the administration:
the role of writing in Egypt, Near East and China**

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Erratum

Il a été porté à notre attention que deux erreurs se sont glissées dans l'article intitulé «The Significance of Predynastic Canid Burials in Ancient Egypt» publié par Mary Hartley dans le volume 25 (2015) de notre revue. Page 59, à la fin du 5^e paragraphe, l'intention de l'auteur était de faire référence à Van Neer et al. 2004: 120 au lieu de Friedman et al. 2011: 120. Le nom de l'auteur a aussi été mal orthographié («Freidman» au lieu de «Friedman»). La rédaction d'*Archéo-Nil* présente ses excuses pour les désagréments occasionnés.

It was brought to our attention that two errors occurred in the article entitled "The Significance of Predynastic Canid Burials in Ancient Egypt" published by Mary Hartley in the volume 25 (2015) of our journal. On page 59, end of the fifth paragraph, the author's intent was to reference Van Neer et al. 2004: 120 instead of Friedman et al. 2011: 120. The name of the author was also regrettably misspelt ("Freidman") instead of "Friedman"). *Archéo-Nil*'s team sincerely apologises for any hurt or confusion these errors may have caused.

Archéo-Nil est une revue internationale et pluridisciplinaire à comité de lecture («peer review») dans le respect des normes internationales de journaux scientifiques. Tout article soumis pour publication est examiné par au moins deux spécialistes de renommée internationale reconnus dans le domaine de la préhistoire ou de l'archéologie égyptienne. L'analyse est effectuée sur une base anonyme (le nom de l'auteur ne sera pas communiqué aux examinateurs ; les noms des examinateurs ne seront pas communiqués à l'auteur).

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Administrative Reach and Documentary Coverage in Ancient States

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This article uses two concepts developed by Nicolas Postgate, administrative reach and documentary coverage, to make a general argument about writing and statecraft in the ancient world. It emphasizes that the comparative study of bookkeeping practice in ancient states is vulnerable to differences of preservation, and it suggests two empirical ways to identify gaps in the evidentiary record. One is to deduce administrative needs from archaeological remains that bear the imprint of social engineering. The other is to sift display inscriptions for evidence of administrative documents and document formats. Taking the latter approach, it argues that the emblems cast in Shang ritual bronzes are official titles that denote spheres of administration. The emblems contain ranking terms that suggest that there was a hierarchy in Shang bureaucracy, comparable to the hierarchies evident in lists of official titles in ancient Egypt and Mesopotamia. The article ends with an appeal for comparative study and briefly discusses its values and challenges.

Cet article utilise deux concepts développés par Nicolas Postgate, « administrative reach » (« portée administrative ») and « documentary coverage » (« couverture documentaire ») dans une discussion générale sur l'écriture et la politique dans le monde antique. C'est l'occasion de souligner que l'étude comparative des pratiques de comptabilité dans les états anciens est soumise à la qualité de conservation des documents, et qu'il y a deux manières empiriques d'identifier les lacunes à ce sujet. La première consiste à déduire les besoins administratifs des vestiges archéologiques qui portent l'empreinte de l'ingénierie sociale. L'autre est de passer au crible les inscriptions afin d'identifier les documents administratifs et leurs formats. En utilisant la seconde technique il est ainsi possible de montrer que les emblèmes des bronzes Shang sont des titres officiels qui correspondent aux dif-

férentes sphères de l'administration. Ils contiennent des termes de classement qui suggèrent qu'il y avait une hiérarchie dans la bureaucratie Shang, comparable aux hiérarchies des listes de titres officiels dans l'Égypte ancienne et la Mésopotamie. L'article souligne aussi l'importance de l'étude comparative et examine brièvement son intérêt et ses limites.

States, ancient no less than modern, were built by people who had the urge to rule, to impose their visions of order, even if on the local level they might leave some leeway for self-organization. Those visions of order are manifest in engineering that has imprinted itself in the archaeological record: cities, monumental buildings, and landscape terracing, to name but a few. The instrument created by ambitious imaginations to realize their ideas of cohesion and obedience was bureaucracy. We owe to Weber the insight that “the consequence of a rational ordering of society was discipline, the potentiality for subordination and the loss of the individual’s autonomy, an estrangement from simpler forms of communal association, a growing fragmentation of social existence and values, and a sense of disenchantment” (Whimster 2004: 1).

Was writing invented and thought of primarily as a force for disciplined order, an instrument for domination? Those who follow Claude Lévi-Strauss do not doubt that the major function of writing is to facilitate the exploitation of human beings by the ruling class (Lévi-Strauss 1973: 299). But few concrete examples have been adduced to substantiate his sweeping claim, which is only a sort of guilt-by-association argument made using an anecdote from a small Nambikwara group. In the same way Jack Goody, noting that a “major sociological or anthropological question about the relation between writing and the polity has precisely to do with state formation, bureaucracy, and the subsequent role of early writing in helping to unify large empires such as China,” answers the question not with solid evidence from any early state but only by asserting that “the earliest stages of literacy in most of the ‘primary’ civilizations were exactly contemporaneous with pristine state development” (Goody 1986: 91).

Traditional studies of early state formation have rightly focused on innovations that accrued during the process, and in my recent book *Writing and the Ancient State: Early China in Comparative Perspective* (2014), I have suggested that writing was such an innovation, one that had an intimate relationship with state formation, for example through the use of the written king list as a legitimizing force. But legitimation is not everything. We still need to ask how the state acquired the wealth necessary to support the functioning of its government. The state cannot run on ideology alone; it is as concerned with the present as with the past. Foucault’s interest in government as an activity points us in an empirical direction (Gordon 1991: 10). Because state formation is a process of establishing and maintaining a legitimate monopoly of force and taxation within a certain territory, two crucial components of the government’s activity in early states were collecting tax and forming an army. These depended on the state’s knowledge of its subjects, of its population and property, what James Scott calls “legibility” (Scott 1998: 25 ff.). And legibility was achieved by simplification and classification. To be put on the state’s radar screen, people and resources needed to be abstracted – identified and classified – and what conferred identity on them was the institutions of the state.

The government’s activity thus had a distinctly classificational character. This is also a quintessential characteristic of early writing systems, whose lexicons and

numerical systems gave them a remarkable ability to *sort* and *quantify*. Early king lists were classifications of a particular kind of people, but other segments of society were also subject to state classification: the early state was keenly interested in making inventories of its population. To inventory people – to count them – is to confer sameness on them. Once entered into the state’s register, the populace had a collective identity and was subject to the state’s surveillance. The coercive and punitive side of writing stressed by Lévi-Strauss is very apparent when we look at how the state used its census to detect and punish those who tried to evade its conferment of the identity “taxpayer.” State officials were not immune to writing’s punishing power, either, as they soon discovered when their deliveries did not match the written tax assessment. In population registers, we observe a rudimentary police state in the making.¹

Administering a state thus largely consists of managing taxonomies, and writing is an exercise in taxonomy. Knowledge is power, and writing accumulates it. Ancient states were perhaps less concerned than modern ones with the prosperity or happiness of their subjects – and hence were less ambitious as to the extent of their knowledge – but their desire for knowledge and their use of written lists to organize it were not much different from those of modern states. Yet the specific role of writing in each bureaucratic system, ancient or modern, varies from one to another because each state has a different disposition to use or not use writing in its bureaucratic procedures. As Nicholas Postgate puts it, “there are of course as many different bureaucratic systems as there are palace archives, and each is subtly or even not so subtly different” (Postgate 2007: 303). Postgate has given us an invaluable set of terms with precise definitions for use in comparative studies of administration and writing (Postgate 2007; 2013). Although I cannot quote his definitions at length, I reproduce here his diagram showing how some of his concepts interact in the bureaucratic procedures that control the movement of commodities (Fig. 1).

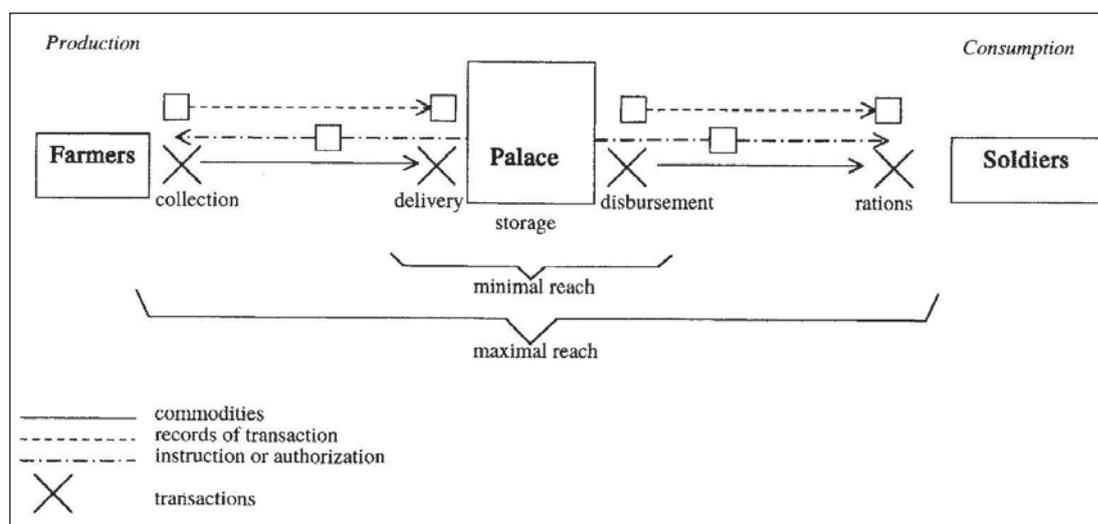


Fig. 1
A hypothetical example showing documentary coverage and administrative reach, after Postgate 2007: 306, fig. 1.

1. To scholars of modern European states, “[p]olice is a science of endless lists and classifications; there is a police of religion, of customs, of health, of foods, of highways, of public order, of sciences, commerce, manufactures, servants, poverty. ... Police science seems to aspire to constitute a kind of omnivorous espousal of governed reality, the consortium of a Leviathan. It is also (again in aspiration) a knowledge of inexhaustibly detailed and continuous control” (Gordon 1991: 10).

The “administrative reach” diagrammed in **Fig. 1** is “the extent to which the central administration controlled the economic transactions in which it was involved” (Postgate 2007: 305). The limits of administrative reach bear directly on the nature of state administration. The “documentary coverage” in **Fig. 1** refers to the extent to which writing and sealing were used to represent administrative transactions (Postgate 2007: 306). The degree of documentary coverage reflects the predilection of a particular administration. With an abundance of cuneiform archives at his disposal Postgate is able to differentiate three modes of bureaucratic system, all of which are “fairly enthusiastic about documentary coverage”: an archival mode for the Ur III system, a legal mode for the Old Babylonian system, and a commercial mode for the Middle Assyrian system. The catch here is that we must have administrative *archives* to understand the role of writing in administration: only then can we understand the bureaucratic system. This prerequisite eliminates from our comparative sample the many literate states from which administrative archives do not survive, not only all the New World states but also many in the Old World as well, for instance pre-imperial China and Early Dynastic Egypt. We are forced to be content with a low-resolution analysis and to squeeze information about administration from sporadic writings and material remains.

We can for instance deduce administrative needs from archaeological remains that are obviously the products of some sort of management: pyramids and ziggurats, bronze foundries with elaborate division of labor, granaries for the feeding of a large population, military fortresses, and so on, most of which are components of cities. This exercise is relatively straightforward, but it becomes controversial the moment we try to guess at the kind of administrative tools and apparatus that were responsible: was there a central administration with a Weberian bureaucratic hierarchy? Was writing invented to tackle the challenges of accounting and communication on a scale with no precedent in pre-urban societies? We will return to the first question later. The second question would be answered with a resounding yes by many scholars of ancient Mesopotamia, for example Hans Nissen in his recent summary of the archaic city of Uruk and the birth of cuneiform (Nissen 2015). Nissen argues that the enormous increase of settlement and population size created pressing needs for new rules of economic and political life, which in turn stimulated the invention of more efficient administrative devices. Of these writing was the last, the solution reached only at the very end of the first round of urbanization.

A tight relationship between script invention and the rise of urban centers has been likewise noted by scholars of other ancient states (Law et al. 2015), though many Egyptologists and Mesoamericanists give royal display and cosmology more weight as motives for invention in the societies they study because of the find contexts of the earliest surviving writing and because of the continuous importance of writing in display and cosmology in later periods (Baines 2004; Law 2015). The earliest writing yet known in China was found in modern Zhengzhou at the site of the presumed capital city of the first empire in East Asia, the Erligang empire (Wang 2015: 131–34; 2014a: 42–3). The inscriptions, mostly single graphs, probably date from the 14th century BC. They were written in vermilion on clay pots that were ritually deposited with sacrificial animals near a palatial foundation (**Fig. 2**). It is possible that the pots originally contained wine or other offerings.

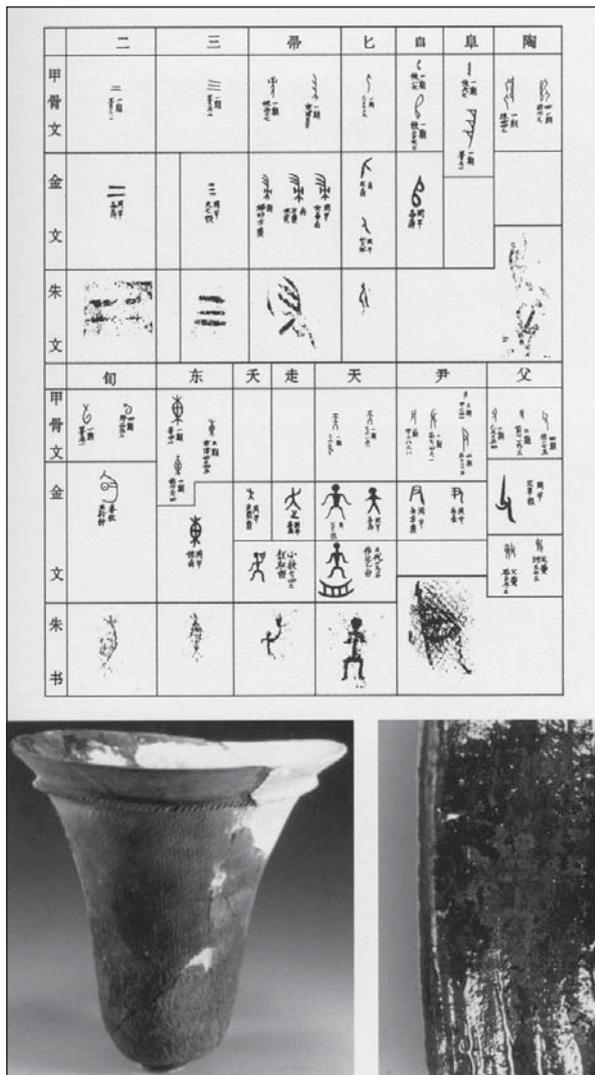


Fig. 2

Corpus of Chinese writing from Xiaoshuangqiao, c. 14th century BC. The corpus seems to include numerals, titles, and kinship terms. The characters in the fourth row and the last row are from Xiaoshuangqiao, the second and sixth rows from oracle bone inscriptions a century or two later, the third and seventh rows from bronze inscriptions a little later than the oracle bone inscriptions; the first and fifth rows give transcriptions in modern Chinese (table after *Wenwu* 2003.5: 42, table 1; photographs courtesy of Song Guoding).

The Erligang inscriptions clearly belong to the writing system we know a century later from the so-called oracle-bone inscriptions at Anyang, the last capital of the Shang dynasty. Since the Erligang inscriptions came from a ritual context, on the surface they seem to substantiate the widely held view that Chinese writing originated in religious cult, especially in the royal divinations recorded in the Anyang oracle texts. But we must remember that normally it is only after writing comes to be used for display on durable materials that archaeology begins to find traces of it; the sole exception is Mesopotamia, where the standard writing surface was a durable material cheap enough to be used for even the most mundane purposes. The Erligang empire built fortresses to secure new territories and resources as far away as the middle and lower Yangzi region 450 kilometers to the south. Its industry for making ritual and utilitarian bronze vessels and weapons was the largest and most sophisticated of its time (Bagley 2014; Wang 2014b). How did an expansionist state manage its army, agriculture, the construction of public buildings and city walls, and the indispensable bronze industry to boot? Even the Mayanists, who deal with small city-states rather than empires, now agree that “the complex state apparatus demands some form of record-keeping, and writing has usually been

the answer: so has the invention of a more-or-less accurate means of keeping time” (Coe & Houston 2015: 63). This is so because writing can simplify complexity and create legibility. Since the Erligang state clearly had writing, it is not necessary to imagine a separate *kipu*-like system for bookkeeping that operated alongside writing reserved exclusively for ritual purposes. If we have not found everyday administrative documents the reason is almost certainly that they were written on perishable wood and bamboo slips. Documents written on slips do not begin to survive in the archaeological record until the 5th century BC, but indirect evidence confirms their use far earlier (Bagley 2004: 216–226).

Our textual sample is thus biased by uneven survival and also by the chances of discovery and excavation. The question of what the sample does and does not contain is the inevitable backdrop to any discussion of the functions of early writing, in particular to any discussion of the early state’s administrative reach and documentary coverage. Here we must not allow ourselves to become prisoners of a biased sample. To speculate about what we do not have is risky, of course, but comparative study gives us a powerful tool for controlled speculation, and to operate as though our sample were complete would not be risky, it would be wrong. In recent years the discovery in late tombs of texts related to legal, administrative, and economic matters has led the scholars who study them to wholly unwarranted conclusions precisely because they have unhesitatingly assumed that our sample of ancient writing is representative from the earliest times. Because none of the tomb texts is dated earlier than the 5th century BC, scholars have decided that it was not until the Warring States period (5th–3rd centuries BC) that states began to rely on documents to administer their domains. This timing agrees nicely with the traditional view of the Warring States period as a watershed in Chinese history, the moment when China took an imperial path and bureaucracy began to serve empire building. But the traditional view is wrong. Both bureaucracy and empire building have an earlier history in China.

Trained as paleographers rather than archaeologists, and hence unused to thinking about bias of preservation, the specialists who study excavated texts have taken the absence of texts from tombs earlier than the 5th century BC to mean that few texts were written before the 5th century. They have not asked themselves why texts of the last few centuries BC *have* survived. Texts have survived because collections of them were deposited, in a very small fraction of tombs, for reasons no one really understands. Because we do not know why they were deposited, we are not in a position to guess when or where the practice originated. Moreover, once deposited, the texts depended for their survival on conditions in the tomb. Most excavated texts come from waterlogged tombs or wells in the Yangzi region in the south. Almost none have come from the temperate Yellow River region in the north, the home of the earliest and most powerful states – the mid-2nd millennium Erligang empire and the early 1st millennium Zhou empire. Should we infer that bureaucracy existed only in the south? That is an inference that even the most traditional historian would reject. It is time we acknowledged the bias of the archaeological sample.

Instead of dating bureaucracy by the earliest bureaucratic texts so far excavated, we should remind ourselves of Barry Kemp’s characterization of bureaucracy as “an attitude of mind” (Kemp 2006: 182) that arose with the state and permeated social life in the form of bookkeeping. The bookkeeping of the

earliest states in China unfortunately has not yet been found by archaeologists, and it may well have perished entirely; its loss would, after all, be much less extraordinary than the survival of so much bookkeeping in Mesopotamia. Many archaeologists nevertheless do not hesitate to assume the existence of administrative documents in the early Bronze Age north, because its material achievements – city walls and spectacular bronzes for example – testify forcibly to the effectiveness of the state’s management of resources. But material evidence speaks more compellingly to archaeologists than it does to text-oriented scholars. Might there be written evidence to bolster the archaeologists’ case? Comparison with ancient Egypt convinces me that administrative documents and formats can sometimes survive in display inscriptions such as niches stones and the Palermo Stone (Wang 2014a: 69–86). Although these texts certainly have political and ritual significance, if we view them from a manager’s perspective, we notice that many of them exhibit a very mundane concern to bring religion to life. Religion is more than a set of beliefs; it needs architectural settings, stage props, and people. All these created administrative needs that were fulfilled by bookkeeping.

With this Egyptian evidence in mind I have searched for traces of bookkeeping in Shang divination texts. Given that these texts are for the most part concise records of the king’s questioning of his ancestors, the prominence in them of careful accounting of the flow of people and materials is remarkable. Here are three examples (Wang 2015: 145):

...Junior Servitor Qiang assisted (the king) to attack. Mao [enemy leader] of the Wei [enemy state] was captured, (also captured), ... 20, captives 4, head trophies 1,570, captives of the Meifang 100, horses..., chariots 2, shields 183; quivers 50, arrows...[the remainder of the text talks about making different kinds of human and animal sacrifice to various royal ancestors. It breaks off – the bone is broken – at the point when Junior Servitor Qiang is rewarded by the king].

On *renzi* (day 49) the king made cracks and divined: “Hunting at Zhi, going and coming back there will be no harm.” The king read the oracle and said: “Prolonged auspiciousness.” This was used (?). (We) caught foxes 41; *mi*-deer 8; rhinoceros 1.

Wo brought in 1,000 (shells [for divination]); Lady Jing ritually prepared 40. (Recorded by the diviner) Bin.

The last example makes it clear that bookkeeping extended into the realm of religion – the realm of communication with the royal ancestors – but bookkeeping cannot have been confined to war, hunting, and religion. During the last two centuries of the 2nd millennium BC the Shang capital at Anyang was a large and growing city, for which population estimates range from 15,000 to 120,000 (Wang 2015: 140–141). Feeding the city dwellers must have put tremendous pressure on the management of agriculture and of grain transport. In the corpus of divination texts over a hundred toponyms occur in divinations inquiring about the harvest, and sometimes an official is named as responsible for a particular field, so it seems likely that the royal house possessed lists of both fields and officers. Archaeological evidence suggests that labor gangs were supplied with agricultural tools by the state. Large numbers of stone sickles have twice been found in the royal precinct (one pit contained “a thousand” by the excavator’s guess; the other had 444). These were most likely made by state workshops for distribution to harvesters. Efficient provision of tools depended on accurate knowledge of the users, their numbers, and their administrative units, information that would also have facilitated the distribu-

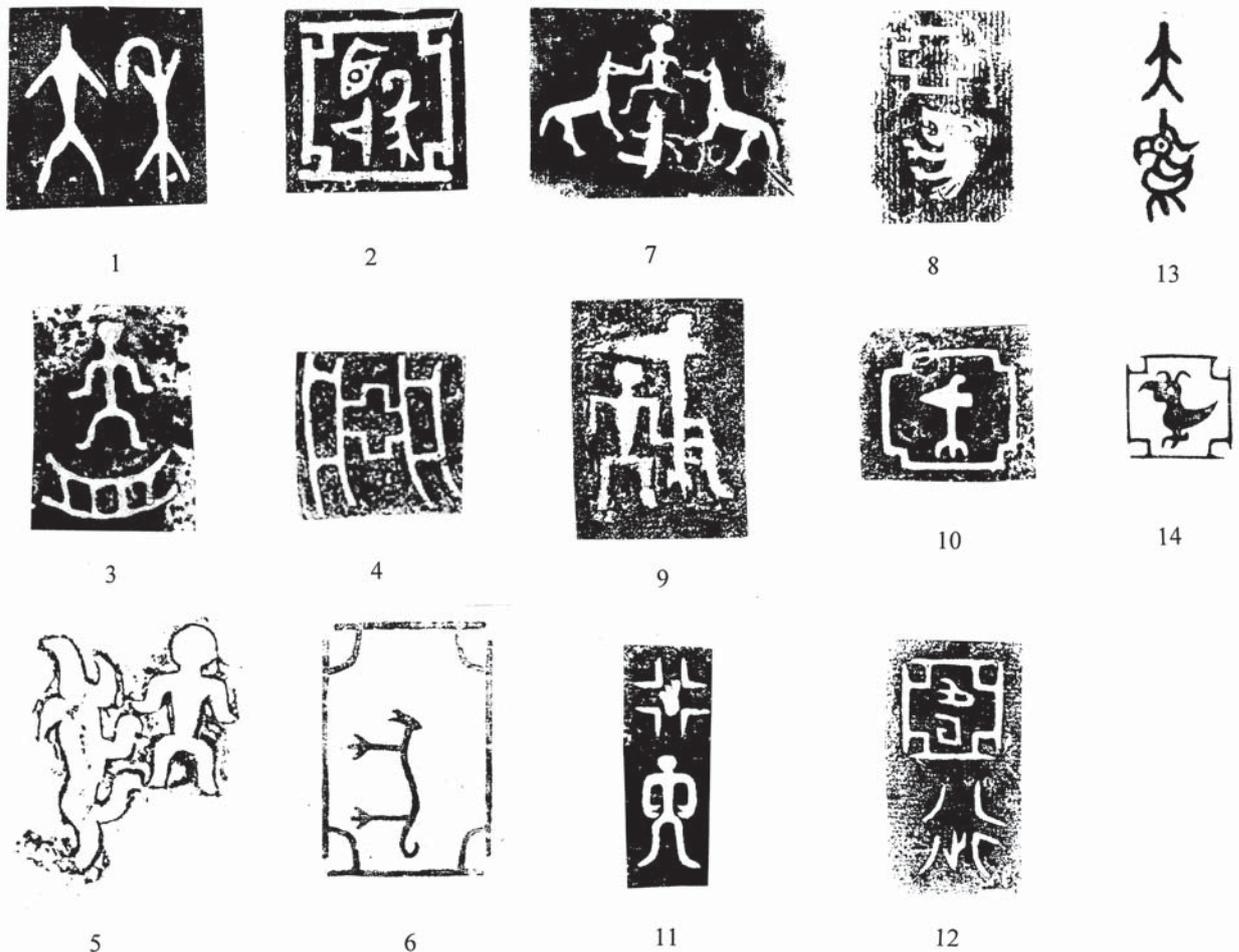
tion of rations. The king also divined about sending officials to inspect granaries and storehouses (Cao forthcoming). Could it be that part of the stored grain and other foodstuffs was used for feeding the laborers? In the ancient Near East and Egypt, the distribution of rations may always have been managed using written registers. As Kemp says,

For the purpose of distributing rations and rewards, and for maintaining some supervision over people who often held responsible positions (and therefore opportunities to abuse the trust placed in them), the king's chief officials must have maintained registers of who held which position and how much each was entitled to from the ration hand-outs that were such a prominent feature of ancient Egyptian society. ...the system could not have kept going without them, and such a practice fits the overall way that Egyptian administration worked. The importance of central registration of people is that it made the court into the central node of the network. (Kemp 2012: 300.)

Shang divination texts have examples of “the counting of people” in connection with both agriculture and warfare, although the texts do not reveal what kind of census information was collected beyond the number of persons. But as we have seen in the examples quoted above, the numbers of persons and goods are sometimes specific enough to suggest that careful bookkeeping was maintained. Could there have been a central registration of people?

Other material remains at Anyang that can be combined with the divination texts to help us deduce administrative reach and documentary coverage include animal husbandry and the closely related bone manufacturing industry, factories making bronze and pottery, chariot building, and a long-distance colonial enterprise aimed at procuring salt (Wang 2014a: 180–183; Wang 2015: 148–154). To judge by some of the reactions to my book, a few colleagues dismiss its use of cross-cultural comparison as merely giving Mesopotamian answers to Chinese questions. One way of persuading them to take comparison more seriously might be to enumerate Shang official titles and look for evidence of hierarchy in them, since officials and their hierarchy are central to any discussion of administration, and Cao Dazhi of Peking University is currently conducting a comprehensive study along these lines (personal communication). Cao's preliminary results suggest that many of the so-called clan signs on Shang bronzes were in fact official titles, or strings of titles, artfully turned into emblems resembling modern logos.² Two dozen or so such titles were identified by earlier researchers, but if Cao is correct the list, and hence the reach of Shang administration, can be greatly extended. The titles consist of or include characters that must denote the official's administrative sphere, though we cannot be sure of exact duties, and Cao has shown that those characters sometimes combine with two ranking terms that he has identified, *da* “great” (the human in e.g. **Fig. 3:1**) and *ya* “deputy” (the cross-shaped cartouche in e.g. **Fig. 3:2**). **Fig. 3** pairs examples in which an administrative sphere is combined first with “great” and then with “deputy”: 1-2 (*he* “grain”: agriculture?), 3-4 (*zhou* “boat”: river transportation?), 5-6 (*quan* “dog”: hunting?), 7-8 (*shi* “hog,” often combined with *ma* “horse”: animal husbandry?), 9-10 (*ge* “dagger axe,” a standard infantry weapon: army?), 11-12 (*xing* “to travel”: courier?), 13-14 (“bird”: hunting?). All of these activities can be correlated with administrative needs visible in archaeological remains.

2. On the playful use of the iconic content of the characters in designing such emblems see Bagley 2004: 200–211.

**Fig. 3**

Emblems containing the characters *da* and *ya* from bronzes of the twelfth and eleventh centuries BC. No. 2 after *Wenwu* 1964.4: 46, fig. 11; the rest after *Yin Zhou jinwen jicheng* (Beijing: Zhonghua Shuju, 1984-1994), nos. 1472, 9489, 1845, 3459, 9851.1, 6701, 3327, 1896, 827, 6354.1, and 1817.

It has long been known that in the divination texts the character for *ce* “document” depicts a row of bamboo or wood strips tied together with string, forming a rolled-up mat that was the everyday writing surface at Anyang (Bagley 2004: 216–217). It has also been shown that when this character appears in the emblems on bronzes it denotes the official title *zuoce* “maker of documents” (Zhang 2000: 48–49). In light of Cao’s hypothesis, it now appears that emblems containing the character *ce* signify that the owner held a scribal job in a particular office, his title being “bookkeeper of such-and-such an office” (Fig. 4).³ There are many such emblems, some of which contain the same characters denoting administrative spheres we have encountered in Fig. 3. In Fig. 4, for instance, the first emblem contains the character for “grain,” the second the character for “boat,” the third “hog,” and the fourth “dagger-axe.” The fifth has a graph at bottom left that is similar to the one in Fig. 3:11-12.⁴ Others might

3. We should not take the terms “bookkeeper” and “scribe” to imply low status. In Mesopotamia the full range of officials, from lowest to highest, might have the title “scribe,” and even kings sometimes proudly claimed it. The *zuoce* mentioned in Chinese bronze inscriptions of the 11th century and later were clearly high court officials.

4. In the divination texts they are two different characters, the meanings of which are somehow related.

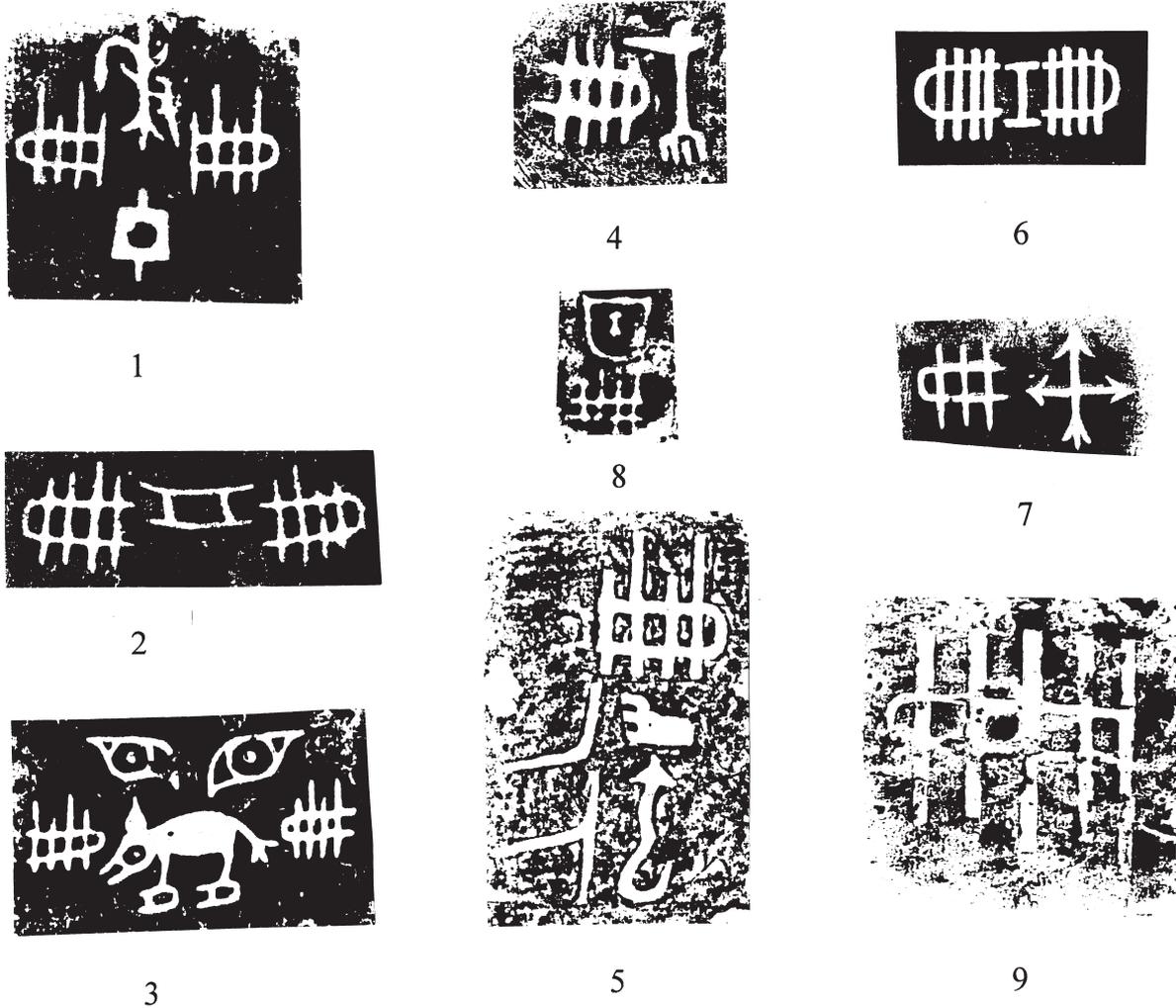


Fig. 4

Emblems containing the character *ce*, c. twelfth – eleventh centuries BC. After *Yin Zhou jinwen jicheng*, nos. 3421, 1713, 3604, 7253, 4870.2, 9547, 2125, 8909, and 9147.

refer to bookkeeping connected with artisans (Fig. 4:6), with the storehouse (4:7),⁵ and with the granary (4:8). Sometimes the character for bookkeeper occurs alone, with no mention of a specific office. Fig. 4:9, a faithful picture of a bamboo document tied with string, confirms the lamentably perishable nature of our sources.

Two other characters related to scribal activities, *shi* and *yin*, are well known from oracle texts and frequently attested also in bronze emblems. In fact, *yin* and the ranking term *da* “great” already appear in Erligang inscriptions (Fig. 2, last two characters of the last row in the table). It looks as though official titles, sometimes followed by personal names, were a major theme in display inscriptions from early China, just as in other literate states of the ancient Near East and Mesoamerica (and on modern business cards). But in the ancient Near East the most common way to display official titles was to carve them on seals and mechanically reproduce them on a wide range of objects, from oil jars to temple doors, thus publishing them to a large audience. Curiously, seals and sealings are exceedingly rare in China until the 5th century BC. There are only

5. On the reading of this character see Cao in forthcoming.

three excavated seals and three unprovenanced ones from Anyang. One of the excavated seals (Fig. 5, *top*), found in an elite tomb, bears an emblem that appears also on bronzes from the tomb, and what seems to be the same emblem occurs in oracle texts as the name of a diviner. Scholars have suggested that the emblem on the bronzes is the name of a lineage that specialized in divination (He & Yue 2012: 72). But if we put aside the old assumption that unreadable emblems on bronzes are clan signs and think instead in terms of Cao's hypothesis, it becomes possible that the emblem in fact is an official title. Cemeteries at Anyang are organized by lineage, but the seal shown in Fig. 5 (*top*) is not from the same cemetery as the bronze vessel in Fig. 5 (*bottom*), which is inscribed with the same emblem. Perhaps the owner of the seal and the owner of the bronze were related not by blood but the office they held.

The fact that seals were used at Anyang is further evidence bearing on administrative reach and documentary coverage. The seals are likely to have been used to impress soft surfaces such as clay (He & Yue 2012: 71), and it is possible that most were made of perishable materials like wood that have not survived in the archaeological record. In ancient states, the power of seals and sealing resided partly in their symbolism and psychological effect, but they certainly had a practical use in administration, serving to identify a specific administrator or office.

The celebrated List of Professions from archaic period Uruk (late 4th millennium BC, see Nissen, this volume) begins with a term that should probably be translated as “king.” It continues with officers responsible for various areas, such as “city administration,” “barley-supplies,” “plowmen,” “head of the assembly,” and so on. Nissen points out that certain professions are split up in two or three levels, probably reflecting a master/journeyman/apprentice relation. Since some of the titles on the list are attested in administrative documents, the hierarchy was evidently not a scribal fiction but reflected “the structuring principle of the society as a whole” (Nissen 2015: 119). The List of Professions comes from an archaic period administration that also generated a staggering number of tablets recording economic transactions. Whether it was only the administration of the temple where the tablets were found or that of the entire city state, it was hierarchically organized with a division of duties.

It is common to use official titles as evidence of ancient bureaucracy, though in the ancient Egyptian context Juan Carlos Moreno García has explicitly argued against it (Moreno García 2013: 1–17), echoing Klaus Baer's idea that many of the Old Kingdom titles were honorary titles that did not imply the execution of specific functions within Egyptian administration (Baer 1960: 6). Nevertheless, as Baer has shown, the list of titles known to us from tombs of the Fifth and Sixth Dynasties followed a generally accepted system of ranking.

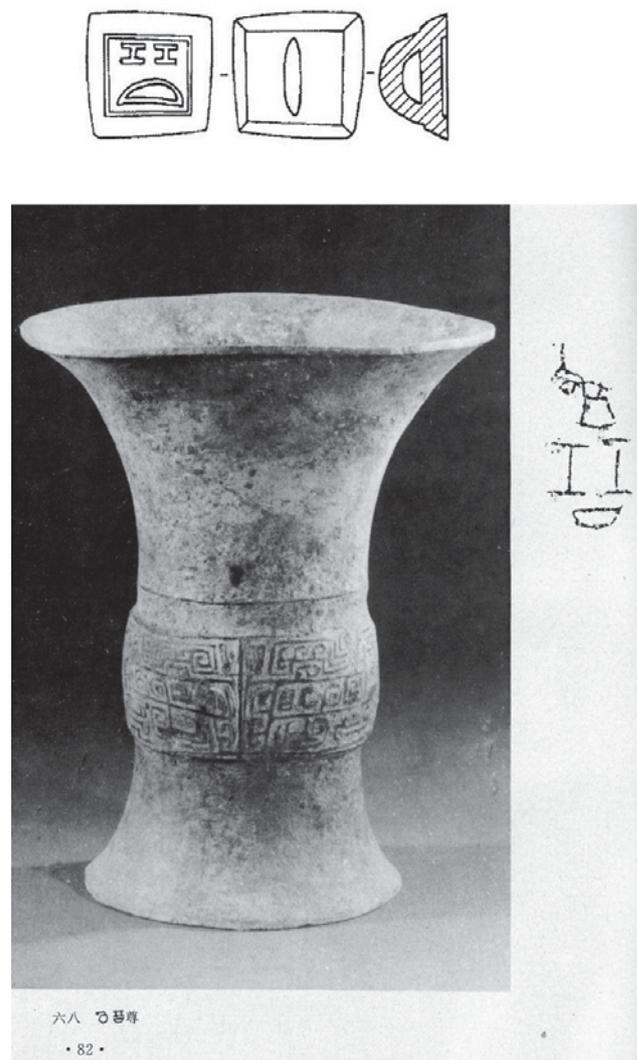


Fig. 5

Top. Line drawing of a bronze seal from Anyang, roughly square, length 2.2–2.4 cm, after Kaogu 2012.12, p. 70, fig.1.3. *Bottom.* A bronze wine vessel with a rubbing of the inscription cast inside its ring foot, after Anyang Yinxu qingtongqi (Zhengzhou: Zhongzhou Guji Chubanshe, 1993), pl. 66.

“The introduction of a standardized system of ranking the titles in the reign of Neferirkare involved the gathering, ordering, and systematization of an enormous number of titles. ...a considerable amount of thinking about the structure and formalization of an extremely large and complex state must have been done” (Baer 1960: 300). The Uruk list was composed right at the moment of the invention of writing, and later copies show that it was preserved throughout the history of scribal education. The fact that we have no copy of an Anyang list of official titles does not mean that nobody at ancient Anyang had one. After all, Anyang diviners were using a script that had somewhere between three and five thousand characters. Lists of those characters had to be kept, both for reference and for literacy training (in the course of which every pupil must produce copies), yet we do not have a single list, not even a fragment of one. We *know* that our sample of Anyang writing is incomplete. This brings me to a last point about the value and challenges of comparative study.

To the specialists who study it, the immense textual record of early China and the traditional understanding of it are so familiar that they can easily be taken for granted. Comparative study helps us not take them for granted. It helps us to see the familiar in a fresh light. It is a machine that generates coincidences both planned and unplanned. Like ethnographic analogy, it cannot supply proofs. The fact that writing in Mesopotamia began as bookkeeping, for instance, does not guarantee that writing in China began in the same way. But it is a well-established rule in scientific inquiry to prefer multiple possibilities to the exploration of only one, and comparison, like ethnographic analogy, can alert us to possibilities that we might not otherwise think of. The aforementioned study by Cao Dazhi is an example. He was inspired by Baer’s study of Old Kingdom sequences of official titles, a topic introduced to him by a lecture that John Baines gave at Peking University in 2015.

Comparative study regularly presents us with the problem of deciding whether we are looking at genuine cultural difference or only at a gap in the evidentiary record of one of our cultures. Cautious colleagues are understandably reluctant to make conjectures about missing evidence. Some prefer to confine their activities to a secure corner where the evidence seems reasonably full. A few regard it as methodologically virtuous to proceed as though nothing were missing. Yet the possibility of lost evidence is always with us; the historian cannot evade it. Surely, no less than any pollster, we should regularly assess the representativeness of the evidence we rely on, and when taphonomic distortion requires it, qualify our conclusions. In other words, we must do our best to identify gaps in the evidentiary record. There is no infallible way to do this. But unless we face up to the problem, we cannot responsibly write the history of one culture, much less write about cultural differences.

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