The First Writing

Script Invention as History and Process

STEPHEN D. HOUSTON
Brown University

CAMBRIDGE
UNIVERSITY PRESS

PUBLISHED BY THE PRESS SYNDICATE OF THE UNIVERSITY OF CAMBRIDGE
The Pitt Building, Trumpington Street, Cambridge, United Kingdom

CAMBRIDGE UNIVERSITY PRESS
The Edinburgh Building, Cambridge, CB2 2RU, UK
40 West 20th Street, New York, NY 10011–4211, USA
477 Williamstown Road, Port Melbourne, VIC 3207, Australia
Ruiz de Alarcón 13, 28014 Madrid, Spain
Dock House, The Waterfront, Cape Town 8001, South Africa

http://www.cambridge.org

© Cambridge University Press 2004

This book is in copyright. Subject to statutory exception
and to the provisions of relevant collective licensing agreements,
no reproduction of any part may take place without
the written permission of Cambridge University Press.

First published 2004

Printed in the United Kingdom at the University Press, Cambridge

Typeface Minion 10.5/14 pt. *System* LaTeX 2ε [TB]

A catalogue record for this book is available from the British Library

ISBN 0 521 83861 4 hardback

The publisher has used its best endeavors to ensure that the URLs for external websites referred to in this book are correct and active at the time of going to press. However, the publisher has no responsibility for the websites and can make no guarantee that a site will remain live or that the content is or will remain appropriate.

To Anders Bliss Houston and Hannah McCrea Houston
First in all things, and in my heart

9 Reasons for runes

HENRIK WILLIAMS

Compared to ancient classical scripts, the old Germanic runes are a young and unsophisticated relative from a remote corner of the world. Runes may be called young, since, at the time when they first appear, almost all major writing systems in the world were already invented. The runic script may also be thought unsophisticated or uncomplicated in several respects. First, it is alphabetic and thus does not include the large sign lists and heavy logographic component of other scripts discussed in this volume. Yet, even here, runic writing is a somewhat unrefined member of its class. It does not, for example, fully utilize the inherent abilities of alphabetic systems. There is no doubling of graphemes to denote long phonemes, and features such as word division and marking of nasals before homorganic consonants are optional. Second, even the execution of runic inscriptions is often inelegant: letters are incised with a broad range of tools in almost any kind of material, some of which are less than ideal media for writing, such as metal and stone. The texts are short, often only a word or two in length, and sometimes uninterpretable even by readers of that time. Even worse is that there are so irritatingly few runic inscriptions, only a couple of hundred from the first half-millennium of our era, even if we count generously. Third, runic inscriptions are not associated with a group of people otherwise renowned for cultural achievements. The Germanic tribes in southern Scandinavia and the northern part of the European continent are not, for good reasons, counted among the classical civilizations, at least not if we demand impressive buildings, extensive written texts, and a central organized society as evidence of a culture with claims to be great.

The number and shapes of the runic letters are well established (Table 9.1). This chapter will explore the setting for the invention and first use of the runes. It elaborates on thoughts in two earlier articles of mine (H. Williams 1996, 1997). The issues I want to address are: (1) where were the runes first used? (2) when were the runes invented? (3) from which alphabet were the runes derived? (4) how was the derivation made? (5) to what uses were the runes put? and (6) why were the runes invented?

Table 9.1 The oldest runic letters (*c.* AD 150–800). Number, shape, order, and the division into three groups are evidenced by fifth-century inscriptions of the rune-row (the futhark). The names (designations), their meaning, and the sound value of the individual runes are derived from ninth-century and later manuscripts. The derivations from Roman letters (third column) are found in H. Williams (1996).

Number	Rune	(From Roman letter)	Phonemic value	Germanic name (reconstructed)	Translation
1	ᚠ	(F)	f	*fehu*	cattle
2	ᚢ, ᚤ	(V)	u	*uruz*	ox
3	ᚦ	(D)	θ (th)	*þurisaz*	giant
4	ᚨ	(A)	a	*ansuz*	god
5	ᚱ	(R)	r	*raido*	riding
6	ᚲ	(C)	k	*kaunan*	ulcer
7	ᚷ	(X)	g	*gebo*	gift
8	ᚹ	(P)	w	*wunjo*	joy
9	ᚺ	(H)	h	*hagalaz*	hail (stone)
10	ᚾ	(N)	n	*naudiz*	need
11	ᛁ	(I)	i	*isaz*	ice
12	ᛃ	(G)	j	*jeran*	year
13	ᛇ	(Z)	ç (ch)?	*ihwaz*	yew
14	ᛈ	(K)	p	*perþo*?	?
15	ᛉ	(Y)	z	*algiz*	elk
16	ᛋ, ᛋ	(S)	s	*sowilo*	sun
17	ᛏ	(T)	t	*tiwaz*	the god Týr
18	ᛒ	(B)	b	*berkanan*	birch twig
19	ᛖ, ᛖ	(M)	e	*ehwaz*	horse
20	ᛗ	(E)	m	*mannaz*	human
21	ᛚ	(L)	l	*laguz*	liquid
22	ᛜ	(O)	ŋ (ng)	*ingwaz*	the god Ing
23 or 24	ᛟ	(Q)	o	*oþalan*	inherited land
24 or 23	ᛞ	Innovation	d	*dagaz*	day

Where were the runes first used?

The oldest dated artifact with an undoubted runic inscription is the bone comb from Vimose on the Danish Island of Funen (Fig. 9.1). The object probably dates to the second half of the second century AD. Other early inscriptions have been found on old Danish territory from Schleswig in present-day northern Germany to Scania, now in southern Sweden. But

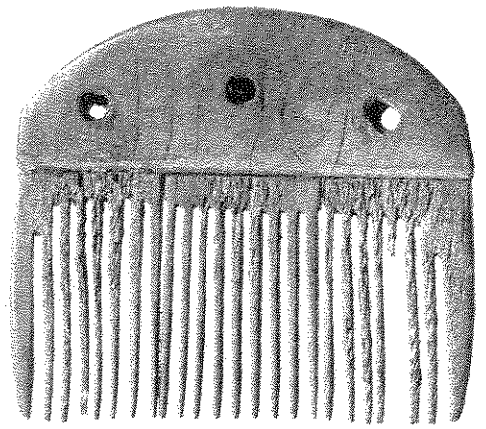

Fig. 9.1 Bone comb from Vimose, Denmark. The inscription reads **harja**, a personal name. (Picture: Nationalmuseet, Copenhagen.)

there are also a number of early, rune-inscribed spearheads with eastern Germanic provenance from the early third century. From this we may draw the conclusion that the runes had to be invented no later than *c.* AD 150. The fact that a not-so-small number of roughly contemporary inscriptions appear in a rather large area is very suggestive and will be discussed more fully below.

When were the runes invented?

The answer to this question is that we simply do not know. Many scholars have tried to pinpoint the time when the runes were invented by establishing the literary culture from which they were borrowed. Different answers may be offered depending on which writing system is posited as the source of the runes. Very much hinges on the time span allowed between the invention itself and the oldest known examples of the runic script in use. Those allowing a long period between the actual invention of the runes and their first recorded usage may posit an older Mediterranean area as the source of runes. In this vein the archaic Greco-Roman alphabet has been proposed as a plausible donor (see most recently Antonsen [1989:144–155]). Few runologists have been convinced by this proposal, and most scholars tend to narrow the gap between invention and recorded usage. The effect has been to favor either the Roman alphabet as the source of the runes or the late North Italic (sometimes called Etruscan) alphabets used by Celtic tribes in the Alpine region. The Roman origin tends to be favored by Scandinavians

whereas German- and English-speaking scholars often lean toward a North Italic source. My personal feeling is that this question should really be saved for last; it is, after all, the solution to the entire complex of problems and should pivot on how the other questions are answered.

From which alphabet were the runes derived?

Again, this question can really only be answered after many other problems are resolved. However, I want to point out that attempts have been made to approach the problem from two directions, that is cultural and alphabet-historical. The culture "on top" at the time when runes began to spread was, of course, Roman. A number of scholars, myself included, have argued for the probability that Roman influence was strong long before and after the runes started to appear, and that the runic source alphabet therefore most likely is the same as the one used for writing Latin. There is no real consensus, however, regarding exactly which kind of Latin writing was a pattern for the runes or at what exact time and place the invention occurred. Most (but not all) scholars agree that if only we could show that runes came from the Roman letters the problem would have been solved, but most (yet again not all) declare that it is not possible to find a perfect fit between letters and runes. One example should suffice: the rune ᚹ looks like a Latin <P> but actually represents /w/, whereas the rune for /p/, ᛈ, does not look like any Latin letter.

For this reason people have gone shopping for another classical script, one that is easier to reconcile with the actual shapes of the runic symbols. Hence the derivation from Greek and and North Italic alphabets. Chronological problems do arise, however, and there has been no greater success at proving a convincing absolute correspondence between individual runes and letters in these possible source alphabets. There has been an inevitable tendency toward explaining deviations by various ad hoc developments. And, of course, the greater the time span allowed between the invention of the runes and the oldest extant inscriptions, the greater the possibility for changes to occur in the shapes of the runes.

These difficulties have led most level-headed runologists to refrain from supporting one theory over another. Indeed, the problem has very little significance for the kind of runic philology most of us practice in the field. Not even when interpreting the earliest runic inscriptions does it seem important whether the runic symbols themselves are ultimately derived from one alphabet or another. When discussing the history and culture of the Germanic tribes, however, the origin of the runes is of utmost importance and must

be addressed by scholars from all disciplines. It should go without saying that runologists cannot abstain from participating in this work.

I have tried to make my own contribution to the search for the runic origins. I accept the commonly held view that one cannot ignore Roman influence in Germania during the first few centuries AD. I find that one cannot dismiss the Roman alphabet as the most likely source of the runes, although it is still an open question which version of Latin script we are dealing with. It is known for a fact that men from the Germanic tribes were held hostage in the Roman empire and served in the Roman armies, which must have given plenty of opportunity for contact with writing. Roman soldiers (presumably also those with Germanic roots) were taught writing, and it is also likely that people in the Germanic provinces had some more-or-less peaceful experience with the script of the occupying Roman army. These possible influences would most likely establish the cursive or provincial forms of Roman letters as the origin of runes (see Rausing 1992 and Quak 1996, respectively). The runes do not give a cursive impression at all, however. Problems even arise when using provincial forms in the derivations. Runes certainly look exceedingly epigraphic (i.e., cut rather than painted) and immediately strike one as more like monumental Roman letters used epigraphically than any cursive or provincial writing. This is why I follow other scholars in using the full 23-character alphabet of the classical Latin script as the sole source for the 24 runic graphemes.

How was the derivation made?

There is a proverb which I like tremendously: "If it walks like a duck and talks like a duck, it is probably a duck." Unfortunately, one cannot use this common-sense approach when deciding on the origin of the runes, at least not all of then. If we return to our runic ᚹ we find that it does indeed walk like a duck, that is, it *looks* like a Roman <P>, but it does not talk like a duck, since it does not have the phonemic value /p/. This is the reason why this rune has been given all kinds of fanciful derivations, and consequently the search for the origin of the runes veers off on a wild goose (or duck!) chase. I, on the other hand, was the first to argue that even if ᚹ does not fully behave as a duck, it most definitely does not behave like any other known bird. Therefore we seem obliged to be satisfied with only the first part of the famous saying: "If it walks like a duck, it probably *is* a duck."

I follow the principle that if a rune looks identical or very close to a Roman letter, it is most likely derived from that same letter. In judging likeness one has to take into account certain graphemic rules which are evident from

how the runes were formed.[1] The rules are simple and absolute and may untechnically be summarized in five points:

(1) A runic grapheme is made up of a full-length vertical line and/or lines of various length that are neither vertical nor horizontal, but diagonal.
(2) The diagonal lines may not proceed further up nor lower down than the verticals.
(3) The diagonal lines never issue exclusively from the bottom of the verticals, but are applied starting from the top, cf. ᛚ (*l*) and ᚢ (*u*).
(4) Two diagonal lines may be combined to form angles, which may be vertical or horizontal; three joined diagonal lines form a diagonal "crook."
(5) Runes made up of angles only reach full height if stacked on top of each other, cf. ᚲ (*k*), ᛃ (*j*), ᛜ (*ŋ*), and ᛋ (*s*), respectively.

These rules deriving runes from letters leave us with only two more or less problematic cases: ᚠ and ᛞ.[2] The first of these may be shown to be a derivative of <E> (see H. Williams 1996:214f.). Thereby all 23 Roman letters are exhausted as donor signs. Since the inventor of the runes felt the need for 24 graphemes, one had to be made up: ᛞ. The process is rather straightforward and presents no insurmountable problems. Of course, the result bears only a poor resemblance to the known sound values of the runes; at least eight runic graphemes do *not* represent the phoneme they should have done if my model were correct. By studying what happened to the Roman letters in the process, however, one may discover something interesting. All five of what we may call "unnecessary" letters in the Roman alphabet were used for phonemes or phoneme clusters with no equivalents in Latin; that is <K>, <Q>, <X>, <Y>, and <Z> were used for /w/, /ŋ/, /j/, /ç/, and /z/, respectively, as was the invented rune for /d/. Why the extant runes do not show this state of affairs, but rather a state where these very graphemes plus ᛗ and ᛜ have been switched, was not within my power to discover. My suggestion (see H. Williams 1996:217) has been that the "mix-up" took place separately after the creation of the runes, albeit very early, when the runic writing system had to survive independently of any reference to its Roman parent. I did write: "Although this mix-up might be unintentional, I have tried to show that it is by no means arbitrary" (H. Williams 1996:217). I should have realized that if the switching process were non-arbitrary, it must have taken place simultaneously with the process of creating the runes as we know them. Whoever was responsible for the "mix-up" obviously knew very well which runes corresponded to unnecessary letters in the Roman alphabet, and the subsequent switch must therefore have been intentional in spite of what I claimed. It took someone

better linguistically initiated than myself to sort out the possibilities. I refer to a joint article by John Robertson and myself, where he proposes what I consider to be a brilliant solution to the final stage of this problem, namely, the devising of new signs according to a linguistic process of analogy.

To what uses were the runes put?

Most of the early runic inscriptions appear on high-prestige artifacts such as the spearheads mentioned earlier, but also commonly on women's brooches (Fig. 9.2). It is interesting to note that the inscriptions, as such, do not seem to have had a very public function at first. The brooches were all inscribed in places where the runes would be hidden from everyone when the ornament was used, and only a person handling the item itself could read its text. On the other hand, one could not claim that the inscriptions were intentionally hidden on brooches; the best surfaces for inscribing are the non-ornamental ones, facing the back of the brooch or the plain sides, which were less visible than the decorated fronts. It could be argued that on a spearhead the inscription was displayed more openly, perhaps not to the enemy who at most beheld it briefly before it was plunged into a tender part of his body, but probably to fellow warriors when comparing weapons or when exhibiting them at other occasions.

That runic inscriptions were not intentionally hidden is also borne out by comparing the spearheads with inscribed shafts of various kinds, chapes, shieldbosses, buckles, and other details of equipment, as well as the odd comb and wooden box which have been found. This lack of seemingly secretive purposes accords well with the absence of any evidently occult inscriptions in the earliest material. One gets the impression that any difficulties encountered when trying to decipher an inscription are due more to incompetence on the part of the rune writer than to any conscious desire to mislead the reader or challenge her or his wits.

The impression of openness is strengthened by a look at the contents of the earliest runic texts. It is very common to find only one word, usually a name. In most cases the name probably denotes the owner of the inscribed artifact or the writer of the runes, possibly identical with the donor. There are many possible explanations for why a person's name appears on an item, but if it is the owner's name, one reason might well be the sheer delight in having one's name in writing. On spearheads the names seem to refer to the weapon itself: *Prober, Router, Goal-pursuer, Whiner.* However, three spearheads with the same name, *Wagnijo* ("the mover"), probably bear the name of the spearmaker. Simple makers' formulae do occur. Sometimes an

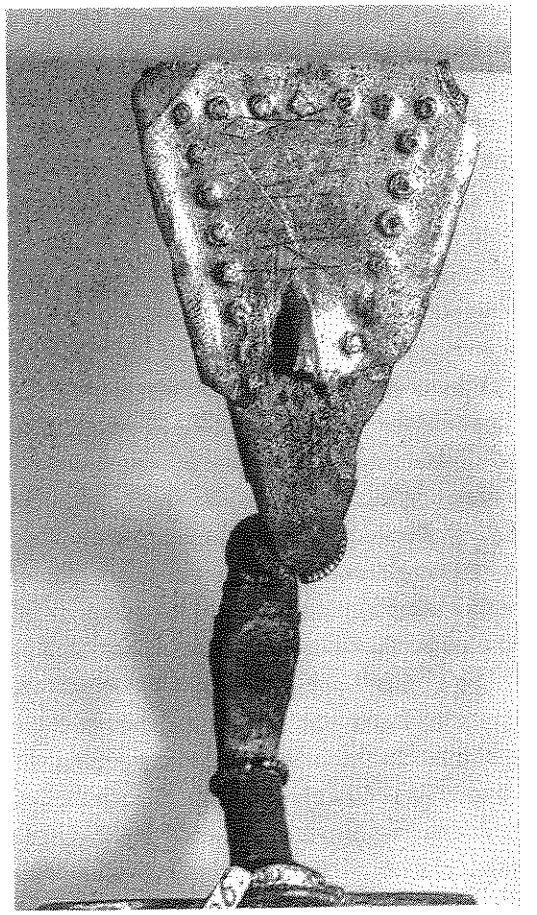

Fig. 9.2 Woman's fibula (brooch) from Himlingøje, Denmark. The inscription reads **hariso**, a personal name. (Picture: Nationalmuseet, Copenhagen.)

epithet of some kind is added to the name: for example *W. the well known.* There are a very few texts of more than two words, but they are always obscure, not least because of damage to the object.

I have lingered a while on the nature of the earliest inscriptions for the reason that many scholars have advocated and some still advocate a wholly different approach. Dennis H. Green, før example, claims that "instead of transmitting a communication the runes appear to have been used to conceal it, to wrap it up in mystery and magic" (1994:35). Neither Green nor any earlier scholar has presented any real evidence that runes were used for such concealment. I believe much of the reason for the fixation with the putatively esoteric side of runes depends on old interpretations of the inscriptions that

were riddled with the spirit of magic. Another contributing factor is the word *rune* itself, which is still universally considered to be full of occult meaning. Lately, however, this view has been challenged, very convincingly so, in my opinion, by Christine Fell in a most important work (1991). She demonstrates that the cognates of the word *rune* did not carry a pagan meaning for the Anglo-Saxon Christians. The connection with "magic, incantation, charm, superstition, pagan belief, etc." was actually imported with the Scandinavian invasions in the ninth century onwards. Influence from the Continent must also be taken into account (Fell 1991:228). We are still waiting for a similar study to be carried out on Scandinavian material, but it seems clear that the runes themselves were considered as a gift from the gods in that region, at least around the year 500, since the Swedish runestone from Noleby talks about "divine rune" with the same words as were in the Old Norse Poetic Edda from the thirteenth century (but used roots from pagan times [Jansson 1987:9]). Even so, however, there is nothing that directly connects divine origin with magic, nor is there any evidence of how runes were viewed during the first couple of centuries of their use, other than that they were utilized as a perfectly plain and serviceable means of writing.

For obvious reasons it is very difficult to come to any conclusions about the social and cultural context of these earliest inscriptions, the purpose of the runic texts, or the status of writing in Germanic society. Yet the *lack* of certain kinds of texts is most illuminating. By studying what runic writing was *not*, we may get hints of what it *was*. We may thus note the complete absence of any inscriptions dealing with cult, administration, literature, law, and so on. Later on, there are a few inscriptions which may have to do with cult and literature, but even counting these poor remnants one cannot escape the conclusion that Germanic culture was oral in principle, and that whatever purpose writing served it was not anything remotely similar to Latin literacy of the time. On this point I concur with Bengt Odenstedt (1990:173), the author of the latest monograph on this topic, who ends his book with the conclusion: "The art of writing was a luxury which Germanic people had seen Romans practise and which they no doubt envied and tried to imitate, with very little success."

This vacuum of sophisticated or lengthy inscriptions cannot be due to chance. As Anders Bæksted (1952:134) has shown, the extant inscriptions must be representative of the whole corpus, even though it cannot make up more than a fraction of what was originally produced. One should also note that the nature of the inscriptions seems to remain unchanged for approximately two centuries. If the datings are at all correct, we do not enter

a new stage until around the year AD 400, when an era of changes in language, contents, medium, and style is inaugurated. This later stage, however, need not concern us here. Suffice it to say that the earliest inscriptions appear toward the end of the second century, in the form of an explosion around the year AD 200, and that the inscriptions are quite simple at first with no great variation as to their content.

Why were the runes invented?

We may now start speculating on possible reasons behind the creation of the runes. It has been noted that runic inscriptions spring up almost simultaneously in southern Scandinavia and northern Germany and Poland. It can be suggested that "strongly Roman-influenced" (Stoklund 1996:114) centers in southern Scandinavia, with a possible hub on the Danish main island of Zealand, were responsible for the spread of the runes, if not necessarily the invention of the runes themselves. I have earlier leaned toward the view that the runes were created some time during the first century AD. I did point out a couple of extremely short first-century inscriptions which could represent the proto-runic stage I assumed reigned for a short time (H. Williams 1997:191). As it turns out, one of these inscriptions does not contain a positive rune-like symbol, as was first believed (Dietz, Marold, and Jöns 1996:184f.), which leaves us with very slender evidence indeed, and evidence pointing to Germanic experimentation with Roman letters that does not necessarily constitute a proto-runic stage. The final nail in the coffin of a first-century origin for runes may prove to be an observation in a yet-unpublished work by the Swedish settlement historian Stefan Brink.[3] He suggests that the runes were invented in one of two periods, either the first half of the first century or the century spanning the year AD 200. He observes that "many objects with runic inscriptions occur in wealthy graves around ca. AD 200. If runes were known and used before this time, one would expect to find some prestigious objects with similar runic inscriptions in graves from the Early Roman Iron Age (especially AD 1–50) . . . , but there are non[e]." Following Stoklund he discusses the power centers of Denmark at the end of the second century. If we accept the hypothesis that runes were spread from romanized centers in northern Germania, it would explain the distribution and chronology of the earliest finds. A later parallel might be the bracteates that start to appear in the fifth century AD. These are imitations of Roman medallions, some of which were given to Germanic chieftains. Gradually the bracteates become more and more Germanicized in iconographic style, and runes also soon replaced letters. If we return to the

earliest stage, I will venture the speculation that some differences between runes and Roman letters may be due to a conscious Germanic desire to make something separate of their script and not just to mimic the Latin writing system. We cannot prove any degree of conscious striving in this direction, unless it be the deviations from the Latin letter values discussed above. Many of the objective differences between runes and letters may have practical reasons only, but one cannot help but wonder at other alternatives. The unique and non-alphabetical order of the runes is one point of interest; the use of meaningful names for the runes is another (Table 9.1; see also H. Williams 1997:181–183).

The question of why the runes were invented must be answered by studying how they were used, and I have tried to show that it was not for very advanced purposes. The Germanic tribes were under Roman influence for centuries and more or less directly exposed to the art of writing. In my opinion the most likely theory is that someone invented the runes in the first half of the second century AD and that this invention was soon embraced and possibly adapted by the highest class in Germanic society. This class chose to mark various objects with runes, often to manifest ownership or donorship. There were, however, other aims at play as well. Spearheads were given names and marked accordingly, and markers' formulae are also well represented. A tentative division of the types of artifacts carrying runic inscriptions might be one that separates owned/given objects such as brooches, named objects such as weapons, and, lastly, manufactured objects such as equipment details and utensils. Of these, only the second group lends itself easily to interpretations beyond the mundane. If a spearhead is named *Prober* it may certainly be done so with magical functions in mind. We need to voice two reservations, though, before accepting this possibility with all its implications. Objects may be given names for other purposes; that is, just because a boat is called *Speedy* does not prove that its owner believes in the power of magic. Moreover, even if there is a magical intent behind the name as such, this fact proves nothing about the magic of the text itself or the graphemes used to write it. All scripts may certainly be employed for supernatural purposes without inherently imbuing the textual medium with such properties.

All in all, I cannot escape the impression that runes were used for very limited purposes. I believe that Anders Bæksted came very close to the truth when he stated that runes really did not have any practical function (1952:134, 137). Perhaps their function as a concrete manifestation of visible speech was all that mattered. Even the act of writing gibberish is very powerful. Just having your own name on an object, or the name of whoever

fashioned it or gave it to you, is intrinsically satisfying for social and psychological reasons. Owning or giving away such items must have been an efficient means of marking alliances and group membership.

With the view of the earliest runic inscriptions that I have outlined in the latter part of this chapter, there follows a shift in attitude toward the nature of runic origins. There are originally neither magical nor practical inducements for inventing or using runes. This should come as no surprise, since the same is true for some other scripts as well. Rex Wallace (1989:123) observes: "Precisely how and for what purpose(s) Latins first learned the art of writing remain something of a mystery." He also finds evidence to suggest "that writing was acquired by the wealthiest families as a symbol of prestige" (Wallace 1989:123).

A "symbol of prestige" is a good enough reason for runes, also.

Notes

1. The best graphemic analysis of the older runes is found in Antonsen (1978).
2. In my original presentation I described the derivation of ᛕ from K as problematic, since I could not explain why this shape failed to be maintained as *K. At the Sundance symposium a student at Brigham Young University, Christy Barber, was kind enough to point out that my own graphemic rules would forbid such a development. A rune *K would contain a full-length vertical line, |, plus a vertical angle, ⟨, but single angles are never allowed to be of full height. Therefore the rune had to consist of a full-length vertical line plus two horizontal angles, i.e. $| + {}^{\vee} + \wedge$. I wish to thank Ms. Barber for her sharp insight.
3. The following extracts are from an e-mail message sent by Dr. Brink to the author, March 2000, and quoted with his permission.

References

N.b.: Chinese archaeological journals cited in text by title: *Huaxia kaogu, Kaogu, Kaogu xuebao, Wenbo, Wenwu, Zhongguo wenwu bao.*

Adams, Barbara. 1974. *Ancient Hierakonpolis* and *Ancient Hierakonpolis: Supplement.* Warminster: Aris & Phillips.

Adams, Richard E. W. 1999. *Río Azul: An Ancient Maya City.* Norman, OK: University of Oklahoma Press.

Adams, Robert McC. 1996. *Paths of Fire: An Anthropologist's Inquiry into Western Technology.* Princeton, NJ: Princeton University Press.

Algaze, Guillermo. 1993. *The Uruk World System.* Chicago, IL: University of Chicago Press.

2001. Initial Social Complexity in Southwestern Asia. *Current Anthropology* 42:199–233.

Allchin, Frank R. 1995. *The Archaeology of Early Historic South Asia.* Cambridge: Cambridge University Press.

Allen, James P. 2000. *Middle Egyptian: An Introduction to the Language and Culture of the Hieroglyphs.* Cambridge: Cambridge University Press.

Allwein, Gerard, and John Barwise, eds. 1996. *Logical Reasoning with Diagrams.* Oxford and New York, NY: Oxford University Press.

Alster, Bendt. 1995. Epic Tales from Ancient Sumer. In *Civilizations of the Ancient Near East,* ed. Jack M. Sasson. New York, NY: Scribner's, pp. 2315–2326.

Amiet, Pierre. 1961. *La glyptique mésopotamienne archaïque.* Paris: Centre National de la Recherche Scientifique.

Anders, Ferdinand, Maarten Jansen, and Luis Reyes García. 1993. *Los templos del cielo y de la oscuridad: oráculos y liturgia; libro explicativo del llamado Códice Borgia.* Accompanied by a facsimile of the codex. Graz: Akademische Druck- u. Verlagsanstalt; Madrid: Sociedad Estatal Quinto Centenario; Mexico, DF: Fondo de Cultura Económica.

Anderson, Dana. 1978. Monuments. In *The Prehistory of Chalchuapa, El Salvador,* Volume I: *Introduction, Surface Surveys, Excavations, Monuments, and Special Deposits,* ed. Robert J. Sharer. Philadelphia, PA: University of Pennsylvania Press, pp. 155–180.

Anderson, Lloyd B. 1993. *The Writing System of La Mojarra and Associated Monuments.* 2nd edn. 2 vols. Washington, DC: Ecological Linguistics.

Antonsen, Elmer. 1978. The Graphemic System and the Germanic Fuþark. In *Linguistic Method: Essays in Honor of Herbert Penzl,* ed. I. Rauch and G. Carr. Janua Linguarum Series Major 79. The Hague: Mouton, pp. 287–297.

1989. The Runes: The Earliest Germanic Writing System. In *The Origins of Writing,* ed. Wayne M. Senner. Lincoln, NE: University of Nebraska Press, pp. 137–158.

Armstrong, Frank B. 1989. *Biochemistry.* 3rd edn. Oxford and New York, NY: Oxford University Press.

Arnheim, Rudolf. 1971. *Visual Thinking.* Berkeley, CA: University of California Press.

Ascher, Maria, and Robert Ascher. 1981. *Code of the Quipu.* Ann Arbor, MI: University of Michigan Press.

Asselberghs, Henri. 1961. *Chaos en beheersing: Documenten uit het aeneolitisch Egypte.* Documenta et Monumenta Orientis Antiqui 8. Leiden: E. J. Brill.

Assmann, Jan. 1994. Ancient Egypt and the Materiality of the Sign. In *Materialities of Communication,* ed. Hans Gumbrecht and K. Ludwig Pfeiffer. Stanford, CA: Stanford University Press, pp. 15–31.

Aston, Barbara G. 1994. *Ancient Egyptian Stone Vessels: Materials and Forms.* Studien zur Archäologie und Geschichte Altägyptens 5. Heidelberg: Heidelberger Orientverlag.

Atkins, P. W. 1987. *Molecules.* New York, NY: Scientific American Library.

Aveni, Anthony F. 1986. Non-Western Notational Frameworks and the Role of Anthropology in Our Understanding of Literacy. In *Toward a New Understanding of Literacy,* ed. Merald E. Wrolstad and Dennis F. Fisher. New York, NY: Praeger, pp. 252–280.

Badler, Virginia. 2000. The Dregs of Civilization: 5000 Year-Old Wine and Beer. Residues from Godin Tepe, Iran. *Bulletin of the Canadian Society for Mesopotamian Studies* 35:48–56.

Bæksted, Anders. 1952. *Målruner og Troldruner: Runemagiske Studier.* Nationalmuseets Skrifter, Arkæologisk-Historisk Række 4. Copenhagen: Gyldendal.

Bagley, Robert. 1987. *Shang Ritual Bronzes in the Arthur M. Sackler Collections.* Cambridge, MA: Harvard University Press.

1999. Shang Archaeology. In *The Cambridge History of Ancient China: From the Origins of Civilization to 221 BC,* ed. Michael Loewe and Edward L. Shaughnessy. Cambridge: Cambridge University Press, pp. 124–231.

Baines, John. 1983. Literacy and Ancient Egyptian Society. *Man* n.s. 18:572–599.

1985. *Fecundity Figures: Egyptian Personification and the Iconology of a Genre.* Warminster: Aris & Phillips; Chicago, IL: Bolchazy-Carducci.

1988. Literacy, Social Organization, and the Archaeological Record: The Case of Early Egypt. In *State and Society: The Emergence and Development of Social Hierarchy and Political Centralization,* ed. John Gledhill, Barbara Bender, and Mogens Trolle Larsen. London: Unwin Hyman, pp. 192–214.

1989. Communication and Display: The Integration of Early Egyptian Art and Writing. *Antiquity* 63:471–482.

1995. Origins of Egyptian Kingship. In *Ancient Egyptian Kingship*, ed. David O'Connor and David P. Silverman. Probleme der Ägyptologie 9. Leiden: E. J. Brill, pp. 95–156.

1997a. Kingship before Literature: The World of the King in the Old Kingdom. In *Selbstverständnis und Realität: Akten des Symposiums zur ägyptischen Königsideologie Mainz 15–17.6.1995*, ed. Rolf Gundlach and Christine Raedler. Ägypten und Altes Testament 36, Beiträge zur Ägyptischen Königsideologie 1. Wiesbaden: Otto Harrassowitz, pp. 125–186.

1997b. Review of Jochem Kahl, *Das System der ägyptischen Hieroglyphenschrift in der 0.–3. Dynastie. Die Welt des Orients* 27:170–173.

1999a. Scrittura e società nel più antico Egitto. In *Sesh: lingue e scritture nell'antico Egitto – inediti dal Museo Archeologico di Milano*, ed. Francesco Tiradritti. Exhibition catalogue. Milan: Electa, pp. 21–30.

1999b. Writing, Invention, and Early Development. In *Encyclopaedia of the Archaeology of Ancient Egypt*, ed. Kathryn Bard. London and New York, NY: Routledge, pp. 882–885.

2003. Early Definitions of the Egyptian World and its Surroundings. In *Culture through Objects: Ancient Near Eastern Studies in Honour of P. R. S. Moorey*, ed. Timothy Potts, Michael Roaf, and Diana Stein. Oxford: Griffith Institute, pp. 27–57.

in preparation. Writing and Society in Early Egypt. Manuscript in possession of author.

Baines, John, and C. J. Eyre. 1983. Four Notes on Literacy. *Göttinger Miszellen* 61:65–96.

Baines, John, and Norman Yoffee. 1998. Order, Legitimacy, and Wealth in Ancient Egypt and Mesopotamia. In *Archaic States*, ed. Gary Feinman and Joyce Marcus. Santa Fe, NM: School of American Research Press, pp. 199–260.

2000. Order, Legitimacy, and Wealth: Setting the Terms. In *Order, Legitimacy, and Wealth in Ancient States*, ed. Janet E. Richards and Mary Van Buren. New Directions in Archaeology. Cambridge: Cambridge University Press, pp. 13–17.

Bard, Kathryn. 2000. The Emergence of the Egyptian State (*c.* 3200–2686 BC). In *The Oxford History of Ancient Egypt*, ed. Ian Shaw. Oxford: Oxford University Press, pp. 61–88.

Barnett, William K., and John Hoopes, eds. 1995. *The Emergence of Pottery: Technology and Innovation in Prehistoric Societies*. Washington, DC: Smithsonian Institution Press.

Barwise, Jon, and John Etchemendy. 1996. Visual Information and Valid Reasoning. In *Logical Reasoning with Diagrams*, ed. Gerard Allwein and John Barwise. Oxford and New York, NY: Oxford University Press, pp. 3–25.

Bauer, Thomas. 1996. Arabic Writing. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 559–564.

Baumgartel, Elise J. 1955. *The Cultures of Prehistoric Egypt*, Volume I, 2nd edn. Oxford: Oxford University Press.

Baxter, William H. 1992. *A Handbook of Old Chinese Phonology*. Berlin: Mouton de Gruyter.

Beale, Thomas. 1978. Bevelled Rim Bowls and their Implications for Change and Economic Organization in the Later Fourth Millennium B.C. *Journal of Near Eastern Studies* 37:289–313.

Belting, Hans. 1994. *Likeness and Presence: A History of the Image Before the Era of Art*. Chicago, IL: University of Chicago Press.

Bennet, John. 2000. Agency and Bureaucracy: Thoughts on the Nature and Extent of the Pylos Administration. In *Proceedings of the International Conference on the Mycenaean Palatial System, Cambridge, 1–3 July 1999*, ed. J. T. Killen and S. Voutsaki. Cambridge Philological Society Supplementary Volume. Cambridge: Cambridge Philological Society, pp. 25–37.

Bennett, Emmett L. 1996. Aegean Scripts. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 125–133.

Berdan, Frances F. 1978. Ports of Trade in Mesoamerica: A Reappraisal. In *Cultural Continuity in Mesoamerica*, ed. David Browman. The Hague: Mouton, pp. 179–198.

1996. The Tributary Provinces. In *Aztec Imperial Strategies*, ed. Frances F. Berdan, Richard E. Blanton, Elizabeth H. Boone, Mary G. Hodge, Michael E. Smith, and Emily Umberger. Washington, DC: Dumbarton Oaks, pp. 115–136.

Berjonneau, G., and J.-L. Sonnery. 1985. *Rediscovered Masterpieces of Mesoamerica: Mexico–Guatemala–Honduras*. Boulogne: Editions Art 135.

Berlo, C. Janet 1983. Conceptual Categories for the Study of Texts and Images in Mesoamerica. In *Text and Image in Pre-Columbian Art: Essays on the Interrelationship of the Verbal and Visual Arts*, ed. Janet C. Berlo. British Archaeological Reports International Series 180. Oxford : British Archaeological Reports, pp. 1–39.

1989. Early Writing in Central Mexico: *In Tlilli, In Tlapilli* before AD 100. In *Mesoamerica after the Decline of Teotihuacan, AD 700–900*, ed. Richard A. Diehl and Janet C. Berlo. Washington, DC: Dumbarton Oaks Research Library and Collection, pp. 19–47.

Bernal, Ignacio. 1969. *The Olmec World*. Berkeley, CA: University of California Press.

Bernal, Martin. 1987. *Black Athena: The Afroasiatic Roots of Classical Civilization*, Volume I: *The Fabrication of Ancient Greece, 1785–1985*. London: Free Association Books.

Bertin, Jacques. 1983. *Semiology of Graphics: Diagrams, Networks, Maps*. Madison, WI: University of Wisconsin Press.

Besançon, Alain. 2000. *The Forbidden Image: An Intellectual History of Iconoclasm*. Chicago, IL: University of Chicago Press.

Binford, Lewis R. 1962. Archaeology and Anthropology. *American Antiquity* 28:217–225.

Bloomfield, Leonard. 1933. *Language.* New York, NY: Henry Holt.

Bodel, John. 2001. Epigraphy and the Ancient Historian. In *Epigraphic Evidence: Ancient History from Inscriptions*, ed. John Bodel. London: Routledge, pp. 1–56.

Boehmer, Rainer M., Günter Dreyer, and Bernd Kromer. 1993. Einige frühzeitliche 14c-Datierungen aus Abydos und Uruk. *Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo* 49:63–68.

Boltz, William G. 1986. Early Chinese Writing. *World Archaeology* 17:420–436.

1994. *The Origin and Early Development of the Chinese Writing System.* American Oriental Series Volume 78. New Haven, CT: American Oriental Society. Reprinted with corrections, 2003.

1996. Early Chinese Writing. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 191–199.

1999. Language and Writing. In *The Cambridge History of Ancient China*, ed. Michael Loewe and Edward L. Shaughnessy. Cambridge: Cambridge University Press, pp. 74–123.

2000. *Monosyllabicity and the Origin of the Chinese Script.* Preprint 143. Berlin: Max-Planck-Institut für Wissenschaftsgeschichte.

2001. The Invention of Writing in China. *Oriens Extremis* 42:1–17.

Bonfante, Larissa. 1996. The Scripts of Italy. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 297–311.

Boodberg, Peter. 1957. The Chinese Script: An Essay on Nomenclature (The First Hecaton). *Bulletin of the Institute of History and Philology* 29:113–120.

Boone, Elizabeth Hill. 1994. Introduction: Writing and Recording Knowledge. In *Writing without Words: Alternative Literacies in Mesoamerican and the Andes*, ed. Elizabeth H. Boone and Walter D. Mignolo. Durham, NC: Duke University Press, pp. 3–26.

1998. Pictorial Documents and Visual Thinking and Postconquest Mexico. In *Native Traditions in the Postconquest World*, ed. Elizabeth Hill Boone and Tom Cummins. Washington, DC: Dumbarton Oaks, pp. 149–199.

2000. *Stories in Red and Black: Pictorial Histories of the Aztecs and Mixtecs.* Austin, TX: University of Texas Press.

2003. A Web of Understanding: Pictorial Codices and the Shared Intellectual Culture of Late Post-Classic Mesoamerica. In *The Postclassic Mesoamerican World*, ed. Michael E. Smith and Frances F. Berdan. Salt Lake City, UT: University of Utah Press, pp. 207–221.

n.d. *In Tlamatinime*: The Wise Men and Women of Aztec Mexico. In *Painted Books and Indigenous Knowledge in Mesoamerica: Manuscript Studies in Honor of Mary Elizabeth Smith*, ed. Elizabeth Hill Boone. New Orleans, LA: Middle American Research Institute, Tulane University (forthcoming).

Boone, Elizabeth Hill, and Walter D. Mignolo, eds. 1994. *Writing without Words: Alternative Literacies in Mesomerica and the Andes.* Durham, NC: Duke University Press.

Bottéro, Françoise. 1996. Les trente premières années du déchiffrement des inscriptions oraculaires (1903–1933). In *Écritures archaïques: systèmes et déchiffrement*, ed. Yau Shun-chiu. Paris: Editions Langages Croisés, pp. 73–98.

2001. Variantes graphiques dans les inscriptions sur os et écailles. In *Actes du colloque "Centenaire de la Découverte des Inscriptions sur Os et Carapaces,"* ed. Yau Shun-chiu. Paris: Editions Langages Croisés.

Bottéro, Jean. 1987. *Mésopotamie: l'écriture, la raison et les dieux.* Paris: Gallimard.

1992. *Mesopotamia: Writing, Reasoning, and the Gods.* Chicago, IL: University of Chicago Press.

Brandon, Carl, and John Tooze. 1991. *Introduction to Protein Structure.* New York, NY: Garland.

Brice, William C. 1962–1963. The Writing System of the Proto-elamite Account Tablets of Susa. *Bulletin of the John Rylands Library* 45:15–39.

1976. The Principles of Non-phonetic Writing. In *Writing Without Letters*, ed. William Haas. Manchester: Manchester University Press, pp. 29–44.

Brovarski, Edward J. 1987. Two Old Kingdom Writing Boards from Giza. *Annales du Service des Antiquités de l'Egypte* 71:27–52.

Brown, Gillian, and George Yule. 1983. *Discourse Analysis.* Cambridge: Cambridge University Press.

Buccellati, Giorgio. 1981. The Origin of Writing and the Beginning of History. In *The Shape of the Past: Studies in Honor of F. D. Murphy*, ed. Giorgio Buccellati and Charles Speroni. Los Angeles, LA: Institute of Archaeology and Office of the Chancellor, pp. 3–13.

Burrows, Eric. 1935. *Archaic Texts.* Ur Excavations Texts 2. London/Philadelphia, PA: British Museum (Harrison and Sons) / University Museum, University of Pennsylvania.

Byland, Bruce E., and John M. D. Pohl. 1994. *In the Realm of 8 Deer: The Archaeology of Mixtec Codices.* Norman, OK: University of Oklahoma Press.

Cahn, Robert, and Marcus Winter. 1993. The San José Mogote Dancer. *Indiana* 13:39–64.

Campbell, Lyle. 1984. The Implications of Mayan Historical Linguistics for Glyphic Research. In *Phoneticism in Mayan Hieroglyphic Writing*, ed. John S. Justeson and Lyle Campbell. Institute for Mesoamerican Studies, Publication 9. Albany, NY: State University of New York, pp. 1–16.

Campbell, Lyle, and Terrence Kaufman. 1976. A Linguistic Look at the Olmecs. *American Antiquity* 41(1):80–89.

Cardona, Giorgio Raimondo. 1981. *Antropologia della scrittura.* Turin: Loescher.

Carter, Elizabeth, and Matthew Stolper. 1984. *Elam: Surveys of Political History and Archaeology.* Berkeley, CA: University of California Press.

Caso, Alfonso. 1928. *Las estelas zapotecas.* Monografías del Museo Nacional de Arqueología, Historia y Etnografía. Mexico, DF: Talleres Gráficos de la Nación.

1947. Calendario y escritura de las antiguas culturas de Monte Albán. In *Obras completas de Miguel Othón de Mendizábal*, Volume I. Mexico, DF: Talleres Gráficos de la Nación, pp. 114–145.

Cavigneaux, Antoine. 1991. Die Inschriften der xxxii./xxxiii. Kampagne. *Baghdader Mitteilungen* 22:33–123, 124-163.

Changsha Mawangdui Yihao Han Mu. 1973. Beijing: Wenwu Chubanshe.

Charvát, Petr. 1993. *Ancient Mesopotamia: Humankind's Long Journey into Civilization.* Prague: Oriental Institute, Academy of Sciences.

1998. *On People, Signs, and States: Spotlights on Sumerian Society, c. 3500–2500 BC.* Prague: Oriental Institute, Academy of Sciences.

Chen Mengjia. 1956. *Yinxu Buci Zongshu.* Beijing: Kexue Chubanshe.

Chen Zhida. 1991. Shang Dai de Yu Shi Wenzi. *Huaxia kaogu* 2:65–69, 64.

Cheung Kwong-yue. 1983. Recent Archeological Evidence Relating to the Origin of Chinese Characters. In *The Origins of Chinese Civilisation*, ed. David N. Keightley. Berkeley, CA: University of California Press, pp. 323–391.

Chiang, William W. 1995. *"We Two Know the Script; We Have Become Good Friends": Linguistic and Social Aspects of The Women's Script Literacy in Southern Hunan, China.* Lanham, MD: University Press of America.

Childe, V. Gordon. 1925. *The Dawn of European Civilization.* London: Kegan Paul.

1950. The Urban Revolution. *The Town Planning Review* 21:3–17.

Chinchilla Mazariegos, Oswaldo. 1996. Settlement Patterns and Monumental Art at a Major Pre-Columbian Polity: Cotzumalguapa, Guatemala. Unpublished Ph.D. dissertation, Vanderbilt University.

1999. Desarollo de la escritura en Mesoamérica durante el Preclásico. In *Historia General de Guatemala, Tomo I*, ed. Marion Popenoe de Hatch. Guatemala: Asociación de Amigos del País, Fundación para la Cultura y el Desarrollo, Guatemala City, pp. 557–562.

Chomsky, Noam, and Morris Halle. 1968. *The Sound Pattern of English.* New York, NY: Harper and Row.

Civil, Miguel. 1973. The Sumerian Writing System: Some Problems. *Orientalia* 42: 21–34.

1992. Education in Mesopotamia. In *Anchor Bible Dictionary*, Volume II, ed. David Noel Freedman. New York, NY: Doubleday, pp. 301–305.

1995. Ancient Mesopotamian Lexicography. In *Civilizations of the Ancient Near East*, ed. J. M. Sasson. New York, NY: Scribner's, pp. 2305–2314.

Clanchy, M. T. 1979. *From Memory to Written Record: England, 1066–1307.* Cambridge, MA: Harvard University Press.

Classen, Constance. 1993. *Inca Cosmology and the Human Body.* Salt Lake City, UT: University of Utah Press.

Codex Borgia. 1993. *The Codex Borgia: A Full-color Restoration of the Ancient Mexican Manuscript*, by Gisele Díaz and Alan Rodgers, with a new introduction and commentary by Bruce E. Byland. New York, NY: Dover.

Codex en Cruz. 1981. *Codex en Cruz*, ed. Charles Dibble. 2 vols. Salt Lake City, UT: University of Utah Press.

Codex Féjerváry-Mayer. 1971. *Codex Féjerváry-Mayer 12–14 M, City of Liverpool Museums*, intro. Cottie A. Burland. Graz: Akademische Druck- u. Verlagsanstalt.

Codex Mexicanus. 1952. Commentaire du Codex Mexicanus Nos. 23–24 de la Bibliothèque Nationale de Paris, ed. Ernst Mengin. *Journal de la Société des Américanistes* 41: 387–498. With facsimile of the codex published as a supplement to the *Journal.*

Codex Vaticanus B. 1972. *Codex Vaticanus 3773 (Codex Vaticanus B). Biblioteca Apostolica Vaticana*, intro. Ferdinand Anders. Graz: Akademische Druck- u. Verlagsanstalt.

Coe, Michael D. 1957. Cycle 7 Monuments in Middle America: A Reconsideration. *American Anthropologist* 59:597–611.

1966. *An Early Stone Pectoral from Southeastern Mexico.* Studies in Pre-Columbian Art & Archaeology 1. Washington, DC: Dumbarton Oaks Research Library and Collection.

1968. *America's First Civilization.* New York, NY: American Heritage.

1973. *The Maya Scribe and His World.* New York, NY: Grolier Club.

1976. Early Steps in the Evolution of Maya Writing. In *Origins of Religious Art and Iconography in Preclassic Mesoamerica*, ed. Henry B. Nicholson. Latin American Studies Series 31. Los Angeles, CA: University of California at Los Angeles, pp. 107–122.

1992. *Breaking the Maya Code.* London: Thames and Hudson.

1995. On *Not* Breaking the Indus Code. *Antiquity* 69:393–395.

1999. *Breaking the Maya Code.* Rev. edn. London: Thames and Hudson.

Coe, Michael D., and Richard A. Diehl. 1980. *In the Land of the Olmec*, Volume I: *The Archaeology of San Lorenzo Tenochtitlán.* Austin, TX: University of Texas Press.

Coe, Michael D., and Justin Kerr. 1997. *The Art of the Maya Scribe.* London: Thames and Hudson.

Collon, Dominique. 1987. *First Impressions: Cylinder Seals in the Ancient Near East.* London: British Museum Press.

Comrie, Bernard. 1996. Script Reform in and after the Soviet Union. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 781–784.

Coningham, R. A. E., F. R. Allchin, C. M. Batt, and D. Lucy. 1996. Passage to India? Anuradhapura and the Early Use of the Brahmi Script. *Cambridge Archaeological Journal* 6:73–97.

Cooper, Jerrold. 1986. *Sumerian and Akkadian Royal Inscriptions, I: Presargonic Inscriptions.* American Oriental Society Translation Series Vol. I. New Haven, CT: American Oriental Society.

1989. Writing. In *International Encyclopedia of Communications*, Volume IV, ed. Eric Barnouw. New York, NY: Oxford University Press, pp. 321–331.

1992. Babbling on: Recovering Mesopotamian Orality. In *Mesopotamian Epic Literature: Oral or Aural?* ed. Marianna E. Vogelzang and Herman L. J. Vanstiphout. New York, NY: Edward Mellen, pp. 103–122.

1996. Sumerian and Akkadian. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 37–57.

1999a. Sumer et Sumériens: questions de terminologie. *Supplément au Dictionnaire de la Bible* fascicle 72. Paris: Letouzey, pp. 78–93.

1999b. Sumerian and Semitic Writing in Most Ancient Syro-Mesopotamia. In *Languages and Cultures in Contact at the Crossroads of Civilizations in the Syro-Mesopotamian Realm*, ed. Karel Van Lerberghe and Gabriela Voet. Orientalia Lovaniensia Analecta 96. Leuven: Peeters, pp. 61–77.

2000. Right Writing: Talking about Sumerian Orthography and Texts. *Acta Sumerologica* 22.

Coulmas, Florian. 1989. *The Writing Systems of the World.* Oxford: Blackwell.

1994. Theorie der Schriftgeschichte. In *Schrift und Schriftlichkeit: ein interdisziplinäres Handbuch internationaler Forschung*, ed. Hartmut Günther and Otto Ludwig. Berlin: de Gruyter, pp. 256–264.

1996. *The Blackwell Encyclopedia of Writing Systems.* Oxford: Blackwell.

Covarrubias, Miguel. 1957. *Indian Art of Mexico and Central America.* New York, NY: Alfred A. Knopf.

Crump, Thomas. 1990. *The Anthropology of Numbers.* Cambridge: Cambridge University Press.

Cubberley, Paul. 1996. The Slavic Alphabets. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 346–355.

Dalley, Stephanie. 1984. *Mari and Karana: Two Old Babylonian Cities.* London: Longman. 2nd edn. Piscataway, NJ: Gorgias Press, 2002.

Damerow, Peter. 1999a. *The Material Culture of Calculation: A Conceptual Framework for an Historical Epistemology of the Concept of Number.* Preprint 117. Berlin: Max-Planck-Institut für Wissenschaftsgeschichte.

1999b. *The Origins of Writing as a Problem of Historical Epistemology.* Preprint 114. Berlin: Max-Planck-Institut für Wissenschaftsgeschichte. (Also presented at symposium, "The Multiple Origins of Writing, Symbol, and Script," Center for Ancient Studies, University of Pennsylvania, 26 March; www.mpiwg-berlin.mpg.de/Preprints/P114.PDF)

Damerow, Peter, and Robert Englund. 1987. Die Zahlzeichensysteme der Archaischen Texte aus Uruk. In *Zeichenliste der Archaischen Texte aus Uruk*, ed. Margaret Green and Hans Nissen. Ausgrabungen der Deutschen Forschungsgemeinschaft in Uruk-Warka 11. *Archaische Texte aus Uruk 2.* Berlin: Gebrüder Mann Verlag, pp. 117–166 and tables 54–60.

1989. *The Proto-Elamite Texts from Tepe Yahya.* American School of Prehistoric Research Bulletin 39. Cambridge, MA: Harvard University Press.

Damerow, Peter, and Hans-Peter Meinzer. 1995. Computertomographische Untersuchung ungeöffneter archaischer Tonkugeln aus Uruk W 20987,9, W 20987,11 und W 20987,12. *Baghdader Mitteilungen* 26:7–33 and pls. 1–4.

Daniels, Peter T. 1992. The Syllabic Origin of Writing and the Segmental Origin of the Alphabet. In *The Linguistics of Literacy*, ed. Pamela Downing, Susan D. Lima, and Michael Noonan. Amsterdam: Benjamins, pp. 83–110.

1996a. Aramaic Scripts for Aramaic Languages. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 499–514.

1996b. The Invention of Writing. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 579–586.

1996c. The Study of Writing Systems. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 3–17.

Daniels, Peter T., and William Bright, eds. 1996. *The World's Writing Systems.* New York, NY, and Oxford: Oxford University Press.

Davies, W. V. 1987. *Reading the Past: Egyptian Hieroglyphs.* London: British Museum.

1994. Les hiéroglyphes égyptiens. In *La naissance des écritures du cunéforme à l'alphabet.* Paris: Editions du Seuil, pp. 102–181.

Davies, W. V., and Renée Friedman. 1998. *Egypt Uncovered.* New York, NY: Stewart, Tabori, and Chang.

DeFrancis, John. 1984. *The Chinese Language: Fact and Fantasy.* Honolulu, HI: University of Hawaii Press.

1989. *Visible Speech: The Diverse Oneness of Writing Systems.* Honolulu, HI: University of Hawaii Press.

Demarest, Arthur A. 1984. La cerámica preclásica de El Mirador: resultados preliminares y análisis en curso. *Mésoamerica* 7:53–92.

Dematte, Paola. 1996. The Origins of Chinese Writing: Archaeological and Textual Analysis of the Pre-dynastic Evidence. Unpublished Ph.D. dissertation, University of California at Los Angeles.

Derrida, Jacques. 1976. *Of Grammatology*, trans. Gayatri Chakravorty Spivak. Baltimore, MD: The John Hopkins University Press.

Diamond, Stanley. 1974. *In Search of the Primitive: A Critique of Civilization.* New Brunswick, NJ: Transaction Books.

Díaz del Castillo, Bernal. 1956. *The Discovery and Conquest of Mexico*, trans. and ed. Alfred P. Maudslay. New York, NY: Farrar, Straus and Cudahy.

Dibble, Charles E. 1971. Writing in Central Mexico. In *Handbook of Middle American Indians*, Volume X, ed. Robert Wauchope, Gordon Ekholm, and Ignacio Bernal. Austin, TX: University of Texas Press, pp. 322–332.

1973. The Syllabic-alphabetic Trend in Mexican Codices. *40th International Congress of Americanists, Rome–Geneva, 1972* 1:373–378.

1980. *Códice Xolotl.* 2 vols. Mexico, DF: Universidad Nacional Autónoma de México.

Dickerson, Richard E., and Irving Geis. 1969. *The Structure and Actions of Proteins.* Menlo Park, CA: W. A. Benjamin.

1983. *Hemoglobin: Structure, Function, Evolution and Pathology.* Menlo Park, CA: Benjamin/Cummins.

Diehl, Richard A., and Michael D. Coe. 1995. Olmec Archaeology. In *The Olmec World*, ed. Jill Guthrie. Princeton, NJ: The Art Museum, Princeton University, pp. 10–25.

Dietz, Martina, Edith Marold, and Hauke Jöns. 1996. Eine frühkaiserzeitliche Scherbe mit Schriftzeichen aus Osterrönfeld, Kr. Rendsburg-Eckernförde. *Archäologisches Korrenspondenzblatt* 26:179–188.

Diringer, David. 1962. *Writing.* New York, NY: Praeger.

Dittmann, René. 1986a. Seals, Sealings and Tablets. In *Ğamdat Naṣr: Period or Regional Style?* ed. Uwe Finkbeiner and Wolfgang Röllig. Wiesbaden: Reichert Verlag, pp. 332–366.

1986b. *Betrachtungen zur Frühzeit des Südwest-Iran.* Berliner Beiträge zum Vorderen Orient 4. Berlin: Reimer Verlag.

Di Vito, Robert. 1993. *Studies in Third Millennium Sumerian and Akkadian Personal Names.* Studia Pohl, Series Maior 16. Rome: Editrice Pontificio Istituto Biblico.

Djamouri, Redouane. 1997. Ecriture et langue dans les inscriptions chinoises archaïques. In *Paroles à dire, paroles à écrire: Inde, Chine, Japon*, ed. Viviane Alleton. Paris: Editions de l'Ecole des Hautes Etudes en Sciences Sociales, pp. 209–240.

Doblhofer, Ernst. 1973. *Voices in Stone: The Decipherment of Ancient Scripts and Writings.* London: Granada Publishing.

Dollfus, Geneviève. 1971. Les fouilles à Djaffarabad de 1969 à 1971. *Cahiers de la Délégation Archéologique Française* 1:17–162.

1975. Les fouilles à Djaffarabad de 1972 à 1974. *Cahiers de la Délégation Archéologique Française* 5.11–62.

Donadoni Roveri, Anna Maria, and Francesco Tiradritti. 1998. *Kemet: Alle sorgenti del tempo.* Milan: Electa.

Drake, Stillman. 1986. Literacy and Scientific Notation. In *Toward a New Understanding of Literacy*, ed. Merald E. Wrolstad and Dennis F. Fisher. New York, NY: Praeger, pp. 135–155.

Dreyer, Günter. 1995. Die Datierung der Min-Statuen aus Koptos. In *Kunst des Alten Reiches: Symposium im Deutschen Archäologischen Institut Kairo am 29. Und 30. Oktober 1991.* Deutsches Archäologisches Institut, Abteilung Kairo, Sonderschrift 28. Mainz: Philipp von Zabern, pp. 49–56.

Dreyer, Günter, Joachim Boessneck, Angela von den Driesch, and Stefan Klug. 1990. Umm el-Qaab: Nachuntersuchungen im frühzeitlichen Königsfriedhof, 3./4. Vorbericht. *Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo* 46:53–90.

Dreyer, Günter, Eva-Maria Engel, Ulrich Hartung, Thomas Hikade, Eva Christiana Köhler, and Frauke Pumpenmeier. 1996. Umm el-Qaab: Nachuntersuchungen im frühzeitlichen Königsfriedhof, 7./8. Vorbericht. *Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo* 52:11–81.

Dreyer, Günter, Ulrich Hartung, Thomas Hikade, Eva Christiana Köhler, Vera Müller, and Frauke Pumpenmeier. 1998a. Umm el-Qaab: Nachuntersuchungen im frühzeitlichen Königsfriedhof, 9./10. Vorbericht. *Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo* 54:77–167.

Dreyer, Günter, Ulrich Hartung and Frauke Pumpenmeier. 1993. Umm el-Qaab: Nachuntersuchungen im frühzeitlichen Königsfriedhof, 5./6. Vorbericht. *Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo* 49:23–62.

1998b. *Umm el-Qaab I: Das Prädynastische Königsgrab U-j und seine frühen Schriftzeugnisse.* Deutsches Archäologisches Institut, Abteilung Kairo, Archäologische Veröffentlichungen 86. Mainz: Philipp von Zabern.

Dreyer, Günter, Angela von den Driesch, Eva-Maria Engel, Rita Hartmann, Ulrich Hartung, Thomas Hikade, Vera Müller, and Joris Peters. 2000. Umm el-Qaab: Nachuntersuchungen im frühzeitlichen Königsfriedhof, 11./12. Vorbericht. *Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo* 56:43–129.

Drucker, Philip, Robert F. Heizer, and Robert J. Squier. 1959. *Excavations at La Venta, Tabasco, 1955.* Bureau of American Ethnology Bulletin 170. Washington, DC: Smithsonian Institution.

Easby, Elizabeth K., and John F. Scott. 1970. *Before Cortés, Sculpture of Middle America: A Centennial Exhibition at the Metropolitan Museum of Art from September 30, 1970, through January 3, 1971.* New York, NY: Metropolitan Museum of Art.

Ebbinghaus, Ernst. 1996. The Gothic Alphabet. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 290–296.

Edel, Elmar. 1961–1963. *Zu den Inschriften auf den Jahreszeitenreliefs der "Weltkammer" aus dem Sonnenheiligtum des Niuserre.* Nachrichten der Akademie der Wissenschaften in Göttingen, philol.-hist. Klasse 1961, 1963. 3 vols. Göttingen: Vandenhoeck & Ruprecht.

Einstein, Albert. 1996. *The Collected Papers of Albert Einstein*, Volume IV: *The Swiss Years: Writings, 1912–1914*, trans. Anna Beck. Princeton, NJ: Princeton University Press.

Eklund, Peter W., Gerard Ellis, and Graham Mann, eds. 1996. *Conceptual Structures: Knowledge Representation as Interlingua: 4th International Congress of Conceptual Structures, ICSS '96, Sydney, Australia, August 19–22, 1996: Proceedings.* Berlin and New York: Springer.

el-Khouli, Ali Abd el-Rahman Hassanain. 1978. *Egyptian Stone Vessels, Predynastic Period to Dynasty III: Typology and Analysis.* 3 vols. Mainz: Philipp von Zabern.

Elkins, James. 1999. *The Domain of Images.* Ithaca, NY, and London: Cornell University Press.

Elliott, Ralph W. V. 1989. *Runes: An Introduction.* Manchester: Manchester University Press.

Elliott, Ralph W. V., and Jean-Pierre Grégoire. 1991. *The Proto-Cuneiform Texts from Jemdet Nasr.* Materialien zu den frühen Schriftzeugnissen des Vorderen Orients 1. Berlin: Gebrüder Mann Verlag.

Elliott, Ralph W. V., and Hans Nissen. 2001. *Archaische Verwaltungstexte aus Uruk: Die Heidelberger Sammlung.* Archaische Texte aus Uruk 7. Berlin: Gebrüder Mann Verlag.

1996. The Runic Script. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 333–339.

Englund, Robert K. 1988. Administrative Timekeeping in Ancient Mesopotamia. *Journal of the Economic and Social History of the Orient* 31:121–185.

1990. *Verwaltung und Organisation der Ur III-Fischerei.* Berliner Beiträge zum Vorderen Orient 10. Berlin: Reimer Verlag.

1994. *Archaic Administrative Documents from Uruk: The Early Campaigns.* Archaische Texte aus Uruk 5. Berlin: Gebrüder Mann Verlag.

1996. The Proto-Elamite Script. In *The World's Writing Systems*, ed. Peter Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 160–164.

1998. Texts from the Late Uruk Period. In *Mesopotamien: Späturuk-Zeit und Frühdynastische Zeit*, ed. Joseph Bauer, Robert Englund, and Manfred Krebernik. Orbis Biblicus et Orientalis 160/1. Freiburg: Universitäts-Verlag; Göttingen: Vandenhoeck & Ruprecht, pp. 15–233.

Fahsen, Federico. 1988. *A New Early Classic Text from Tikal.* Research Reports on Ancient Maya Writing 17. Washington, DC: Center for Maya Research.

Falkenhausen, Lothar von. 1993. Issues in Western Zhou Studies. *Early China* 18:139–226.

Falkenstein, Adam. 1936. *Archaische Texte aus Uruk.* Leipzig: Otto Harrassowitz.

Faltings, Dina. 1998. Ergebnisse der neuen Ausgrabungen in Buto: Chronologie und Fernbeziehungen der Buto-Maadi-Kultur neu überdacht. In *Stationen: Beiträge zur Kulturgeschichte Ägyptens*, ed. Heike Guksch and Daniel Polz. Mainz: Philipp von Zabern, pp. 35–45.

Farnell, Brenda. 1996. Movement Notation Systems. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 855–879.

Fell, Christine H. 1991. Runes and Semantics. In *Old English Runes and their Continental Background*, ed. Alfred Bammesberger. Anglistische Forschungen, Heft 217. Heidelberg: Carl Winter, pp. 195–229.

Ferguson, Eugene. 1977. The Mind's Eye: Nonverbal Thought in Technology. *Science* 197:827–836.

Finkel, Irving, and J. Reade. 1996. Assyrian Hieroglyphs. *Zeitschrift für Assyriologie* 86:244–268.

Fischer, Henry George. 1974. Redundant Determinatives in the Old Kingdom. *Metropolitan Museum Journal* 8:7–25.

1986. *L'écriture et l'art de l'Egypte ancienne: quatre leçons sur la paléographie et l'épigraphie pharaoniques.* Collège de France, Essais et Conférences. Paris: Presses Universitaires de France.

1989. The Origin of Egyptian Hieroglyphs. In *The Origins of Writing*, ed. Wayne M. Senner. Lincoln, NE: University of Nebraska Press, pp. 59–76.

Flannery, Kent V., and Joyce Marcus. 1996. *Zapotec Civilization: How Urban Society Evolved in Mexico's Oaxaca Valley.* London: Thames and Hudson.

Foncerrada de Molina, Marta. 1982. Signos glíficos relacionados con Tlaloc en los murales de la batalla en Cacaxtla. *Anales del Instituto de Investigaciones Estéticas* 50(1):23–34.

Forsyth, Donald W. 1993. The Ceramic Sequence at Nakbe, Guatemala. *Ancient Mesoamerica* 4:31–53.

Freedberg, David. 1989. *The Power of Images: Studies in the History and Theory of Response.* Chicago, IL: University of Chicago Press.

Freidel, David, and Linda Schele. 1988. Symbol and Power: A History of the Lowland Maya Cosmogram. In *Maya Iconography*, ed. Elizabeth P. Benson and Gillett G. Griffin. Princeton, NJ: Princeton University Press, pp. 44–93.

Freidel, David, Linda Schele, and Joy Parker. 1993. *Maya Cosmos: Three Thousand Years on the Shaman's Path.* New York, NY: William Morrow.

Friberg, Jöran. 1978–1979. *The Early Roots of Babylonian Mathematics*, Volumes I–II. Göteborg: Department of Mathematics, Chalmers University of Technology and the University of Göteborg.

1982. *A Survey of Publications on Sumero-Akkadian Mathematics, Metrology and Related Matters (1854–1982).* Göteborg: Department of Mathematics, Chalmers University of Technology and the University of Göteborg.

1997–1998. Round and Almost Round Numbers in Proto-Literate Metro-Mathematical Field Texts. *Archiv für Orientforschung* 44–45:1–58.

Gager, John J., ed. 1992. *Curse Tablets and Binding Spells from the Ancient World.* Oxford: Oxford University Press.

Gann, Thomas W. F. 1918. *The Maya Indians of Southern Yucatan and Northern British Honduras.* Bureau of American Ethnology, Smithsonian Institution Bulletin 64. Washington, DC: Government Printing Office.

García Moll, Roberto, Donald W. Patterson Brown, and Marcus C. Winter. 1986. *Monumentos escultóricos de Monte Albán.* Munich: Verlag C. H. Beck.

Gardiner, Alan H. 1957. *Egyptian Grammar, Being an Introduction to the Study of Hieroglyphs.* 3rd edn. London: Oxford University Press for Griffith Institute, Oxford.

Gardner, Martin. 1982. *Logic Machines and Diagrams.* 2nd edn. Chicago, IL: University of Chicago Press.

Gasco, Janine, and Frances F. Berdan. 2003. International Trade Centers. In *The Postclassic Mesoamerican World*, ed. Michael Smith and Frances F. Berdan. Salt Lake City, UT: University of Utah Press, pp. 109–116.

Gaur, Albertine. 1987. *A History of Writing.* New York, NY: Charles Scribner's.

1992. *A History of Writing.* Rev. edn. New York, NY: Cross River Press.

1995. Scripts and Writing Systems: A Historical Perspective. In *Scripts and Literacy: Reading and Learning to Read Alphabets, Syllabaries, and Characters*, ed. Insup Taylor and David R. Olson. Neuropsychology and Cognition 7. Dordrecht, Boston, MA, and London: Kluwer Academic Publishers, pp. 19–30.

Gelb, Ignace J. 1963. *A Study of Writing.* 2nd edn. Chicago, IL: University of Chicago Press.

1975. Methods of Decipherment. *Journal of the Royal Asiatic Society* 1975: 95–104.

Gelb, Ignace, Piotr Steinkeller, and Robert Whiting, Jr. 1991. *Earliest Land Tenure Systems in the New East: Ancient Kudurrus.* Chicago: Oriental Institute.

Gell, Alfred. 1993. *Wrapping in Images: Tattooing in Polynesia.* Oxford: Oxford University Press.

Ghirshman, Roman. 1938. *Fouilles de Sialk près de kashan 1933, 1934, 1937*, Vol. I. Paris: Librairie Orientaliste Paul Geuthner.

Gibson, Eric C., Leslie C. Shaw, and Daniel R. Finamore. 1986. *Early Evidence of Maya Hieroglyphic Writing at Kichpanha, Belize.* Working Papers in Archaeology No. 2., San Antonio, TX: Center for Archaeological Research, University of Texas, San Antonio.

Giddens, Anthony. 1984. *The Constitution of Society: Outline of the Theory of Structuration.* Berkeley, CA: University of California Press.

Glass, John B. 1975. A Survey of Native Middle American Pictorial Manuscripts. In *Handbook of Middle American Indians*, Volume XIV, ed. Robert Wauchope and Howard F. Cline. Austin, TX: University of Texas Press, pp. 3–80.

Glassner, Jean-Jacques. 2000. *Ecrire à Sumer: l'invention du cunéiforme.* Paris: Editions du Seuil.

Gleason, Allan. 1996. Christian Missionary Activities. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 777–780.

Goody, Jack. 1977. *The Domestication of the Savage Mind.* Cambridge: Cambridge University Press.

1986. *The Logic of Writing and the Organization of Society.* Cambridge: Cambridge University Press.

1987. *The Interface between the Written and the Oral.* Cambridge: Cambridge University Press.

2000. *The Power of the Written Tradition.* Washington, DC: Smithsonian Institution Press.

Goody, Jack, and Ian Watt. 1963. The Consequences of Literacy. *Comparative Studies in Society and History* 5(3):304–345.

Görsdorf, Jochen, Günter Dreyer, and Ulrich Hartung. 1998. ^{14}c Dating Results of the Archaic Royal Necropolis Umm el-Qaab at Abydos. *Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo* 54:169–175.

Gould, Stephen J. 1999. Introduction: The Scales of Contingency and Punctuation in History. In *Structure and Contingency: Evolutionary Processes in Life and Human Society*, ed. John Bintliff. London: Leicester University Press, pp. ix–xxii.

Gragg, Gene B. 1996. Mesopotamian Cuneiform: Other Languages. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 58–72.

Green, Dennis H. 1994. *Medieval Listening and Reading: The Primary Reception of German Literature 800–1300.* Cambridge: Cambridge University Press.

Green, Margaret W. 1980. Animal Husbandry at Uruk in the Archaic Period. *Journal of Near Eastern Studies* 39:1–35.

1981. The Construction and Implementation of the Cuneiform Writing System. *Visible Language* 15:345–372.

1989. Early Cuneiform. In *The Origins of Writing*, ed. Wayne M. Senner. Lincoln, NE: University of Nebraska Press, pp. 43–57.

Green, Margaret W., and Hans Nissen, eds. 1987. *Zeichenliste der archaischen Texte aus Uruk.* Ausgrabungen der Deutschen Forschungsgemeinschaft in Uruk-Warka 11. Archaische Texte aus Uruk 2. Berlin: Gebrüder Mann verlag.

Grove, David C. 1970. *The Olmec Paintings of Oxtotitlan Cave, Guerrero, Mexico.* Studies in Pre-Columbian Art and Archaeology 6. Washington, DC: Dumbarton Oaks Research Library and Collection.

Grube, Nikolai. 1990. *Die Entwicklung der Mayaschrift.* Berlin: Verlag von Flemming.

1994. Observations on the History of Maya Hieroglyphic Writing. In *Seventh Palenque Round Table, 1989*, ed. Merle G. Robertson and Virginia M. Fields. San Francisco, CA: Pre-Columbian Art Research Institute, pp. 177–186.

1998. Speaking through Stones: A Quotative Particle in Maya Hieroglyphic Inscriptions. In *50 Years of Americanist Studies at the University of Bonn*, ed. S. Dedenbach-Salazar Sáenz, C. Arellano Hoffmann, E. König, and H. Prümers. Bonn: Verlag Anton Saurwein, pp. 543–558.

Grube, Nikolai, and Simon Martin. 2001. *The Coming of Kings: Writing and Dynastic Kingship in the Maya Area Between the Late Preclassic and Early Classic.* Austin, TX: Texas Workshop Foundation.

Guest, Ann Hutchinson. 1984. *Dance Notation: The Process of Recording Movement on Paper.* New York, NY: Dance Horizons.

Guo Moruo, ed. 1982. *Jiaguwen heji.* 13 vols. Beijing: Zhongguo Shehui kexueyuan lishi yanjiusuo.

Haas, William. 1976. Writing: The Basic Options. In *Writing Without Letters*, ed. William Haas. Manchester: Manchester University Press, pp. 131–208.

Haile, Getatchew. 1996. Ethiopic Writing. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 569–576.

Halverson, John. 1992. Goody and the Implosion of the Literacy Thesis. *Man* 27:301–317.

Hammond, Norman. 1987. *The Sun Also Rises: Iconographic Syntax of the Pomona Flare.* Research Reports on Ancient Maya Writing 7. Washington, DC: Center for Maya Research.

Hansell, Mark. 2002. Functional Answers to Structural Problems in Thinking about Writing. In *Difficult Characters: Interdisciplinary Studies of Chinese and Japanese Writing*, ed. Mary S. Erbaugh. Columbus, OH: National East Asian Languages Resource Center, Ohio State University, pp. 124–176.

Hansen, Richard D. 1990. *Excavations in the Tigre Complex, El Mirador, Petén, Guatemala: El Mirador Series, Part 3.* Papers of the New World Archaeological Foundation 62. Provo, UT: Brigham Young University.

1991. *An Early Maya Text from El Mirador, Guatemala.* Research Reports in Ancient Maya Writing 37. Washington, DC: Center for Maya Research.

1998. Continuity and Disjunction: The Pre-Classic Antecedents of Classic Maya Architecture. In *Function and Meaning in Classic Maya Architecture*, ed. Stephen D. Houston. Washington, DC: Dumbarton Oaks Research Library and Collection, pp. 49–122.

Harper, Prudence, Joan Aruz, and Françoise Tallon, eds. 1992. *The Royal City of Susa: Ancient Near Eastern Treasures in the Louvre.* New York: Metropolitan Museum of Art.

Harris, John F., and Stephen K. Stearns. 1997. *Understanding Maya Inscriptions. A Hieroglyph Handbook.* 2nd edn. Philadelphia, PA: University Museum, University of Pennsylvania.

Harris, Robert L. 1999. *Information Graphics: A Comprehensive Illustrated Reference.* Atlanta, GA: Management Graphics; New York, NY, and Oxford: Oxford University Press.

Harris, Roy. 1986. *The Origin of Writing.* La Salle, IL: Open Court; London: Duckworth.

1995. *Signs of Writing.* London and New York, NY: Routledge.

Harrison, Stephen. 1991. What Do Viruses Look Like? *Harvey Lectures* 85:127–152.

Hartung, Ulrich. 1998a. Prädynastische Siegelabrollungen aus dem Friedhof U in Abydos (Umm el-Qaab). *Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo* 54:187–217.

1998b. Zur Entwicklung des Handels und zum Beginn wirtschaftlicher Administration im prädynastischen Ägypten. *Studien zur Altägyptischen Kultur* 26:35–50.

2001. *Umm el-Qaab II: Importkeramik aus dem Friedhof U in Abydos (Umm el-Qaab) und die Beziehungen Ägyptens zu Vorderasien im 4. Jahrtausend v. Chr.* Deutsches Archäologisches Institut, Abteilung Kairo, Archäologische Veröffentlichungen 92. Mainz: Philipp von Zabern.

Hary, Benjamin. 1996. Adaptations of the Hebrew Script. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 727–742.

Hawkes, Jacquetta. 1982. *Adventurer in Archaeology: The Biography of Sir Mortimer Wheeler.* New York, NY: St. Martin's Press.

Hawkins, David. 1986. Writing in Anatolia: Imported and Indigenous Systems. *World Archaeology* 17:363–376.

Helck, Wolfgang. 1990. *Thinitische Topfmarken.* Ägyptologische Abhandlungen 50. Wiesbaden: Otto Harrassowitz.

Hendrickx, Stan 1995. *Analytical Bibliography of the Prehistoric and Early Dynastic Period of Egypt and Northern Sudan.* Egyptian Prehistory Monographs 1. Leuven: Leuven University Press.

Hill, Archibald A. 1967. The Typology of Writing Systems. In *Papers in Linguistics in Honor of Léon Dostert*, ed. William M. Austin. The Hague: Mouton, pp. 92–99.

Hill, Jane H. 2001. Proto-Uto-Aztecan: A Community of Cultivators in Central Mexico? *American Anthropologist* 103(4):913–934.

Hinüber, Oskar von. 1989. *Der Beginn der Schrift und frühe Schriftlichkeit in Indien.* Akademie der Wissenschaften und der Literatur, Mainz, Abhandlungen, Geistes- und Sozialwissenschaftliche Klasse 1989: 11. Wiesbaden and Stuttgart: Franz Steiner.

Hinz, Walther. 1987. Persia c. 2400–1800 BC. In *Cambridge Ancient History* Volume I, part 2, 3rd edition, ed. Iorwerth Edwards, Cyrus Gadd, and Nicholas Hammond. Cambridge: Cambridge University Press, pp. 644–680.

Hoch, James E. 1994. *Semitic Words in Egyptian Texts of the New Kingdom and Third Intermediate Period.* Princeton, NJ: Princeton University Press.

Hodder, Ian. 1991. *Reading the Past: Current Approaches to Interpretation in Archaeology.* 2nd edn. Cambridge: Cambridge University Press.

Hoffmann, Roald. 1990. Molecular Beauty. *Journal of Aesthetics and Art Criticism* 48(3):191–204.

Hoffmann, Roald and Pierre Laszlo. 1989. Representation in Chemistry. *Diogenes* 147:23–51.

Holisky, Dee A. 1996. The Georgian Alphabet. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 364–369.

Holmes, William H. 1907. On a Nephrite Statuette from San Andrés Tuxtla, Vera Cruz, Mexico. *American Anthropologist* 9:691–701.

Hopkins, Nicholas A. 1984. Otomanguean Linguistic Prehistory. In *Essays in Otomanguean Culture History*, ed. Kathryn Josserand, Marcus Winter, and Nicholas A. Hopkins. Vanderbilt University Publications in Anthropology 31. Nashville, TN : Vanderbilt University, pp. 25–64.

Houston, Stephen D. 1984. An Example of Homophony in Mayan Script. *American Antiquity* 49(4):790–805.

1989. *Reading the Past: Maya Glyphs.* Berkeley, CA: University of California Press.

1994a. Literacy Among the Pre-Columbian Maya: A Comparative Perspective. In *Writing Without Words: Alternative Literacies in Mesoamerica and the Andes*, ed. Elizabeth H. Boone and Walter Mignolo. Durham, NC: Duke University Press, pp. 27–49.

1994b. Mesoamerican Writing. In *The Encyclopedia of Language and Linguistics*, Volume V, ed. R. Ascher and J. M. V. Simpson. Oxford: Pergamon, pp. 2449–2451.

1998. Classic Maya Depictions of the Built Environment. In *Function and Meaning in Classic Maya Architecture*, ed. Stephen D. Houston. Washington, DC: Dumbarton Oaks Research Library and Collection, pp. 333–372.

2000. Into the Minds of Ancients: Advances in Maya Glyph Studies. *Journal of World Prehistory* 14:121–201.

2001. Writing Systems: Overview and Early Development. In *Oxford Encyclopedia of Mesoamerican Cultures*, Volume III, ed. David Carrasco. New York, NY, and Oxford: Oxford University Press, pp. 338–340.

2004 The Archaeology of Communication Technologies. *Annual Review of Anthropology* 33:223–250.

Houston, Stephen D., and David Stuart. 1993. Multiple Voices in Maya Writing: Evidence for First- and Second-person References. Paper presented at the 58th meeting of the Society for American Archaeology, St. Louis.

1996. Of Gods, Glyphs and Kings: Divinity and Rulership among the Classic Maya. *Antiquity* 70:289–312.

1998. The Ancient Maya Self: Personhood and Portraiture in the Classic Period. *RES* 33:73–101.

Houston, Stephen D., and Karl Taube. 2000. An Archaeology of the Senses: Perception and Cultural Expression in Ancient Mesoamerica. *Cambridge Archaeological Journal* 10(2):261–294.

Houston, Stephen D., John Baines, and Jerrold Cooper. 2003. Last Writing: Script Obsolescence in Egypt, Mesopotamia, and Mesoamerica. *Comparative Studies in Society and History* 45(3):430–480.

Houston, Stephen D., John Robertson, and David Stuart. 2000. The Language of Classic Maya Inscriptions. *Current Anthropology* 41(3):321–356.

2001. *Quality and Quantity in Glyphic Nouns and Adjectives.* Research Reports in Ancient Maya Writing 47. Washington, DC: Center for Maya Research.

Houston, Stephen D., David Stuart, and John Robertson. 1998. Disharmony in Maya Hieroglyphic Writing: Linguistic Change and Continuity in Classic Society. In *Anatomía de una civilización: aproximaciones interdisciplinarias a la cultura maya*, ed. A. Cuidad Ruiz, Y. Fernández Marquínez, J. M. García Campillo, M. J. Iglesias Ponce de León, A. Lacadena García-Gallo, and L. Sanz Castro. Madrid: Sociedad Española de Estudios Mayas, pp. 275–296.

Hsu, Cho-yun, and Katheryn M. Linduff. 1988. *Western Chou Civilization.* New Haven, CT: Yale University Press.

Hu Houxuan. 1970. *Jiaguxue Shang Shi Luncong Chuji.* Hong Kong: Wen You Tang.

Hutchinson, Ann. 1966. *Labanotation.* New York, NY: Theatre Arts Books.

Huxley, Julian. 1960. *Knowledge, Morality, and Destiny.* New York, NY: New American Library.

Inomata, Takeshi. 2001. The Power and Ideology of Artistic Creation: Elite Craft Specialists in Classic Maya Society. *Current Anthropology* 42:321–349.

Ismail, Farouk. 1996. *Administrative Documents from Tell Beydar (Seasons 1993–1995).* Subartu 2. Turnhout: Brepols.

Jakobson, Roman. 1971a. On the Relation between Visual and Auditory Sign. In *Selected Writings II.* The Hague: Mouton, pp. 338–344.

1971b. Visual and Auditory Sign. In *Selected Writings II.* The Hague: Mouton, pp. 334–337.

Jakobson, Roman, and Linda Waugh. 1990. Quest for the Ultimate Constituents. In *On Language*, ed. Linda R. Waugh and Monique Monville-Burston. Cambridge, MA: Harvard University Press, pp. 259–293.

Jansson, Sven B. F. 1987. *Runes in Sweden.* Stockholm: Gidlunds.

Joffe, Alexander H. 2000. Egypt and Syro-Mesopotamia in the 4th Millennium: Implications of the New Chronology. *Current Anthropology* 41:113–123.

Johnson, Matthew. 1996. *An Archaeology of Capitalism.* Oxford: Blackwell.

Josserand, J. Kathryn. 1975. Archaeological and Linguistic Correlations for Mayan Prehistory. *Actas del XLa Congreso Internacional de Americanistas* 1:501–510.

Just, Bryan, n.d. Concordances of Time: In Extenso Almanacs in the Madrid and Borgia Group Codices. Tulane University, unpublished manuscript.

Justeson, John S. 1976. Universals of Language and Universals of Writing. In *Linguistic Studies Offered to Joseph Greenberg*, ed. Alphonse Juilland. Saratoga, CA: Anma Libri, I, pp. 57–94.

1986. The Origin of Writing Systems: Preclassic Mesoamerica. *World Archaeology* 17:437–458.

1989. The Representational Conventions of Mayan Hieroglyphic Writing. In *Word and Image in Maya Culture: Explorations in Language Writing and Representation*, ed. William F. Hanks and Don S. Rice. Salt Lake City, UT: University of Utah Press, pp. 25–38.

Justeson, John S., and Terrence Kaufman. 1992. Un desciframiento de la escritura jeroglífica epi-olmeca: métodos y resultados. *Arqueología* 8:15–26.

1993. A Decipherment of Epi-Olmec Hieroglyphic Writing. *Science* 259:1703–1711.

1997. A Newly Discovered Column in the Hieroglyphic Text on La Mojarra Stela 1: A Test of the Epi-Olmec Decipherment. *Science* 277:207–210.

2001a. *Epi-Olmec Hieroglyphic Writing and Texts.* Austin, TX: Texas Workshop Foundation.

2001b. *The Proceedings of the Maya Hieroglyphic Workshop: Epi-Olmec Writing.* Transcribed by Phil Wanyerka. Austin, TX: Texas Workshop Foundation.

Justeson, John S., and Peter Mathews. 1990. Evolutionary Trends in Mesoamerican Hieroglyphic Writing. *Visible Language* 24(1):88–132.

Justeson, John S., and Laurence D. Stephens. 1994. The Evolution of Syllabaries from Alphabets: Transmission, Language Contrast, and Script Typology. *Die Sprache* 35:2–46.

Justeson, John S., William M. Norman, Lyle R. Campbell, and Terrence S. Kaufman. 1985. *The Foreign Impact on Lowland Mayan Language and Script.* Middle

American Research Institute, Publication 53. New Orleans, LA: Tulane University.

Justeson, John S., William M. Norman, and Norman Hammond. 1988. The Pomona Flare: A Preclassic Maya Hieroglyphic Text. In *Maya Iconography*, ed. Elizabeth P. Benson and Gillett G. Griffin. Princeton (NJ): Princeton University Press, pp. 94–151.

Kahl, Jochem. 1994. *Das System der ägyptischen Hieroglyphenschrift in der 0.–3. Dynastie.* Göttinger Orientforschungen IV: Ägypten 29. Wiesbaden: Otto Harrassowitz.

2001. Die ältesten schriftlichen Belege für den Gott Seth. *Göttinger Miszellen* 181:51–57.

Kaiser, Werner. 1990. Zur Entstehung des gesamtägyptischen Staates. *Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo* 46:287–299.

Kaiser, Werner, and Günter Dreyer. 1982. Umm el-Qaab: Nachuntersuchungen im frühzeitlichen Königsfriedhof, 2. Vorbericht. *Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo* 38:211–269.

Kammerzell, Frank. 2001. Die Entstehung der Alphabetreihe: zum ägyptischen Ursprung der semitischen und westlichen Schriften. In *Hieroglyphen, Alphabete, Schriftreformen: Studien zu Multiliteralismus, Schriftwechsel und Orthographieneuregelungen*, ed. Dörte Borchers, Frank Kammerzell, and Stefan Weninger. Lingua Aegyptia, Studia Monographica 3. Göttingen: Seminar für Ägyptologie und Koptologie, pp. 117–158.

Kampen, Michael. 1972. *The Sculptures of El Tajín, Veracruz, Mexico.* Gainesville, FL: University of Florida Press.

Kaplan, Jonathan. 2000. Monument 65: A Great Emblematic Depiction of Throned Rule and Royal Sacrifice at Late Preclassic Kaminaljuyu. *Ancient Mesoamerica* 11:185–198.

Kaplony, Peter. 1963. *Die Inschriften der ägyptischen Frühzeit.* Ägyptologische Abhandlungen 8. 3 vols. Wiesbaden: Otto Harrassowitz.

Kara, György. 1996a. Aramaic Scripts for Altaic Languages. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 536–558.

1996b. Kitan and Jurchin. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 230–238.

Karlgren, Bernhard. 1952. Some New Bronzes in the Museum of Far Eastern Antiquities. *Bulletin of the Museum of Far Eastern Antiquities, Stockholm* 24:11–26.

Karsten, Karl G. 1923. *Charts and Graphs: An Introduction to Graphic Methods in the Control and Analysis of Statistics.* New York: Prentice Hall.

Kaufman, Terrence. 1974. *Idiomas de Mesoamérica.* Seminario de Integración Social Guatemalteca Publicación 33. Guatemala: Ministerio de Educación.

1976. Archaeological and Linguistic Correlations in Maya-land and Associated Areas of Meso-America. *World Archaeology* 8:101–118.

Kauffmann, Claus Michael. 1975. *Romanesque Manuscripts, 1066–1190.* A Survey of Manuscripts Illuminated in the British Isles, vol. 3. London: H. Miller.

Kaye, Alan S. 1996. Adaptations of Arabic Script. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 743–762.

Keightley, David N. 1978. *Sources of Shang History: The Oracle-Bone Inscriptions of Bronze Age China.* Berkeley, CA: University of California Press.

1997. Shang Oracle-Bone Inscriptions. In *New Sources of Early Chinese History: An Introduction to the Reading of Inscriptions and Manuscripts*, ed. Edward L. Shaughnessy. Berkeley, CA: Society for the Study of Early China, pp. 15–55.

1999. The Shang: China's First Historical Dynasty. In *The Cambridge History of Ancient China: From the Origins of Civilization to 221 BC*, ed. Michael Loewe and Edward L. Shaughnessy. Cambridge: Cambridge University Press, pp. 232–291.

Kelley, David H. 1966. A Cylinder Seal from Tlatilco. *American Antiquity* 31:744–746.

1976. *Deciphering the Maya Script.* Austin, TX: University of Texas Press.

1982. Costume and Name in Mesoamerica. *Visible Language* 16(1):39–48.

Kemp, Barry J. 1989. *Ancient Egypt: Anatomy of a Civilization.* London and New York, NY: Routledge.

Kemp, Barry J. , Andrew Boyce, and James Harrell. 2000. The Colossi from the Early Shrine at Coptos in Egypt. *Cambridge Archaeological Journal* 10:211–242.

Kienast, Burkhart, and Konrad Volk. 1995. *Die sumerischen und akkadischen Briefe.* Freiburger altorientalistische Studien 19. Stuttgart: F. Steiner.

King, Ross. 1996. Korean Writing. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 218–227.

Krampen, Martin. 1986. On the Origins of Visual Literacy: Children's Drawings and Compositions of Graphemes. In *Toward a New Understanding of Literacy*, ed. Merald E. Wrolstad and Dennis F. Fisher. New York, NY: Praeger, pp. 80–111.

Krebernik, Manfred. 1994. Review of Green and Nissen (1987). *Orientalistische Literaturzeitung* 89:380–385.

1998. Die Texte aus Fara und Abū Solābīh. In *Mesopotamien: Späturuk-Zeit und Frühdynastische Zeit*, Josef Bauer, Robert K. Englund, and Manfred Krebernik. Orbis Biblicus et Orientalis 160/1. Freiburg, Switzerland: Universitätsverlag Freiburg Schweiz, pp. 237–427.

Kress, Gunther, and Theo van Leeuwen. 1996. *Reading Images: The Grammar of Visual Design.* London and New York, NY: Routledge.

Kris, Ernst, and Otto Kurz. 1979. *Legend, Myth, and Magic in the Image of the Artist: An Historical Experiment.* New Haven, CT: Yale University Press.

Kroeber, Alfred L. 1940. Stimulus Diffusion. *American Anthropologist* 42:1–20.

1948. *Anthropology.* 2nd edn. New York, NY: Harcourt, Brace.

Kubler, George. 1973. The Clauses of Classic Maya Inscriptions. In *Mesoamerican Writing Systems*, ed. Elizabeth P. Benson. Washington, DC: Dumbarton Oaks Research Library and Collection, pp. 145–164.

Kychanov, Evgenij I. 1996. Tangut. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 228–230.

Laban, Rudolf. 1974. *The Language of Movement: A Guidebook of Choreutics.* Annotated and edited by Lisa Ullmann. Boston, MA: Plays.

Lacadena, Alfonso. 1995. Evolución formal de las grafías escriturarias mayas: implicaciones históricas y culturales. Unpublished Ph.D. dissertation, Universidad Complutense de Madrid.

Lacau, Pierre. 1970. *Les noms des parties du corps en Egyptien et en Sémitique.* Mémoires de l'Académie des Inscriptions et Belles-Lettres 45. Paris: Imprimerie Nationale / Klincksieck.

Lamberg-Karlovsky, Clifford Charles, and Daniel T. Potts. 2001. *Excavations at Tepe Yahya, Iran 1967–1975: The Third Millennium.* American School of Prehistoric Research Bulletin 45. Cambridge, MA: Harvard University Press.

Land, L. K., H. B. Nicholson, and Alan Cordy-Collins. 1979. *Pre-Columbian Art from the Land Collection.* San Francisco, CA: California Academy of Sciences.

Laporte, Juan Pedro, and Vilma Fialko. 1995. Un reencuentro con Mundo Perdido, Tikal, Guatemala. *Ancient Mesoamerica* 6(1):41–94.

Larsen, Mogens Trolle. 1987. The Mesopotamian Lukewarm Mind: Reflections on Science, Divination, and Literacy. In *Language, Literature, and History: Philological and Historical Studies Presented to Erica Reiner*, ed. Francesca Rochberg-Halton. New Haven, CT: American Oriental Society, pp. 203–225.

1988. Introduction: Literacy and Social Complexity. In *State and Society: The Emergence and Development of Social Hierarchy and Political Centralization*, ed. John Gledhill, Barbara Bender, and Mogens Trolle Larsen. London: Unwin Hyman, pp. 173–191.

1989. What They Wrote on Clay. In *Literacy and Society*, ed. Karen Schousboe and M. T. Larsen. Copenhagen: Akademisk Forlag, pp. 121–148.

Lawler, Andrew. 2001a. Destruction in Mesopotamia. *Science* 293:32–35.

2001b. Iraq Opening Sets Off Scramble for Sites. *Science* 293:36–38.

2001c. Writing Gets a Rewrite. *Science* 292:2418–2420.

Lebeau, Marc, and Antoine Suleiman. 1997. *Tell Beydar: Three Seasons of Excavations (1992–1994), A Preliminary Report.* Subartu 3. Turnhout: Brepols.

Le Breton, Louis. 1957. The Early Periods at Susa. *Iraq* 19:79–124.

Le Brun, Alain. 1971. Recherches stratigraphiques à l'Acropole de Suse, 1969–1971. *Cahiers de la Délégation Archéologique Française* 1:163–216.

1978a. La glyptique du niveau 17B de l'acropole (campagne de 1972). *Cahiers de la Délégation Archéologique Française* 8:61–79.

1978b. Le niveau 17B de l'acropole de Suse (campagne de 1972). *Cahiers de la Délégation Archéologique Française* 9:57–154.

1978c. Chantier de l'Acropole I. *Paléorient* 4:177–192.

Le Brun, Alain, and François Vallat. 1978. L'origine de P'écriture à Suse L'origine. *Cahiers de la Dlégation Archéologique Française* 8:11–57.

Lee, Thomas A., Jr. 1969. *The Artifacts of Chiapa de Corzo, Chiapas, Mexico.* Papers of New World Archaeological Foundation 26. Provo, UT: Brigham Young University.

León-Portilla, Miguel. 1992. Have We Really Translated the Mesoamerican "Ancient Word?" In *On the Translation of Native American Literatures*, ed. Brian Swann. Washington, DC: Smithsonian Institution Press, pp. 313–338.

Lesko, Leonard H. 1999. Writing, Reading, and Schooling. In *Encyclopedia of the Archaeology of Ancient Egypt*, ed. Kathryn Bard. London: Routledge, pp. 885–887.

Lévi-Strauss, Claude. 1974. *Tristes tropiques.* New York, NY: Atheneum.

Lewis, Mark Edward. 1999. *Writing and Authority in Early China.* Albany, NY: State University of New York Press.

Li Chi [Li Ji]. 1977. *Anyang.* Seattle, WA: University of Washington Press.

Lieberman, Stephen J. 1977. The Names of the Cuneiform Graphemes in Old Babylonian Akkadian. In *Essays on the Ancient Near East in Memory of J. J. Finkelstein*, ed. Maria de Jong Ellis. Connecticut Academy of Arts and Sciences, Memoir 19. New Haven, CT: Connecticut Academy of Arts and Sciences, pp. 147–154.

Li Ji [Li Chi]. 1956. *Xiaotun, di san ben, Yinxu Qiwu: jia bian, Taoqi: shang ji.* Taibei: Institute of History and Philology, Academia Sinica.

Liverani, Mario. 1998. *Uruk, la prima città.* Rome: Laterza.

Li Xueqin. 1985. Kaogu Faxian yu Zhongguo Wenzi Qiyuan. *Zhongguo Wenhua Yanjiu Jikan* 2:146–157.

Li Xueqin, Garman Harbottle, Juzhong Zhang, and Changsui Wang. 2003. The Earliest Writing? Sign Use in the Seventh Millennium BC at Jiahu, Henan Province, China. *Antiquity* 77:31–44.

Lloyd, G. E. R. 2002. *The Ambitions of Curiosity: Understanding the World in Ancient Greece and China.* Cambridge: Cambridge University Press.

Loewe, Michael, ed. 1993. *Early Chinese Texts: A Bibliographical Guide.* Berkeley, CA: Society for the Study of Early China.

Loprieno, Antonio. 1995. *Ancient Egyptian: A Linguistic Introduction.* Cambridge: Cambridge University Press.

Lounsbury, Floyd G. 1989. The Ancient Writing of Middle America. In *The Origins of Writing*, ed. Wayne M. Senner. Lincoln, NE: University of Nebraska Press, pp. 203–237.

Lowe, Gareth W. 1989. The Heartland Olmec: Evolution of Material Culture. In *Regional Perspectives on the Olmec*, ed. Robert J. Sharer and David C. Grove. Cambridge: Cambridge University Press, pp. 33–67.

Luo Zhenyu. 1937. *Sandai Jijin Wen Cun.* N.p.

Lynch, Michael. 1985. Discipline and the Material Form of Images: An Analysis of Scientific Visibility. *Social Studies of Science* 15:37–66.

Machor, James L., and Philip Goldstein, eds. 2000. *Reception Study: From Literary Theory to Cultural Studies.* London: Routledge.

Macri, Martha J., and Laura M. Stark. 1993. *A Sign Catalog of the La Mojarra Script.* Pre-Columbian Art Research Institute Monograph 5. San Francisco, CA: Pre-Columbian Art Research Institute.

Mair, Victor H. 1996. Modern Chinese Writing. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, 200–208.

Mann, Michael. 1986. *The Sources of Social Power*, Volume I: *A History of Power from the Beginning to AD 1760.* Cambridge: Cambridge University Press.

Marcus, Joyce. 1976a. The Iconography of Militarism at Monte Albán and Neighboring Sites in the Valley of Oaxaca. In *The Origins of Religious Art and Iconography in Preclassic Mesoamerica*, ed. Henry B. Nicholson. Los Angeles, CA: Latin American Center, University of California, Los Angeles, pp. 123–139.

1976b. The Origins of Mesoamerican Writing. *Annual Review of Anthropology* 5:35–67.

1983a. Lintel 2 at Xoxocotlán. In *The Cloud People: Divergent Evolution of the Zapotec and Mixtec Civilizations*, ed. Kent V. Flannery and Joyce Marcus. New York, NY: Academic Press, pp. 150–152.

1983b. The Conquest Slabs of Building J, Monte Albán. In *The Cloud People: Divergent Evolution of the Zapotec and Mixtec Civilizations*, ed. Kent V. Flannery and Joyce Marcus. New York, NY: Academic Press, pp. 106–108.

1983c. Teotihuacán Visitors on Monte Albán Monuments and Murals. In *The Cloud People: Divergent Evolution of the Zapotec and Mixtec Civilizations*, ed. Kent V. Flannery and Joyce Marcus. New York, NY: Academic Press, pp. 175–181.

1992. *Mesoamerican Writing Systems: Propaganda, Myth, and History in Four Ancient Civilizations.* Princeton, NJ: Princeton University Press.

Martin, Henri-Jean. 1994. *The History and Power of Writing.* Trans. Lydia G. Cochrane. Chicago, IL: University of Chicago Press.

Martin, Simon. 1997. The Painted King List: A Commentary on Codex-Style Dynastic Vases. In *The Maya Vase Book*, Volume V, ed. Justin Kerr. New York, NY: Kerr Associates, pp. 846–867.

Martin, Simon, and Nikolai Grube. 2000. *Chronicle of the Maya Kings and Queens: Deciphering the Dynasties of the Ancient Maya.* London: Thames and Hudson.

Masson, Marilyn A., and Heather Orr. 1998. The Role of Zapotec Genealogical Records in late Precolumbian Valley of Oaxaca Political History. *Mexicon* 20(1):10–15.

Maudslay, Alfred P. 1889–1902. *Biologia Centrali-Americana: Archaeology.* 5 vols. London: R. H. Porter and Dulau.

McCawley, James D. 1996. Music Notation. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 847–854.

McClelland, James E., III, and Harold Dorn. 1999. *Science and Technology in World History: An Introduction.* Baltimore, MD: The Johns Hopkins University Press.

McDonald, Angela. 2002. Animal Metaphor in the Egyptian Determinative System: Three Case Studies. Unpublished D.Phil. dissertation, University of Oxford.

McDowell, Andrea. 1996. Student Exercises from Deir el-Medina: The Dates. In *Studies in Honor of William Kelly Simpson*, Volume II, ed. Peter Der Manuelian. Boston, MA: Museum of Fine Arts, pp. 601–608.

1999. *Village Life in Ancient Egypt.* Oxford: Oxford University Press.

2000. Teachers and Students at Deir el-Medina. In *Deir el-Medina in the Third Millennium AD, A Tribute to Jac. J. Janssen*, ed. R. J. Demarée and A. Egberts. Leiden: Nederlands Instituut voor het Nabije Oosten, pp. 217–233.

McGaw, Judith A. 1996. Reconceiving Technology: Why Feminine Technologies Matter. In *Gender and Archaeology*, ed. Rita P. Wright. Philadelphia, PA: University of Pennsylvania Press, pp. 52–75.

McGuinnes-Scott, Julia. 1983. *Movement Study and Benesh Movement Notation.* Oxford: Oxford University Press.

McManus, Damian. 1991. *A Guide to Ogam.* Maynooth Monographs 4. Maynooth: An Sagart.

1996. Ogham. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 340–345.

McNeill, William H. 1989. *Arnold Toynbee: A Life.* Oxford: Oxford University Press.

Mecquenem, Roland de. 1949. *Epigraphie proto-élamite.* Mémoires de la Délégation en Perse 31. Paris: Presses Universitaires de France.

1956. Notes proto-élamites. *Revue d'Assyriologie et d'Archéologie Orientale* 50:200–204.

Medellín Zenil, Alfonso. 1960. Monolitos inéditos olmecos. *La palabra y el hombre: Revista de la Universidad Veracruzana* 16:75–97.

Melchert, H. Craig. 1996. Anatolian Hieroglyphs. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 120–124.

Méluzin, Sylvia. 1987. The Tuxtla Statuette: An Internal Analysis of Its Writing System. In *The Periphery of the Southeastern Classic Maya Realm*, ed. Gary W. Pahl. Los Angeles, CA: Latin American Center, University of California, Los Angeles, pp. 68–113.

1995. *Further Investigations of the Tuxtla Script: An Inscribed Mask and La Mojarra Stela 1.* Papers of the New World Archaeological Foundation 65. Provo, UT: Brigham Young University.

Meriggi, Piero. 1971–1974. *La scrittura proto-elamica I–III.* Rome: Accademia nazionale dei Lincei.

1975. Der Stand der Erforschung des Proto-elamischen. *Journal of the Royal Asiatic Society* 1975:105.

Michalowski, Piotr. 1990. Early Mesopotamian Communicative Systems: Art, Literature, and Writing. In *Investigating Artistic Environments in the Ancient Near East*, ed. Ann Gunter. Washington, DC: Arthur M. Sackler Gallery, Smithsonian Institution Press, pp. 53–69.

1991. Charisma and Control: On Continuity and Change in Early Mesopotamian Bureaucratic Systems. In *The Organization of Power: Aspects of Bureaucracy in the Ancient Near East*, ed. McGuire Gibson and Robert D. Biggs. 2nd edn. Chicago, IL: University of Chicago Press, pp. 45–57.

1993a. *Letters from Mesopotamia.* Writings from the Ancient World 3. Atlanta, GA: Scholars Press.

1993b. Tokenism. *American Anthropologist* 95:996–999.

1994. Writing and Literacy in Early States: A Mesopotamianist Perspective. In *Literacy: Interdisciplinary Conversations*, ed. Deborah Keller-Cohen. Cresskill, NJ: Hampton Press, pp. 49–70.

1996. Cuneiform: Origins. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 33–36.

Michel, Rudolph, Patrick McGovern, and Virginia Badler. 1993. The First Wine and Beer: Chemical Detection of Ancient Fermented Beverages. *Analytical Chemistry* 65(8):408A–413A.

Midant-Reynes, Béatrix. 2000. *The Prehistory of Egypt, from the First Egyptians to the First Pharaohs*, trans. Ian Shaw. Oxford and Malden, MA: Blackwell.

Millard, A. R. 1986. The Infancy of the Alphabet. *World Archaeology* 17:390–398.

Miller, Arthur G. 1995. *The Painted Tombs of Oaxaca, Mexico: Living with the Dead.* Cambridge: Cambridge University Press.

Miller, Mary E. 1991. Rethinking the Classic Sculptures of Cerro de las Mesas, Veracruz, Mexico. In *Settlement Archaeology of Cerro de las Mesas, Veracruz, Mexico*, ed. Barbara L. Stark. Institute of Archaeology Monograph 34. Los Angeles, CA: University of California, Los Angeles, pp. 26–38.

Miller, Roy A. 1967. *The Japanese Language.* Chicago, IL: University of Chicago Press.

Molina, Alonso de. 1970. *Vocabulario en lengua castellana y mexicana y mexicana y castellana*, ed. Miguel León-Portilla. 4th edn. Mexico, DF: Editorial Porrúa.

Monaghan, John. 1995. *The Covenants with Earth and Rain: Exchange, Sacrifice, and Revelation in Mixtec Society.* Norman, OK: University of Oklahoma Press.

Monaghan, John, and B. Hamman. 1998. Reading as Social Practice and Cultural Construction. *Indiana Journal of Hispanic Literatures* 13:131–140.

Montelius, Oscar. 1899. *Der Orient und Europa.* Stockholm: Königliche Academie der schönen Wissenschaften, Geschichte und Alterthumskunde.

Moore, Oliver. 2000. *Reading the Past: Chinese.* London: British Museum Press.

Moorey, P. R. S. 1987. On Tracking Cultural Transfers in Prehistory: The Case of Egypt and Lower Mesopotamia in the Fourth Millennium BC. In *Centre and Periphery in the Ancient World*, ed. Michael Rowlands, Mogens Trolle Larsen, and Kristian Kristiansen. New Directions in Archaeology. Cambridge: Cambridge University Press, pp. 36–46.

Mora-Marín, Davíd. 2000. Background to the Study of the Earliest Maya Writing. Ph.D. Question II, State University of New York at Albany.

2001. Late Preclassic Inscription Documentation Project. Report to the Foundation for the Advancement of Mesoamerican Studies, Inc. www.famsi.org/reports/moramarin/moramarin.html.

Morgan, Lewis H. 1907. *Ancient Society; or, Researches in the Lines of Human Progress from Savagery through Barbarism to Civilization.* Chicago, IL: Kerr. (originally published 1877).

Morley, Sylvanus G. 1937. *The Inscriptions of Peten*, Volume V, Part 1. Washington, DC: Carnegie Institution of Washington.

Morris, Earl, Jean Charlot, and Ann Axtell Morris. 1931. *The Temple of the Warriors at Chichen Itza, Yucatan.* Carnegie Institution of Washington, Publication 406. Washington, DC: Carnegie Institution of Washington.

Murgio, Matthew P. 1969. *Communications Graphics.* New York, NY: Van Nostrand Reinhold.

Nabokov, Peter. 1996. Native Views of History. In *The Cambridge History of the Native Peoples of the Americas*, Volume I:, *North America*, ed. Bruce G. Trigger and Wilcomb E. Washburn. Cambridge: Cambridge University Press. pt. 1, pp. 1–59.

Navarrete, Carlos. 1971. Algunas piezas olmecas de Chiapas y Guatemala. *Anales de Antropología* 8:69–82.

Nichols, John D. 1996. The Cree Syllabary. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 599–611.

Nicholson, H. B. 1973. Phoneticism in the Late Pre-Hispanic Central Mexican Writing System. In *Mesoamerican Writing Systems: A Conference at Dumbarton Oaks, October 30th and 31st, 1971*, ed. Elizabeth P. Benson. Washington, DC: Dumbarton Oaks Research Library and Collection, pp. 1–46.

Niederberger, Christine. 2000. Ranked Societies, Iconographic Complexity, and Economic Wealth in the Basin of Mexico toward 1200 BC. In *Olmec Art and Archaeology in Mesoamerica*, ed. John E. Clark and Mary E. Pye. Studies in the History of Art 58. Washington, DC: Center for Advanced Study in the Visual Arts, National Gallery of Art, pp. 168–191.

Nissen, Hans. 1977. Aspects of the Development of Early Cylinder Seals. In *Seals and Sealings in the Ancient Near East*, ed. McGuire Gibson and Robert D. Biggs. Bibliotheca Mesopotamica 6. Malibu, CA: Undena, pp. 15–23.

1983. *Grundzüge einer Geschichte der Frühzeit des Vorderen Orients.* Grundzüge 52. Darmstadt: Wissenschaftliche Buchgesellschaft.

1985. The Emergence of Writing in the Ancient Near East. *Interdisciplinary Science Reviews* 10:349–361.

1986. The Archaic Texts from Uruk. *World Archaeology* 17:317–334.

1988. *The Early History of the Ancient Near East, 9000–2000 BC.* Chicago, IL: University of Chicago Press.

1999. *Geschichte Altvorderasiens.* Munich: R. Oldenbourg Verlag.

Nissen, Hans, Peter Damerow, and Robert Englund. 1991. *Frühe Schrift und Techniken der Wirtschaftsverwaltung im alten Vorderen Orient.* Berlin: Verlag Franzbecker and Max Planck Institute for Education and Human Development.

1993 *Archaic Bookkeeping: Early Writing and Techniques of Economic Administration in the Ancient Near East.* Chicago, IL: University of Chicago Press.

Noble, David F. 1999. *The Religion of Technology: The Divinity of Man and the Spirit of Invention.* London: Penguin.

Nowotny, Karl Anton. 1961. *Tlacuilolli: Die mexikanischen Bilderhandschaiften, Stil und Inhalt, mit einem katalog der codex-Borgia-gruppe.* Berlin: Verlag Begr. Mann.

Nurse, D. 1997. The Contributions of Linguistics to the Study of History in Africa. *Journal of African History* 38:359–391.

O'Connor, M. 1996. Epigraphic Semitic Scripts. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 88–107.

Odenstedt, Bengt. 1990. *On the Origin and Early History of the Runic Script: Typology and Graphic Variation on the Older* Futhark. Acta Academiae Regiae Gustavi Adolphi 69. Uppsala: Swedish Science Press.

Olivier, Jean-Pierre. 1986. Cretan Writing in the Second Millennium BC. *World Archaeology* 17:377–389.

Orrego Corzo, Miguel. 1990. *Investigaciones arqueológicas en Abaj Takalik, El Asintal, Retalhuleu, año 1988: Reporte no. 1.* Guatemala: Ministerio de Cultura y Deportes.

Ortiz, Ponciano, and María del Carmen Rodríguez. 2000. The Sacred Hill of El Manatí: A Preliminary Discussion of the Site's Ritual Paraphernalia. In *Olmec Art and Archaeology in Mesoamerica*, ed. John E. Clark and Mary E. Pye. Studies in the History of Art 58. Washington, DC: Center for Advanced Study in the Visual Arts, National Gallery of Art, pp. 74–93.

Osing, Jürgen. 1976. Ächtungstexte aus dem Alten Reich (II). *Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo* 32: 133–185.

Owen, Charles L. 1986. Technology, Literacy, and Graphic Systems. In *Toward a New Understanding of Literacy*, ed. Merald E. Wrolstad and Dennis F. Fisher. New York, NY: Praeger, pp. 156–187.

Paradis, Louise I. 1981. Guerrero and the Olmec. In *The Olmec and Their Neighbors: Essays in Memory of Matthew W. Stirling*, ed. Elizabeth P. Benson. Washington, DC: Dumbarton Oaks Research Library and Collection, pp. 195–208.

Parkinson, Richard B. 1999. *Cracking Codes: The Rosetta Stone and Decipherment.* London: British Museum Press.

Parpola, Asko. 1986. The Indus Script: A Challenging Puzzle. *World Archaeology* 17:399–419.

1996. The Indus Script. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 165–171.

Parsons, Lee A. 1986. *The Origins of Maya Art: Monumental Stone Sculpture of Kaminaljuyu, Guatemala, and the Southern Pacific Coast.* Studies in Pre-Columbian Art and Archaeology 28. Washington, DC: Dumbarton Oaks Research Library and Collection.

Pauling, Linus C. 1967. *The Chemical Bond.* Ithaca, NY: Cornell University Press.

Payne, J. Crowfoot. 1993. *Catalogue of the Predynastic Egyptian Collection in the Ashmolean Museum.* Oxford: Clarendon Press.

Peirce, Charles Sanders. 1931–1966. *Collected Papers of Charles Sanders Peirce*, ed. Charles Hartshorne, P. Weiss, and A. W. Burks. 8 vols. Cambridge, MA: Harvard University Press.

Perutz, Max F. 1964. The Hemoglobin Molecule. *Scientific American* 211(5): 64–76.

Petrie, W. M. Flinders. 1900. *The Royal Tombs of the First Dynasty, 1900*, Volume I. Egypt Exploration Fund, Memoir 18. London: Egypt Exploration Fund.

1901. *The Royal Tombs of the Earliest Dynasties, 1901*, Volume II. Egypt Exploration Fund, Memoir 21. London: Egypt Exploration Society.

Pettersson, J. 1996. *Grammatological Studies: Writing and Its Relation to Speech.* Reports from Uppsala University Linguistics 29. Uppsala: Department of Linguistics.

Pimm, David. 1987. *Speaking Mathematically: Communication in Mathematics Classrooms.* London and New York, NY: Routledge and Kegan Paul.

Pittman, Holly. 1993. Pictures of an Administration: The Late Uruk Scribe at Work. In *Between the Rivers and Over the Mountains. Archaeologica Anatolica et Mesopotamica Alba Palmieri Dedicata*, ed. Marcella Frangipane. Rome: Dipartimento di Scienze Storiche Archeologiche et Antropologiche dell'Antichità, pp. 235–245.

1994. Towards an Understanding of the Role of Glyptic Imagery in the Administrative Systems of Proto-Literate Greater Mesopotamia. In *Archives Before Writing*, ed. Piera E. Fiandra, G. G. Fissore, and Marcella Frangipane. Turin: Scriptorium, pp. 177–203.

1996. Constructing Context: The Gebel el-Arak Knife, Greater Mesopotamian and Egyptian Interaction in the Late Fourth Millennium BCE. In *The Study of the Ancient Near East in the 21st Century: The William Foxwell Albright Centennial Conference*, ed. Jerrold S. Cooper and Glenn M. Schwartz. Winona Lake, IN: Eisenbrauns, pp. 9–32.

Pohl, Mary E. D., Kevin O. Pope, and Christopher von Nagy. 2002. Olmec Origins of Mesoamerican Writing. *Science* 298:1984–1986.

Pollock, Susan. 1999. *Ancient Mesopotamia.* Cambridge: Cambridge University Press.

Poo, Mu-Chou. 1998. *In Search of Personal Welfare: A View of Ancient Chinese Religion.* Albany, NY: State University of New York Press.

Pope, Maurice. 1966. The Origins of Writing in the Near East. *Antiquity* 40: 17–23.

1975. *The Story of Decipherment: From Egyptian Hieroglyphic to Linear B.* London: Thames and Hudson.

Porter, James B. 1992. "Estelas celtiformes": un nuevo tipo de escultura olmeca y sus implicaciones para los epigrafistas. *Arqueología* 8:3–14.

Postgate, Nicholas. 1984. Cuneiform Catalysis: The First Information Revolution. *Archaeological Review from Cambridge* 3:4–18.

1992. *Early Mesopotamia: Society and Economy at the Dawn of History*. London: Routledge.

Postgate, Nicholas, Tao Wang, and Toby Wilkinson. 1995. The Evidence for Early Writing: Utilitarian or Ceremonial? *Antiquity* 69:459–480.

Powell, Marvin A. 1981. Three Problems in the History of Cuneiform Writing: Origins, Direction of Script, Literacy. *Visible Language* 15:419–440.

Prem, Hanns. 1969–1970. Aztec Hieroglyphic Writing System – Possibilities and Limits. *38th International Congress of Americanists, Stuttgart-München* (Munich: Klaus Rener) 2:159–165.

1971. Calendrics and Writing. In *Observations on the Emergence of Civilization in Mesoamerica*, ed. Robert F. Heizer and John A. Graham. University of California Archaeological Research Facility, Contribution 11. Berkeley, CA: University of California Press, pp. 112–132.

1973. A Tentative Classification of Non-Maya Inscriptions in Mesoamerica. *Indiana* 1:29–58.

1992. Aztec Writing. In *Supplement to the Handbook of Middle American Indians: Epigraphy*, ed. Victoria R. Bricker. Austin, TX: University of Texas Press, pp. 53–69.

Prem, Hans, and Berthold Riese. 1983. Autochthonous American Writing Systems: The Aztec and Maya Examples. In *Writing in Focus*, ed. Florian Coulmas and Konrad Ehlich. Berlin: Mouton, pp. 167–186.

Priese, Karl-Heinz. 1973. Zur Entstehung der meroitischen Schrift. *Meroitica* 1:273–306.

Proskouriakoff, Tatiana. 1974. *Jades from the Cenote of Sacrifice, Chichen Itza, Yucatan*. Memoirs of the Peabody Museum of Archaeology and Ethnology 10(1). Cambridge, MA: Harvard University.

Pye, Mary E., and John E. Clark. 2000. Introducing Olmec Archaeology. In *Olmec Art and Archaeology in Mesoamerica*, ed. John E. Clark and Mary E. Pye. Studies in the History of Art 58. Washington, DC: Center for Advanced Study in the Visual Arts, National Gallery of Art, pp. 8–17.

Qiu Xigui. 1989. An Examination of Whether the Charges in Anyang Oracle-Bone Inscriptions are Questions. *Early China* 14:77–114.

2000. *Chinese Writing*, trans. Gilbert L. Mattos and Jerry Norman. Berkeley, CA: Society for the Study of Early China.

Quak, Arend. 1996. Noch einmal die Latein-These. *Amsterdamer Beiträge zur älteren Germanistik* 45:171–179.

Quibell, J. E. 1900. *Hierakonpolis I*. Egyptian Research Account, Memoir 4. London: Bernard Quaritch.

Quibell, J. E., and F. W. Green. 1902. *Hierakonpolis II*. Egyptian Research Account, Memoir 5. London: Quaritch.

Quilter, Jeffrey, and Gary Urton, eds. 2002. *Narrative Threads: Accounting and Recounting in Andean Khipu*. Austin, TX: University of Texas Press.

Rausing, Gad. 1992. On the Origin of the Runes. *Fornvännen* 87: 200–205.

Ray, J. D. 1986. The Emergence of Writing in Egypt. *World Archaeology* 17:307–316.

Reilly, F. Kent, III. 1994. Cosmología, soberanismo y espacio ritual en la Mesoamérica del Formativo. In *Los olmecas en Mesoamérica*, ed. John E. Clark. Mexico, DF: Citibank, pp. 238–259.

1995. Art, Ritual, and Rulership in the Olmec World. In *The Olmec World: Ritual and Rulership*, ed. Jill Guthrie. Princeton, NJ: The Art Museum, Princeton University, pp. 27–46.

1996. The Lazy-S: A Formative Period Iconographic Loan to Maya Hieroglyphic Writing. In *Eighth Palenque Round Table, 1993*, ed. Martha Macri and Jan McHargue. San Francisco, CA: Pre-Columbian Art Research Institute, pp. 413–424.

Remesal, Antonio. 1964. *Historia general de las Indias Occidentales y particular de la gobernación de Chiapa y Guatemala*, vol. I. Biblioteca de Autores Españoles vol. 175. Madrid: Ediciones Atlas.

Ritner, Robert K. 1996a. Egyptian Writing. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 73–84, 87.

1996b. The Coptic Alphabet. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 287–290.

Robinson, Andrew. 2002. *Lost Languages: The Enigma of the World's Undeciphered Scripts*. New York, NY: McGraw-Hill.

Rogers, Henry. 1995. Optimal Orthographies. In *Scripts and Literacy*, ed. Insup Taylor and David Olson. Dordrecht: Kluwer, pp. 31–43.

Rothman, Mitchell S., ed. 2001. *Uruk Mesopotamia and Its Neighbors: Cross-Cultural Interactions in the Era of State Formation*. Santa Fe, NM: School of American Research Press.

Rotman, Brian. 1993. *Taking God out of Mathematics and Putting the Body Back in: An Essay in Corporeal Semiotics*. Stanford, CA: Stanford University Press.

1995. Thinking Dia-Grams: Mathematics, Writing, and Virtual Reality. *South Atlantic Quarterly* 94(2):389–415.

Rowlands, Michael J. 1989. A Question of Complexity. In *Domination and Resistance*, ed. Daniel Miller, Michael J. Rowlands, and Christopher Tilley. London: Unwin Hyman, pp. 29–40.

Rubio, Gonzalo. 1999. On The Alleged "Pre-Sumerian Substratum." *Journal of Cuneiform Studies* 51:1–16.

Rudwick, Martin J. S. 1976. The Emergence of a Visual Language for Geological Science, 1760–1840. *History of Science* 14:149–195.

Ruse, Michael. 1990. Are Pictures Really Necessary? The Case of Sewell Wright's "Adaptive Landscapes." In *PSA 1990*, ed. Arthur Fine, Micky Forbes, and

Linda Wessels. East Lansing, MI: Philosophy of Science Association, vol. II, pp. 63–77.

Sahagún, Bernardino de. 1959–1982. *Codex Florentine: The General History of the Things of New Spain*, trans. and ed. Arthur J. O. Anderson and Charles Dibble. 12 vols. Santa Fe, NM: School of American Research and the University of Utah.

Sahlins, Marshall. 1976. *Culture and Practical Reason.* Chicago, IL: University of Chicago Press.

Salomon, Frank. 2001. How an Andean "Writing Without Words" Works. *Current Anthropology* 42:1–27.

Salomon, Richard G. 1996. Brahmi and Kharoshthi. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 373–382.

Sampson, Geoffrey. 1985. *Writing Systems: A Linguistic Introduction.* Stanford, CA: Stanford University Press.

Sanjian, Avedis K. 1996. The Armenian Alphabet. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 356–363.

Saussure, Ferdinand de. 1959. *Course in General Linguistics.* New York, NY: Philosophical Library.

Sawyer, Birgit. 2000. *The Viking-Age Rune-Stones: Custom and Commemoration in Early Medieval Scandinavia.* Oxford: Oxford University Press.

Scancarelli, Janine. 1996. Cherokee Writing. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 587–592.

Schäfer, Heinrich. 1986 [1974]. *Principles of Egyptian Art*, ed. Emma Brunner-Traut. Revised reprint; trans. and ed. John Baines. Oxford: Griffith Institute. 1st German edn. 1919, 4th edn. 1963.

Scheil, Vincent. 1900. *Textes élamites-sémitiques.* Mémoires de la Délégation en Perse 2. Paris: Ernest Leroux.

1905. *Documents en écriture proto-élamites,* Mémoires de la Délégation en Perse 6. Paris: Ernest Leroux.

1923. *Textes de comptabilité proto-élamites.* Mémoires de la Délégation en Perse 17. Paris: Ernest Leroux.

1935. *Textes de comptabilité proto-élamites.* Mémoires de la Délégation en Perse 26-26S. Paris: Librairie Orientaliste Paul Geuthner.

Schele, Linda. 1985. The Hauberg Stela: Bloodletting and the Mythos of Maya Rulership. In *Fifth Palenque Round Table, 1983*, ed. Virginia M. Fields. San Francisco, CA: Pre-Columbian Art Research Institute, pp. 135–149.

Schele, Linda, and Mary E. Miller. 1986. *The Blood of Kings: Dynasty and Ritual in Maya Art.* Fort Worth, TX: Kimbell Art Museum.

Schenkel, Wolfgang. 1976. The Structure of Hieroglyphic Script. *Royal Anthropological Institute News* 15:4–7.

Schmandt-Besserat, Denise. 1992. *Before Writing: From Counting to Cuneiform.* 2 vols. Austin, TX: University of Texas Press.

Scholes, France V., and Eleanor B. Adams. 1968. *The Maya Chontal Indians of Acalan-Tixchel: A Contribution to the History and Ethnography of the Yucatan Peninsula.* 2nd edn. Norman, OK: University of Oklahoma Press.

Schulz, George, and R. Heiner Schirmer. 1979. *Principles of Protein Structure.* New York, NY: Springer-Verlag.

Scott, James C. 1976. *The Moral Economy of the Peasant: Rebellion and Subsistence in Southeast Asia.* New Haven, CT: Yale University Press.

1998. *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed.* New Haven, CT: Yale University Press.

Scott, John F. 1978. *The Danzantes of Monte Albán, Part II: Catalogue.* Studies in Pre-Columbian Art and Archaeology 19. Washington, DC: Dumbarton Oaks Research Library and Collection.

Sedat, David W. 1992. Preclassic Notation and the Development of Maya Writing. In *New Theories on the Ancient Maya*, ed. Elin Danien and Robert J. Sharer. University Museum Monograph 77. Philadelphia, PA: University Museum, University of Pennsylvania, pp. 81–90.

Seeley, Christopher. 1991. *A History of Writing in Japan.* Leiden: Brill.

Seler, Eduard. 1906. Das Dorfbuch von Santiago Guevea. *Zeitschrift für Ethnologie* 38:121–155.

1963. *Commentarios al Códice Borgia.* 2 vols. and facsimile. Mexico, DF: Fondo de Cultura Económica.

Selz, Gebhard. 2000. Schrifterfindung als Ausformung eines reflexiven Zeichensystems. *Wiener Zeitschrift für Kunde des Morgenlandes* 90:169–200.

Senner, Wayne. 1989. Introduction. In *The Origins of Writing*, ed. Wayne Senner. Lincoln, NE: University of Nebraska Press, pp. 1–26.

ed. 1989. *The Origins of Writing.* Lincoln, NE: University of Nebraska Press.

Sethe, Kurt H. 1939. *Vom Bilde zum Buchstaben: Die Entstehungsgeschichte der Schrift.* Leipzig: J. C. Hinrichs.

Shanghai Bowuguan Cang Qingtongqi. 1964. Shanghai: Shanghai Museum.

Shanks, Michael, and Christopher Tilley. 1987. *Social Theory and Archaeology.* Cambridge: Polity Press.

Sharer, Robert J. 1994. *The Ancient Maya.* 5th edn. Stanford, CA: Stanford University Press.

Sharer, Robert J., and David W. Sedat. 1987. *Archaeological Investigations in the Northern Maya Highlands, Guatemala: Interaction and the Development of Maya Civilization.* University Museum Monograph 59. Philadelphia, PA: University Museum, University of Pennsylvania.

Shi, Dingxu. 1996. The Yi Script. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 239–243.

Shima Kunio. 1971. *Inkyo Bokuji Sōrui.* Rev. edn. Tokyo: Kyūko Shoin.

Shingler, John V. 1996. Scripts of West Africa. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 593–598.

Sims-Williams, P. 1993. Some Problems in Deciphering the Early Irish Ogam Alphabet. *Transactions of the Philological Society* 91:133–180.

Sjoberg, Gideon. 1960. *The Preindustrial City: Past and Present.* Glencoe, IL: The Free Press.

Skjaervø, P. Oktor. 1996. Aramaic Scripts for Iranian Languages. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 515–535.

Smith, A. Ledyard. 1950. *Uaxactun, Guatemala: Excavations of 1931–1937.* Carnegie Institution of Washington, Publication 588. Washington, DC: Carnegie Institution of Washington.

Smith, H. S. 1992. The Making of Egypt: A Review of the Influence of Susa and Sumer on Upper Egypt and Lower Nubia in the 4th Millennium BC. In *The Followers of Horus: Studies Dedicated to Michael Allen Hoffman 1944–1990*, ed. Renée Friedman and Barbara Adams. Egyptian Studies Association Publication 2, Oxbow Monograph 20. Oxford: Oxbow Books, pp. 235–246.

Smith, Janet S. 1996. Japanese Writing. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 209–217.

Smith, Mary E. 1973. *Picture Writing from Ancient Southern Mexico: Mixtec Place Signs and Maps.* Norman, OK: University of Oklahoma Press.

Smith, William Stevenson. 1949. *A History of Egyptian Sculpture and Painting in the Old Kingdom.* 2nd edn. London: Geoffrey Cumberlege, Oxford University Press, for Museum of Fine Arts, Boston.

Spencer, A. Jeffrey. 1980. *Early Dynastic Objects.* Catalogue of Egyptian Antiquities in the British Museum 5. London: British Museum Publications.

1993. *Early Egypt: The Rise of Civilisation in the Nile Valley.* London: British Museum Press.

Spencer, Charles S. 1982. *The Cuicatlán Cañada and Monte Albán: A Study of Primary State Formation.* New York, NY: Academic Press.

Sproat, Richard W. 2000. *A Computational Theory of Writing Systems.* Cambridge: Cambridge University Press.

Stein, Gil J. 1999. *Rethinking World Systems. Diasporas, Colonies, and Interaction in Uruk Mesopotamia.* Tuscon, AZ: University of Arizona Press.

Steinkeller, Piotr. 1995. Review of M. W. Green and Hans J. Nissen, *Zeichenliste der archaischen Texte aus Uruk* (1987). *Bibliotheca Orientalis* 52:689–713.

1995–1996. Review of Englund and Nissen (1993). *Archiv für Orientforschung* 42/43:211–214.

Stève, Marie-Joseph, and Hermann Gasche. 1971. *L'Acropole de Suse.* Mémoires de la Mission Archéologique de Iran 46. Paris: Ernest Leroux.

Stirling, Matthew. 1943. *Stone Monuments of Southern Mexico.* Bureau of American Ethnology Bulletin 138. Washington, DC: Smithsonian Institution.

Stoklund, Marie. 1996. Runes. In *Roman Reflections in Scandinavia*, ed. Eva Björklund. Rome: "L'Erma" di Bretschneider, pp. 112–114.

Stolper, Matthew. 1978. Inscribed Fragments from Khuzistan. *Cahiers de la Délégation Archéologique Française* 8:89–96.

Street, Brian V. 1993. Introduction: The New Literacy Studies. In *Cross-Cultural Approaches to Literacy*, ed. Brian V. Street. Cambridge: Cambridge University Press, pp. 1–21.

Stryer, Lubert. 1988. *Biochemistry.* 3rd edn. San Francisco, CA: W. H. Freeman.

Stuart, David. 1995. A Study of Maya Inscriptions. Unpublished Ph.D. dissertation, Vanderbilt University.

1996. Kings of Stone: A Consideration of Stelae in Ancient Maya Ritual and Representations. *RES: Anthropology and Aesthetics* 29/30:148–171.

Stuart, David, Stephen Houston, and John Robertson. 1999. *Recovering the Past: Classic Mayan Language and Classic Maya Gods.* Austin, TX: Texas Workshop Foundation.

Stuart, George. 1987. *A Carved Shell from the Northeastern Maya Lowlands.* Research Reports on Ancient Maya Writing 13. Washington, DC: Center for Maya Research.

Sumner, William. 1974. Excavations at Tall-i Malyan, 1971–1972. *Iran* 12:155–180.

1976. Excavations at Tall-i Malyan (Anshan) 1974. *Iran* 14:103–114 and pls. I–III.

Sürenhagen, Dietrich. 1993. Relative Chronology of the Uruk Period. *Bulletin of the Canadian Society for Mesopotamian Studies* 25:57–70.

1999. *Untersuchungen zur relativen Chronologie Babyloniens und angrenzender Gebiete von der ausgehenden Ubaidzeit bis zum Beginn der Frühdynastisch II-Zeit 1.* Studien zur Chronostratigraphie der südbabylonischen Stadtruinen von Uruk und Ur. Heidelberger Studien zum Alten Orient 8. Heidelberg: Heidelberger Orientverlag.

Swadesh, Morris. 1967. Lexicostatistic Classification. In *Handbook of Middle American Indians*, Volume V: *Linguistics*, ed. Norman McQuown. Austin, TX: University of Texas Press, pp. 79–115.

Swiggers, Pierre. 1996a. The Iberian Scripts. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 108–112.

1996b. Transmission of the Phoenician Script to the West. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 261–270.

Swiggers, Pierre, and Wolfgang Jenniges. 1996. The Anatolian Alphabets. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 281–287.

Takashima Ken'ichi. 1989. An Evaluation of the Theories Concerning the Shang Oracle-Bone Inscriptions. *Journal of Intercultural Studies* [Kansai University] 15–16(1988–1989):11–54.

Tang Lan. 1981. *Guwenzixue daolun.* Jinan: Qilu shushe.

Tate, Carolyn E., and F. Kent Reilly, III. 1995. Catalogue of the Exhibition. In *The Olmec World*, ed. Jill Guthrie. Princeton, NJ: The Art Museum, Princeton University, pp. 125–329.

Tattersall, Ian. 1995. *The Fossil Trail: How We Know What We Think We Know About Human Evolution.* Oxford: Oxford University Press.

Taube, Karl A. 1988. *The Albers Collection of Pre-Columbian Art.* New York, NY: Hudson Hills Press.

1995. The Rainmakers: The Olmec and Their Contribution to Mesoamerican Belief and Ritual. In *The Olmec World*, ed. Jill Guthrie. Princeton, NJ: The Art Museum, Princeton University, pp. 83–103.

2000a. Lightning Celts and Corn Fetishes: The Formative Olmec and the Development of Maize Symbolism in Mesoamerica and the American Southwest. In *Olmec Art and Archaeology in Mesoamerica*, ed. John E. Clark and Mary E. Pye. Studies in the History of Art 58. Washington, DC: Center for Advanced Study in the Visual Arts, National Gallery of Art, pp. 296–337.

2000b. *The Writing System of Ancient Teotihuacan.* Ancient America 1. Barnardsville, NC, and Washington, DC: Center for Ancient American Studies.

Taube, Karl A., and Bonnie L. Bade. 1991. *An Appearance of Xiuhtecuhtli in the Dresden Venus Pages.* Research Reports on Ancient Maya Writing 35. Washington, DC: Center for Maya Research.

Taylor, Isaac. 1883. *The Alphabet: An Account of the Origin and Development of Letters.* 2 vols. London: Kegan Paul, Trench.

Teissier, Beatrice. 1987. Glyptic Evidence for a Connection between Iran, Syro-Palestine, and Egypt in the Fourth and Third Millennia. *Iran* 25:27–53.

Testen, David D. 1996. Old Persian Cuneiform. In *The World's Writing Systems*, ed. Peter T. Daniels and William Bright. New York, NY, and Oxford: Oxford University Press, pp. 134–137.

Thompson, J. Eric S. 1931. *Archaeological Investigations in the Southern Cayo District, British Honduras.* Field Museum of Natural History, Publication 301. Chicago, IL: Field Museum of Natural History.

1972. *Maya Hieroglyphs Without Tears.* London: British Museum Press.

Thote, Alain. 2001. The Archaeology of Eastern Sichuan at the End of the Bronze Age. In *Ancient Sichuan: Treasures from a Lost Civilization*, ed. Robert Bagley. Princeton, NJ: Princeton University Press, pp. 202–251.

2003. Du message à l'image: le décor des bronzes Shang et Zhou. *Arts Asiatiques* 58:73–85.

Thwaites, Reuben G., ed. 1896–1901. *The Jesuit Relations and Allied Documents.* 73 vols. Cleveland, OH: Burrows Brothers.

Tinney, Stephen J. 1998. Texts, Tablets, and Teaching: Scribal Education in Nippur and Ur. *Expedition* 40:40–50.

Trigger, Bruce G. 1998. *Sociocultural Evolution: Calculation and Contingency.* Oxford: Blackwell.

Tsien, Tsuen-hsuin [Qian Cunxun]. 1962. *Written on Bamboo and Silk.* Chicago, IL: University of Chicago Press.

Tufte, Edward R. 1983. *The Visual Display of Quantitative Information.* Cheshire, CT: Graphics Press.

1990. *Envisioning Information.* Cheshire, CT: Graphics Press.

Twyman, Michael. 1986. Articulating Graphic Language: A Historical Perspective. In *Toward a New Understanding of Literacy*, ed. Merald E. Wrolstad and Dennis F. Fisher. New York, NY: Praeger, pp. 188–251.

Unger, J. Marshall, and John DeFrancis. 1995. Logographic and Semasiographic Writing Systems: A Critique of Sampson's Classification. In *Scripts and Literacy*, ed. Insup Taylor and David Olson. Dordrecht: Kluwer, pp. 45–58.

Urcid Serrano, Javier. 2001. *Zapotec Hieroglyphic Writing.* Studies in Pre-Columbian Art and Archaeology 34. Washington, DC: Dumbarton Oaks Research Library and Collection.

Urton, Gary. 1998. From Knots to Narratives: Reconstructing the Art of Historical Record Keeping in the Andes from Spanish Transcriptions of Inka *Khipus. Ethnohistory* 45:409–438.

2003. *Signs of the Inka Khipu: Binary Coding in the Andean Knotted-String Records.* Austin, TX: University of Texas Press.

Vachek, Josef. 1939. Zum Problem der geschriebenen Sprache. *Travaux du cercle linguistique de Prague* 8:94–104.

1973. *Written Language.* Janua Linguarum, Series Critica 14. The Hague: Mouton.

Vallat, François. 1971. Les documents épigraphiques de l'Acropole (1969–1970). *Cahiers de la Délégation Archéologique Française* 1:235–245.

1973. Les tablettes proto-élamites de l'Acropole (campagne 1972). *Cahiers de la Délégation Archéologique Française* 3:93–107.

1986. The Most Ancient Scripts of Iran: The Current Situation. *World Archaeology* 17:335–347.

van den Brink, Edwin C. M. 1992. Corpus and Numerical Evaluation of the "Thinite" Potmarks. In *The Followers of Horus: Studies Dedicated to Michael Allen Hoffman*, ed. Renée Friedman and Barbara Adams. Oxbow Monograph 20. Oxford: Oxbow Books, pp. 265–296.

van der Loo, Peter L. 1994. Voicing the Painted Image: A Suggestion for Reading the Reverse of the Codex Cospi. In *Writing Without Words: Alternative Literacies in Mesoamerica and the Andes*, ed. Walter Mignolo and Elizabeth H. Boone. Durham, NC: Duke University Press, pp. 77–101.

Vandermeersch, Léon. 1977. *Wangdao ou la voie royale: recherches sur l'esprit des institutions de la Chine archaïque.* 2 vols. Publications de l'Ecole Française d'Extrême Orient, vol. 108. Paris: Adrien-Maisonneuve.

Vanstiphout, Herman L. J. 1989. Enmerkar's Invention of Writing Revisited. In *Studies in Honor of Åke W. Sjöberg*, ed. Herman Behrens, Darlene Loding, and Martha T. Roth. Occasional Publications of the S. N. Kramer Fund 11. Philadelphia, PA: University Museum, University of Pennsylvania, pp. 515–524.

2003. *Epics of Sumerian Kings: The Matter of Aratta.* Writings from the Ancient World, vol. 20. Atlanta: Society of Biblical Literature.

Venture, Olivier. 2002a. Etude d'un emploi rituel de l'écrit dans la Chine archaïque (XIIIe–VIIIe siècle avant notre ère): réflexion sur les matériaux épigraphiques des Shang et des Zhou occidentaux. Thèse pour l'obtention du diplôme de Docteur de l'université Paris 7.

2002b. L'écriture et la communication avec les esprits en Chine ancienne. *Bulletin of the Museum of Far Eastern Antiquities, Stockholm* 74 (in press).

Voegelin, Charles F., and Florence M. Voegelin. 1961. Typological Classification of Systems with Included, Excluded, and Self-sufficient Alphabets. *Anthropological Linguistics* 3:55–96.

Walker, Willard B. 1996. Native Writing Systems. In *Handbook of North American Indians*, Volume XVII: *Languages*, ed. Ives Goddard. Washington, DC: Smithsonian Institution, pp. 158–184.

Wallace, Rex. 1989. The Origins and Development of the Latin Alphabet. In *The Origins of Writing*, ed. Wayne M. Senner. Lincoln, NE: University of Nebraska Press, pp. 121–135.

Wang Yuxin. 1989. *Jiaguxue tonglun*. Beijing: Shehui kexue chubanshe.

Watson, James D., and F. H. C. Crick. 1953a. Molecular Structure of Nucleic Acid: A Structure for Deoxyribose Nucleic Acid. *Nature* 171:737–738.

1953b. Genetic Implications of the Structure of Deoxyribonucleic Acid. *Nature* 171:964–967.

Watson, Patty Jo, Steven A. LeBlanc, and Charles Redman. 1971. *Explanation in Archeology: An Explicitly Scientific Approach*. New York, NY: Columbia University Press.

Weiss, Harvey, and Theodore Cuyler Young. 1975. The Merchants of Susa. *Iran* 13:1–18.

Wengrow, David, and John Baines. 2004. Images, Human Bodies, and the Construction of Memory in Late Predynastic Egypt. In *Egypt and its Origins: Study in Memory of Barbara Adam Proceedings of the International Conference "Origins of the State: Predynast and Early Dynast Egypt," Krakow 28th August–1st September 2002*, ed. Krzysztof M. Ciałowicz, Marek Chłodnicki, Renée Friedman, and Stan Hendrickx. Egyptian Prehistory Monographs 5. Leuven: Leuven University Press, pp. 1083–1115.

Westenholz, Joan. 1998. Thoughts on Esoteric Knowledge and Secret Lore. In *Intellectual Life in the Ancient Near East*, ed. Jiří Prosecký. Rencontre Assyriologique Internationale 43. Prague: Oriental Institute, pp. 451–462.

Wheatley, Paul. 1971. *The Pivot of the Four Quarters: A Preliminary Enquiry into the Origins and Character of the Ancient Chinese City*. Edinburgh: Edinburgh University Press.

Whittaker, Gordon. 1986. The Mexican Names of Three Venus Gods in the Dresden Codex. *Mexicon* 8(3):56–60.

1992. The Zapotec Writing System. In *Supplement to the Handbook of Middle American Indians: Epigraphy*, ed. Victoria R. Bricker. Austin, TX: University of Texas Press, pp. 5–19.

1998. Traces of Early Indo-European Language in Southern Mesopotamia. *Göttinger Beiträge zur Sprachwissenschaft* 1:111–147.

2001. The Dawn of Writing and Phoneticism. In *Hieroglyphen, Alphabete, Schriftreformen: Studien zu Multiliteralismus, Schriftwechsel und Orthographieneuregelungen*, ed. Dörte Borchers, Frank Kammerzell, and Stefan Weninger. Lingua Aegyptia-Studia Monographica 3. Göttingen: Seminar für Ägyptologie und Koptologie, pp. 11–50.

Wilcke, Claus. 1995. Die Inschrift der "Figure aux plumes" – ein frühes Werk sumerischer Dichtkunst. In *Beiträge zur Kulturgeschichte Vorderasiens: Festschrift für Rainer Michael Boehmer*, ed. Uwe Finkbeiner, R. Dittmann, and H. Hauptmann. Mainz: Verlag Philipp von Zabern, pp. 669–674.

2000. *Wer las und schrieb in Babylonien und Assyrien: Überlegungen zur Literalität im Alten Zweistromland*. Munich: Verlag der Bayerischen Akademie der Wissenschaften.

Wilford, John Noble. 1999. Discovery of Egyptian Inscriptions Indicates an Earlier Date for Origin of the Alphabet. *The New York Times on the Web*, 13 Nov.

2001. Rethinking a History That's Carved in Stone. *The New York Times on the Web*, 31 July.

Wilkerson, S. Jeffrey K. 1984. In Search of the Mountain of Foam: Human Sacrifice in Eastern Mesoamerica. In *Ritual Human Sacrifice in Mesoamerica*, ed. Elizabeth H. Boone. Washington, DC: Dumbarton Oaks Research Library and Collection, pp. 101–132.

Wilkinson, Endymion. 2000. *Chinese History: A Manual*. Rev. edn. Cambridge, MA: Harvard University Press.

Wilkinson, Toby. 2000. *Royal Annals of Ancient Egypt: The Palermo Stone and Its Associated Fragments*. Studies in Egyptology. London: KPI.

Williams, Bruce. 1988. *Decorated Pottery and the Art of Naqada III: A Documentary Essay*. Münchner Ägyptologische Studien 45. Munich: Deutscher Kunstverlag.

Williams, Henrik. 1996. The Origin of the Runes. *Amsterdamer Beiträge zur älteren Germanistik* 45:211–218.

1997. The Romans and the Runes – Uses of Writing in Germania. In *Runor och ABC: Elva föreläsningar från ett symposium i Stockholm våren 1995*, ed. Staffan Nyström. Opuscula 4. Stockholm: Sällskapet Runica et Mediævalia, pp. 177–192.

Williams, Ronald J. 1972. Scribal Training in Ancient Egypt. *Journal of the American Oriental Society* 92:214–221.

Wimsatt, William. 1990. Taming the Dimensions – Visualizations in Science. In *PSA 1990*, ed. Arthur Fine, Micky Forbes, and Linda Wessels. East Lansing, MI: Philosophy of Science Association, vol. II, pp. 111–135.

Winfield Capitaine, Fernando. 1988. *La Estela 2 de La Mojarra, Veracruz, México*. Research Reports on Ancient Maya Writing 16. Washington, DC: Center for Maya Research.

Winter, Marcus, ed. 1994. *Escritura Zapoteca prehispánica: nuevas aportaciones.* Oaxaca: Instituto Nacional de Antropología e Historia.

Wolf, Eric R. 1955. Types of Latin American Peasantry: A Preliminary Discussion. *American Anthropologist* 57:452–471.

1986. The Vicissitudes of the Closed Corporate Peasant Community. *American Ethnologist* 13:325–329.

Wood, Wendy. 1978. A Reconstruction of the Reliefs of Hesy-Re. *Journal of the American Research Center in Egypt* 15:9–24.

Wright, Patricia. 1980. The Comprehension of Tabulated Information: Some Similarities between Reading Prose and Reading Tables. *Improving Human Performance Quarterly* October:25–29.

Wright, Patricia, and Kathryn Fox. 1970. Presenting Information in Tables. *Applied Ergonomics* 1(4):234–242.

Wright, Patricia, and Fraser Reid. 1973. Written Information: Some Alternatives to Prose for Expressing the Outcomes of Complex Contingencies. *Journal of Applied Psychology* 57(2):160–166.

Wrolstad, Merald E., and Dennis F. Fisher, eds. 1986. *Toward a New Understanding of Literacy.* New York, NY: Praeger.

Wrong, George M., ed. 1939. *The Long Journey to the Country of the Hurons,* Father Gabriel Sagard. Toronto: The Champlain Society.

Wu Hung. 1995. *Monumentality in Early Chinese Art and Architecture.* Stanford, CA: Stanford University Press.

Xu, Jay. 2001. Sichuan before the Warring States Period, and Bronze at Sanxingdui. In *Ancient Sichuan: Treasures from a Lost Civilization,* ed. Robert Bagley. Princeton, NJ: Princeton University Press, pp. 21–37 and 59–151.

Yang Fengbin. 1993. Cong pin mu deng zi kan jiaquewenzi de chouxianghua chengdu. In *Jiagu yuyan taohui lunwenji,* ed. Hu Houxuan. Wuchang guizishan: Huazhong shifan daxue, pp. 136–144.

Yinxu. 2001. Beijing: Wenwu Chubanshe.

Yinxu de Faxian yu Yanjiu. 1994. Beijing: Kexue Chubanshe.

Yinxu Fu Hao Mu. 1980. Beijing: Wenwu Chubanshe.

Yinxu Yuqi. 1982. Beijing: Wenwu Chubanshe.

Yoffee, Norman. 2001. The Evolution of Simplicity. *Current Anthropology* 42(5):767–769.

Yu Xingwu. 1940. *Shuang Jian Chi Gu Qiwu Tulu.* Beijing: n.p.

1957. *Shang Zhou Jinwen Luyi.* Beijing: Xinhua Shudian.

Zhang Bingquan. 1962. *Xiaotun, di er ben: Yinxu Wenzi: bingbian,* part 2(1). Taibei: Institute of History and Philology, Academia Sinica.

1988. *Jiaguwen yu jiaguxue.* Taibei: Zhonghua Xueshu.

Zhu Qixiang. 1992. *Jiaguxue luncong.* Taipei: Xuesheng Shuju.

Zimansky, Paul E. 1993. Review of Denise Schmandt-Besserat, *Before Writing. Journal of Field Archaeology* 20:513–517.