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## SISSIES

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The Bluest Eye, a novel by Toni Morrison

Quiet as it's kept, there were no marigolds in the fall of 1941. We thought, at the time, that it was because Pecola was having her father's baby that the marigolds did not grow. A little examination and much less melancholy would have proved to us that our seeds were not the only ones that did not sprout; nobody's did. Not even the gardens fronting the lake showed marigolds that year. But so deeply concerned were we with the health and safe delivery of Pecola's baby we could think of nothing but our own magic: if we planted the seeds, and said the right words over them, they would blossom, and everything would be all right.

It was a long time before my sister and I admitted to ourselves that no green was going to spring from our seeds. Once we knew, our guilt was relieved only by fights and mutual accusations about who was to blame. For years I thought my sister was right: it was my fault. I had planted them too far down in the earth. It never occurred to either of us that the earth itself might have been unyielding. We had dropped our seeds in our own little plot of black dirt, just as Pecola's father had dropped his seeds in his own plot of black dirt. Our innocence and faith were no more productive than his lust or despair. What is clear now is that of all of that hope, fear, lust, love, and grief, nothing remains but Pecola and the unyielding earth. Cholly Breedlove is dead; our innocence too. The seeds shriveled and died; her baby too.

There is really nothing more to say-except why. But since why is difficult to handle, one must take refuge in how.

Collecting
Toni Morrison

The Origins of Writing

# Writing and the Mind of Man: from Origins to Alphabets

by LEE BIONDI

Dear Reader,

You are currently reading something I wrote some time ago about the act of writing.

As book collectors, we are inherently interested in the act of reading—which has to be preceded by an act of writing. There is a space-time intermediary between the act of writing (composition by an "author") and the eventual reading act (experience and understanding by the "reader"). This transit is either direct communication—"mail" in one form or another—or indirect (and likely more removed in time and space)—that is to say "publishing" in one form or another.

In a past issue of *Firsts*<sup>1</sup>, I addressed a couple of paradigm shifts in the way the human mind conceived and perceived the acts of writing and reading: the current electronic age (a massive revolution in human intellectual processes), and the Fifteenth-century transitional overlap as the manuscript publishing tradition (familiar since antiquity) is slowly replaced by the world of moveable type and printed books—first by the hundreds and thousands (and now millions and tens of millions at a time, at least for Dan Brown and J.K. Rowling).

This article will go back even further, into deep history.

We will cover some of the truly ancient transitive moments in human intellectual development and human communication:

- 1) The societal shift from "no writing" to "writing";
- 2) The pressures which forced a growth from rudimentary pictographic proto-writing to

 Biondi, Lee. "Writing and the Mind of Man" Firsts: The Book Collector's Magazine. September 2007, Volume 17, Number 7. genuine writing systems capable of full expression of human speech;

And,

3) The handy reduction of massive writing systems to succinct alphabets; [And also "3a": the story of vowels].

This sequence of events defines the human transition from pre-history into history.

This chronology, from the ninth millennium B.C. to the first, will cover counting tokens, pictography known as proto-cuneiform, Mesopotamian cuneiform proper and Egyptian hieroglyphics and terminate with the early Semitic alphabetic systems of the Phoenicians and Hebrews—leading to the Greek alphabet, which was the foundation of the Latin (Roman) and all subsequent Western alphabets.

Each of these developments was as important in the history of human thought, society and history as, say, the wheel, electricity, cars, and computers.

For the sake of a less cluttered storyline and the general readership of a magazine devoted to Modern Firsts, I will delegate the drier points to footnotes (definitional, explanatory and referential). There will be an addendum of suggestions for further reading with brief summaries and comparative reviews of the books included.

I want to state going in that this brief entry-level article will have to be restricted to writing's origins in the West, specifically the Levant and the Middle East. We will be forced to overlook the Far Eastern and Meso-American systems.

There is no human history or culture without writing. It is truly an effort for moderns to imagine a world of strictly oral culture. We know abstractly that it existed—we all imagine we know the *Iliad* and

Odyssey world of the oral "Homeric" Greeks<sup>2</sup>—and we know attempts by philosophers and armchair travelers to romanticize and ennoble simple native indigenous cultures—but it is almost impossible to imagine a functioning world with a total absence of writing (even fully acknowledging that such societies operated with a memory apparatus vastly superior to the modern)

Further, our task at hand is to start with, and continue with, writing that is inarguably writing as we understand the word (skipping over cylinder seals, bread and other trade marks or brands, purely mnemonic systems, and examples of rock and cave art—all of which are fascinating, but are not writing as we understand the concept today).

The first key moment in the story at hand is when a society—as a society—agreed collectively and communally to move from "non-writing" to "writing."

Sumerian proto-cuneiform tablet, circa 3200 BC, memorializing a sale of livestock. Courtesy of Biondi Rare Books & Manuscripts. Photography by Bruce and Ken Zuckerman and Marilyn Lundberg of The West Semitic Research Project.

I still have a feeling of intellectual excitement trying to imagine or relive this moment in history. I find this historical breakthrough as thrilling as when the apes discover that bones can be weapons in 2001: A Space Odyssey.

Like a great number of societal firsts, we have to thank the Sumerian culture for organizing and propagating the art and culture of writing.<sup>3</sup>

- 2. Oral culture (societies without writing) stands as an opposite (and sometimes a precursor) to literate culture (societies with writing). Conversational speech is not the issue involved (it is irrelevant), but rather the transmission of lengthy composed standardized narratives. In the cases of *The Iliad* and *The Odyssey*, the compositions often employ fixed formulae and repeated useful phrases as mnemonic devices, enabling oral transmission of long texts. Some oral cultures other than the Greek developed into literate cultures (e.g. subcontinent India); some remained oral (e.g. American Indian).
- 3. Sumerian culture stands as the first of the many historical cultures in command of Mesopotamia, at the heart of that "fertile crescent" we all learned about in grade school (that is, modern Iraq). Though the Sumerians may have been influenced by early civilizations from the Levant to Persia, they seem to have been the first to organize with written records. Sumerian is the first language ever to be written. As the first of a long sequence of *linguas franca* of the trans-Mesopotamian region, Sumerian thrived until being displaced by Akkadian in the second millennium B.C.

Since modern writing is used as a method to transcribe speech, it is natural for moderns to assume that such has always been the case. But the very deep origins of writing had nothing to do with language or speech; writing began as a recording method of counting and accounting, in instances where reliance on spoken reports or memory would be insufficient or risky.

Writing didn't come from talking, but rather from counting.

Counting and numeration devices made of clay, called tokens, can be traced back as far as 8000 B.C. and continued without much formal advancement or improvement to the fourth millennium B.C. By that time the advancing Sumerian culture had need of a better system, and this tried-and-true method of token accounting consensually took the next developmental step into

a record-keeping and transaction permanent marker system of pictography<sup>4</sup> called proto-cuneiform.<sup>5</sup>

Molded wet clay was a perfect hand-held writing material and examples of cuneiform<sup>6</sup> survive in huge

4. The word *pictography* comes from the Latin "draw" and the Greek "write. It is literally *writing* with *drawings*. The visible signs express meaning without being conventionally associated with fixed linguistic forms. In the ancient world, the term applies to early Sumerian, the *forms* of hieroglyphs, Mayan glyph writing (to a yet undetermined extent) and early developmental stages of Far Eastern systems.

Historically, sign systems reliant strictly on iconic relations between the picture and the object pictured are classified as pre-writing. In the modern world, this kind of unpronounced but understood *sign*, is studied as semiotics.

- 5. Proto-cuneiform is Sumerian pictography, usually transactional documents (receipts) with signs for commodities and signs for numbers (combination of base 10 and base 60). The main reference book on this type of clay tablet is *Archaic Bookkeeping* (in the bibliography under Nissen.) The person who is almost single-handedly responsible for the now-accepted theory that writing developed from counting rather than from speaking is Denise Schmandt-Besserat, also represented in the bibliography. If there is ever a revised edition of *Printing and the Mind of Man*, it is fairly certain her book *How Writing Came About* would make the cut.
- 6. Cuneiform is the widely spread and long-lived system of writing with pressed lines and wedges in wet clay, the world's oldest system of actual writing. The name is a modern coinage from the Latin *cuneus*, "wedge."

numbers. Ancient tokens and pictographs are fewer, but clay survives far better than ancient papyrus and parchment, and there are plenty of examples for archaeologists and linguists to study.

This early form of writing on clay with standardized pictures was not intended to transcribe speech. It was a symbol language, not even intended for pronunciation or "reading" as we think of it today. Such iconic or symbolic communication (redefined and clarified as a subset of the field of general semiology in the Twentieth century) is a visual shorthand that is instantly recognized and interpreted by the viewer (I deliberately say "viewer" here, rather than "reader.")

In today's world such communication still exists to tell us to put out our cigarettes, or buckle our seatbelts, etc. Cars, whether from Germany, Japan or the United States, show seated stick figures on the dashboard with arrows pointing to their heads and feet and no one pronounces such signs, we just know by unspoken consensus that they mean how to adjust the air conditioning flow. Gas, food, lodging, next exit,

If the symbols are standardized, such a writing system (understood but not linguistic), functions fine within its obvious tight limitations.

Such a system, using a crude "rebus" approach, could be expanded to cover some simple sentences and thoughts, but would stumble at attempting to communicate to a distant recipient: "I certainly wish that your uncle could have been there," or "If only circumstances had been more favorable."

Separately from its services as accounting and record keeping tools, this rudimentary strain of writing on clay with pictures that meant what they looked like developed along two distinct paths as a way to transcribe and relay speech: 1) writing on clay without pictures at all, or merely atavistic and virtually unrecognizable (the system of cuneiform), and 2) writing with pictures that don't mean what they look like (the system of hieroglyphs<sup>7</sup>). This is an over-simplification, but one that can be accepted for the sake of establishing a reasonably accurate non-boring history of writing for a reasonably cultured non-specialist.

Cuneiform is not a language; it is a way of writing many languages. It continued the Trans-Mesopotamian tradition of using clay as a writing surface, but the figures incised into the clay were no longer representational. The Sumerians started it (one



of many "firsts" to their credit), but the method served fine for the subsequent Assyrians and many other languages of the Babylonian area and time frame and, in the Ugaritic<sup>8</sup> reduction-variant, even figures in the history of alphabets.

Some charts in books on ancient writing try desperately to show an evolution from genuinely representational proto-cuneiform pictures to some of these stylized cuneiform signs but overall, I find the evolutionary theories unconvincing and strained. Although some simplification and streamlining seems natural enough—almost inevitable—it makes more sense to me that for more complex changes there were consensual conventions agreed upon, standardized, and forcibly put into more or less simultaneous use by individual language groups, e.g. patterns of wedges and dents and strokes that are non-representational. One such moment seems to be the 90-degree rotation of most symbols in most languages using cuneiform.9

- 8. The Ugaritic civilization (Mediterranean coast, flourishing in the fourteenth and thirteenth centuries B.C.) and their utilization of a cuneiform system reduced to 30 signs (27 consonants, 3 vowels), evidently freely invented suddenly rather than tweaked over time, is a fascinating sidebar to the history of alphabetization of languages. Ugaritic combines the East Semitic Sumerian-Akkadian-Babylonian tradition of cuneiform writing on clay with the inner form breakthroughs of West Semitic languages, the Canaanite-Phoenician-Hebrew consonantal alphabets.
- 9. During the second millennium B.C. the forms of cuneiform signs on clay rotated 90 degrees. Some speculate this was gradual to accommodate new systems of holding wet clay and incising with the wedge stylus. But it might also be a transition by decision or fiat, similar to the sudden implementation of fully formed Ugaritic cuneiform. Compare the remarkable modern changes by fiat in Vietnamese and Turkish: Vietnamese being forced to Romanize its alphabet slowly from the seventeenth to the twentieth century (from a Chinese-derived script called Chu'Nom); and Turkish being forced by President Kemal Ataturk (1881-1938) to Romanize its Perso-Arabic script suddenly in 1928 and 1929.

<sup>7.</sup> The word hieroglyph is a back formation from the Greek words for "sacred" and "carving." By as early as 3000 B.C. hieroglyphic signs are already being used for their sound values rather than for the semantic contents indicated by their pictorial form. Hieroglyphs are not pictographs, nor are they ideograms.

Most languages expressed in cuneiform utilized many hundreds of symbols. Scribing during this period was a specialized professional occupation, one deliberately attended with a sense of mystery, and there was

not a general writing literacy throughout the various levels of societies.

Hieroglyphic writing is one of three ways of writing the ancient Egyptian language, and is certainly the most beautiful, interesting and famous. But these beautiful pictures on walls and pillars that we all remember from basic Egyptology exposure do not mean to the "reader" what they look like to the "viewer." They are agreed-upon signs for ideas, words and syllables. The system is a blend of ideograms<sup>10</sup> and syllabaries.<sup>11</sup> A very interesting aspect of this gloriously beautiful Egyptian writing system is that its very beauty made it unwieldy for everyday usage and the same sign system was simplified into hieratic,12 and even further simplified quite a but later into demotic.13

There is no doubt that the very different systems of cuneiform and hieroglyphs both "worked."

- 10. An ideogram is the "writing" of an "idea" with a single sign. No writing system is purely ideographic in the strict sense of the term but many ancient writing systems contained a large ideographic component. Far Eastern languages still do. An ideogram is clearly a developmental elaboration superior to basic pictography but remains separate from an unequivocal basic linguistic sound component. We tend to forget that even English still maintains some ideographic components, some of those signs that come with fonts that aren't letters but aren't pictures, either (e.g., +, -, =, &, \$, %, etc.)
- 11. Syllabaries are writing systems, or elements of wider writing systems, in which single signs represent syllables: not words, but not just single letters, either.

Syllables are intuitively elementary small sound units of speech which can stand alone as words or compose longer words. A "syllabogram" would be a single sign representing: a vowel on its own; a consonant followed by a vowel; a consonant preceded by a vowel; or a vowel between two consonants.

- 12. Three types of script can represent the Egyptian language. Hieratic script and demotic script are successive stages in the "cursive-ization" of royal and monumental hieroglyphics - though they are structurally identical. Hieratic book script developed in the middle of the second millennium B.C.
- 13. Demotic Egyptian cursive, even quicker and easier than hieratic, developed in the seventh century B.C.

This is an infrared image of a fragment from Psalm 11: 1-4. The piece is from the Nahal Hever discovery in the Judean Desert. Circa AD 50-135. In Hebrew. Courtesy of Biondi Rare Books & Manuscripts. Photography by Bruce and Ken Zuckerman and Marilyn Lundberg of The West Semitic Research Project.

There is a preponderance of clay tablets regarding payrolls, lexicons, etc., but there are also examples of the Epic of Gilgamesh and beautiful poetry.

> The monumental form of royal hieroglyphics was as completely expressive as the Egyptian society needed. It was only the form that hindered quick everyday use, and the simplified cursive forms of first hieratic and later, demotic, solved this formal impediment. The main drawback was that both cuneiform systems (one style of writing for many different languages) and the Egyptian system (three styles of writing for a single language) employed hundreds of symbol units: cuneiform generally over 300; the early Egyptian system employed over 600 and expanded to well over 1,000. This fact kept the scribal class limited to an intellectual elite and did not lend itself to cross-class general societal literacy.

The core to understanding where the alphabet comes from is in understanding the component types of signs in the Egyptian hieroglyphic system. Some signs represent ideas or words (ideograms) and some signs represent syllables which can be combined into many different words. But within this vast hieroglyphic system, almost hidden in its recesses, were a couple of dozen signs which represented simply consonantal sounds, independent of syllable-forming vocalizations (vowels). The Egyptians were aware of these, of course—but they never took the next step toward systematic simplification. With these mono-consonantal signs, Egyptian writing came right to the brink of alphabetic representation of language—but there they stopped.

It was the North and West Semitic cultures of Palestine-Syria who took the step out of vast systems and into alphabetic systems. Phoenicians and Hebrews noticed that the consonantal signs within the Egyptian system could be used by themselves, on their own, to write anything in their languages.

These Phoenician and Hebrew alphabets (developing their outer and inner forms from the base proto-Canaanitic) are the basis of the Greek alphabet, and therefore, all Western alphabets. The Phoenicians had an alphabetic apparatus in place and working by the seventeenth century B.C. and the Hebrews (with Paleo-Hebrew, or Old Hebrew) either virtually simultaneous or slightly



This is from a "Wisdom Text" found in the Dead Sea Scrolls discovery. It is a fragment, as yet unpublished, from 4Q418, aka "Sapiential Work A" or 4QInstruction. First Century AD, from Qumran in the Judean Desert. Language is Hebrew. Image is under INFRARED light. Courtesy of Biondi Rare Books & Manuscripts. Photographed by Bruce and Ken Zuckerman and Marilyn Lundberg at The West Semitic Research Project.

later.<sup>14</sup> These were alphabets of 22 letters, all consonants, but the subsequent history of vowel introductions are of a different order between these two very similar original systems.

Clearly, when we say that Phoenician and Hebrew languages didn't have vowels, we mean that their writing systems didn't have vowels. No spoken language could exist without vowel vocalizations.

But these writing systems were functional with just consonants because readers could, in context, supply the "missing" vowels, while in the act of reading. (It's not as hard as it sounds.) Moderns tend to think that written Hebrew went without expressed vowels until the much later vowel-pointing developments of the medieval period. But the ancient Hebrews saw that the consonant-only system could impede reading to some extent and desired an improvement. The early Hebrew alphabet of 22 letters soon used four of those letters to do "double-duty" as part-time vowels. The aleph already had a vocalization element, and the Hebrew put into use as sometime-vowels their letters y (yud), h (heh), and w (vav). These are called matres lectiones (Latin for "mothers of reading"). They were the final pieces of the puzzle for Hebrew linguistically, though outer forms would change with the replacement of paleo-Hebrew letter forms with "square" Hebrew letter forms between First Temple period and Second Temple period (a development from the Aramaic written language) and, as already mentioned, the vowel-pointing system introduced by textual scholars and scribes during the medieval period.

It is interesting from a social and psychological

viewpoint that every user of one's mother tongue tends not to notice anomalies in one's own alphabet because we are so used to it. We were taught in grade school that our English vowels are a, e, i, o, and u. And, sometimes we added: "And sometimes "y". But, upon close inspection, we notice that in English, as in Hebrew, y, h, and w can each sometimes function as a consonant and sometimes as a vowel (h and w at the end of words or syllables [and you could add gh, too]).

It is also interesting to note that the Hebrew holy name of God—which by rule is never to be pronounced—is written YHWH (right to left, of course, as HWHY). That is, it is entirely composed of the multiple pronunciation matres lectiones. This Holy Name (called the Tetragrammaton [Greek for "four letters"] and generally Englished as Jehovah or Yahweh) is, when encountered in reading aloud by Jews, pronounce "Adonai"—a pronunciation that is simply agreed upon as a respectful acceptable substitute for the real pronunciation—because YHWH could never be conceived as spelling "Adonai."

The Phoenician was the most widely used and influential of the West Semitic consonantal alphabets. The pure consonantal form left plenty of room for local adaptation through localized vocalization (vowel sounds). The Phoenicians were seafarers and traders and their invention (or was it a "discovery"?) spread around the Mediterranean, as far as Carthage, but most memorably and influentially to Greece. There the Greeks added distinct individual signs for vocalizations (vowels) and the consonant-only Phoenician was now a fully usable Western alphabet with as many signs as needed for all letters, consonants and vowels, 26.

The adaptation of the Phoenician alphabet by the Greeks, and its modifications in outer form by the later Romans, assured the exclusivity of alphabetic writing systems in the Classical World and the West in general.

<sup>14.</sup> Some experts will date these introductions several centuries later. But "earliest archaeological evidence" does not equate to earliest usage. I tend to trust the earlier dates, as I tend to give the ancients the benefit of the doubt in general when we moderns are at a loss for firm dating.

#### **BIBLIOGRAPHY**

#### (with commentary):

- BOTTERO, Jean, Clarisse Herrenschmidt, and Jean-Pierre Vernant (trans,: Teresa Lavender Fagan). Ancestor of the West: Writing, Reasoning and Religion in Mesopotamia, Elam and Greece. Chicago: University of Chicago Press, 2000.
- BOTTERO, Jean. Mesopotamia: Writing, Reasoning and the Gods (trans,: Zainab Bahrani and Marc Van De Mieroop. Chicago: University of Chicago Press, 1992. Heavy going, but essential for a specialist.
- CHIERA, Edward. They Wrote on Clay: The Babylonian Tablets Speak Today. Chicago: University of Chicago Press, 1938. A fast read, but not quite the gripping page-turner that the B-movie title implies.
- COLLON, Dominic. First Impressions: Cylinder Seals in the Ancient Near East. Chicago: University of Chicago Press, 1987. A perfect introduction to the fascinating world of cylinder seals which this article has had to skip over. Extensively illustrated, but only in black and white, which does not do justice to the types of stones and the fine aesthetic qualities of so many of these miniature masterpieces of the etcher's art.
- COULMAS, Florian. The Blackwell Encyclopedia of Writing Systems. Oxford: Blackwell, 1996. A most valuable reference work by one of the greats.
- COULMAS, Florian. The Writing Systems of the World. Oxford: Blackwell, 1989. Excellent.
- DANIELS, Peter T. and William Bright, editors. *The World's Writing Systems*. Oxford: Oxford University Press, 1996. Wide-ranging in time and geography. Comprehensive. Contains good information on the forced modern transitions in Turkey and Vietnam.
- DIRINGER, David. *The Book Before Printing*. New York: Dover Publications, 1982 (Originally *The Hand-Produced Book*. London: Hutchinson's Scientific and Technical Publications, 1953.) Literally everyone interested in book history should read this and keep it on the reference shelf.
- DIRINGER, David. The Alphabet: A Key to the History of Mankind. New York: Philosophical Library, 1948. The exhaustive standard work, though it needs to be re-assessed on certain topics in light of newer research.

- FISCHER, Steven Roger. A History of Writing. [London:] Reaktion Books, [2001]. Accurate, thorough and illustrated a great read, not too technical (doesn't run down every side path), quite engagingly philosophical. Historically this work goes into the modern world. One of the most enjoyable reads on the subject this decade.
- HOFFMAN, Joel. In the Beginning: A Short History of the Hebrew Language. New York: New York University Press, 2006 edition.
- HOOKER, J.T, introduction. Reading the Past: Ancient Writing from Cuneiform to the Alphabet. New York: Barnes & Noble, 1998. A collection of essential essays (some published separately by the University of California Press), including C.B.F. Walker on Cuneiform, W.V. Davies on Hieroglyphics, and Chadwick on Linear B.
- JEAN, Georges. Signs, Symbols, and Ciphers. New York: Harry N. Abrams [n.d.]. Signs and iconic communication and beyond. A quick, fun, non-technical look at semiology. One of those little Abrams' "Discoveries" paperbacks.
- JEAN, Georges. Writing: The Story of Alphabets and Scripts. New York: Harry N. Abrams [n.d.]. Another of those little Abrams' "Discoveries" paperbacks. Simple, straightforward narrative, profusely illustrated. A good starting point.
- MARTIN, Henri-Jean. *The History and Power of Writing*. (trans,: Lydia Cochrane). Chicago: University of Chicago Press, 1994. Essential history for anyone serious about writing and printing, with a sound personal philosophical and political voice in evidence throughout.
- NAVEH, Joseph. Early History of the Alphabet: An Introduction to West Semitic Epigraphy and Palaeography. Jerusalem: The Magnes Press at The Hebrew University, (revised second edition) 1987. A through and accurate work concentrating on the Semitic origins, acting as a good corrective to the long-standing exclusive concentration on Phoenician to Greek alphabets.
- NISSEN, Hans J., and Peter Damerow and Robert K Englund. Archaic Bookkeeping: Writing and Techniques of Economic Administration in the Ancient Near East. (trans.: Paul Larsen) Chicago: University of



Example of Babylonian cuneiform circa 1900 BC. Courtesy of Biondi Rare Books & Manuscripts. Photography by Bruce and Ken Zuckerman and Marilyn Lundberg of The West Semitic Research Project.

Chicago Press, 1993. The best book on pictographic tablets and proto-cuneiform.

OUAKNIN, Marc-Alain. Mysteries of the Alphabet: The Origins of Writing. (trans.: Josephine Bacon). New York: Abbeville Press Publishers, 1999. A good read and an attractive book, well laid-out, typographically interesting and printed in red and black. A labor of love for the author and the publisher alike. A strong and rightful emphasis on the paleo-Hebrew and square Hebrew.

ROBINSON, Andrew. The Story of Writing. New York: Thames & Hudson, 2001 edition. Absolutely essential. Lovingly illustrated and laid out. THE starting point for further reading in this field.

ROBINSON, Andrew. Lost Languages: The Enigma of the World's Undeciphered Scripts. New York: McGraw-Hill, 2002. A fascinating glimpse into the tenacious mysteries of Mayan glyphs, Iranian proto-Elamite, Rongorongo (the Easter Island script), Indus Valley script, the Phaistos disk, Etruscan, etc.

SAENZ-BADILLOS, Angel (trans.: John Elwode) A History of the Hebrew Language. Cambridge: Cambridge University Press, 2006 edition. State of the art.

SENNER, Wayne (ed.), The Origins of Writing. Lincoln: University of Nebraska Press, 1989. An essential collection of essays by key figures, including Denise Schmandt-Besserat and Frank Moore Cross.

SCHMANDT-BESSERAT, Denise. The History of Counting. (Illustrated by Michael Hays). New York: Morrow Junior Books, 1999. My kind of children's book. It'll blow their little minds and instill an awe of arithmetic that teachers don't even dare dream of anymore.

SCHMANDT-BESSERAT, Denise. How Writing Came About. Austin: University of Texas Press, 1992. Not only one of the most important books in this arcane specialty, but one of the most significant philosophical and historical books of its decade. A breakthrough work by a genius of conceptuality.

SCHMANDT-BESSERAT, Denise. When Writing Met Art: From Symbol to Story. Austin: University of Texas Press, 2007. Explores the slippery interface of "art" and "writing" as well as I have ever experienced. When does decoration become communication? When and how does "evoking" become "telling"? What defines a "narrative in stasis" in contradiction to a simple picture? Brief, well-illustrated, and composed by a true genius in the field.

VAN DE MIEROOP, Marc. Cuneiform Texts and the Writing of History. [Approaching the Ancient World]. London: Routledge, 1999. A good high level work, not introductory (for an introduction to cuneiform, see HOOKER (above).

WERR, Lamia al-Gailani. Studies in the Chronology and Regional Style of Old Babylonian Cylinder Seals. Bibliotheca Mesopotamica, Volume 23. Malibu: Undena, 1988 (International Institute for Mesopotamian Area Studies). Very technical. Not introductory-for which I recommend COLLON (above).

If this area of study interests you, there are also two catalogues that are worth obtaining:

Sign, Symbol, Script. An Exhibition of Writing and the Alphabet. Editors: Martha L. Carter and Keith N. Schoville. Department of Hebrew and Semitic Studies, University of Wisconsin-Madison. [1984]

The Ancient World: Early Writing from Mesopotamia and Egypt. 3100 BC - 800 AD. Catalogue 141. The Rendells, Inc. [1979]

### The Rosetta Stone

ure, we've all heard of it, but why? Why is it so famous? Why is it important?

THE ROSETTA STONE, named after the Egyptian delta town where it was discovered by Napoleon's soldiers in 1799, is a huge and heavy black stone. It's almost four feet high, over two feet wide, about four inches thick and weighs over half a ton. It lives at the British Museum.

The Rosetta Stone held the key to deciphering the Egyptian language, most importantly hieroglyphics. It has two language carved on it in three scripts: Egyptian Hieroglyphic, Egyptian Demotic and Greek. The inscription dates to 196 B.C.

Europeans had long been aware of Egyptian Hieroglyphics because they were so noticeably beautiful and impressive. It was assumed that they were also expressive, but they had foiled attempts at deciphering.

Using the Rosetta Stone, its bilingualism (Greek and Egyptian), the Frenchman Jean Francois Champollion (1790-1832) eventually solved the puzzle. Champollion had a life-long interest in Egyptian paleography and had mastered Coptic, the final developmental stage of the Egyptian language which is expressed mostly in Greek letters. This experience proved most helpful. He received a copy of the Rosetta Stone's texts in 1808 but it took until 1821 for him to explain away the riddle of Hieroglyphics. By counting signs, he suspected a partly phonetic script but did not have his real breakthrough until he recognized that the cartouches contained proper names. First he

figured out Ptolemy V Epiphanes; and then, more quickly, Cleopatra, Alexander and Ramses.

In 1824, Champollion published *Precis du systeme hieroglyphique* — 400 pages of text and 46 plates — one of the greatest and most original works of modern scholarship.

