ORIAS Summer Institute for K-12 teachers http://orias.berkeley.edu/Summer2012/Summer2012Home.htm *Technology in Human History* July 23-25, 2012

## The Invention of Writing in the Ancient Near East

John Hayes Department of Near Eastern Studies, UC Berkeley Summarized by <u>Stephen Pitcher</u> smpitch@sbcglobal.net

Writing—arguably the first technology—is a defining feature of human civilization. It is a tool that enables communication among individuals beyond the range of speech or of ordinary conversational retention, and affords a means of information storage, critical to the development of science. Yet what, exactly, *is* it? Are the instructions one receives with an item from IKEA "writing"? If material encoded in written symbols is not comprehensible to us, does it qualify as writing? While such issues are debatable, Dr. Hayes contends that writing is explicitly a system of recording speech (thus disqualifying the IKEA text).

We really don't know much about Mesopotamia, the land believed to have witnessed the dawn of writing, despite the centuries spent digging there and the hundreds of thousands of tablets unearthed. Among the tablets are editions of *Gilgamesh* (the first piece of world literature), law codes, astronomical theses, and many other kinds of texts—religious, economic, medical, magical (e.g., potency incantations, there being no Viagra available at the time), and letters between individuals. Most of the tablets, however, are administrative documents—records of transactions.

As soon as people began to write they wrote about sheep. We therefore know something about Mesopotamian animal husbandry; but, as indicated, very little else a bout the culture. In part this is due to the impermanence of the building materials used, mud brick being a common choice given the region's lack of hard stone. The British archaeologist and statesman Austen Henry Layard, arriving in Mesopotamia, was astonished to discover "there was nothing to see"; one of the world's first great civilizations had been reduced by time to a heap of mud. Nevertheless, archaeologists have worked in the area, especially in the vicinity of the city of Uruk, since at least 1850, and with particular diligence from 1913 up to the 1989 onset of war in Iraq. Uruk is a huge site, much of it yet to be excavated, and much about it still unknown. A full-fledged city by 3500 BCE, it may have been founded around 5000 BCE, but the nationality of its founders is a matter of speculation. The Sumerians built much of the city, but whether they were indigenous or newcomers to the region is a topic still under investigation ("The Sumerian Question"). Their language, a linguistic isolate, affords no useful clues. The origin of the other residents of Mesopotamia, among them the Akkadians, speakers of the first recorded Semitic language, is likewise a mystery.

The peoples of the "land between the rivers," however disparate their languages and origins, did share a common writing system, now called cuneiform (although in its early forms it was not "wedge-shaped" at all). Used to record the Sumerian, Akkadian, Old Persian, and other tongues, cuneiform originally consisted of marks made with reeds on mud tablets, the tablets then being dried in the sun or, for greater durability, baked in an oven. Examples illustrating the ongoing development of cuneiform were provided by Dr. Hayes, some in a handout (including a housing contract stipulating that he who broke the contract should have hot asphalt poured over his head) and several tattooed on Hayes's upper right arm. (He also exhibited a tattoo in Arabic—another of his scholarly foci—but declined to display his hieroglyphics.) Many, but not all, elements of early cuneiform were pictographic. The example of the glyph for "sheep," an X inscribed within a circle, was adduced as an example of a non-pictographic symbol (although it was pointed out by one auditor that there exists to this day an ancient, old-world breed of sheep—the "Jacob" sheep—which commonly features four horns in an X-like configuration).

In 1931 archaeologists excavated thousands of cuneiform tablets, reproductions of which were published in 1936. At the time no one could read them, but scholars began successfully to decipher the script in the 1980s and 1990s. It seems that the earliest tablets, in a script called proto-cuneiform, are purely numeric-mere counting (or accounting)—a product Hayes was disinclined to call writing; for one thing, writing is generally held to be a record of *language*, and it's as impossible to determine the language of the creators of these documents as it would be now to do so from a bunch of numerals unaccompanied by words. With the passage of centuries, the tablets began to record the things counted along with the numerical tabulation of amounts; but again, in the absence of a syntax with grammar and verbs, there is no way to determine the linguistic context of their creation. In an intriguing development going back to 8000 BCE, tokens were used for tabulating amounts of things like sheep or casks of beer, with clay envelopes used to keep like tokens together. Denise Schmandt-Besserat, a French-American professor of art and archaeology, formulated the highly influential theory that the custom of pressing a token into the outside of the envelope—a label indicating the nature and amount of the contents—led directly to the birth of writing. The evolution of token production could be held to support this theory: first there was the advent of "complex tokens"—increasingly sophisticated records of increasingly complex commodities (i.e., manufactured goods, as opposed to sheep, or beer); then came the recognition that the tokens themselves were superfluous, as the impressed label sufficed to record the sum and nature of the commodity in question; finally, the now-empty envelope was flattened into what was effectively a tablet, capable of depicting objects and, eventually, narratives, correspondence, and ideas. Schmandt-Besserat's theory is not as widely accepted as it once was; for one thing, tokens continued to be used long after the spread of writing, in conjunction with it, which would seem to indicate the possibility of a parallel, rather than a successive, development. Hayes himself thinks it probable that writing was the brainchild of one individual member of Mesopotamian society.

As to the site of writing's invention, the 5,000 tablets found in a "rubbish heap" in an Uruk temple complex dedicated to the goddess Inanna has tipped surmise strongly in the direction of that city; but Uruk's apparent prominence could prove illusory—it is not

known what other such troves await discovery elsewhere. Nor can the language of the Uruk tablets be definitively ascertained, in the absence of grammatical features (which don't appear until around 2500 BCE, some eight or nine hundred years after the approximate date of the Uruk tablets' creation). Writing could have been invented by Sumerians in Sumer; scholars just don't know. What they do know is that the concern of a good 80 percent of cuneiform tablets of this period appears to have been the management of trade: "keeping track of stuff."

Writing was invented four times, according to Hayes: first by the Sumerians and then by the Egyptians (both at some point in the fourth millennium BCE), by the Chinese ca. 1200 BCE, and by the Olmecs of Mesoamerica ca. 900 BCE. Though contact-based derivation cannot absolutely be ruled out in the latter three cases, a separate, independent development of the technology seems more likely. While most of us regard writing as a boon, and could scarcely imagine conducting our lives without it, Claude Lévi-Strauss famously declared that writing systems only arose in societies where man was exploited by man, as evidence of one man's, or one social stratum's, power over another. Dr. Hayes's final comment on the nature of early writing was that, beer being so widespread a product, there were many, many tablets concerning beer.