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In Vol. 3, No. 2 The Accounting Historians Notebook (Fall, 1980) Professor Louis Goldberg expressed the wish to know whether the view that accounting antedated writing would now represent a generally accepted attitude among present day archaeologists and prehistorians. An earlier issue of the Notebook mentioned the work of Professor Denise Schmandt-Besserat of the University of Texas at Austin, who has made significant discoveries in this field. (See, for example, "Reckoning before Writing", Archaeology, Vol. 32, No. 3 (1979), pp. 23-31, and "The Earliest Precursor of Writing", Scientific American, Vol. 238, No. 6, (June 1968).

Scholars long believed that writing developed from pictographs which were graphic representations of objects; a sheep, a loaf of bread, and so on. Bone artifacts bearing incized markings have been found, which date from Palaeolithic times 30,000 to 12,000 years ago, and later clay tablets bearing similar representations show the use of such pictographs in the Middle East. These pictographs resemble the earliest cuneiform writing of the Neo-Sumerian and Old Babylonian periods, which has given rise to the theory that there is an identifiable sequence: picture to symbol to letter to writing.

Archaeologists have also discovered large numbers of clay tokens of different shapes in excavations of ancient settlements. These clay tokens were an archaic recording system; the shape and the markings expressed the type and number of objects being represented. Thus, a token representing "sheep" was a disc with an incised cross. It is believed that these tokens were used in keeping track of the contents of silos and storage pits. It is also believed that they were used in trade and that collections of such tokens were transferred by one party to another as evidence of the transfer of ownership of the objects represented.

Another step forward was the invention of the bulla, a clay envelope containing a set of clay tokens. The bulla became an early form of bill of lading, as its surface could bear the seal of a merchant who chose to authenticate the enclosed message. Because of its opacity, however, the holder of a bulla could not know what it contained, which led to the practice of marking the surface with pictorial representations of the tokens it contained. A few hundred years later it dawned on the users that the tokens were now dispensable; all that was necessary was to incise their pictures on clay tablets. (The origin of the clay tablet is evidenced by its convex surface). The pictographs thus created, from which cuneiform writing developed, were representations not of the objects but of the clay tokens which were used to account for these objects.

Part of the evidence from which Professor Schmandt-Besserat constructed this theory consisted of bullae which were found in their pristine condition; when shaken they proved to contain clay tokens. The question necessarily arises: under what conditions would a bulla remain unopened? If used as a bill of lading, or as an instrument of transfer of property rights, the bulla would have to be opened at the end of the journey, or by the transferee, to check on the quantity and description of the objects represented by the tokens inside. One possible explanation is that they were prepared incident to a transaction of bailment. A trader about to undertake a long and dangerous journey might prepare such a clay envelope to contain tokens representing the sheep which he was leaving in the care of the bailee, to be handed over to his heirs should the trader not return. Then, as now, some bailees might choose not to respect the contract if news was received that the trader had died in far-off lands; it will be recalled that the Code of Hammurabi contained a clause requiring bailies to account for items entrusted to them. The fraudulent bailee would be more concerned with looking after the sheep than with destroying the bulla which could hardly become evidence against him. Another possible theory is that the envelopes were receipts for goods that had been released by temple granaries. They would be kept intact as "vouchers" and only opened in the event of litigation.

Readers are invited to suggest other possibilities. Many will be pleased to find that their lack of comprehension as to how a particular pictograph could have been a pictorial representation of the object to which it refers was indeed well-founded.