## H. J. Nissen, P. Damerow & R. Englund 1991. Frühe Schrift und Techniken der Wirtschaftsverwaltung im alten Vorderen Orient. Informationsspeicherung und -verarbeitung vor 5000 Jahren. 2. Auflage. Bad Salzdetfurth: Verlag Franzbecker / Berlin: Max-Planck-Institut für Bildungsforschung, 1991].

Written for *Mathematical Reviews*, for some reason never published (lost in mail, anticipated by an unsolicitated review by Jöran Friberg?).

The first printing of this volume was made as an accompanying publication to an exhibition with the same title in May 1990. But even though it contains a catalogue to the exhibition and has the graphic qualities of a fine coffee-table book it should not be mistaken for either. It is, indeed, the first all-round presentation to a broader scholarly or educated public of the breakthrough which has been achieved during the last 10-20 years in the understanding of late fourth and third millennium Mesopotamian number and accounting systems in the context of emerging writing and bureaucratic control—achieved not least thanks to the joined effort of the three Berlin-based authors. Since the presentation is always sober and the argument always clear as well as exact, the book belongs—rather than on the coffee-table and with greater necessity—in libraries with users interested in the earliest beginnings of mathematics or on such bookshelves which already carry Neugebauer's *Science in Antiquity* and *Mathematische Keilschrift-Texte*.

The core of the exhibition was a collection of archaic (i.e., late fourth millennium), exceptionally well-preserved clay tablets which had previously been hidden away in a private collection, and which are published here for the first time. Even more fundamental for the book are, first, the Berlin Uruk Project, which has now been widened to a complete, computerized investigation of all existing archaic texts and fragments, and, second, the meticulous analysis of third millennium Sumerian accounting and other management techniques which has also been undertaken in Berlin.

Unusually in books meant to be read by non-specialists, most of the argument is based on single tablets shown in photo and computerized hand copy. The sample of texts illustrates the scope of archaic Mesopotamian and Sumerian bureaucratic controls. To mention but a modest selection: The quantities of barley and malt used for the brewing of definite quantities of various kinds of beer; areas of fields, with ensuing expected and achieved yields of grain; debits and credits for overseers (allocated work force and raw materials, and work produced and work days performed for other overseers, respectively), with transfer of the deficit as a debit for the following year; the produce of herds of cattle, including »butter«, »cheese«, and breeding.

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