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The Mathematical Study of Historical Numerical Tables: Successes, Failures, Issues

Numerical tables, often relegated to the appendices of the history of mathematics, have nevertheless been crucial in the development of science and mathematics. In pre-modern cultures their appearances and roles have been evaluated periodically, but more careful studies of the tables themselves have been attempted only infrequently. Several successful analyses have allowed us to peer behind the curtain at the largely unrecorded computational culture that supported table-making. A couple of efforts have been made to produce systematic tools for analyzing tables, and these methods have led to successful analyses in diverse tables spanning millennia. Problems in this emerging field range from technical to cultural: certain statistical difficulties in studying mathematically-generated data can arise, and a few uncontrolled studies of tables that claimed dramatic but false conclusions have caused historians to view statistical methods with apprehension.