Mathematical Fragments from Lahun: Introduction

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Among the Lahun papyri a small number of fragments can be identified as mathematical texts, i.e. texts that have been written to record a mathematical procedure (problem text) or used to carry out a mathematical procedure (table text).

Very few sources of ancient Egyptian mathematical texts are still extant. Of these, the mathematical fragments of the Lahun papyri hold a significant place. They contain both table texts and problem texts. While they are in many respects like the two major sources, the Rhind (mathematical) papyrus and the Moscow (mathematical) papyrus, they also show a number of significant details that are not seen in any other text.

Notation of Fractions

Egyptian mathematics used (with the exception of $\frac{2}{3}$) only unit fractions (fractions with numerator 1), e.g. $\frac{1}{2}, \frac{1}{5}, \frac{1}{27}$. In the hieratic texts they are represented (with the exception of $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$ which are written by special signs) by writing the denominator with a dot above it. All fractions are rendered in transcription by an overbar over the denominator, e.g $\frac{1}{2}$ is written as $\overline{2}$, $\frac{1}{5}$ as $\overline{5}$ and so on; the fraction $\frac{2}{3}$ is rendered as $\overline{\overline{3}}$.

List of the mathematical fragments of the Illahun papyri

Inventory number	Number in Griffith, 1898	content
UC 32118B	——	parts of two problems
UC 32134A	LV.3	$ꜥḥꜥ$-problem
UC 32134B	LV.3	part of one problem
UC 32159	IV.2	2:n table
UC 32160	IV.3	calculations of two problems
UC 32161	XLV.1	list of numbers
UC 32162	LV.4	title, 2 problems

Acknowledgements