UC 32160

photograph

The fragment contains four columns of text which hold calculations and a drawing only.

The four columns of text can be interpreted as calculations pertaining to two problems.

First Problem

Above the text of column 1, there is a drawing of a circle that has three numbers ascribed

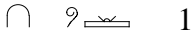to it: $1365\,\overline{3}$ within the circle, 12 above it, and 8 next to it.

The following calculations are noted under the drawing:

$1\,\overline{3} * 12 = 16$ (col. 1, ll. 1–3)

$16 * 16 = 256$ (col. 1, ll. 4–7)

$5\,\overline{3} * 256 = 1365\,\overline{3}$ (col. 2, ll. 1–5)

The drawing and the calculations can be explained as belonging to the following

problem: The volume (in *ḥꜣr*) of a granary with a circular base of diameter 12 *mḥ* and

height 8 *mḥ* shall be calculated. A similar problem and procedure can be found in pRhind, No. 43.

Second Problem

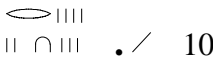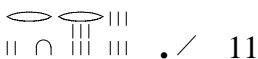| 4		3	
1		1	
2		2	
3		3	
4		4	
5		5	
		6	
		7	
		8	
		9	
		10	
		11	

The two columns contain calculations only. The problem has been interpreted by Sylvia Couchoud as a ration problem: 100 breads shall be distributed among 10 men, so that the individual rations differ from one another by a constant amount. With this interpretation this problem has a parallel in problem 64 of the Rhind mathematical papyrus.
The partly reconstructed procedure (which is identical to the procedure of problem 64 of pRhind) determines the largest ration first – this is the part that largely has to be reconstructed (one step of it is the calculation in column 4). Then the (supposedly given) difference is subtracted from this ration, and from the second ration, and so on, until the smallest ration is determined.

The third column lists the ten individual rations, and gives their sum as 100. Next to this the number 10 is written, possibly to indicate that the 100 breads were to be divided among 10 men.