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## INDICATOR SYSTEM AND SUSPENSION OF THE OLD EGYPTIAN SCALES\*

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## SUMMARY

Detailed analysis of drawings of both the death balance and scales of daily life together with technical considerations suggest a triangular pointer perpendicular to the balance beam and a plummet suspended in front of the beam. The suspension was made using a rope or metal rings, the axis most probably piercing the beam horizontally.

## INTRODUCTION

Many wall drawings and papyri found in Egyptian tombs indicate that, very early in their culture the Egyptians performed weighings in manufacture (in particular of precious metals) and trade (refs. 1,2). These drawings going back to 2,500 BC show symmetric scales equipped with two pans, the mass being compensated for by weights. This primary type of the balance was invented in prehistoric time. Whereas the wall paintings consistently show large scales, up to a man's height, the findings are parts of small scales (ref. 3). The oldest "balance beam" dated back to 3,000 BC is made of limestone, and was found in upper Egypt. Exhibiting a strange shape as it is only 85 mm in length but heavy, there are doubts that this object was used for the purpose of weighing. The existence of balances of any size is testified for by weights, the oldest reliably identified pieces likewise found in upper Egypt and attributed to the Amrat period (Negade I) 3,700 - 3,200 BC.

Speaking today of the old Egyptian scales we don't think of the commercial scales but of the cultic balance in the death tribunal. In the so-called Book of the Dead (refs. 4,5) - some hundreds being preserved in museums - a papyrus roll of up to 20 m in length including vignettes, the way in the nether world, which the

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**Abstract**

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