

SOME REMARKS ON THE BALANCE AS A SYMBOL*

E. ROBENS

Battelle-Institut e.V., Am Römerhof 35, D-60000 Frankfurt/Main (F.R.G.)

(Received 26 August 1977)

ABSTRACT

Today just as in very early illustrations the balance is regarded as a symbol. It is an attribute of merchants and various trade guilds. In the hands of the Gods of Greece, it indicates victory or death of the hero. In the Egyptian religion, it first appears as an instrument in the death tribunal. In Judaism and for the Romans, it was the Symbol of justice.

INTRODUCTION

The *Ninth Conference on Vacuum Microbalance Techniques* which was held in Berlin in 1969 was opened by a discourse on "The Balance in History" by Professor Vieweg¹, whose death in 1972 we greatly regret. This review included also the symbolic character of weighing, and I now would like to make some additional remarks on this subject. I dedicate them to Professor Vieweg from whom I have borrowed some ideas as well as illustrations.

HISTORY

We learned that the balance is one of the oldest measuring instruments used by human beings. As appropriate for such an eminent instrument, it reportedly originates in a divine invention, and consequently the first operators were gods. Considering old Egyptian pictures we notice that three or even more gods and, in addition, some assistants were occupied in one particular weighing process. So we may conclude that, in those times, the gods had similar difficulties with the balance as we humble humans have today. Perhaps on account of the curse of the Pharaohs, we still have to muddle with its development; theory is not yet perfect and we do not know what gravity means.

Looking at the oldest written or pictorial reports of mankind, it appears that

* Presented at the 14th Conference on Vacuum Microbalance Techniques, Salford, U.K., 27th to 28th September, 1976.

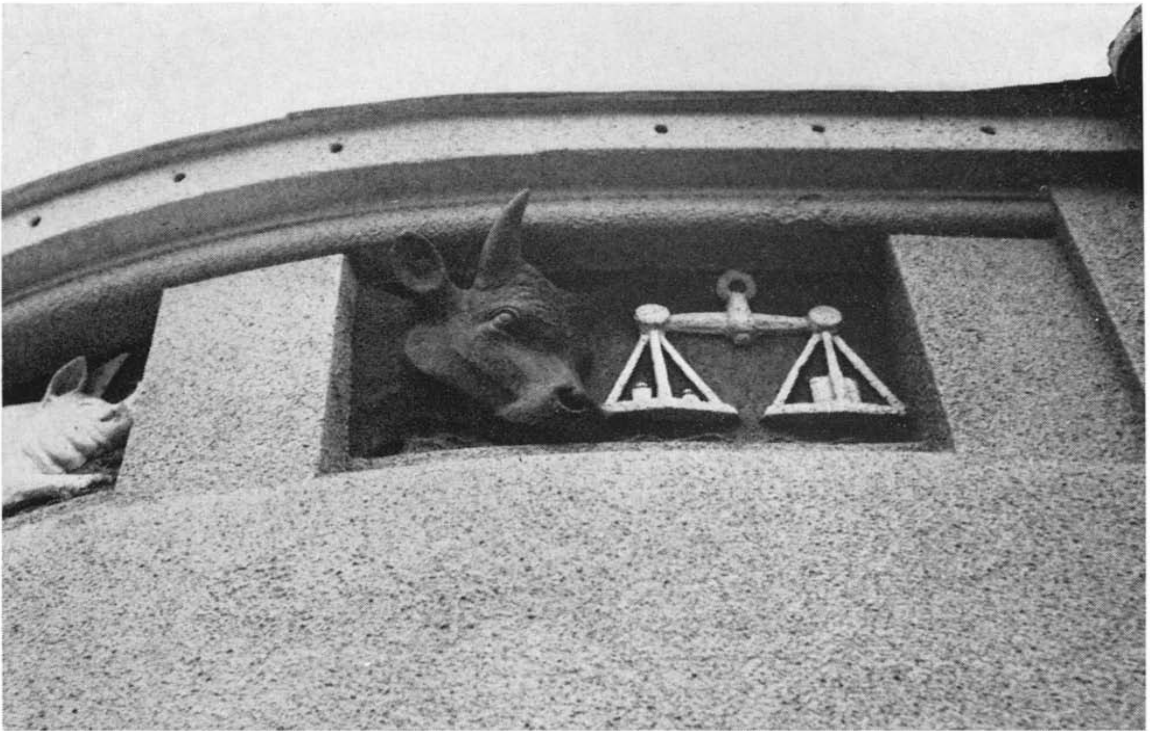


Fig. 1. The balance as the attribute of merchants: frieze on the market hall of Kuopio, Finland.

balances were used for weighing anything rather than physical masses and forces. But even today, we often find the balance used in a symbolic manner:

(i) The balance is the emblem of the merchants. Fig. 1 shows part of a frieze on the market hall in Kuopio, Finland, and Fig. 2 a may-pole in Bavaria;

(ii) as a sign of the zodiac it has acquired a superstitious meaning (Fig. 3);

(iii) and everywhere it is considered as the symbol of justice, impartiality and fair measure. Figure 4 shows the Goddess of Justice on the Albert monument in front of Manchester town hall. Justice on a fountain in Frankfurt (Main) is seen in Fig. 5 (on the pedestal Justice appears again as a relief (Fig. 6)), together with other symbols of virtues.) Figure 7 shows the same statue decorated with a special blindfold on the occasion of a demonstration against the ban of radicals from civil service. Figure 8 is a caricature of Justice: "It is time for you to look reality in the eye, dearest!"

Behind this disparagement of the symbol, there is not only the protest against the misuse of law by those administering it, but a quite different philosophy on the proposition of justice itself, for which a blind goddess with balance is no longer an adequate symbol. However, the balance remains the symbol of justice although its carrier (with or without blindfold) may slip from her pedestal.

To balance and to weigh are ambiguous words. We weigh our financial as well as our ideal enterprises in order to calculate prospective gains and losses. Almost daily, we find the words balance and weighing used in a symbolic sense in literature. As an example from modern literature let me mention *The Scales of the Baleks* by

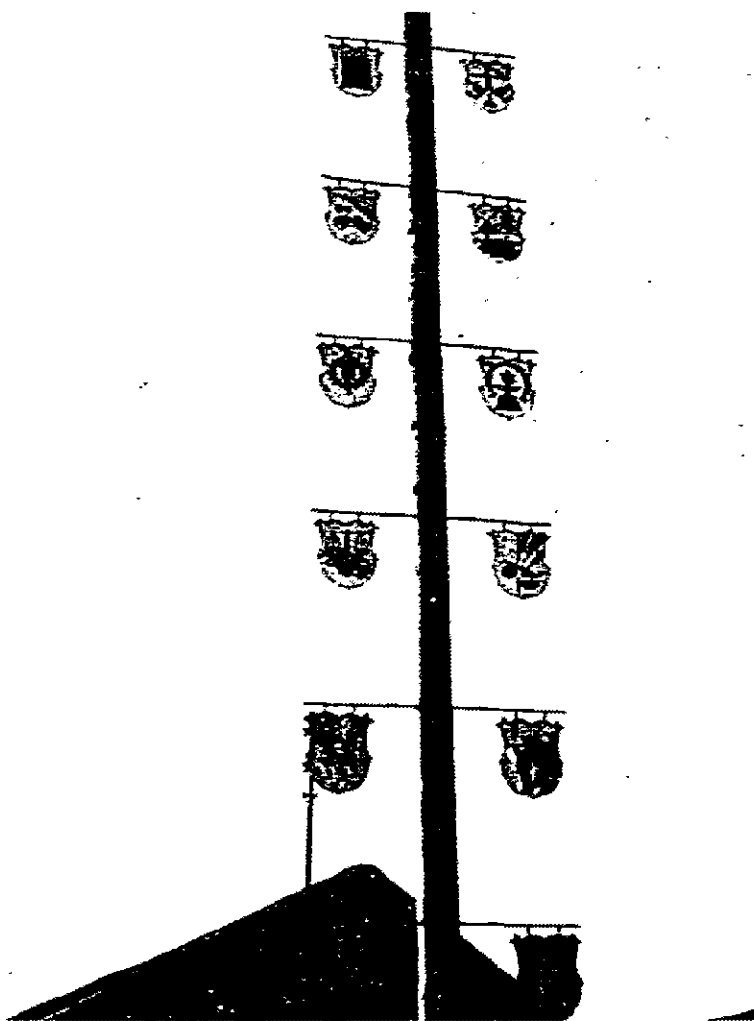


Fig. 2. The balance as the attribute of merchants: may-pole in Seebruck, Chiemsee, Germany.

Heinrich Böll². In this narration, the fraudulent use of the fruit scales of a feudal family is revealed by a small boy. The scales, or more precisely, the gauging-mark on the magnificent instrument simultaneously stood for fairness and fair measure and the revelation of the deception produced a local revolution with a bloody end resulting in the expulsion of the small boy's family from their home.

Obviously "weighing" is a fundamental method of human thinking, as demonstrated in some examples from very different branches of arts: Groddek, the founder of psychosomatic medicine says that existence is filled from beginning to end with the weighing of guilt and the balancing of effort and worry against joy as the fruit of our actions³. It was a theologian who mentioned that an individual's freedom is given only by the fact that he can weigh his actions in advance and that this freedom is limited by the actions being weighed by others against the existing moral code. And



Fig. 3. The balance as a sign of the zodiac: poster (Wella, Darmstadt).

the philosopher Spinoza said that the fear of death and the desire for it should balance each other.

BALANCE SYMBOLS

Let us trace some symbolic meanings of the balance back to their historical origins. The common background may be the overestimation of the instrument as a consequence of its obscure descent, the lack of knowledge of natural laws, the very early attempts at calibration and standardisation and its control by highly respected royal administrators.

This overestimation is reflected in the rather lyrical Chinese descriptions in the *Huai-Nan-Tsu* book⁴ from the second century before Christ. Six standard measuring methods are described which include the equal-beamed and the unequal-beamed balances. The equal-beamed balance is associated with winter, the unequal-beamed steelyard with summer, and the latter is described as follows:

“The steelyard as a measure moves with deliberation but not too slowly. It equalises without inducing resentment, extends benefits for right-doing

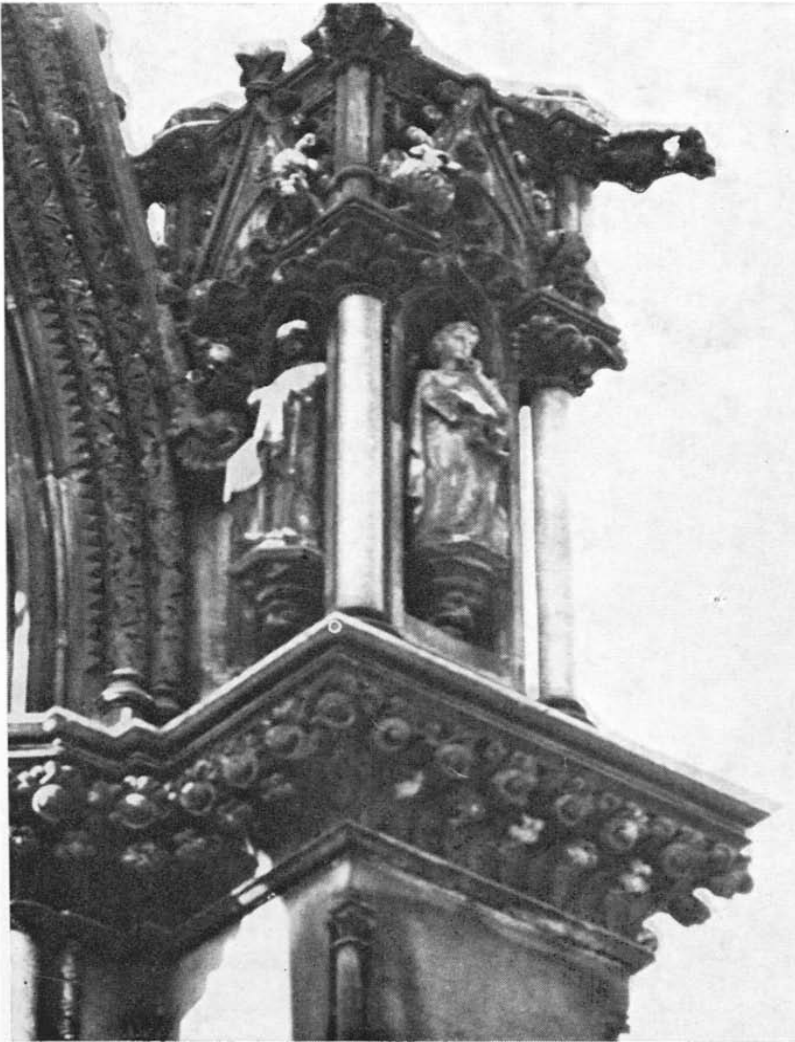


Fig. 4. Justice on the Albert monument in front of Manchester town hall, England.

without ostentatious virtue, and expresses sorrow for wrong-doing without ostentatious reproof. It takes care to equalise the people's means, prolonging thereby the lives of those who would otherwise suffer want. Glorious and majestic it is, in its operations never unvirtuous. It nourishes, gives growth, transforms and develops, so that the ten thousand things flourish exceedingly, the five grains come to fruition, and the fields and fiefs bring forth their produce. Its administration is without error, so that sky and earth are brightened thereby."

Disregarding astrological aspects, the superstitious meaning of the symbol may have its origin in ancient Greece as the balance of fate. Zeus lets Moira decide the fate of Achilles and Hector by weighing the two heroes (Fig. 9). He whose balance pan sinks is doomed to die. This idea has been repeatedly taken up poetically by



Fig. 5. The statue of Justice outside the town hall (the Römer) in Frankfurt/M., Germany.

Homer and others. Back to 1300 before Christ we find the fate balance in the hands of Hermes, Dike, Nemesis, Kairos or Zeus himself.

In the Roman cultural complex, the fate balance was taken over as the attribute of Fortune. Hermes on the other hand changed his job from Messenger of the Gods and Guide of Souls to Patron of the Merchants. Later, the goddess Moneta assumed parts of his mission, and Fig. 10 shows the balance in her hands on the Jupiter pillar in Mainz, Germany. Consequently, the balance became the token of the merchants.

The balance as the attribute of Justice is found mainly in the Roman cultural complex and had probably been taken over from the Judaic-oriental world of thought. The idea of the weighing of words and deeds can be found repeatedly in the Old Testament and other old Jewish writings. One well-known example is the "Mene tekel", the "tekel" of which Daniel interpreted as "you have been weighed in the balance and found wanting" (Dn 5, 1).

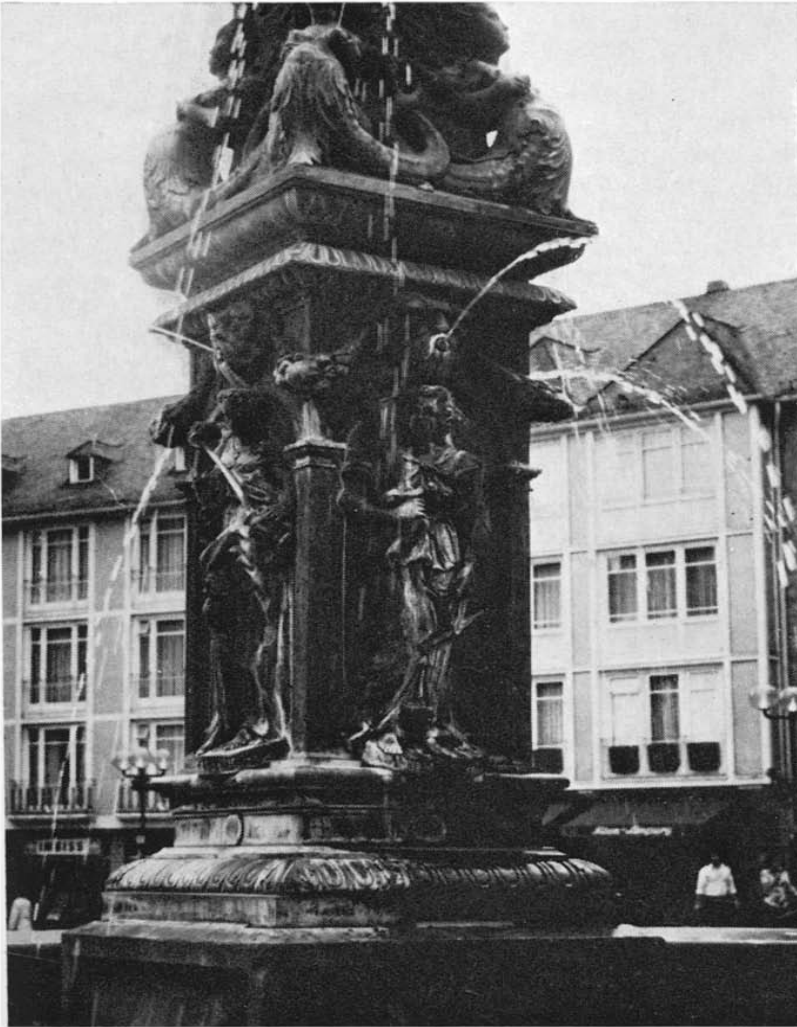


Fig. 6. Relief of Justice on the pedestal of the fountain (Fig. 5).

In the New Testament, the balance is mentioned only in the Revelations (Rev 6,5) in connection with the announcement of imminent inflation⁵. In the brotherly community of the first Christians with their hopeful belief, there was no room for a symbolic balance. Only at the beginning of the fourth century, when Christianity became a state-supporting religion, did the balance regain symbolic significance. We find it as the attribute of St. Anthony of Florence and of the archangel Michael. All of a sudden in the 12th Century, representations of Michael as the weigher of souls (Figs 11 and 12) appeared in almost all parts of the occident⁶. He was charged with this business in addition to his task of guiding the souls to the throne of God. While the devils put millstones and themselves on the scale as a counterweight, Mary occasionally assists in a manner setting a poor example to

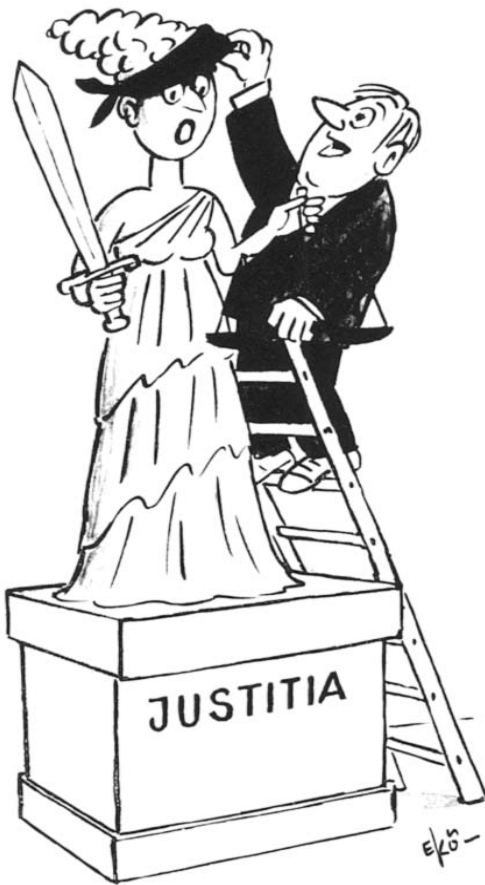


Fig. 7. The statue of Justice: the symbol is called into question (photo of Lutz Kleinbans from: *Frankfurter Allgemeine Zeitung* No. 111, 24th May 1976, p. 28).

laboratory assistants: she falsifies the result by drawing down the balance pan of the Poor Soul (Figs. 13 and 14).

At the time of selling of indulgences, the balance as the weighing instrument for vows and indulgences was used in a rather perverted form: at places of pilgrimage in the Alpine countries, Belgium and the Netherlands, the weight of the sinner or the sick was counterbalanced with precious metals, wax or natural products which had to be sacrificed to obtain absolution or health (6). Most frightful was the use of the balance in the trial of alleged witches for sorcery.

As an instrument of the death tribunal, we find the balance in many oriental religions from Egypt to Persia, India and Tibet. One of the deepest symbolic meanings of the balance is more than 4000 years old and originated in Egypt. In the death tribunal, the heart of the dead was weighed, and the outcome decided whether the soul would enter into eternal life or fall to the unpleasant creatures with crocodile



«Es wird Zeit, daß Sie mal den Realitäten ins Auge sehen, Verehrteste!»

Fig. 8. Caricature of Justice: "It is time for you to look reality in the eye, dearest-" (Gewerkschaftliche Umschau 2, 1976, p. 70).

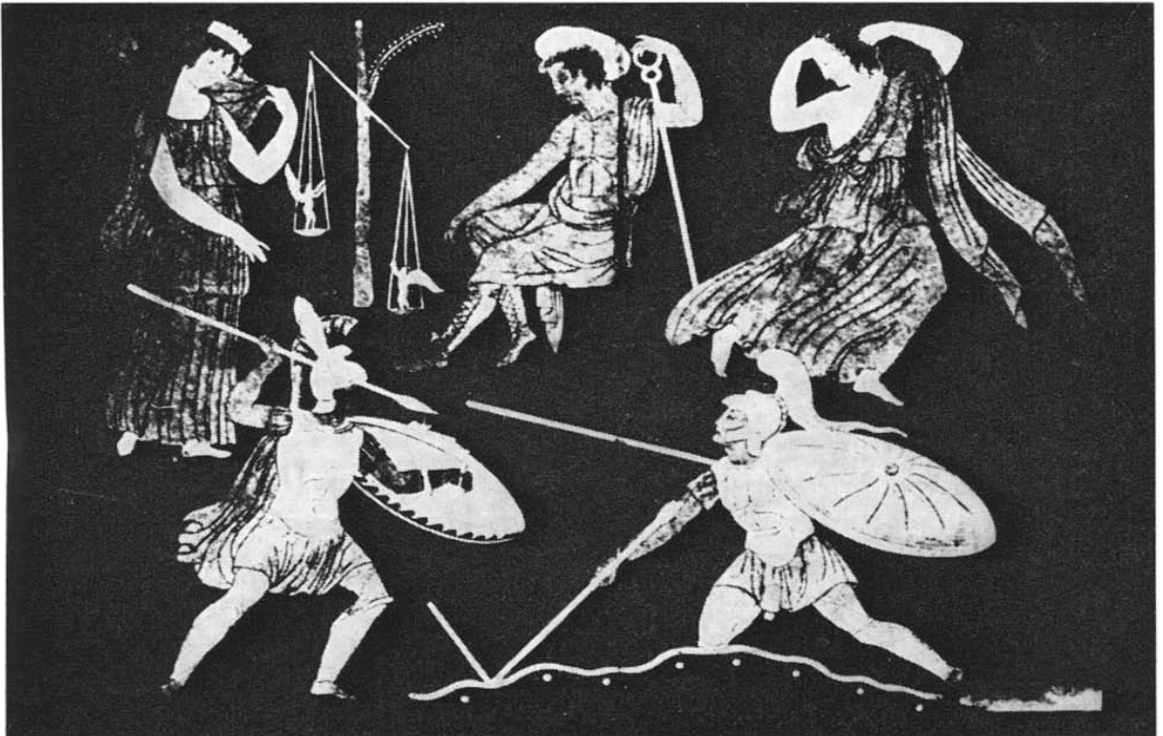


Fig. 9. Achilles and Hector: painting on an old Greek vase (Sammlung Vieweg, PTB, Braunschweig).



Fig. 10. The goddess Moneta with balance on Jupiter pillars: reproduction of the pillar outside the Saalburg near Bad Homburg, Germany (Original: Römisch-Germanisches Zentralmuseum in Mainz, Germany).

or jackal jaws⁷, shown in the right-hand corner of Fig. 15, which is a papyrus representation of such a scene. Before the throne of Osiris, the Gold of the dead, Anubis weighs the soul of the dead against an (unweighable) feather, the symbol of truth, while Thot stands by to record the outcome. If the life of the dead had been in agreement with moral laws, the balance did not tilt.

With this I wish to conclude my remarks on the symbolism of the balance, the instrument which in the further course of this conference will be the subject of weighty lectures and balanced discussions.

ACKNOWLEDGEMENTS

I wish to express my gratitude to a number of colleagues and friends for their

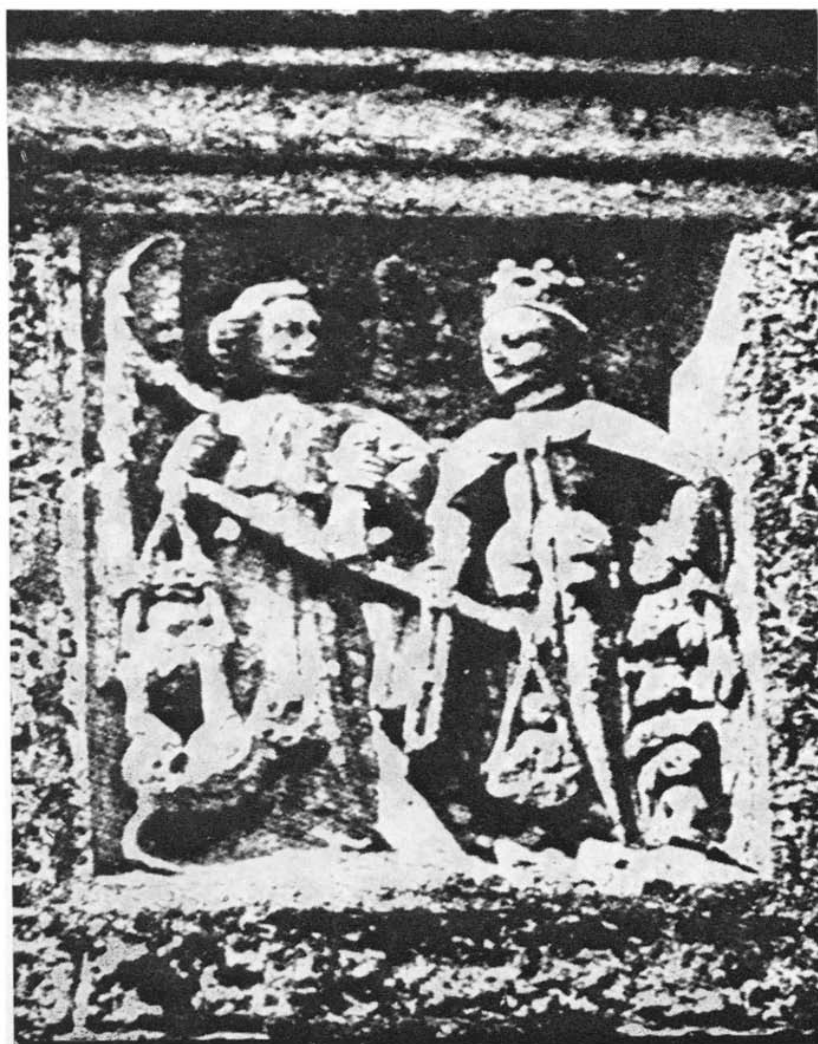


Fig. 11. St. Michael with balance: tapestry from the middleages, Maihungen, Germany².

helpful advice, providing of figures and translation. Special thanks are due to Dipl.-Phys. H. Klages and Mr. R. Schüller (Physikalisch-Technische Bundesanstalt, Braunschweig); Mr. H. Pietschmann, Bad Homburg; Ms. M. Schindel, Auringen; Dr. H. Binder, Ms. R. Chestnut and Mr. H.-G. Schomann (Battelle, Frankfurt).

REFERENCES

- 1 R. Vieweg, in T. Gast, E. Robens (Eds.), *Progress in Vacuum Microbalance Techniques*, Vol. 1, Heyden, London 1972, pp. 1-24.
- 2 H. Böll, "Die Waage der Baleks", *Matthiesen, Lübeck, Leserunde*, Vol. 8.
- 3 G. Groddek, *Das Buch vom Es*, Kindler, München, Vol. 2040, Geist und Psyche, 1972.
- 4 S. Needham, W. Ling and K. G. Robinson (Eds.), *Science and Civilisation in China*, Vol. 4, Part I, University Press, Cambridge, 1962, p. 15 ff.
- 6 I. Höfer and K. Rahner, *Lexikon für Theologie und Kirche*, Vol. 10, Herder, Freiburg, 1965, p. 904.
- 7 L. Kretzenbacher, *Die Seelenwaage*, Verlag Landesmuseum für Kärnten, Klagenfurt, 1958.
- 8 B. J. Peterson, *Orientalia Suecana*, 10 (1962) 31.



Fig. 12. St. Michael with balance: wallpainting in South Leigh Church, Oxfordshire, England.



Fig. 13. St. Mary as weighing assistant: masonry, St. Michael Church, Minhead (Sammlung Vieweg, PTB, Braunschweig).



Fig. 14. St. Mary as weighing assistant: fresco at Bovey Tracey Church, Devon, England.

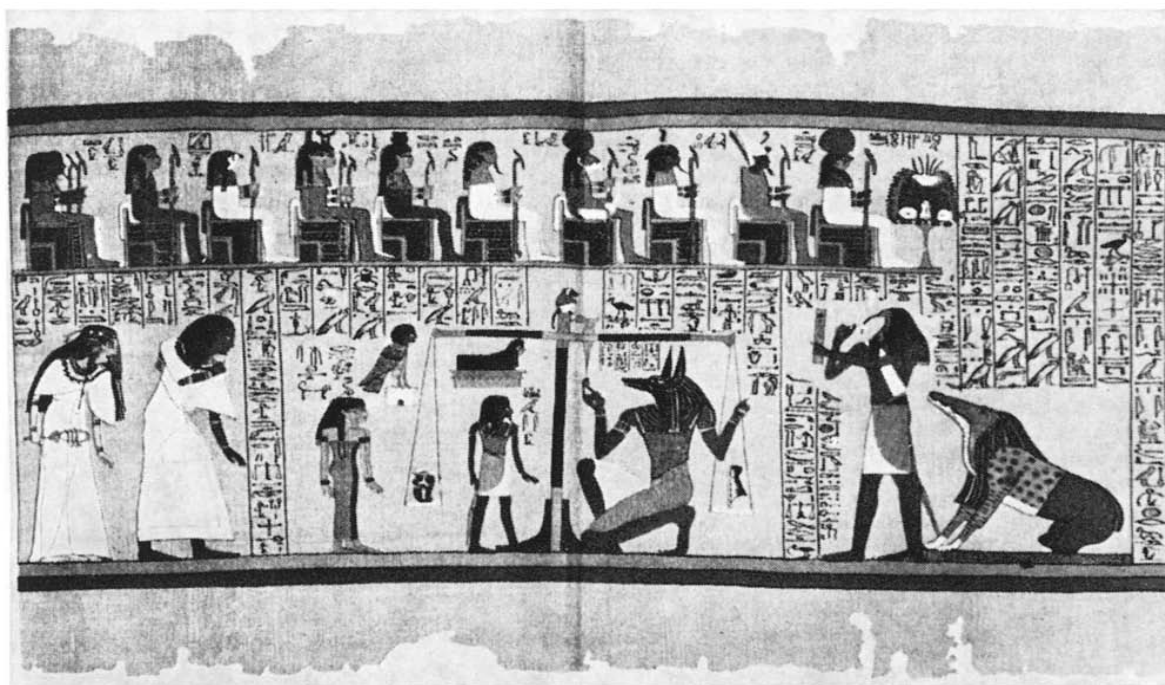


Fig. 15. Egyptian death tribunal: papyrus, about 1250 BC.