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REGIONE AUTÒNOMA DE SARDIGNA
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Port and coastal towers of Arbatax

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SARDEGNA Virtual Archaeology



■ Bronze scale

The canon Giovanni Spano¹, when reporting on the finds made in Sardinia in 1861 for the Sardinian Archaeological Bulletin, reported the find of a scale from the Roman Age: <<...A bronze scale was found in the village of Tortolì. In the vineyard of Cav. Don Giovanni Cardia, in the district called Pisana, while planting a vegetable garden, they discovered the foundations of many houses from which they extracted many oblong Roman vases and other remains of tableware; amongst these there was a really singular scale because, besides the plate sustained by four threads, under the yoke it had four well-worked hooks, shaped like a swan's head, that is one above and two below. This scale is similar to those currently used in Sardinia. The hook is in the lower part, and close to the other holding the plate, that is the disk, and was used when they wanted to weigh something solid, that could not be held in the disk. It was essentially a portable scale. On the rod you can see the numbers noted up to IV, and between one number and the other you can see the ounces marked with small notches...>>².

Spano, though calling it “scale”, really describes a “steelyard”, that is a special instrument used to weigh based on a lever principle (figs. 1-2).

¹ The canon Giovanni Spano (Ploaghe 1803 – Cagliari 1878) was an illustrious archaeologist; and a linguist, ethnologist and university professor.

² Spano 1861, pp. 60-61. Also see Rowland 1981, p. 142.



Fig. 1 - Roman Age steelyard

(da https://it.wikipedia.org/wiki/Stadera#/media/File:Balance_romaineGP.jpg).



Fig. 2 - Bronze steelyard conserved in the "A. Sanna" Museum in Sassari (photo M.G. Arru).

Unlike the scale which has equal arms on which the item being weighed has to be balanced with an equal weight, in a steelyard the rod suspension is asymmetrical. A weight called "Roman" runs along the longer arm, which can have one or more scales. The shorter one can have a plate or a hook on which to place or hang the goods to be weighed (fig. 3).

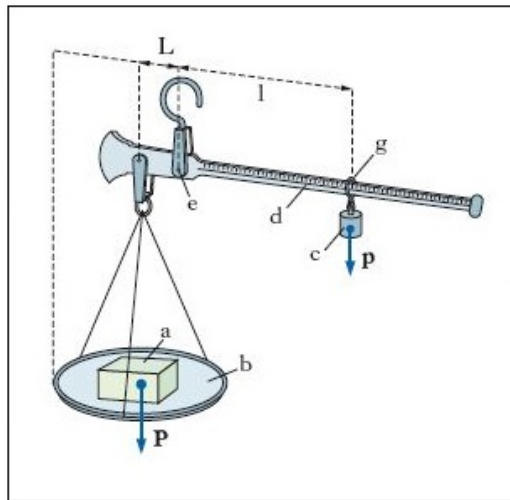


Fig. 3 - The steelyard weighing system (from <http://www.treccani.it/enciclopedia/stadera/>).

Running the Roman along the scale you reach a balanced position when the graded arm reaches a horizontal position. The position of the Roman along the scale indicates the weight needed. The “Roman” was often shaped like a human torso or another figure (fig. 4).



Fig. 4 – Roman Age steelyard (from *the Archaeological Museum "G.A. Sanna" of Sassari* 2000, p. 151).

■ Credits

Deepening card edited by Dr. Maria Grazia Arru

■ Bibliography

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La Sardegna cresce con l'Europa



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