Weight metrology and its economic and social impact on Bronze Age Europe, West and South Asia

Fact Sheet

Project Information

**WEIGHTANDVALUE**
Grant agreement ID: 648055

Funded under
EXCELLENT SCIENCE - European Research Council (ERC)

DOI
[10.3030/648055](10.3030/648055)

Closed project

**EC signature date**
16 July 2015

**Total cost**
€ 1 901 427,84

**EU contribution**
€ 1 901 427,84

**Coordinated by**
GEORG-AUGUST-UNIVERSITAT GOTTINGEN STIFTUNG OFFENTLICHEN RECHTS
Germany

Start date
1 August 2015

End date
31 July 2022

Objective

This project explores the economical and societal transformations provoked by weights and measures during the Bronze Age in Western Eurasia. The impact and significance of weight-based measures for value assessments during the Bronze Age is largely unknown und understudied. My objective is to unravel this empirical and
intellectual gap in studies of the prehistoric and ancient economy. The project will uncover new sources for the reconstruction of trade and exchange networks due to the identification of a mostly overlooked or ignored class of artefacts: early balance weights. This opens up a new understanding of the nature and extent of the earliest commercial economies in the world. The ambitious project aims to document for the first time potential weights, often of unexpected simple shape, as well as canonical weights, frequently not sufficiently documented in a selection of cases studies between the Atlantic and the Indus. Further focus will be on potential mass-related finished metal objects, standardization and pre-coinage currencies, contributing to the debate on the origins of money. Specific statistical methods and 3D scanning provide a novel tool package to verify assumptions in a rigorous way. Hypotheses to be tested include identifying the potential correlation of the emergence of weight metrology to elucidating the first extensive trade in raw material (like silver, tin), the connection of weights to other administrative and commercial tools like seals and script, and their impact of early conceptions of value. The early dissemination of weights and weighing systems will be analysed systematically on evidence from the Bronze Age in Western Eurasia. The proposed research starts with identifying and documenting potential balance weights and mass related objects by archaeological indications and the rigorous application of various statistical methods, but progresses to developing and testing models of exchange and transfer of innovations.

Fields of science

- humanities > history and archaeology > history > ancient history
- natural sciences > chemical sciences > inorganic chemistry > transition metals
- natural sciences > chemical sciences > inorganic chemistry > post-transition metals
- social sciences > economics and business > business and management > employment

Keywords

- weights and measures
- weight metrology
- value
- origin of money
- Bronze Age
- Europe
- West Asia
- South Asia

Programme(s)

H2020-EU.1.1. - EXCELLENT SCIENCE - European Research Council (ERC)
Topic(s)

ERC-CoG-2014 - ERC Consolidator Grant

Call for proposal

ERC-2014-CoG

See other projects for this call

Funding Scheme

ERC-COG - Consolidator Grant

Coordinator

GEORG-AUGUST-UNIVERSITAT GOTTINGEN STIFTUNG ÖFFENTLICHEN RECHTS

Net EU contribution

€ 1 555 936,68

Address

Wilhelmsplatz 1
37073 Göttingen
Germany

Region

Niedersachsen > Braunschweig > Göttingen

Activity type

Higher or Secondary Education Establishments

Links

Contact the organisation Website Participation in EU R&I programmes HORIZON collaboration network

Other funding

€ 0,00
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HORIZON collaboration network

Other funding

€ 0.00

KOBENHAVNS UNIVERSITET

Denmark

Net EU contribution

€ 345 491.16

Address

Norregade 10
1165 København

Region

Danmark > Hovedstaden > Byen København

Activity type

Higher or Secondary Education Establishments

Links

Contact the organisation
Website
Other funding
€ 0,00

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