



Universität
Basel

Research Project

Astronomische Chronologie des östlichen Mittelmeerraumes und Mesopotamiens im 2. und 1. Jahrtausend v. Chr.

Third-party funded project

Project title Astronomische Chronologie des östlichen Mittelmeerraumes und Mesopotamiens im 2. und 1. Jahrtausend v. Chr.

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Organisation / Research unit

Departement Altertumswissenschaften / Ägyptologie (Bickel)

Department

Project Website <http://www.gautschy.ch/rita/archast>

Project start 01.04.2011

Probable end 31.07.2013

Status Completed

This project with the title "Astronomical chronology of the Eastern Mediterranean and Mesopotamia in the 2nd and 1st millennium BC" aims to harmonise the partially strongly diverging absolute chronologies of particular regions of the Mediterranean and Mesopotamia in the 2nd millennium BC by means of directly documented synchronisms between rulers and by means of documented astronomical data.

The chronologies of Egypt, Assyria and Babylonia are interwoven by documented synchronisms. Concerning astronomical data Egyptian lunar data and Babylonian observations of planets, omen texts and records of eclipses will be evaluated. For a correct temporal assignment of ancient observed astronomical data consistent calculations are indispensable. The already existing computer programs for the calculation of solar eclipses and of last and first visibilities of the crescent moon have to be extended in order that lunar eclipses and the visibility phases of the planets can be calculated. The uncertainties of the text sources have to be taken into account when a comparison with the calculations is made. Since most astronomical events are cyclic in nature, additional constraints are needed to anchor the observed data correctly. Thereby documented synchronisms, ¹⁴C-data and the destruction- and debris level of the volcanic eruption of Thera can help. A matching absolute chronology of the whole Mediterranean and the Near East would be an important benefit for all analyses dealing with the exchange of culture and trade in the 2nd millennium BC.

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Keywords Egypt, Astronomy, Chronology, Near East

Financed by

Foundations and Associations

Add publication

Published results

2803630, Gautschy, Rita, On the Babylonian Sighting-Criterion of the Lunar Crescent and its implications for Egyptian lunar data, 0021-8286, The Journal for the History of Astronomy, Publication: JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)

2803658, Gautschy, Rita, A reassessment of the absolute chronology of the Egyptian New Kingdom and its 'brotherly' countries, 1015-5104, Ägypten und Levante, Publication: JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)

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Specify cooperation partners