

Publication

A New Astronomically Based Chronological Model for the Egyptian Old Kingdom

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A recently discovered inscription on an ancient Egyptian ointment jar mentions the heliacal rising of Sirius. In the time of the early Pharaohs, this specific astronomical event marked the beginning of the Egyptian New Year and originally the annual return of the Nile flood, making it of great ritual importance. Since the Egyptian civil calendar of 365 days permanently shifted one day in four years in comparison to the stars due to the lack of intercalation, the connection of a date from the Egyptian civil calendar with the heliacal rising of Sothis is vitally important for the reconstruction of chronology. The new Sothis date from the Old Kingdom (3rd–6th Dynasties) in combination with other astronomical data and radiocarbon dating re-calibrates the chronology of ancient Egypt and consequently the dating of the Pyramids. A chronological model for Dynasties 3 to 6 constructed on the basis of calculated astronomical data and contemporaneously documented year dates of Pharaohs is presented.

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