

Ancient Egyptians discovered Algol's variability 3,000 years before western astronomers

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An ancient Egyptian papyrus, known as the Cairo Calendar, could be the oldest historical record of a star's brightness, providing a new perspective on the development of the Algol triple star system over thousands of years.

Known as the Calendar of Lucky and Unlucky Days, the Cairo Calendar, dated from 1244 – 1163 BC, assigns predictions and prognoses to every day of the Egyptian year. These prognoses indicate whether the day, or part of the day, is considered "good" or "bad". The calendar also contains information regarding the day's astronomical observations, such as the behaviour of astronomical objects, especially Algol.

Now researchers say that the astronomical symbolism discovered in the two most Ancient Egyptian myths suggest similar clues could be found in other ancient Egyptian texts.

The article, "Algol as Horus in the Cairo Calendar:

the possible means and the motives of the observations," by Sebastian Porceddu, Lauri Jetsu, Tapio Markkanen, Joonas Lyytinen, Perttu Kajatkari, Jyri Lehtinen, and Jaana Toivari-Viitala published in De Gruyter's journal *Open Astronomy*, looks at how the legends of the Egyptian deities Horus and Set were used in the [calendar](#). The deities describe the behavior of [astronomical objects](#), specifically, the naked eye observations of the variable three-star system Algol.

However, next to nothing is known about who recorded Algol's period into the Cairo Calendar, nor how. The authors show how the ancient Egyptian scribes present celestial phenomena as the activity of gods, which reveals why Algol received the title of Horus.

The study presents ten arguments which show that the ancient Egyptian scribes, known as the "hour-watchers" had the possible means and motives to record the period of Algol in the Cairo Calendar.

"The discovery of Algol's variability would have to be dated to thousands of years earlier than has been previously known. The star would have been a part of ancient Egyptian mythology as a form of the god Horus," said study author Sebastian Porceddu from the University of Helsinki.

More information: Sebastian Porceddu et al. Algol as Horus in the Cairo Calendar: The Possible Means and the Motives of the Observations, *Open Astronomy* (2018). [DOI: 10.1515/astro-2018-0033](https://doi.org/10.1515/astro-2018-0033)

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