Johannes Fabricius*

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Abstract

A brief biography of David (1564-1617) and Johannes (1587-1616) Fabricius.

David Fabricius was a Lutheran pastor and astronomer in the little town of Osteel, East Frisia (northwest Germany). He was a correspondent of Johannes Kepler[1] and the discoverer of the first known variable star (1596). Early in 1611, his son Johannes, a university student, returned from the Netherlands with one or more telescopes, and he and his father turned these instruments to the heavens. On 9 March, at dawn, Johannes directed the telescope at the rising sun and saw several dark spots on it. He called his father, and together the two investigated this new phenomenon. They directed their instruments to the edge of the Sun, and when their eyes adjusted to the brightness slowly moved toward the Sun's center. This method was, of course, very painful, and the two quickly switched to the projection method by means of a **camera obscura**.

Over the next several months they tracked spots as they moved across the Sun's face and found that a dozen or so days after they had disappeared from the western edge of the Sun they reappeared on the eastern edge. Johannes wrote a tract on sunspots[2], *De Maculis in Sole Observatis, et Apparente earum cum Sole Conversione Narratio* ("Narration on Spots Observed on the Sun and their Apparent Rotation with the Sun"), the dedication of which was dated 13 June 1611. It was printed in Wittenberg (the site of the premier Lutheran university, where Johannes was apparently continuing his studies) in time for the autumn book fair in Frankfurt. In the tract Johannes rehearsed the observations made by him and his father, without giving times or dates or showing a picture of the spots, and then stated his opinion that they were on the Sun and that the Sun therefore probably rotated on its axis (an notion already suggested by Giordano Bruno[3] and Johannes Kepler[4].

Johannes's style was florid, and only a small part of the tract actually dealt with his observations and diffidently stated conclusions. Because of the lack of a powerful patron interested in scientific matters who might have called the little book to the attention of influential people, it drew very little attention, and by the time e.g., Kepler had become aware of its existence the book was eclipsed by Christoph Scheiner's[5] first publication on sunspots (January 1612). Johannes's diffidence may have been caused by a disagreement with his father about the nature of sunspots. In December 1611, David Fabricius wrote to Michael Maestlin (Kepler's old teacher) that he did not believe the spots were on the Sun's body, although the center of their motions clearly lay in the Sun. Neither father nor son were important participants in the 1612/13 debate on the nature of sunspots.

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[1] "Johannes Kepler" <http://cnx.org/content/m11962/latest/>

[2] "Sunspots" <http://cnx.org/content/m11970/latest/>

[3] "Giordano Bruno (1548-1600)" <http://cnx.org/content/m11935/latest/>

[4] "Johannes Kepler" <http://cnx.org/content/m11962/latest/>

[5] "Christoph Scheiner" <http://cnx.org/content/m12126/latest/>

Little else is known about Johannes Fabricius, except that he died in 1616, at the young age of 29. A year later the father was killed when an irate peasant, whom he had accused of stealing a goose, hit him over the head with a shovel.

Glossary

Definition 1: camera obscura
- A darkened boxlike device in which images of external objects, received through an aperture, are exhibited in their natural colors on a surface arranged to receive them.

References

[1] Edward Rosen. *Kepler's Somnium.* University of Wisconsin Press, Madison, 1967.