

Biographical Encyclopedia of Astronomers

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Harriot, Thomas

Born Oxford, England, 1560

Died London, England, 2 July 1621

Galileo Galilei was not the first to grasp the potential of the telescope for astronomical investigations; in England, Thomas Harriot made the first telescopic sketch of the Moon. Harriot was strongly identified with Sir Walter Raleigh's free-thinking "School of Atheism" and had once served as Raleigh's mathematical tutor and scientific advisor. Another associate was the poet and dramatist Christopher Marlowe (1564–1593). But unlike his colorful poet-companions, Harriot seems to have been personally reserved and quiet, a perfectionist whose knowledge of mathematics was extensive but who published little during his lifetime.

In 1585, when he was in his early 20s, Harriot accompanied Raleigh as surveyor and cartographer on an expedition to Virginia. Although he planned an encyclopedic account of the New World, he actually produced only "A brief and true report of the new-found land of Virginia," which became widely known through Richard Hakluyt's *Principal Navigations* (1598–1600), a collection of the voyages made by English adventurers like Raleigh

But these had been the adventures of a younger man. Harriot was already 50 when he first turned a telescope toward the 5-day-old Moon on the evening of 26 July 1609 (5 August). Though magnifying 6x, his "trunke," as he called it, must have been of very poor optical quality, since it showed very little detail. For that matter, Harriot seems to have had very little insight into the true nature of what he was seeing about, as little as was shown on a slightly later occasion by his friend Sir William Lower, who used one of Harriot's telescopes to make his own observations of the Moon from Kidwelly in Wales. Lower wrote memorably to Harriot on February 6, 1610 (O.S.).

As you wished, I have observed the moon in all its changes. In the new phase, I discover the earthshine manifest, a little before the dichotomy that spot which represents to me the man in the moon (but without a head)... A little after, near the brim of the gibbous, parts like starry ones, much brighter than the rest, and the whole brim along, looks like the description of coasts in the Dutch books of voyages. In its fullness, it appears like a tart that my cook made me last week. Here a vain of bright stuff, and there of dark, and so confusedly lie all over

Although Galileo easily had the finest telescopes available at the time, we must not allow this fact to obscure Galileo's uncanny talent as an observer. The contrast between Galileo's decisive results and Harriot's and Lower's early attempts demonstrate Galileo's genius as an observer. Galileo was certain that the Moon was "sprinkled over with prominences and depressions," and was measuring the heights of lunar peaks before his contemporaries even realized that some of the features they were seeing were shadows cast by mountains.

Thomas A. Dobbins

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