

Simultaneously with advancement of lunar investigation in the direction referred to, other observers were scrutinizing and mapping out the moon's surface. Without instrumental aid only a faint indication of the more prominent objects on the moon's disk can be seen, and it is not surprising these were long thought to be reflected images of the seas and continents of the earth. Galileo's "perspective glass," made by him about 1609, was the first known instrument by which the moon was seen more distinctly than by unaided vision. A year after Galileo made his glass he published an account of what he had seen through it. The quaint title of his book tells its own story. It reads in full: "The Sidereal Messenger, announcing 'great and wonderful spectacles, and offering them to the consideration of everyone, but especially of Philosophers and Astronomers, which have been observed by Galileo Galilei, etc., etc., by the aid of a perspective glass lately invented by him: namely, in the face of the moon, in innumerable fixed stars, but especially in four planets which revolve around Jupiter at different intervals and periods with a wonderful celerity, which hitherto not known to anyone, the author has recently been the first to detect, and has decreed to call the Medicean stars.'" Galileo said that his first telescope made objects look three times nearer and nine times larger, and that he made a second, having a magnifying power of sixteen times. He probably never used an instrument which magnified more than thirty diameters. But by their use he constructed the first map of the moon ever made, and measured some of the lunar mountains. It is needless to add that Galileo immortalized his name by extending the boundaries of human knowledge, and by preparing the way for a more adequate conception of the infinite grandeur of the great Cosmos, the glorious universe of God.

A younger contemporary of Galileo, John Hovel (or Hevelius, as he was called in Latin, who was born at Dantzic) carried the work of lunar observation further than any of his predecessors. In his youth Hovel (whose father was a rich brewer) studied law, though mathematics and astronomy were his favorite pursuits. He travelled in Europe four years, attended in London the lectures of Wallis, one of the founders of the Royal Society, and would have visited Galileo in Italy, but was summoned home by his aged father to take charge of their brewery. But to astronomy he bent the best energies