

**TITLE:** *Tractatus de Sphaera Mundi*

**DATE:** 1300-1500

**AUTHOR:** *Johannes de Sacrobosco* [*John Halifax of Holywood*]

**DESCRIPTION:** A fitting end to this volume, this map is from a treatise called the *Tractatus de Sphaera Mundi* that is often cited as atypical of the medieval period because it is derived entirely from the writings of earlier scholars, leaning especially on Ptolemy's astronomical work the *Almagest* (Book I, #119). However, even without the addition of the new discoveries, it achieved a great popularity that lasted well through the Renaissance, for after the invention of printing no fewer than 65 editions succeeded each other in rapid order and occupied the attentions of the foremost scientific printers of the time. Its popularity may be explained not only by its dependence on established authority, but on its slight bulk and the simplicity to which elaborate theories were reduced. Its four chapters deal with the terrestrial globe, circles, and the movements of the stars and with the planets. It was doubtless this brevity that recommended it to seafaring folk, for it was known to have been one of the standard textbooks of the Portuguese seamen during their great age of exploration.



Johannes de Sacrobosco, latinized for John Halifax or Holywood, a teacher of mathematics and astronomy at the University of Paris during the 13<sup>th</sup> century. He was probably from Yorkshire, England, educated at Oxford, and migrated to Paris in 1221, where he compiled his *Tractatus de Sphaera Mundi* (being in part a summary of Ptolemy's *Almagest*; a manual or textbook for beginners in the study of astronomy and cosmography, illustrated by a world map and diagrams and Sacrobosco's *Computus*, *Quadrans*, *Algorismus*, *Cautelæ*). Twenty-five editions of this work appeared prior to 1500, and a further 40 editions up to 1647, even though no original work was included, nor added to the reissues (even though such items as his earth-centered diagrams of the solar system were superseded by the Copernican theory and new geographical discoveries outdated his map). This map, therefore, had one of the widest distributions and circulation among students during these two-three centuries. In this work the

theory of a spherical earth is supported in much the same manner as was done by Campano. The *Tractatus* proved to be one of the most important quasi-scientific geographical and astronomical textbooks of the later middle ages, being frequently copied, and frequently printed after the invention of that art. Further reference might be made to a belief in a spherical earth, as held by Roger Bacon (1214-1294), by Thomas Aquinas (1225-1274), by Vincent of Beauvais (1190-1264), by Dante (1265-1321), and still others of the 13<sup>th</sup>, 14<sup>th</sup>, and 15<sup>th</sup> centuries. It should, however, be stated that nowhere in the works of these authors does there appear a reference to the construction of terrestrial globes, and only incidentally the implication that they knew of or approved the construction of celestial globes.

As can be seen in this woodcut printed example, it is a simple map based upon the construct of Ambrosius Aurelius Macrobius (ca. 410, *Book II*, #201) and containing a hemispherical world divided into seven climatic zones, a system devised by the Greeks and Ptolemy. This map shows the uninhabitable *Southern Frigid Zone* (at the top, the map has a South-orientation); the unexplored *Southern Temperate Zone* that is habitable; a *Central Hot Zone* that is not habitable; the *Northern Temperate Zone* where Europe, Asia and Africa occupy the known world; and the *Northern Frigid Zone* that is also uninhabitable.

Therefore, Sacrobosco is one of the best representations of the entire medieval period, since his influence spans both the early and later periods. He lived and worked in the early medieval period of the 13<sup>th</sup> century; and his maps continued to be reproduced in large quantity for another four centuries, no small feat for such a simple cartographic scheme.

**LOCATION:** New York Public Library

**REFERENCES:**

\*Bagrow, L., *History of Cartography*, p. 44.

Beazley, C., *The Dawn of Modern Geography*, Volume II, pp. 573-75.

\*Bricker, C., *Landmarks of Mapmaking*, pp. 14, 60.

Brown, L.A., *The Story of Maps*, pp. 98, 152, 198-201.

\*Brown, L.A., *The World Encompassed*, no. 13.

\*Harley, J.B., *The History of Cartography*, Volume I, pp. 306, 307, 314, 321.

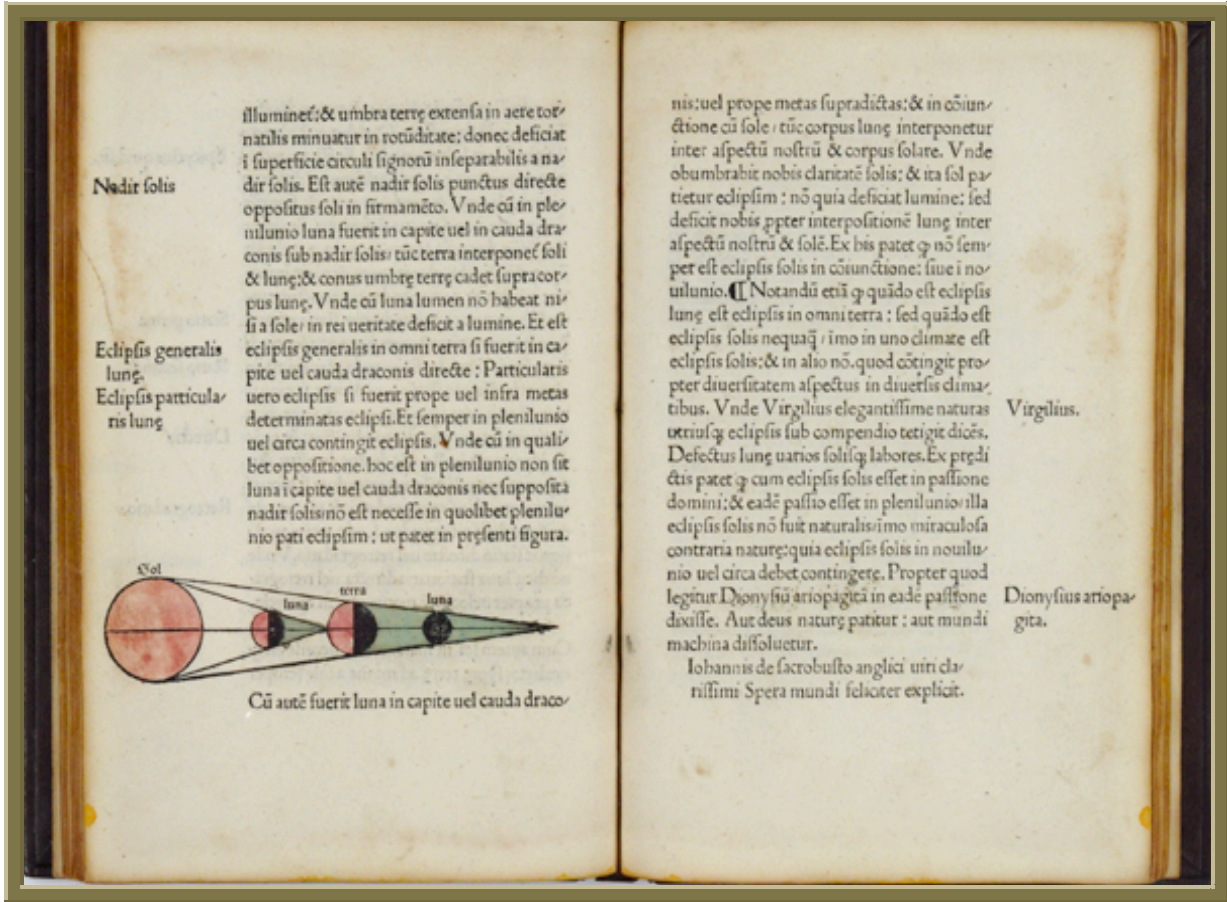
Kimble, G.H.T., *Geography in the Middle Ages*, p. 9.

Stevenson, E.L., *Terrestrial and Celestial Globes*, p. 43

\*Tooley, R., *Maps and Mapmakers*, p. 49.

\*illustrated





Excerpt from Johannes de Sacrobosco's Tractatus de Sphaera Mundi