

Hamlet's Universe

by Peter Usher

Aventine Press

Ushering in the New Astronomy

Peter Usher has written a fabulous book. Fabulous in many meanings of the word.

It is *superb* and sometimes *unbelievable*—and it is a *fable*. We are treated to the anthropomorphic rendering of cosmological theories claimed to be woven into the familiar *Hamlet*; the threads unverifiably lost in the misty legends of the past. Eloquently, painstakingly, Usher makes the case that *Hamlet* is an allegorical account of the historical struggle for acceptance of the New (Copernican) Astronomy, with which the professor will make you painlessly acquainted.

The first part of the book is a short history of astronomy told by a scientist with a poet's soul. It is interesting, understandable, educational and filled with personalities and psychological conjecture. If you've ever wished you knew more about what was going on over your head, but prefer dramatic to dry, this is the book for you, and you don't have to take your sensibilities away from literature, because *Hamlet* is there all the time, making his case in Shakespeare's glorious words. For a review and unique interpretation of the play, *Hamlet's Universe* can't be beat.

In a "nutshell," Usher claims that Shakespeare wrote *Hamlet* as an allegory to express his views on the Copernican theory that it is not the earth, but the sun that stands at the center of the solar system. Because the Church regarded this as heresy and the State was inclined to see it as treason, this theory could not be discussed openly, so Shakespeare buried his commentary in the names of his characters

and an assortment of puns and opaque asides. According to Usher, Rosencrantz and Guildenstern, real Danish courtiers, represent Danish astronomer Tycho Brahe's radical new model of the solar system, while King Claudius represents the ancient geocentric system of Claudius Ptolemy c.100 AD. (Tycho's model was a hybrid as he went only part of the way with Copernicus, still believing that, although the earth must revolve around the sun, the planets, as in the Ptolemaic model, revolved around the earth.)

Usher argues that since Paris University lecturers "regarded Ptolemy's algorithm the one true system of the World" and Laertes is going to Paris, that this anticipates Laertes going over to Claudius's cause. Laertes is allowed to go to Paris, but not to Wittenberg, the center of modern thought.

He also proposes, convincingly, that Thomas Digges, England's foremost scientist, used a telescopic magnifier, which gave him the confidence to advance novel notions and also gave Shakespeare the nerve to write about them. There is no record that a telescope itself had been employed, but it is logical that among a population fascinated by spectacle lenses, hand-held pairings to enlarge distant objects would presage the invention. Once there were lenses, they went everywhere. Before the telescope, before they were put into tubes, observers got the enlarging effect (and before that, they looked through pinholes). It is not unthinkable that at parties, at night, people took lenses out of their pockets and said, "Check this out!" and maybe resolved some stars in the fuzz of the Milky Way or glimpsed the crescent of Venus.

As corroborative evidence of *Hamlet's* representing Digges, Usher offers the following: "Shakespeare goes to great lengths to establish

that Prince Hamlet is thirty years old when he kills the two personifying Tychonists and is about to finish off Claudius. In 1576, Thomas was about thirty when his *A Perfit Description* signaled the demise of the Old Astronomy." Further intricate plays with numbers and dates add up to almost supernatural proof.

Among listed astronomical facts which Usher suggests that Hamlet announces for the first time are: the presence of sunspots, that the moon and Venus are not self-luminous, that Jupiter rotates on its axis, and that the Milky Way is comprised of self-luminous stars "scattered through infinite space."

By arranging for the deaths of Rosencrantz and Guildenstern, Hamlet also kills off the geocentric model they represent. This, claims Usher, is "Shakespeare's response to Tycho's request to Thomas Savile for poetical approbation." The Bard doesn't like bombastic Tycho and the vain letter frees Hamlet to pursue the king by whose "surcease he will catch success," a nice phrase. Usher claims that when Claudius speaks of fathers losing fathers, he is referring to the geokineticists and atomists who failed to establish their models while on earth. When Hamlet and Claudius confront each other after the play-within-the-play, Hamlet is trying to promote the New Philosophy, and Claudius to maintain the Old. The whole story that Horatio will relate to the world is the New Philosophy.

The details of these presumptions are worth the reading. Each is a good case, given that a case should be made. Peter Usher is one smart guy. He has smart ideas. This book is a contribution to, if not wisdom, then fruitful directions of thought. A lot of it may be true. It sounds like what Shakespeare would be like if

his mind were on these things. But was it?

Beware in science of blending together several independent scenarios into a grand overview. Yet models do have value. If you build a model, you have shown that the components are not inconsistent—which is saying quite a lot: about as much as many of the accepted "theories" of science can say.

Usher is a writer, and his science is easily accessible and spiced with human interest and the arts, as it was in Shakespeare's day. Everyone at the time looked to the sky. What happened in the sky was a common metaphor. It was also a time when only a few observers were attempting to reach beyond what our limited senses tells us is common sense.

Artists are often rebels—experimenting with excursions into heretical regions. To speak of the New Astronomy was already a blasphemy, and Shakespeare knew it. He would have been eager to hold forth on heliocentricity simply because it was forbidden. A play allows deniable reference to forbidden speech—the eternal perk for a playwright. If one allows that Shakespeare is a philosopher-astronomer, Usher's *Hamlet* thesis is compelling. But if Shakespeare was simply tangentially acquainted with the knowledge, he may have included allusions in his re-rendering of the Amleth story but not have made it his main allegory.

That the entire play is an astronomical allegory with all the parts fitting together is a stretch. Usher's knowledge of the state of discourse at the time may have propelled him to excesses. At some point the metaphor takes over and carries itself—which makes it no less, and possibly even more, exciting. / Nan Prener
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