David Rittenhouse

David Rittenhouse was a famous colonial surveyor and astronomer who was born near Germantown in Pennsylvania on April 8, 1732. Although he had little formal mathematical training, he was self-taught and quickly showed great mathematical and mechanical ability. At the age of nineteen, he opened a clock repair shop on his father’s farm. In 1763, he helped survey the boundary between William Penn and Lord Baltimore to settle the dispute over where Pennsylvania ends and where Maryland begins.

His crowning achievement came in the late 1760s, when he made an astronomical device known as an orrery, which allowed him to predict solar and lunar eclipses for 5,000 years, both in the past and in the future. The prediction of future eclipses gained him fame as an astronomer. Mathematically, we would say that Rittenhouse either had parametric equations for the sun, moon, and earth, or he would have been able to derive them from his results. This is a huge achievement, especially when one considers that just 200 years earlier, astronomers believed most of these objects were fixed.

In 1770, he moved to Philadelphia. Between 1779 and 1786, he was involved in surveying over half the boundary lines in the entire United States at the time. In 1779, he became a professor of astronomy at the University of Pennsylvania, and the following year he became the Vice Provost of the University; he serves on Penn’s Board of Trustees until his death. Today the mathematics department at the University of Pennsylvania is housed in a building called David Rittenhouse Laboratories.

In 1791, following Benjamin Franklin’s death, Rittenhouse was elected president of the American Philosophical Society, a position he held until his death. In April of 1792, George Washington appointed him the first director of the Mint, a position that he held until June 1795. In 1793, Rittenhouse helped discover the planet Uranus. He died in Philadelphia on June 26, 1796. It is interesting to note that the land known today as Rittenhouse Square is simply named after him; there is no record of him surveying it.

Andrew Silberman
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Sources:
1. Website: [www.archives.upenn.edu/histy/notables/rittenhouse.html](http://www.archives.upenn.edu/histy/notables/rittenhouse.html), from the University of Pennsylvania Archives and Records Center.
2. Website: [www.surveyhistory.org/david_rittenhouse.htm](http://www.surveyhistory.org/david_rittenhouse.htm), Museum of Surveying History