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THE GREAT ASTEROID NOMENCLATURE CONTROVERSY OF 1801

Clifford J. Cunningham

With the almost complete neglect of 19th century asteroid research by professional historians of science, it is scarcely surprising that great gaps exist in our knowledge of that important field. This paper will focus on one of the many issues that faced the astronomers involved with the study of the first asteroid- what should it be named? This seemingly innocuous issue assumed great importance because many believed the object discovered by Giuseppe Piazzi at Palermo Observatory to be the eighth primary planet of the solar system.

Within a few months of discovering the object on Jan. 1, 1801, Piazzi named the object Ceres Ferdinandea, to honor both the patron goddess of Sicily and his own patron, King Ferdinand of Naples and Sicily. The first hint of trouble came in a letter from his friend Barnaba Oriani, dated July 25, 1801.

"I must tell you that the name Hera or Juno has been given universally by all of Germany, for which it will be very difficult now to rename it Ceres." Piazzi testily replied on Aug. 25: "If the Germans think they have the right to name somebody else's discoveries they can keep calling the new star the way they want, for we will always call it Ceres. I will be glad if you and your colleagues will do the same."

It is a remarkable fact that the first asteroid was actually given a name 15 years before it was discovered. In the early 1780's a young baron, Franz von Zach, began searching for an object between Mars and Jupiter. Even though he was initially unsuccessful, his patron, the Duke of Gotha, was so impressed that he dubbed the unseen object Hera, the Greek form of Juno. Thus, when the object of von Zach's search was revealed, it automatically was given the name assigned to it by the Duke. The stage was thus set for a battle royal amongst the astronomers of Europe, a battle largely played out in the world's only astronomical journal, the Monthly Correspondence. Fittingly, it was edited by Baron von Zach.

As the Baron himself wrote in the MC: "The Greek name Hera is preferred to the Latin name Juno, because 1) the latter has already been ascribed to the planet Venus; 2) Hera is the name of a city in Sicily, through which the memory of the discoveries made on this island and the glorious name of the discoverer of this eighth primary

planet will be contained and immortalized."

But some people were not content with a choice between Hera and Ceres. An unnamed source suggested the name Vulkan, because it "would not be improper to give the god who forged the weapons of Achilles a place in the sky next to the god of war, the husband of Venus next to her lover." A certain Dr. Reimarus in Hamburg suggested the name Cupido, another lover of Venus. "Others believe that the name Cupido is also fitting because the name is associated with the idea of blindness. The new planet appears only as a magnitude eight star and cannot be seen with the naked eye."

Meanwhile, in France, the object was known as "La planete Piazzi". "I will never agree," Joseph La Lande wrote to von Zach in 1801, "to remove from this planet the name of my pupil Piazzi and replace it with Ceres because the name means nothing to me." Even so, the most important person in France agreed with the Germans. "Napoleon would have preferred the name Juno," Pierre Laplace wrote to von Zach, "instead of Ceres. Regarding this, I agree. It is natural to put Juno close to Jupiter."

Thus, a consensus was building for the adoption of the name Hera or Juno. Piazzi decided it was time to fight back, and he did so with an acerbic attack published in the MC. "I've noted in your journal the desire of a few to give this new planet the name Juno instead of Ceres. I trust that these astronomers, who are peaceful people, will never consent to having their deities called the name of a goddess as anxious, jealous and vindictive as Juno. Jupiter finally chased her from the sky; in her place he had Ceres appear, who has so much more right to the homage of mankind."

This turned the tables in his favor. Johann Bode, who been in the Juno camp, switched sides. "I accept with much pleasure the name Ceres Ferdinanda. You discovered it in Taurus, and it has been found again in Virgo, the Ceres of ancient times. These two constellations are the symbol of Agriculture. The chance is very singular."

In England, the Astronomer Royal Nevil Maskelyne joined the chorus applauding Piazzi's choice. "You had the right to name the planet, which you discovered, and you paid due homage to your King, patron of the Arts and Sciences and founder of your observatory. I will call, and it will be called in England, Ceres Ferdinanda."

Von Zach also gracefully agreed to accept Piazzi's choice. "Since Piazzi has baptized his own child and named it Ceres Ferdinanda, which is entirely within his right as the discoverer, we on our part also subscribe to this fitting designation with genuine pleasure."

Not surprisingly, Piazzi himself had the last word. "Being the first in the discovery of this new planet, I thought to have the full right to name it in the most convenient way to me, like something I own. Thankful to my master, thankful to the Sicilian nation, willing to maintain a certain coherence with the other planetary names, it looked right to me to name it Ceres Ferdinandea. I will always use the name Ceres Ferdinandea, nor by giving it another name will I suffer to be reproached for ingratitude towards Sicily and its King, who with so much zeal, protects the sciences and arts, and without whose favor, perhaps we may never had arrived at this discovery. It is not adulation, but tribute, right and fair homage."

This and many other asteroid-related controversies will be examined in more depth in the forthcoming book *The Asteroid Pioneers: 19th Century Asteroid Research*.

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The great asteroid nomenclature controversy of 1801 With the almost complete neglect of 19th century asteroid research by professional historians of science, it is scarcely surprising that great gaps exist in our knowledge of that important field. This paper focuses on issue of naming the first asteroid. This seemingly innocuous issue assumed great importance because many believed the object discovered by Giuseppe Piazzi at Palermo Observatory to be the eighth primary planet of the solar system. Document ID. 19930009956. The asteroid belt tells the story of the creation of the solar system. When it formed, not everything coalesced into a planet. Like LEGO bricks that never made it out of the bucket, these objects were organized by physics into a ring located between the orbits of Mars and Jupiter. This is the asteroid belt. Here are some things you might not know about it. 1. there are more than a half-million asteroids. iStock. Over a half-million asteroids have been discovered by scientists, with hundreds of thousands yet to be found. They are generally divided into three classes: S-type (for stony); C-type The Asteroid itself was not the sole cause of what killed the dinosaurs, but rather what occurred due to the asteroid's impact. Not only did the asteroid's impact have enough force to cause serious damage, but the tsunami that followed also contributed to the death of wildlife in the immediate area. Thereafter, due to the amount of dust that lingered into the atmosphere as a cause of the impact, sunlight was blocked. The asteroid impact created so much dust into the atmosphere that it plunged the earth into darkness and cold which in turn slowly killed approximately 90% of the wildlife. [5]. The force of the asteroid hitting the earth was 100 megatons of force which is equivalent to a billion times more explosive than the bombs dropped on Hiroshima and Nagasaki. An asteroid is a solid object, smaller than a planet, which in our Solar System orbits the Sun. Most asteroids are believed to be remnants of the protoplanetary disc or fragments of larger asteroids. The vast majority of asteroids are within the main asteroid belt between Mars and Jupiter. Studying the sizes, shapes, orbits, and distribution of asteroids, as well as their composition and age through meteorites which came from asteroids, gives us precious information on the early evolution of our solar system. Examples of verse created to commemorate the great discovery are included in this first volume. The author, who has a PhD in the History of Astronomy, is a dedicated scholar of the story of asteroids and his research on the discovery of Ceres is comprehensive and fully sourced. The discovery came at a time when rival astronomers were in hot competition with each other, and when the true nature of these celestial bodies was not yet known. The Great Nomenclature Controversy of 1801. The Physical Properties of Ceres. How Did the Public Learn About Ceres?