Astronomical Reverie: India's Commemorative Stamp Salute to Copernicus -Bridging Cultures through Mathematical Legacy

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**Abstract:**

*This research explores the potential and viability of issuing a commemorative postage stamp as a tribute to Nicholas Copernicus, a luminary in mathematics and astronomy. Originating from Toru Royal Prussia (modern-day Poland), Copernicus's profound impact on scientific history is commemorated through Indian postage stamps released on July 1st, 1973. This tradition, dating back to the 1920s, reflects a symbolic celebration of Copernicus's lasting influence.*

*The study traces the evolution of this tradition, examining its roots and changes over time. From its inception in Poland in 1923 to the wartime stamps released under German occupation, the research elucidates the transformation of honoring significant figures into a passionate pursuit. The issuance of commemorative stamps emerges as a powerful method of bridging cultures, fostering a connection through shared recognition of mathematical and astronomical legacies.*

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**Keywords:** *Copernicus, Commemorative Stamps, Indian Postal Department, homage to a mathematician.*

An illustrious and well-respected polymath, Nicolaus Copernicus is also known as *Nicolaus Koppernigk* in Polish. He is remembered as a legendary figure in the annals of scientific history for his remarkable abilities in mathematics, astronomy *(from Domenico Maria de Novara, Copernicus learnt Astronomy, and began to undertake research with him, assisting him in making observations)* and philosophy. His ground-breaking insights into the universe had a significant influence on our understanding of celestial bodies. Copernicus, who was born on February 19, 1473, in Toru[[1]](#footnote-1), Royal Prussia (*now Frombork, Poland*), is famed for developing the heliocentric model of the cosmos. His ground-breaking hypothesis, which put the Sun—rather than Earth—at the centre of the cosmos, opposed the dominant geocentric viewpoint.

 Nicolaus Copernicus[[2]](#footnote-2) was not only a renowned astronomer, but he was also highly skilled in mathematics[[3]](#footnote-3). His contributions to both fields were significant and noteworthy, making him a true Renaissance scholar. To conduct scientific research and develop the heliocentric paradigm, Copernicus used mathematics heavily[[4]](#footnote-4).

A thorough grasp of planetary orbits and celestial motions was possible because to Copernicus's mathematical prowess. To comprehend the actions of planets and stars, he employed mathematical principles derived from geometry, trigonometry, and arithmetic. Through precise mathematical calculations, he was able to demonstrate the accuracy and feasibility of his heliocentric model. His unparalleled expertise provided irrefutable evidence for his theory.

Copernicus' *(19, 1473, —died May 24, 1543)*[[5]](#footnote-5), creation of a mathematical framework to forecast the locations of celestial bodies is one of his most noteworthy mathematical accomplishments. To compute the locations, distances, and movements of planets, such as Earth and the Sun, he improved on existing astronomical models and developed his own mathematical methods. His heliocentric concept[[6]](#footnote-6), which advocated that the Sun be the solar system's core, was founded on these results. Besides, Copernicus's innovative efforts laid the foundation for the development of mathematics and astronomy. His brilliant mathematical strategies and underlying ideas served as a catalyst, inspiring other greats like Johannes Kepler and Galileo Galilei to enhance and further his ground-breaking ideas[[7]](#footnote-7).

In essence, Copernicus' deep description of the heliocentric model, which successfully revolutionized our understanding of the cosmos, is what leaves an everlasting impact on the area of mathematics. He skilfully woven painstaking observations, complex calculations, and imaginative speculations together by utilising his mathematical prowess, opening the way for a more accurate and comprehensive understanding of cosmic events. The heliocentric concept was strongly supported by Copernicus' thorough observations and mathematical computations[[8]](#footnote-8).

His Latin[[9]](#footnote-9) writings, which were included in the influential book "De revolutionibus orbium coelestium" *(On the Revolutions of the Celestial Spheres)*, were first published at Nuremberg in 1543 and set the groundwork for modern astronomy. They also had a significant influence on scientific thought. During the European Renaissance, Copernicus exemplifies one of the brightest brains[[10]](#footnote-10).

In recognition of Copernicus's immense contributions to mathematics, science and his enduring legacy, the Government of India issued postal stamps in his commemoration on July 21 1973[[11]](#footnote-11). The stamp design for the commemoration of Nicolaus Copernicus is presented in a horizontal format, featuring an exquisite portrait of the esteemed scientist. Adjacent to the portrait, an intricate representation of the Heliocentric Universe is displayed, symbolizing Copernicus's revolutionary cosmological model. The stamp, serving as a postal-used stamp, boasts a captivating colour scheme combining shades of Blue and Maximum Red Brown. With dimensions measuring 3.91 x 2.90 cm in overall size and 3.56 x 2.54 cm in printing size, meticulous attention to detail is evident[[12]](#footnote-12). The perfect 13 x 13 arrangement of the perforation pattern adds visual appeal and structural stability[[13]](#footnote-13). With a restricted edition print run of 15,00,000 stamps[[14]](#footnote-14), the stamp is made on unwatermarked Adhesive Stamp paper in neatly organised sheets and exudes exclusivity. 36 stamps are strategically placed on each issue sheet to maximise dispersion. At the respected India Security Press, on Nasik Road[[15]](#footnote-15), which is recognised for its dedication to creative brilliance and proficiency in security printing, the stamp's design and printing were completed, the stamp was created.

 These postage stamps are evidence of his ground-breaking concepts and their universal importance. By honouring Copernicus with a stamp design, the Indian government raises public awareness of and appreciation for science while also recognising his contribution to the mathematical foundations that revolutionised our view of the cosmos[[16]](#footnote-16).

 By issuing these stamps, India is demonstrating its dedication to honouring the contributions of notable scientists and thinkers who have influenced how we perceive the world. The government's decision to recognise Copernicus honours his intellectual prowess while also encouraging future generations to engage in scientific research, critical thinking, and the pursuit of knowledge.

 The Government of India emphasises the value of scientific advancement, the search for the truth, and the lasting influence of visionary minds like Copernicus by the act of issuing stamps in his honour. These postage stamps support scientific legacy, awareness, and the appreciation of human achievements that continue to influence how we see the cosmos in which we live.

The Government of India continues a long-standing custom of issuing stamps[[17]](#footnote-17) as an emblem of commemoration, acclaim, and recognition. These stamps show a strong dedication to honouring notable people, significant occasions, outstanding accomplishments, and the rich cultural heritage of the country.

The decision to publish a stamp honouring Nicolaus Copernicus would have been made by the Department of Posts of the Indian government[[18]](#footnote-18), specifically the Philatelic Division[[19]](#footnote-19). This section carefully chooses topics and suggestions for stamps in consultation with specialists, historians, as well as intellectual authorities to ensure their value and relevance.

The Department of Posts[[20]](#footnote-20), working under the Ministry of Communications, took on the crucial role of stamp issuing with the historic achievement of independence in 1947. Since then, the Indian government has painstakingly preserved the age-old custom by offering an exquisite array of stamps with a wide range of subjects[[21]](#footnote-21). These enthralling themes pay homage to legendary historical figures, forward-thinking political figures, revered cultural icons, ground-breaking scientific discoveries, resplendent festivals that capture the spirit of the country, the fascinating biodiversity thriving within its borders, and the exquisite tapestry of artistic expressions that adorn its cultural landscape. India proudly presents its illustrious past, unflinching quest of excellence, and unyielding spirit via this exquisite collection of stamps[[22]](#footnote-22).

**Conclusion:**

The longstanding tradition of issuing commemorative postal stamps in honour of Nicolaus Copernicus, the esteemed mathematician, astronomer, and philosopher, traces its origins back to the 1920s. It was in his native land Poland where the first stamp bearing his image was introduced in 1923, signifying the beginning of a remarkable legacy. However, during the tumultuous period of World War II, the Germans strategically released a series of stamps featuring Copernicus in 1943, employing them as a tool for Nazi propaganda to assert their claim over his heritage. In 1954, the Chinese Postal Administration unveiled a masterful philatelic tribute to Nicolaus Copernicus, marking the 410th anniversary of his passing. This commemorative stamp symbolizes the profound impact of Copernicus' intellectual achievements and his enduring global influence. The USSR Postal Service also paid homage to Copernicus in 1955, commemorating the tenth anniversary of the influential friendship and cooperation pact between the USSR and Poland. Notably, the French Republic's postal service contributed significantly to promoting an appreciation of Copernicus' historical significance through the release of a captivating series of seven stamps in 1957. Following this rich tradition, the Indian Government's philatelic division unveiled postal stamps on July 1, 1973, in commemoration of Nicolaus Copernicus's 510th birth anniversary. India, as a country known for honoring esteemed intellectuals, recognizes and felicitates individuals who have made notable contributions to society. The commemoration of Nicolaus Copernicus through these postal stamps underscores his enduring legacy and the enduring appreciation of his remarkable achievements.

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1. E Rosen, Biography in Dictionary of Scientific Biography (New York 1970-1990). [↑](#footnote-ref-1)
2. The astrologer Garceus put the birth of Copernicus at 4 :30 P .M. of February 10, 1473; according to him, this particular planetary moment bestowed "ingeniosity." Kesten, H. (1945). Copernicus and His World. London: Martin Secker & Warburg Ltd. [↑](#footnote-ref-2)
3. A Armitage, Copernicus: The Founder of Modern Astronomy (1962). P. 75 [↑](#footnote-ref-3)
4. He was a calm man without great power, eminent distinction, or material wealth; he was the epitome of serenity and piety. He carefully practised the skill of observation, complex computations, and deep reflection as an astronomer and humanist. Surprisingly, the effect Nicolaus Copernicus, a little luminary from Torun, possessed outstripped that of illustrious individuals like Genghis Khan or Napoleon, and even surpassed the astounding deeds of kings and popes. He made extraordinary contributions that dramatically changed the trajectory of human history. [↑](#footnote-ref-4)
5. Biography in Encyclopaedia Britannica.

http://www.britannica.com/biography/Nicolaus-Copernicus [↑](#footnote-ref-5)
6. The heliocentric theory, according to Copernicus, asserted that the Sun, not the Earth, was in the solar system's centre of gravity. The Sun was established as the central object around which planets orbited thanks to this ground-breaking hypothesis, which upended the dominant geocentric paradigm and revolutionised our knowledge of celestial motion. [↑](#footnote-ref-6)
7. Kesten, H. (1945). Copernicus and His World. London: Martin Secker & Warburg Ltd. P.8 [↑](#footnote-ref-7)
8. J Rudnicki, Nicholas Copernicus (Mikolaj Kopernik) 1473-1543 (London, 1943). [↑](#footnote-ref-8)
9. In especially in scientific and academic circles, Latin was the prevalent language of scientists and intellectuals at that time. Copernicus wrote in Latin so that his thoughts might reach and be understood by the educated population of his time. [↑](#footnote-ref-9)
10. Rosen, E. (n.d.). Copernicus, Nicolaus. In Encyclopedia Americana (International Edition) (Vol. 7, pp. 755–756). Danbury, CT: Grolier Incorporated. [↑](#footnote-ref-10)
11. https://www.indiapost.gov.in/VAS/Pages/News/Indian\_Postage\_Stamp\_Catalogue\_1947-2011.pdf [↑](#footnote-ref-11)
12. http://www.indianpost.com/viewstamp.php/Alpha/N/NICOLOUS%20COPERNICUS [↑](#footnote-ref-12)
13. Ibid. [↑](#footnote-ref-13)
14. Ibid. [↑](#footnote-ref-14)
15. Ibid. [↑](#footnote-ref-15)
16. Swerdlow, N. M., & Neugebauer, O. (1984). Mathematical astronomy in Copernicus's 'De revolutionibus.' Part 1, 2. Studies in the History of Mathematics and Physical Sciences, 10. New York-Berlin. [↑](#footnote-ref-16)
17. The Government of India continues a long-standing custom of issuing stamps as an emblem of commemoration, acclaim, and recognition. These stamps show a strong dedication to honoringThe history of postage stamps in India may be traced to the middle of the 19th century, specifically to 1852, when the first stamps, dubbed the "Scinde Dawk," were printed in Sindh, a region that is currently inside Pakistan's boundaries. The postal service later prospered under British colonial authority, and the country's philatelic landscape was ornamented with an abundance of definitive and commemorative stamps. [↑](#footnote-ref-17)
18. In the year 1296, amid Allauddin Khilji's (1296-1319 C.E)prominence, a horse-and-foot postal system was established. [↑](#footnote-ref-18)
19. The Indian Postal System's Philatelic Division is in charge of choosing, creating, and releasing postage stamps that highlight the country's rich cultural legacy. They make sure the stamps represent the history of the country by working with specialists and cultural authorities. To promote and preserve philately in India, the division puts on exhibits, publishes commemorative covers, and provides stamp collecting services. [↑](#footnote-ref-19)
20. Lord Dalhousie (James Andrew Broun-Ramsay) oversaw the creation of the Indian Postal System. (1848–1856), who served as Governor General of India from 1848 to 1856, afterwards adopted the name Lord Dalhousie, which was derived from the Scottish estate of his family. The foundations of this postal network were established due to his inspiring leadership. As a crucial turning point in the development of the Indian Postal System, the use of postal stamps was first introduced in the year 1854. [↑](#footnote-ref-20)
21. Bose, A. C. (1936). The Post Office in British India: Its History and Organization. Calcutta: Calcutta University Press. P 263 [↑](#footnote-ref-21)
22. Sarkar, J. (1960). History of Indian Postal Services. New Delhi: National Book Trust. P 12 [↑](#footnote-ref-22)