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NICOLAUS COPERNICUS AS A GENIUS IN FAITH AND REASON

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Abstract

Nicolaus Copernicus (1473–1543) was born in Toruń Polish Prussia on 19 February 1473. His father Nicolaus was a merchant and municipal official of Toruń. His mother Barbara was a sister of Lucas Watzenrode who became the bishop of Ermland (Warmia) in 1489. Copernicus was baptized at the Church of Saints John the Baptist and John the Apostle in 1473.

Copernicus studied mathematics and astronomy in Cracow (1491–1495) and Bologna (1496–1500), visited Rome during the Jubilee Year (1500–1501), studied medicine in Padua (1501–1503) and received his doctoral degree in canon law at the University of Ferrara (1503). After his studies he returned to Frauenberg, (Frombork) where he was installed as a canon (1501).

As a genius in faith and reason Copernicus published his heliocentric system in *De revolutionibus orbium coelestium* (Nürnberg 1543) with his Dedication Letter to Pope Paul III (pontificate 1534–1549) which was prepared in June 1542. He died in Frombork, near Gdansk on 24 May 1543.

In the Cathedral of Strasbourg, France, there is the Astronomical Clock with Stimmer's copy of a self-portrait of Copernicus standing with a sprig of lily-of-the-valley in his hand, indicating that he was also a physician.

Keywords: Copernicus, astronomy, heliocentric system, reason, faith

*MIKOŁAJ KOPERNIK JAKO GENIUSZ WIARY I ROZUMU***Streszczenie**

Mikołaj Kopernik (1473–1543) urodził się w Toruniu, w Prusach Polskich, 19 lutego 1473 roku. Jego ojciec Mikołaj był kupcem i urzędnikiem miejskim w Toruniu. Jego matka Barbara była siostrą Łukasza Watzenrode, który został biskupem Warmii w 1489 roku. Kopernik został ochrzczony w kościele św. Jana Chrzciciela i św. Jana Apostoła w 1473 roku.

Studiował matematykę i astronomię w Krakowie (1491–1495) i Bolonii (1496–1500), odwiedził Rzym w Roku Jubileuszowym (1500–1501), studiował medycynę w Padwie (1501–1503) i uzyskał tytuł doktora prawa kanonicznego na Uniwersytecie w Ferrarze (1503). Po ukończeniu studiów powrócił do Fromborka, gdzie został kanonikiem (1501).

Jako geniusz wiary i rozumu Kopernik opublikował swój system heliocentryczny w *De revolutionibus orbium coelestium* (Norymberga, 1543) wraz z *Listem Dedykacyjnym* do papieża Pawła III (pontyfikat 1534–1549), który został przygotowany w czerwcu 1542. Zmarł we Fromborku, niedaleko Gdańska, 24 maja 1543 roku.

W katedrze w Strasburgu we Francji znajduje się Zegar Astronomiczny z kopią portretu wykonanego przez Stimmera przedstawiającego Kopernika stojącego z gałązką konwalii w dłoni, co wskazuje, że był również lekarzem.

Słowa kluczowe: Kopernik, astronomia, system heliocentryczny, rozum, wiara

Nicolaus Copernicus (1473–1543) was born in Toruń, Polish Prussia on February 19, 1473. His parents were Nicolaus (Nicolaus the Elder) and Barbara, a sister of bishop Lucas Watzenrode. His father was a merchant and municipal official of Toruń. Copernicus was baptized in the Catholic Church of St. John the Baptist and St. John the Apostle in Toruń in 1473. His parents died before he was 12 and he was entrusted to his uncle, Lucas Watzenrode, who became a bishop of Ermland (Warmia) in 1489. His early education was received at St. John's School in Toruń and at home he was probably taught Latin and Greek¹.

Copernicus studied in Cracow (1491–1495), Bologna (1496–1500), Padua (1501–1503) and Ferrara (1503). In the University of Cracow he studied especially

¹ Cf. K. Mikulski, *Mikołaj Kopernik. Środowisko społeczne, pochodzenie i młodość*, Toruń 2015, p. 321–331. See also: Z. H. Nowak, *Mikołaj Kopernik jako uczeń szkoły św. Jana w Toruniu i studium partykularnego w Chełmnie*, „Rocznik Muzeum w Toruniu”, vol. 10, 2001, p. 19–23.

mathematics and astronomy. The books and teachings of Professor Wojciech z Brudzewa (Adalbertus of Brudzew) were influential for Copernicus at the Jagiellonian University. At the University of Bologna, Italy, Nicolaus Copernicus studied astronomy and he was a student of Professor Domenico Maria Novara (1454–1504) with whom he realized the astronomical observations (1497, 1500 in Bologna and Rome). In 1500 Nicolaus and Andrew, his brother, visited Rome, Italy in the Jubilee Year of Christ's Birth. During his pilgrimage in Rome Copernicus probably lectured mathematics and astronomy. Later he studied medicine and canon law at the University of Padua, Italy. Nicolaus Copernicus received his Doctorate in Canon Law at the University of Ferrara, Italy in 1503².

Formally installed as a canon in Frombork (Frauenberg) in 1501 Copernicus returned from Italy to Wrocław, Malbork (January 1–4, 1504), Lidzbark Warmiński and Frombork. He was a doctor and personal secretary to his uncle, Bishop Watzenrode and a physician to the poor. In the Cathedral of Strasbourg, France there is the Astronomical Clock with Stimmer's copy of a self-portrait of Nicolaus Copernicus standing with a sprig of lily-of-the-valley in his hand, indicating that he was also a doctor. In 1520 Copernicus became commander in Chief of the defence of Warmia against the Teutonic Knights (Krzyżacy), particularly the city of Olsztyn. As an economist Nicolaus Copernicus wrote a treatise on coinage in which he formulated a theory that antedates by 40 years Gresham's law. But above all he is a great astronomer³.

1. THE DEDICATION LETTER TO POPE PAUL III

In June 1542 Nicolaus Copernicus prepared his Dedication Letter to pope Paul III (pontificate 1534–1549). Hence he dedicated his opus vitae *De revolutionibus* to the Holy Father Paul III, and this fact is generally unknown.

De revolutionibus – it was an original title given by Copernicus – was printed in Nurnberg in 1543 as *De revolutionibus orbium coelestium*, and the *Dedication Letter* to pope Paul III was printed as a Preface. In his *Dedication Letter* Nicolaus Copernicus wrote to Paul III: „In order that both the learned and the unlearned equally may see that I do not avoid anyone's judgment, I have preferred to dedicate these discoveries of mine to Your Holiness rather than to any other, because, even in this remote corner of the world where I live [Frombork, PL], you are considered to be the most eminent person in dignity of office and in love of all learning, even

² Copernicus' studies in Kraków and Italy were discussed in detail by Prof. Marian Chachaj. Cf. M. Chachaj, *Nicolaus Copernicus. Student times. Cracow, Bologna, Rome, Padua and Ferrara (1491–1503). Places – people – books*, Toruń 2023.

³ The period of Copernicus' life in Warmia was presented by J. Sikorski, *Mikołaj Kopernik na Warmii. Chronologia życia i działalności*, Olsztyn 2023.

of mathematics, so that by your authority and judgment you can easily suppress the bites of slanderers”. Copernicus continues to the Most Holy Father that he can easily conceive that as soon as some people learn that in this book which he has written concerning the revolutions of the heavenly bodies, he ascribes certain motions to the Earth, they will cry out at once that he and his heliocentric system should be rejected. According to Copernicus the endeavor of a philosopher is to seek out the truth in all realities, so far as this is permitted by God to the human reason, and he still believes that one must avoid theories altogether foreign to reality.

Accordingly, when he considered in his own mind how absurd a performance it must seem to those who know that the judgment of many centuries has approved the view that the Earth moves, he was ready – as the ancient philosophers – to transmit the secrets of Astronomy not in writing but orally. However his friends withheld him from this decision, Copernicus explained to Paul III: „First among these was Nicolaus Schonberg, Cardinal of Capua, distinguished in all branches of learning. Next to him comes my very dear friend, Tideman Giese, Bishop of Culm [Chełmno], a most earnest student, as he is, of sacred and, indeed, of all good learning. The latter has often urged me, at times even spurring me on with reproaches, to publish and at last bring to the light the book which had lain in my study not nine years merely, but already going on four times nine”⁴. Cardinal Nicolaus Schönberg was a member of Roman Curia and he wrote a suggestion in 1536 to Copernicus to publish his discovery of heliocentric system. Thus we see that Nicolaus Copernicus was a sure (certain) that the Earth moves around the Sun about a year of 1500.

2. DE REVOLUTIONIBUS

About 1505–1510 Nicolaus Copernicus wrote his manuscript *Commentariolus* which was an introduction to his heliocentric cosmology. George Joachim von Lauchen, universally known as Rheticus (1514–1574) studied in Wittenberg, Germany, a centre of Reformation. He was a Lutheran scholar, especially in mathematics at the University of Wittenberg (1536–1538). Johann Schöner (1477–1547) invited Rheticus in 1538 to Nuremberg and told him about great astronomer Nicolaus Copernicus. Rheticus decided to see Copernicus *personally*, and in 1539 he visited him in Frombork, near Gdańsk. Rheticus as a disciple of Copernicus stayed in Poland 28 months, so more than two years. Nicolaus Copernicus release a copy of his famous manuscript *De revolutionibus* to him, and permitted to prepare

⁴ N. Copernicus, *Dedication of the Revolutions of the Heavenly Bodies to Pope Paul III*, in: *The Harvard Classics*, Vol. 39, *Famous Prefaces and Prologues to Famous Books*, New York 1910.

a summary of the text. Rheticus prepared *Narratio prima* in the form of a letter to Johann Schöner who immediately published *Narratio prima* in Gdańsk in 1540 as a pathfinder to solar system⁵.

Copernicus, mathematical and astronomical genius, also decided to give his copy of *De revolutionibus* to Rheticus in order to be printed in Nuremberg. In 1542 Rheticus was appointed profesor in the University of Leipzig and he left the supervision of the printing of *De revolutionibus* to Andreas Osiander, a Lutheran theologian and pastor, who replaced the introductory text of Copernicus by an anonymous *Praefatiuncula* in which he presented the heliocentric system as a hypothesis. Thus the first edition of Copernicus' great work *De revolutionibus orbium coelestium* was printed at Nuremberg in 1543 with this false, anonymous introduction. The second edition also carried Osiander's preface (Basle 1566). John Kepler (1571–1630) rejected this non original preface, and the original Introduction written by Copernicus in *De revolutionibus* was discovered⁶.

3. PAUL VI'S LETTER TO CARD. STEFAN WYSZYŃSKI

On January 23, 1973 pope Paul VI wrote a Letter to Card. Stefan Wyszyński on the occasion of Five Centennial Jubilee of Copernicus' birth⁷. Misteriously we can consider this Letter as the answer of the Holy Father after many centuries [Paul III (1542/43 – Paul VI (1973)] to Nicolaus Copernicus' Letter.

In his *Dedication Letter* Copernicus writes that if perchance there shall be idle talkers, who though they are ignorant of all mathematical sciences, nevertheless assume the right to pass judgement on these discoveries, and if they should dare to criticise and attack his heliocentric system, „because of some passage of Scripture which they have falsely distorted for their own purpose”, he doesn't care at all. Martin Luther, Philip Melanchton and John Calvin rejected Copernicus' heliocentric system, and in 1616 his heliocentric system was forbidden by Inquisition (Index of forbidden books) to 1758 (Benedict XIV).

In his Letter Pul VI intristingly started from the passage of Scripture „Caeli enarrant gloriam Dei, et opera manuum eius annuntiat firmamentum” (The haevens

⁵ J. J. Retyk, *Narratio prima. Relacja pierwsza z ksiąg O obrotach Mikołaja Kopernika*, transl. I. Grabowski, introd. and coment. J. Włodarczyk, Warszawa 2015.

⁶ Owen Gingerich wrote interestingly about the subsequent editions of Copernicus' *De revolutionibus* in his two books: *An Annotated Census of Copernicus' De revolutionibus (Nurnberg, 1543 and Basel, 1566)*, Brill, Lejda 2002., *The Book Nobody Read. Chasing the Revolutions of Nicolaus Copernicus*, London 2004.

⁷ Paulus PP. VI, *Epistula ad Stephanum S.R.E. Cardinalem Wyszyński, Gnesnensem et Varsaviensem Archiepiscopum, quinquies centenaria redeunte memoria ab ortu Nicolai Copernici „Caeli enarrant”*, https://www.vatican.va/content/paul-vi/la/letters/1973/documents/hf_p-vi_let_19730123_card-wyszynski.html (1. 07.2024).

declare the glory of God, and the firmament declares the work of his hands, Ps. 18:2).

Paul VI calls Nicolaus Copernicus „a son of the Catholic Church” (*Ecclesiae catholicae filius*), an expert in the doctrine of law, astronomy, medicine and geography, who discovered the heliocentric system in the universe. According to Paul VI Copernicus united faith and reason in a fruitful and wonderful connection praising God: „It is necessary to declare openly and clearly that there is no objective and irreconcilable contradiction between the truth which is received by faith and the truth which is known by reason”. Methodical inquiry in all disciplines, if it proceeds in a truly scientific manner and according to moral norms, will never really be contrary to faith, because natural realities and supernatural mysteries originate from the same God (cf. *Gaudium et spes*, 36).

CONCLUSION

By his great discovery of the heliocentric system Nicolaus Copernicus laid the foundations of modern astronomy. He understood the motions of the stars with the keenness of his genius. In the person of Copernicus we can see the splendor of apostolic faith and the splendor of human reason. He admired the Architect of the universe affirming in his *Dedication Letter* to Paul III that „mathematics are written for mathematicians”, and as a son of the Catholic Church he was really united with the Holy Father, successor of St. Peter. Pope Paul III initiated the Council of Trent (1545–1563) and he prepared his Bull *Sublimis Deus* (1537) about the evangelisation of native Americans with a respect to their human dignity, to their freedom and to their property.

As a genius in faith and reason Nicolaus Copernicus never harmed the Church and science, but really glorified God the Creator and His creation.

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