

BIOGRAPHY



NICOLAUS COPERNICUS



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THE MAN WHO STOPPED THE SUN

CHARACTER: NICOLAUS COPERNICUS

DATES: Thorn, 1473/ Frauenburg, 1543

COUNTRY OF ORIGIN: POLAND

SUMMARY: Nicolaus Copernicus was born in 1473 and died in 1543. Using the scientific method of study and calculation he demonstrated that at the centre was not the Earth but the Sun around which all revolved. It was a revolution that allowed scientists after him to make important new discoveries.

KEY WORDS: EARTH, REVOLUTION, SCIENCE, TRUTH

GENRE: BIOGRAPHY

AGE: 7 - 8 YEARS

AUTHOR: Barbara Lachi

THE MAN WHO STOPPED THE SUN

When night fell and the sky filled with many bright dots, their light enchanted, amazed and perhaps frightened the people of the past. Those dots of light, energy, and matter, the same elements all living creatures are made of, were for a long time a mystery that mankind tried to explain. Sometimes the answers were wrong, and from those mistakes, they had developed rules, and sometimes, it was necessary for someone to come along and subvert those rules, to make a revolution that would change everything. Those bright dots are stars, and guess what, even the sun is a star!

For a long time, humans had decided that the Sun should rotate around the earth, which instead stood fixed and still in the middle. It seemed that no one could remove this idea from people's minds, so much so that it had taken deep roots and entwined itself like a weed, excluding all other ideas.

Sitting on the roof of his house, with the boundless sky above him, little Nicolaus tried to peer into its depths and secrets. He wondered if it was really the fault of the stars, or because of the planets that he and his three brothers were orphans. If indeed people's lives are written in the stars, Nicolaus wanted to find a way to read and understand them. Tears flooded his eyes, almost as if they were a flickering lens. Nicolaus watched the sky and felt that neither the stars nor the planets were to blame and that, the secrets they hid were of another nature. It was Uncle Lukas who took care of Nicolaus and his three brothers. Above all, he devoted himself to their education, making them study. Nicolaus moved to Krakow to attend University, then to Vienna and finally to Italy.

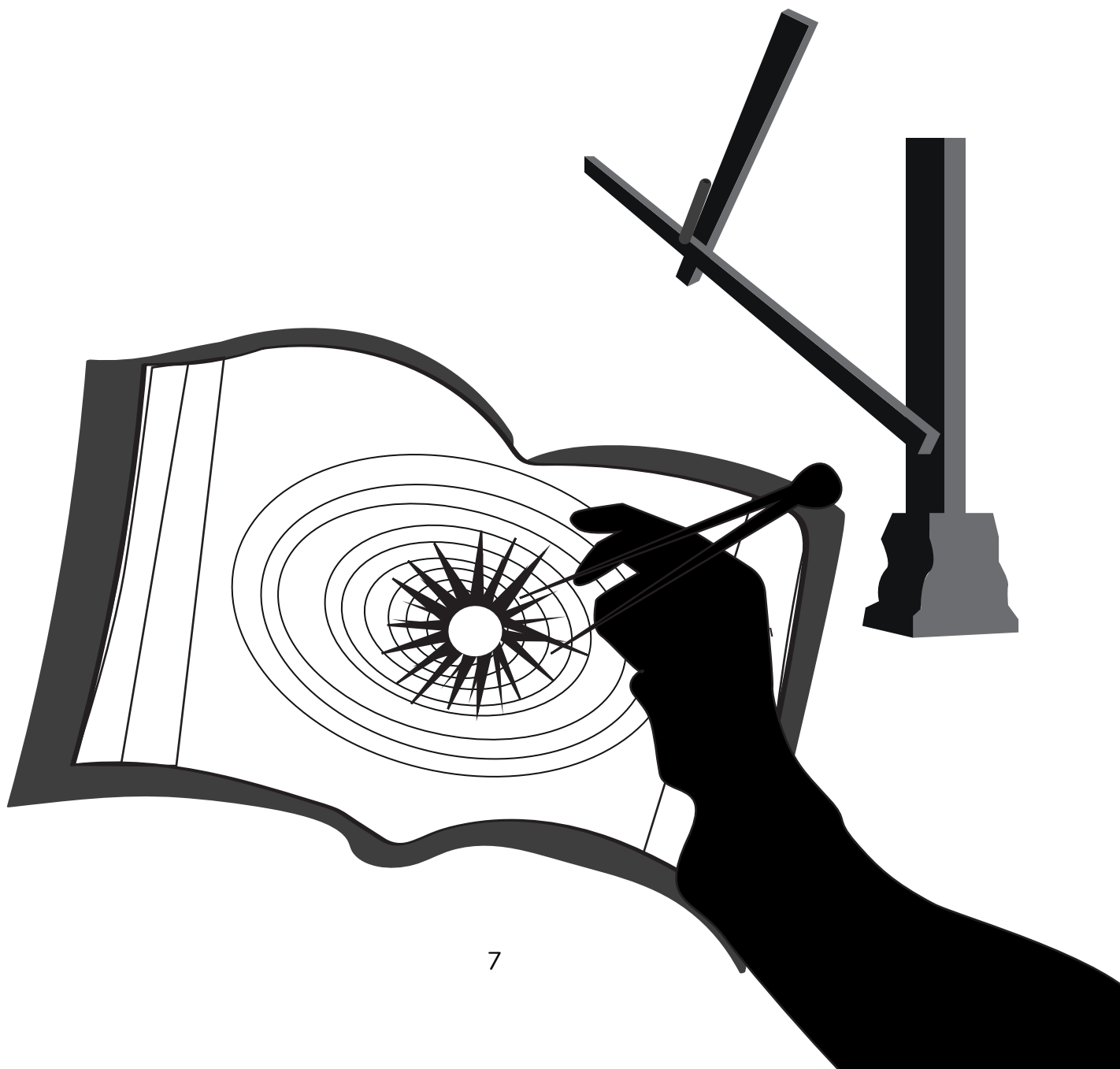


Philosophy, medicine, perspective and painting, mathematics and astronomy, Nicolaus was interested in everything, as if knowledge was never enough. One day news came from far away that a man named Christopher Columbus, who had set off from Spain to reach the Indies, had instead found himself on an unknown land, thus proving that the earth was round, if there was any doubt. Nicolaus wondered how many other things could still be discovered, how many other secrets and wonders could be unveiled. In the Italian cities where he was studying, there seemed to be a great fervour for curiosity and new approaches. Nicolaus felt enveloped and driven to seek new truths. All of nature seemed ready to reveal its secrets.

He met great artists and thinkers such as Michelangelo, Leonardo da Vinci and the famous astronomer Novara, who became his tutor. New ideas arose in his mind and the Sun and the Earth switched places: Nicolaus was increasingly convinced that the Sun was at the centre of space and not the Earth as everyone kept repeating. Having now graduated, Nicholas returned home to carry out his duties as administrator of the diocese of Frauemburg. He cured the sick people by preparing medicines, he brought water to the city with an ingenious machine, transporting it from the river up the hill. But his one constant thought, the one that made him leap out of bed every morning, was the position of the Sun and the position of the Earth. His mind wanted to find a solution that would be simpler and that would finally bring the Sun back to its rightful place.

Every day he scanned the sky and noted down his observations, not only on paper but also on the walls of an old building not too far from home. Like the pages of a giant book, it was filled with dense calculations, figures, orbits and drawings.

Nicolaus positioned the “optical sight”, the only instruments he had, to measure the height above the horizon of the stars or the distance they were from each other and then, using his eyes, he scrutinised and followed the paths of the planets.





He calculated everything, although Mercury continued to cause him doubts, as did the other planets, which seemed to turn back at one point.

Using a mirror, Nicolaus projected and marked the sun's path on the wall of his house, week after week to prove that what he had thought and imagined was true. "The Earth, rotating around a tilted axis, completes one complete revolution around the Sun in the course of a year. What a discovery! What a wonderful thing!" he thought to himself, feeling happy and at the same time frightened. With whom might he share these thoughts? Not everyone would understand, many would laugh at him and the Pope might even think he was a heretic: who was that fool who wanted to change the laws made by God? As the years passed, Nicolaus was now an old man when one of his manuscripts, written many years earlier, reached the hands of a young mathematician in Nuremberg:

Giorgio Gioacchino Retico.

"I have never read anything more beautiful and convincing!" said the young man who, in love with the idea, decided to reach out to Nicolaus Copernicus.

Gioacchino was made of numbers: he lived by numbers, numbers were music and nature to him, they were pure joy. Through numbers he measured and discovered the rules of the world. It seemed to Gioacchino that there was nothing that numbers could not solve and he offered Nicolaus what he knew best: calculating everything there was to calculate. Together they reviewed the trajectories of the planets, the inclination of the Earth's axis, and calculation upon calculation they finally found that the Sun, right in the centre, was in fact occupying the very place previously assigned to the Earth.



"It's a revolution!" exulted Gioacchino.

Probably because of his advanced age, Nicolaus restrained his enthusiasm. He felt happy but also frightened.

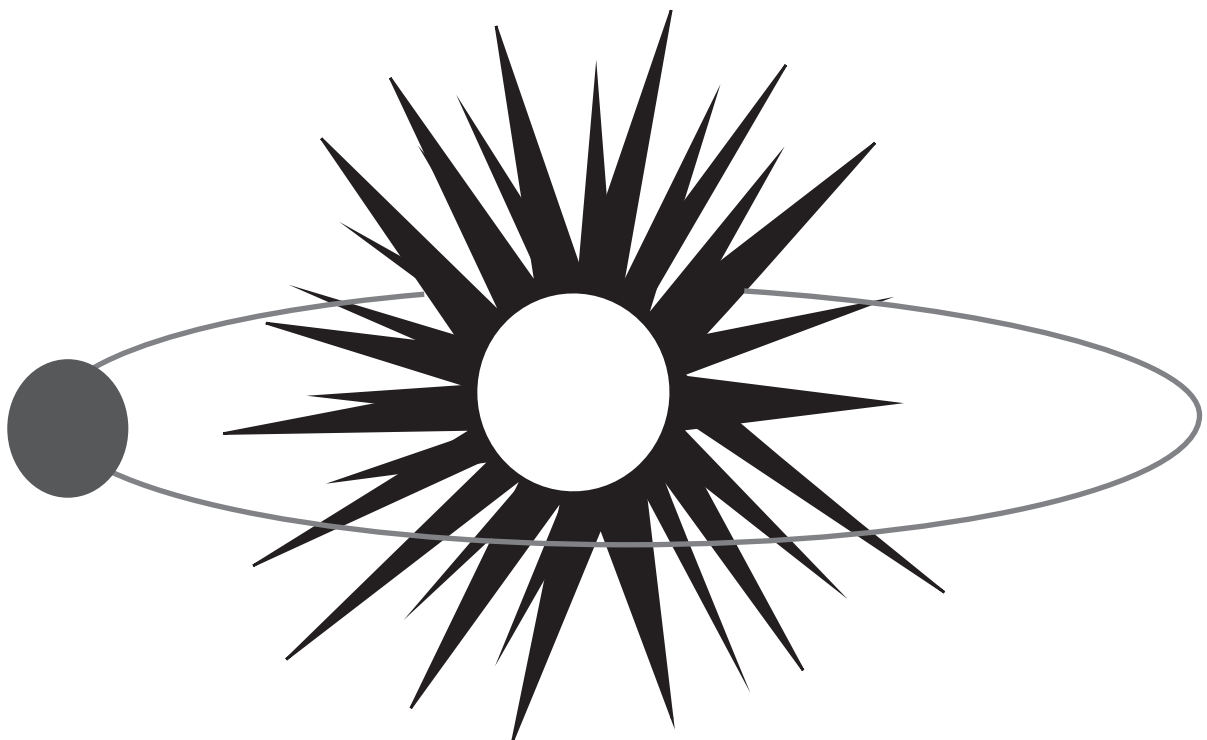
"According to the Church, it was God who put the Earth in the centre, and now I, a simple man, am placing the Sun on my shoulders and moving it!"

"Yes" rejoiced Gioacchino again, "Nicolaus you are like Atlas, you have taken the Earth on your shoulders and moved it! You are so big that all the other scientists will climb on top of your work so that they can continue to discover, study and look ahead! We must publish your book!"

Nicolaus was almost falling over in surprise and fright.

"Publish? But I had never thought of that. I did all of this for myself and for those few who might understand.

The Church then could even send me to death for it. Maybe we have miscalculated... I am sure many will object, and those who will never believe!"





But Gioacchino was young and not frightened at all. For the first time, the results were not due to a single experiment, but they were the fruit of the scientific method of study and calculation. Gioacchino was absolutely sure that their calculations were right and that the numbers could not lie. He was so insistent and persuasive that the book was taken to Nuremberg by the most important and famous printer, Giovanni Petreio. The title “ON THE REVOLUTIONS OF THE HEAVENLY SPHERES” was perfect.



Nicolaus with his now tired eyes continued to observe the sky, such as on that day long ago when he had climbed onto the roof, and he felt now that perhaps not everything, but many things had finally taken their rightful place.

He felt that his own intuition opened up a new path that others after him could follow and certainly use to correct his mistakes. The old Ptolemaic system used until then was beginning to show cracks that were getting wider and wider.

That sandcastle would soon collapse, showing the scientific truth. Nicolaus, by now an old man, felt very ill: he spent his days in bed dreaming of the starry sky, the planets, the Earth and the Sun, shining as bright as ever while all the others revolved around him.

When Gioacchino finally returned, bringing with him a printed copy of the book, Nicolaus barely had time to hold it in his hands before closing his eyes on the world. He felt that what they had done was not only a matter of numbers, but perhaps what really stopped the Sun and the other stars was love... a love of science and truth.





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