

The Catholic Church and science

The Catholic Church is often perceived as being anti-education, anti-reason, and particularly, anti-science. The history of the church, however, paints a different picture. Last week, I examined a few episodes from church history demonstrating the emphasis Catholics placed on human rights. This week, I will review some instances of when the church promoted education and science.

Reckoning in the Early Middle Ages

The Early Middle Ages are typically dubbed the “Dark Ages,” the period when the Roman Empire collapsed under the influx of German Barbarians. Nowhere in Western Civilization was spared from the chaos, except Ireland, and during this time, scholars have argued that the Irish monks saved Western Civilization. Thomas Cahill, in his best-seller *How the Irish Saved Civilization*, chronicles how the monks copied and preserved important religious texts and also secular classical works. When the Germans were Christianized and settled down, a renaissance of learning occurred under Charlemagne, largely due to the Irish monks who came to the continent with their manuscripts. Ninety percent of Roman works that we have today exist due to the work of the monks from the period of Charlemagne. In short, we would not know about the classical world and all they did without the work of the Irish and Carolingian monks.

These monks achieved an incredible accomplishment by saving history, but the argument focuses only on how medieval monks preserved civilization. A far less known element is that these same monks were also active in scientific inquiry. In the Early Middle Ages, the reckoning of time was the most important area of scientific research, and over 9,000 Latin manuscripts dealing with the calculation of time survive from this period. Wesley M. Stevens, a historian, noted these documents are the “best and thus far least known evidence for studies in early medieval schools.” This substantial effort in the discipline of reckoning demonstrates that the medieval period was an era of active learning.

Our calendar is a product of the Catholic Church. The dating of years, the seven day week, the synthesis of the Jewish lunar calendar with the Roman solar calendar are

all early medieval accomplishments. The calendar currently in use, the Gregorian, named after Pope Gregory XIII, built on the medieval tradition, and corrected the calendar by aligning calendar dates with astronomical events and adjusting the use of the leap year to make it accurate over the long term.

Additionally, the medieval period was the time when universities were founded. The first European schools of higher education were attached to monasteries and cathedrals. Some of these developed into universities, and others arose independently. It is another accomplishment of the so called “Dark Ages” and one in which the church played a large role.

Niels Stenson

Have you ever wondered who first theorized about fossils? Originally, people argued that fossils grew spontaneously in rocks, but the person who put the pieces together was Niels Stenson, arguing that fossils came from living organisms. Furthermore, he established a whole theory on how strata developed over time. He was not the first to speculate on some of these theories, but he systematically came up with laws to explain them. In doing so, he challenged the authoritative texts, which relied on Aristotle, and for his work, he is considered the father of geology and paleontology.

His work was groundbreaking and led to numerous scientific advancements, but what does it have to do with Catholicism? Well first, he was a priest, and then later, he was elevated to a bishop. Moreover, he led a saintly life, and he was beautified in 1988, which is the last step before becoming a saint. Every more interesting is that Stenson was a convert. He grew up in a religious Lutheran family, and he converted to Catholicism in the midst of his scientific discoveries. He was a great biologist in his early career before converting, and discovered a duct, colloquially called Stensen’s duct.

According to recent biographer, “For Stensen, there was no conflict between science and belief. For him they were but two sides of the same object.” I was particularly struck by one of Stensen’s quotes: “Beautiful are the things we see. More beautiful what we comprehend. Much the most beautiful what we do not comprehend.” His words demonstrate that his search for knowledge was a significant part of his worldview. Most people are satisfied with the beauty that they see, but Stensen was

driven to comprehend the natural world beyond just seeing it. Yet, he thought the most beautiful was contemplation of the divine (what we do not comprehend). This beautiful saying explains how scientific discoveries coincide with religious growth in three short lines.

Stensen is not the only Catholic priest-scientist. The range of the following list is impressive, though it is not exhaustive. Ockham, a Franciscan, and Albert the Great, a Dominican, (patron saint of scientists) were key medieval figures, who laid the groundwork for scientific inquiry. Roger Bacon, not to be confused with Francis Bacon, was a Franciscan and hugely famous for advocating for the scientific method. Copernicus was a canon. Historians are uncertain if he was ever ordained, but he dedicated his seminal work on the solar system to the

Pope! Friar Gregor Mendel, an Augustinian, is the father of modern genetics. A twentieth-century priest, Father Georges Lemaître, was the first to formulate the Big Bang theory.

Slightly less known are Father Roger Joseph Boscovich, discovered that the moon has no atmosphere; Father Francesco Maria Grimaldi, worked on diffraction and mapping the surface of the moon; Father Pierre Gassendi, named the northern lights; Father Francesco Lana de Terzi, studied flight; Father Jean Picard, accurately measured the earth; and Father Giovanni Battista Riccioli, a Jesuit astronomer.

Conclusion

Today, the Catholic Church runs 93,315 primary schools and 42,234 secondary schools, and 1,358 colleges. These numbers are amazing for an institution that is considered anti-education and anti-science. Church history demonstrates that Catholics played a large role in science and education from the monks who saved Western Civilization to their work on reckoning to the founding of universities to priest-scientists like Stensen. Non-Christian civilizations made many practical advancements, in particular Asian civilizations, but it is no coincidence that the Scientific Revolution arose from a culture rooted in Catholicism.

I will be speaking on the history of the Catholic Church on Oct. 21 at 7 p.m. at The Grill at the Harryman House. For more information see the Facebook event.