Andreas Vesalius (1514–1564) [1]

By: Erjavic, Nicole

Andreas Vesalius, also called Andries van Wesel, studied anatomy during the sixteenth century in Europe. Throughout his career, Vesalius dissected numerous human cadavers, and took detailed notes and drawings of the human anatomy. Compiling his research, Vesalius published an anatomy work titled *De humani corporis fabrica libri septem* ("On the fabric of the human body in seven books"). The *Fabrica* included illustrations of male and female anatomy. It also included diagrams of uteruses with intact fetuses. Vesalius was one of the first physicians to accurately record and illustrate human anatomy based on his findings from autopsies and dissections, which led to improved understanding of the human body and enhanced surgery techniques.

On 31 December 1514, Vesalius was born to Isabella Crabbe and Anders van Wesel in Brussels, Duchy of Brabant, later known as Brussels, Belgium. Vesalius's father served as an apothecary to Maximilian I, the Holy Roman Emperor, and later served Maximilian I's successor, Charles V, as a valet de chambre. Vesalius studied medicinal texts in his family's library and, according to professor of anatomy John Saunders, was encouraged to pursue medicine by his mother. At the age of fourteen, Vesalius enrolled at the University of Louvain in Louvain, Brabant, later known as Leuven, Belgium, for his primary education. In 1531, he transferred to Collegium Trilingue at Louvain, where he was trained in Latin, Greek, and Hebrew. In 1533, Vesalius entered the medical department at the University of Paris [2], in Paris, France, which later was incorporated into Paris Descartes University.

While in Paris, Vesalius studied Galenic medicine, the widely accepted techniques of the time. Galen [3] of Pergamon was a second-century Greek physician who wrote many texts on the observations he had made in his dissections of animals, primarily primates, dogs, and pigs. For over 1300 years physicians employed Galen [3]'s texts, which contained inaccuracies, for treatment. For example, many medieval physicians utilized bloodletting to treat numerous conditions, a practice that was based on Galen [3]'s incorrect depiction of the cardiovascular system. In the sixteenth century medical students, including those at the University of Paris [2], studied Galenic texts and Galenic medicine. According to Saunders, the University of Paris [2] was a conservative school that did not emphasize learning anatomy through dissection. Consequently, Vesalius likely observed only three to four human dissections during his time there. Vesalius later criticized how infrequently the university taught students anatomy through human dissection, how dissections lasted less than three days, and how the dissections did not allow for thorough investigation of intestines and muscles.

Nevertheless, Vesalius assisted with dissections at the University of Paris [2]. In 1535 during the second human anatomy demonstration he observed, his teacher request that he and his peers assist in the dissection. The following year he conducted his third human anatomical dissection nearly single-handedly. In addition to learning anatomy through the university, Vesalius also frequented a cemetery where the bones of the dead had been removed from the corpses. According to Saunders, Vesalius studied the bones until he was able to identify them blindfolded by touch.

In 1536, war broke out between France and Spain, and Vesalius left Paris before he could graduate. He returned to the University of Louvain, and in 1537 transferred to the University of Padua [4] in Padua, Republic of Venice, later known as Padua, Italy. At Padua, Vesalius performed several human anatomical dissections and analyzed at least two skeletons over the course of one year. On 5 December 1537, Vesalius graduated with a medical degree *cum ultima diminution*, Latin for with highest distinction. The next day, the senate of Venice in Venice, Republic of Venice, later known as Venice, Italy, nominated Vesalius professor of surgery at the University of Padua [4]. Vesalius accepted the position.

Within the first year of his professorship, Vesalius undertook his own personal dissections and employed his students as assistants. By the end of 1538, he had assembled a collection of anatomical information on which to base his drawings of the internal human anatomy. Vesalius made detailed, composite illustrations of human anatomical structures, including the skeletal system, blood circulation system, organ systems, muscular systems, nervous system, and reproductive system.

During his time in Padua, Vesalius traveled to Venice, where he met Jan Stephan van Calcar, an apprentice of Renascence painter Titian. Calcar transferred at least some of Vesalius's drawings into woodblock prints. When creating a wood block, artists carve the surface of a wooden block to remove the undesired spaces, leaving only the parts to be printed level with the surface. Vesalius sent the woodblocks of his anatomical drawings to printer Johannes Oporinus in Basel, Switzerland, to mass reproduce the images.

The following year, Vesalius used his woodblocks to illustrate his book *De humani corporis fabrica libri septem* ("On the fabric of
Andreas Vesalius, also called Andries van Wesel, studied anatomy during the sixteenth century in Europe. Throughout his career, Vesalius thoroughly dissected numerous human cadavers, and took detailed notes and drawings of his research. Compiling his research, Vesalius published an anatomy work titled De humani corporis fabrica libri septem (On the fabric of the human body in seven books). The Fabrica included illustrations of dissected men, women, and uteruses with intact fetuses.

Sources

Vesalius was one of the first physicians to accurately record and draw what was inside of the human body based on his findings from human autopsies, which led to improved understanding of the human body and enhanced surgery techniques.

**Subject**

**Topic**
People [32]

**Publisher**
Arizona State University. School of Life Sciences. Center for Biology and Society. Embryo Project Encyclopedia.

**Rights**
Copyright Arizona Board of Regents Licensed as Creative Commons Attribution-NonCommercial-Share Alike 3.0 Unported (CC BY-NC-SA 3.0) http://creativecommons.org/licenses/by-nc-sa/3.0/

**Format**
Articles [33]

**Last Modified**
Wednesday, July 4, 2018 - 04:40

**DC Date Accessioned**
Wednesday, January 10, 2018 - 20:06

**DC Date Available**
Wednesday, January 10, 2018 - 20:06

**DC Date Created**
2018-01-10

- Contact Us

© 2019 Arizona Board of Regents

- The Embryo Project at Arizona State University, 1711 South Rural Road, Tempe Arizona 85287, United States

**Source URL:** https://embryo.asu.edu/pages/andreas-vesalius-1514-1564

**Links**
[9] https://archive.org/details/andreasvesaliusr00balluoft
[10] https://archive.org/details/galenonnaturalf00brocgoog