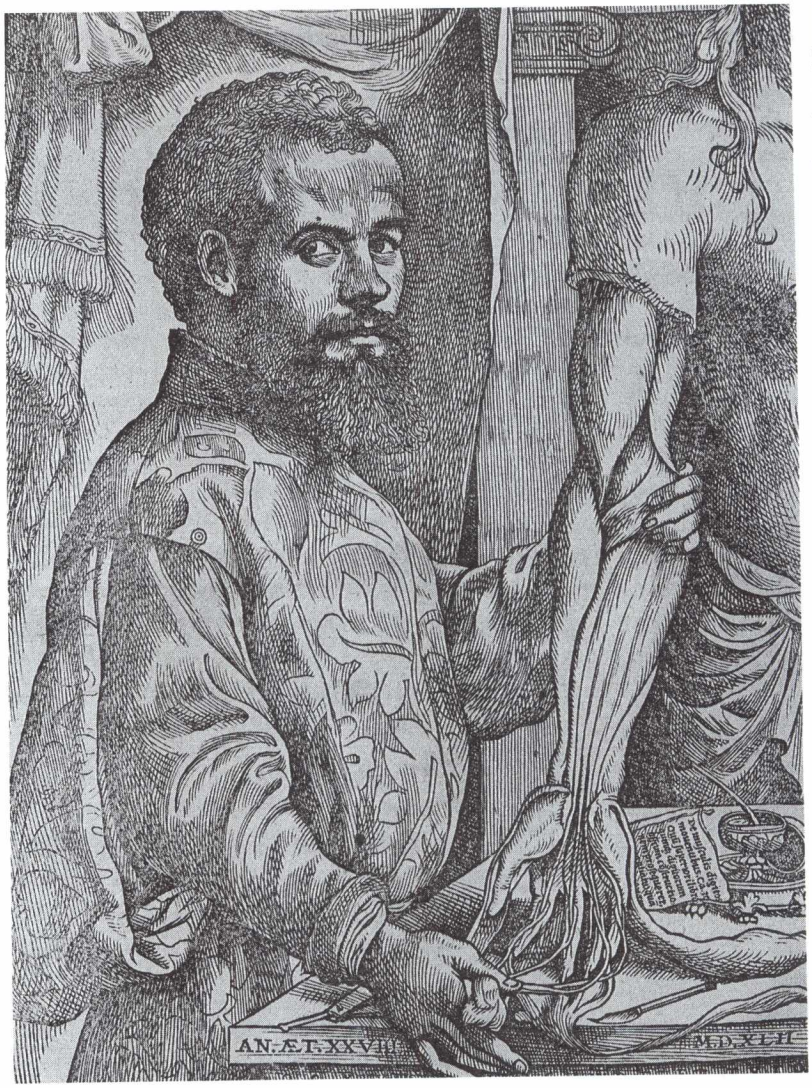
# Two bibliographical treasures in the National Library.

## Andreas Vesalius, the anatomist of the Renaissance

*Luis Roberto Torres Escalona**

*Genius survives;*
*everything else perishes.*
ANDREAS VESALIUS




Photos by Raúl Ortega

The Renaissance is one of the most luminous periods in the history of the arts and sciences. Yet above all, it was the moment when man was "reborn" and freed his spirit from the old religious dogmatism under whose sway he had lived for so long. Freedom of the spirit nourished freedom of thought. There was a definitive break between the sacred and the profane; now nothing could stop the birth of the scientific spirit. Everywhere there was a flourishing of workshops and guilds where the new science was practiced. History brought forward such figures as Nicolaus Copernicus, Galileo, Kepler, Leonardo da Vinci, Michelangelo, Giordano Bruno, Michael Servetus and Andreas Vesalius, among others.

One of this period's signal works is, without a doubt, Andreas Vesalius' *De humani corporis fabrica libri septem* (Seven Books on the Construction of the Human Body). The National Library's Reserve Fund holds two editions of this work: one printed in Basel in 1555 by Johannes Oporinus, and the other in Venice by F.

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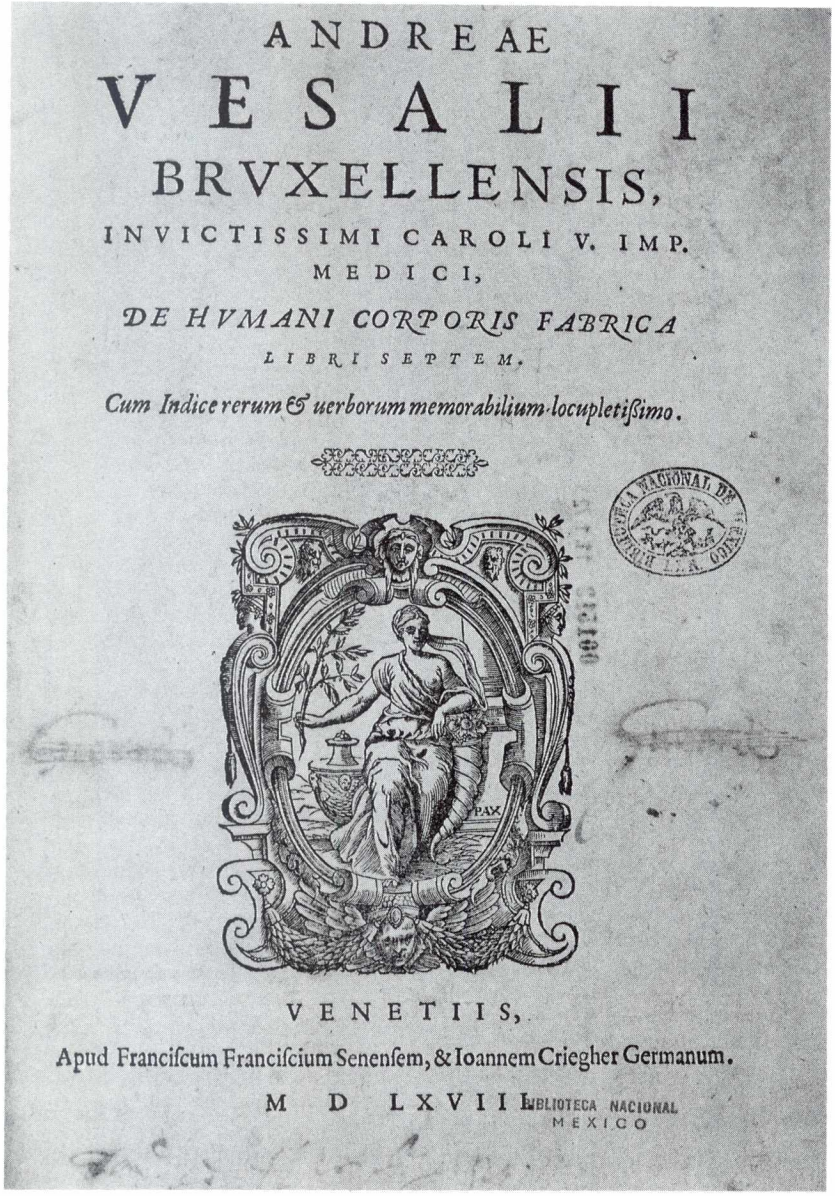
Senefem and Johannes Criegher in 1568.

Vesalius was the highest representative of modern anatomy. He gained this distinction by contravening the *noli me tangere* of the teachings of Claudius Galen, which had prevailed during the Middle Ages. Today it is still striking to learn that this mission was fulfilled by a man who was only 28 years old.

*De humani corporis fabrica* is a folio volume. It consists of seven books covering the analysis of the entire structure of the human body. Its didactic character is extraordinary, not only because of the engravings it contains but because of the many synoptic charts and marginal summaries which assist in the comprehension of the volume's contents.


ANDREAE
VESALII
BRVXELLENSIS,
INVICTISSIMI CAROLI V. IMP.
MEDICI,
DE HVMANI CORPORIS FABRICA
LIBRI SEPTEM,
Cum Indice rerum & uerborum memorabilium locupletiſsimo.
VENETIIS,
Apud Franciſcum Franciſcium Senenſem, & Ioannem Criegher Germanum.
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BIBLIOTECA NACIONAL MEXICO

The first book deals with bones and cartilage; the osteology (study of bones) printed in this section is excellent. The second has to do with muscles and ligaments, and the dissection instruments used at that time are featured at the end of this book. The following book covers the circulatory apparatus, with drawings that may rightly be characterized as perfect and served as the starting point for angiology (the branch of anatomy related to the organs of blood circulation).

The fourth and shortest book is devoted to the nerves. It is generally accepted that the description follows the lines set forth by Galen and the Italian anatomist Mondino da Luzzi. The fifth covers the abdominal and genital organs. The sixth book examines the organs of the thorax; its most interesting feature is the cryptography hidden among the shading in the various drawings. The seventh and final book analyzes the brain and the sense organs. At the end of this volume Vesalius describes his experiences with vivisection (surgical operations carried out on animals in order to study physiological phenomena); this section may be considered the first treatise on experimental physiology.

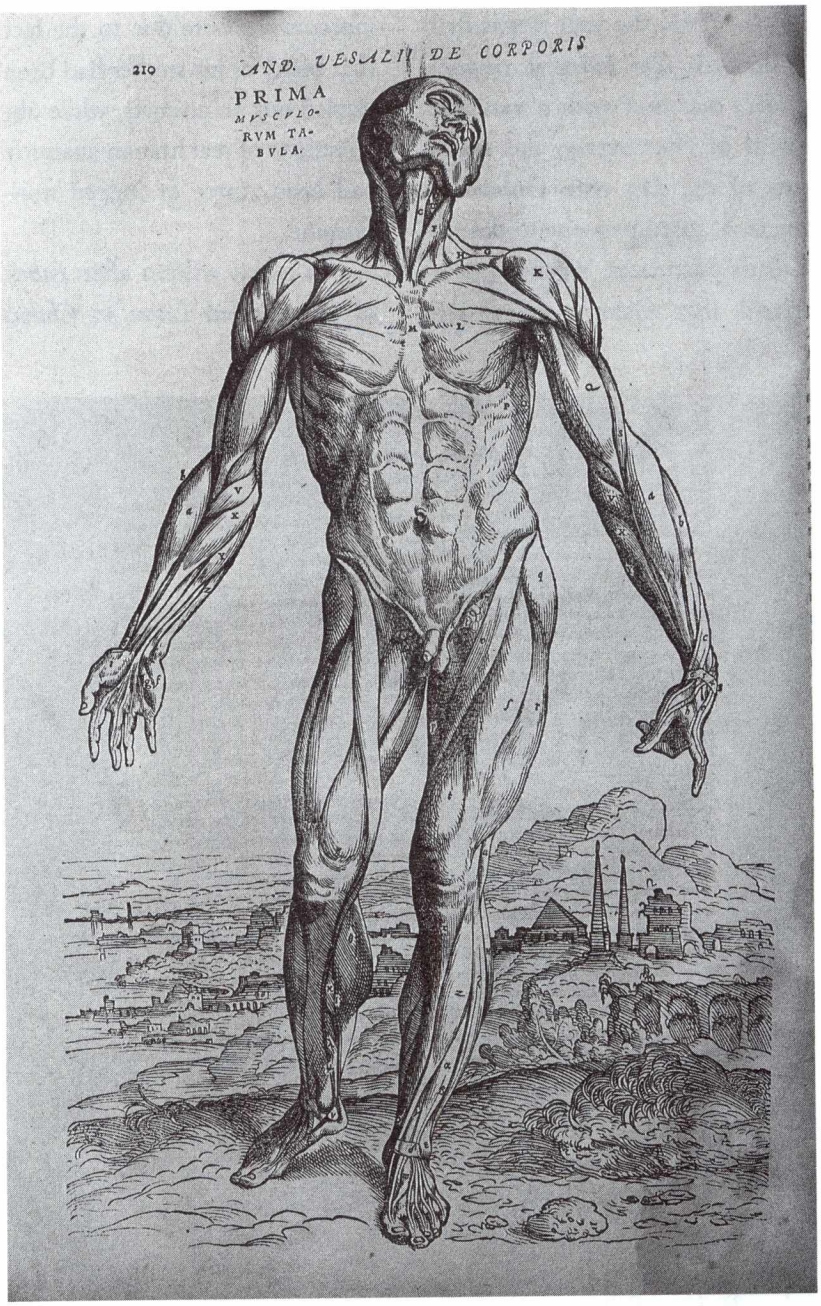
With regard to the illustrations which grace this work, Vesalius is believed to be the author of the simple drawings, while the anatomical details of some figures, as well as the cover and the

portrait of Vesalius, are attributed to John Stephan Calcar. However, there are those who maintain that the frontispiece of the 1555 edition was made by B. Vitalis and that Tiziano is the author of the most exact drawings. The participation of Domenico Compagnola is inferred from the landscapes.

One of *De humani corporis fabrica*'s most fascinating plates is the frontispiece or cover, which depicts a dissection scene taking place in an amphitheater surrounded by a peristyle with seven Corinthian columns. Two Cupids bear the Vesalius family crest, and at the sides an old man and a youth symbolize the past and present, the ancient and new worlds.

The central figures are Andreas Vesalius himself and the cadaver of a woman, whose abdominal organs are exposed. In the center of the engraving a skeleton presides over the dissection. This is not for decorative effect; instead, it is in line with Vesalius' conception that the starting point for anatomical studies should be the bones.

Most of those depicted as attending this demonstration have been identified, among them Realdo Colombo, Charles V, Joachim Cameranus, Paracelsus, Hieronymus Cardan, Philip Melanchton, Martin Luther, Tiziano, John Stephan Calcar and Johannes Oporinus.




Andreas Vesalius was born in Brussels in 1514 and studied in Louvain, Montpellier and Paris. At the age of 23 he settled in Padua, where he taught anatomy and carried out the first dissections of cadavers. As previously noted, this went against the assertions of Claudius Galen, which were considered the ruling canon and had been enshrined as dogmas by the Church.

*De* humani corporis fabrica *is a folio volume. It consists of seven books covering the analysis of the entire structure of the human body.*

In 1543, the year it was first published, *De humani corporis fabrica* was met with a veritable storm of controversy: the scientists of the day, with Dubois in the lead, rose up as one to defend Galen's postulates. Vesalius maintained that Galen's errors and inaccuracies were due to the fact that many of his studies had been carried out on animals, while observations of real human anatomy had been scarce or indeed non-existent.

In a text written after *Fabrica* and entitled *Letter on China's Root*, the anatomist held forth, with a certain degree of vanity, on some of the controversial points of his celebrated study: "People should be thankful to me for having been the first to dare to attack the false opinions of man, to unveil the deceptions of the Greeks and to give our contemporaries an unprecedented opportunity to seek the truth. Yet this is not the case, since, due to Galen's authority, you will find many who, after a merely superficial look at my studies and without having studied cadavers, still maintain that everything Galen wrote is correct."


During Vesalius' era anatomy was considered a philosophical-humanistic discipline. It was as a result of his studies that it became a pragmatic science.

Vesalius practiced medicine at the court of Charles V for fifteen years. Yet it appears that his anatomical studies and sympathy for the Reformation led to his being condemned to death by the Inquisition during the reign of Philip II. It is said that he succeeded in having the sentence commuted by making a pilgrimage to the Holy Land. On his return he was beset by a serious illness, which led to his death in 1564 on Zante, one of the Ionian Islands.

In recognition of these volumes' history, uniqueness and beauty, the General Property Office and the Department of Artistic and Cultural Assets present them to the university community and the public at large.