Andreas Vesalius (1514-1564)

Andreas Vesalius or Andreas Vesal, or Andras van Wesele, was born on December 31, 1514, in Brussels, Belgium – October 15, 1564, island of Zacynthus, Greece (then Republic of Venice) was a Flemish anatomist and author of the first complete collection of books on human anatomy, De Humanis Corporis Fabrica (On the Workings of the Human Body).

The French anatomy of the 16th century was distinguished by two circumstances unfavourable to the advancement of the science—extravagant admiration of antiquity, with excessive confidence in the writings of Galen, and the general practice of dissecting the bodies of the lower animals. Both these errors were much amended by the exertions of the young Fleming, Vesalius, a native of Brussels. After acquiring at Leuven the ordinary classical attainments of the day, Vesalius began at the age of fourteen to study anatomy under the auspices of Jacques Dubois. The originality of his mind soon led him to abandon the prejudices innate in Dubois’ teaching, and take the most direct course for attaining a knowledge of the structure of the human frame. He neither underrated the Galenian anatomy nor was indolent in the dissection of brute animals. The difficulties, however, with which the practical pursuit of human anatomy was beset in France, and the dangers with which he had to contend, made him look to Italy as a suitable place to learn: and in 1536 he went to Venice, pursuing the study of human anatomy. When only twenty-one, he requested to demonstrate publicly in the University of Padua. After about seven years, Vesalius was invited to Bologna, and shortly afterwards to Pisa; as a professor of surgery and anatomy in three universities, he appears to have carried on his anatomical investigations and instructions alternately at Padua, Bologna and Pisa, in the course of the same winter. It is on this account that Vesalius, though trained originally in the French school, belongs, as an anatomist, to the Italian, and may be viewed as the first of an illustrious line of teachers by whom the anatomical reputation of that country was raised to the greatest eminence.

De corporis humani fabrica libri septem - titlepageVesalius is known as the first author of a comprehensive and systematic view of human anatomy. The knowledge provided by his dissections proved how many errors were being taught and learned under the guise of Galenian authority; and he recognised the need for a new system of anatomical instruction, divested of the omissions of ignorance and the misrepresentations of prejudice and fancy. The early age at which he achieved this has made him
famous; we are told that he began at the age of twenty-five to arrange the materials he had collected, and published the first edition of Fabrica at the age of twenty-eight.

Soon after this he was invited as imperial physician to the court of Emperor Charles V, where he was occupied in the duties of practice and answering the various charges which were unceasingly brought against him by the disciples of Galen. After the abdication of Charles he continued at court in great favour with his son Philip II of Spain. The old story that Vesalius crossed the path of the Inquisition is now known to be almost without foundation and is dismissed by modern biographers. Instead, Vesalius’s pilgrimage to the Holy Land appears to have been driven by nothing but his own piety. He sailed with the Venetian fleet, under James Malatesta, for Cyprus. When he reached Jerusalem, he received from the Venetian senate a message requesting him again to accept the Paduan professorship, which had become vacant by the death of his friend and pupil Fallopius. After struggling for many days with the adverse winds in the Ionian Sea, he was wrecked on the island of Zante, where he soon died in such penury that, if a benefactor had not paid for a funeral, his remains would have been eaten by animals. At the time of his death he was scarcely fifty years of age.

To form a correct estimate of the character and merits of Vesalius, we must not compare him, in the spirit of modern perfection, with the anatomical authors either of later times or of the present day. He was not a bold innovator without academical learning, not a genius coming from a foreign country, unused to the forms and habits of Catholic Europe, nor a wild reformer, blaming indiscriminately everything which accorded not with his opinion; but a young student scarcely emancipated from the authority of instructors, whose intellect was still influenced by the doctrines with which it had been originally imbued,—a scholar strictly trained in the opinions of the time, living amidst men who venerated Galen as the oracle of anatomy and the divinity of medicine,—exercising his reason to estimate the soundness of the instructions then in use, and proceeding, in the way least likely to offend authority and wound prejudice, to rectify errors, and to establish on the solid basis of observation the true elements of anatomical science.

Base of the Brain, showing optic chiasma, cerebellum, olfactory bulbs, etc. Vesalius has been denominated the founder of human anatomy; and though he was preceded by Mondino and Berenger, the small proportion of correct observation which their reverence for Galen and Arabian doctrines allowed them to communicate, will not in a material degree impair the original merits of Vesalius. The errors which he rectified and the additions which he made are so numerous, that it is impossible, in such a sketch as the present, to communicate a just idea of them.

Besides the first good description of the sphenoid bone, he showed that the sternum consists of three portions and the sacrum of five or six; and described accurately the vestibule in the interior of the temporal bone. He not only verified the observation of Etienne on the valves of the hepatic veins, but he described the vena azygos, and discovered the canal which passes in the foetus between the umbilical vein and the vena cava, since named ductus venosus. He described the omentum, and its connections with the stomach, the spleen and the colon; gave the first correct views of the structure of the pylorus; observed the small size of the caecal appendix in man; gave the first good account of the mediastinum and pleura and the fullest description of the anatomy of the brain yet advanced. He did not understand the inferior recesses; and his account of the nerves is confused by regarding the optic as the first pair, the third as the fifth and the fifth as the seventh.
View of the right hemisphere from above, with the meninges retracted.

A view of the brain from above showing the lateral ventricles, the choroids plexus, and, from below, the roof of the lateral ventricle.