Transforming Anatomy

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Thesis
A comparison of the anatomical imagery and understanding represented by Galen, Vesalius, and Gray and Carter reveals the transformation of medicine, particularly anatomy, from antiquity to modernity. The creation of restrikes, facsimiles, and more widely accessible texts allows people today to physically witness this transformation of society’s views over time.

Galen of Pergamon: Antiquity
- Galen was a Greek surgeon, physician, and philosopher in the second century who is also widely renowned for his work and research in many fields, such as pathology, physiology, neurology, pharmacology, and, of course, anatomy.
- Galen’s work was authoritative, regardless of the fact that it was not entirely accurate, and Vesalius was the first to both prove and disprove Galen’s work with any authority.
- His work was not as accurate as Vesalius’ because human dissection was not allowed during Antiquity. Instead, Galen researched on injured gladiators and dissected apes and pigs.
- Galen is considered the most prolific author from Antiquity, but only a fraction of his work survives today.
- His work includes 26 writings on anatomy, including De Natura Humana (On the Nature of Man) De Uteri Dissectione (On the Dissection) Anatomia of the Uterus De Use Partium Corporis Humani (On the Usefulness/Utility of the Parts of the Body), and De Anatomicis Administrationibus (On Anatomical Procedures).

Andreas Vesalius: Renaissance
- Andreas Vesalius lived in the Renaissance period, and was destined to become a physician from the beginning, as he was born into a medical family. He trained at three different universities, which culminated in his decision to pursue a career as a teacher and an anatomist.
- Unlike Galen, Vesalius was actually allowed to dissect human bodies, which allowed for much more accurate research.
- It was not common practice for a physician to directly dissect the body himself; instead, he would assign a barber surgeon to the task. Vesalius broke the mold and did his dissections himself.
- Vesalius chose to portray his dissected cadavers in standing poses mimicking Classical styles. These are called exereses.
- The De Humani Corporis Fabrica, a modern restrike, or new print made using the old woodblocks used to create the original print book in which Vesalius recorded his findings about anatomy.
- The first edition of this book was printed in 1543, with an updated edition printed in 1555. Incredibly, the woodblock illustrations survived from the Renaissance into the 1900s and were able to be used for a restrike in the 1950s.
- The copy on hand at the Utah State University Library’s Special Collections is one of the restrikes. The USU volume is not a facsimile of the 1543 edition, but is instead an edition of the images with an edited and condensed version of the text based on the 1543 edition.
- With modern technology, anyone with an internet connection is able to turn the pages of Vesalius’ work through digitized facsimiles of the print book. Their accessibility through digital means makes them available to a much wider range of readers and viewers than ever before, opening up new possibilities for scholarship in the history of medicine.

Henry Gray and Henry Vandyke Carter: Modernity
- Henry Gray and Henry Vandyke Carter both had a desire for education and books of learning to be more widely available.
- Their creation of the Gray’s Anatomy aimed to make the science of anatomy more readily available to students of medicine. They presented their findings in a textbook format, which is still in use today. In fact, the latest modern edition of the Gray’s Anatomy was published in 2015.
- Although the text is still primarily meant for students, any member of the public is able to access the book. Anyone with an interest in anatomy can purchase or borrow this book anywhere from online forums to college campuses to public libraries.
- Their findings further proved Vesalius’ work and made modern anatomy accessible to all.

Conclusion
As the centuries go by, society continues to transform, grow, and develop. With it, scientific advancements have continued to become more and more available to anyone with an interest in a specific scientific field of study, such as anatomy. Advancements in technology and the passions of scientists looking to educate the world has put the resources of great men like Galen, Vesalius, Carter, and Gray literally in the hands of modern scholars. Through their research and the documentation of their research, one can see the transformation of the study of anatomy from Classical Antiquity to the Renaissance to modern day. Using modern means, the timeless genius of these four great men will continue to become more and more available to anyone who needs them as the creation of new additions, restrikes, and facsimiles continue to hit the market using varying degrees of modern technology. Throughout the transformation of society and the world as documented in their findings, it is pretty incredible to realize that ancient resources such as these are still relevant today.