

# Anatomia Uteri Humani Gravidi Tabulis Illustrata (The Anatomy of the Human Gravid Uterus Exhibited in Figures) (1774), by William Hunter

William Hunter's *Anatomia Uteri Humani Gravidi Tabulis Illustrata* (The Anatomy of the Human Gravid Uterus Exhibited in Figures), hereafter called *The Human Gravid Uterus*, is an anatomical atlas depicting the pregnant form through both engravings and descriptions. William Hunter, an anatomist working in England during the eighteenth century, compiled the work based on observations from his dissections of pregnant women. The collection of thirty-four copper plate illustrations details the anatomy of the pregnant human womb (gravid uterus), and includes depictions of unborn fetuses at various stages of development. Hunter compiled *The Human Gravid Uterus* to provide an objective anatomical depiction of pregnancy and development at a time when midwifery and obstetrics were becoming prominent fields of medical practice in England.

Hunter compiled the work based on observations of dissections of pregnant bodies completed at his anatomy school at Convent Garden in London, England, which he opened in 1746. Hunter, along with his brother and fellow anatomist, John Hunter, and with various anatomy students at Convent Garden, completed the dissections detailed in the book. Several artists, including Jan van Rymsdyk, created anatomically correct illustrations of Hunter's work for the book. In 1750, the anatomy school at Convent Garden obtained the body of a woman who had died at nine months of gestation. The pregnant cadaver was the first obtained by the anatomy school at Convent Garden and became the first subject in *The Human Gravid Uterus*. Hunter completed over one third of the work in *The Human Gravid Uterus*, ten copper plates of material, based on the dissection and study of that first subject. He continued to accumulate anatomical descriptions and drawings of pregnant women in various stages of development before publishing the final version of the manuscript in 1774.

Hunter dedicates *The Human Gravid Uterus* to the King of England, George III. At the time of publication, Hunter was the Physician Extraordinaire to Queen Charlotte and was acquainted with the royal family. Following the dedication of the work, Hunter provides a preface, which details his aims in doing the work. Hunter explains that he intended the illustrations in *The Human Gravid Uterus* to depict objectively the anatomy observed in the laboratory. Few illustrations of pregnant wombs existed prior to work done by Hunter and others in the eighteenth century. Though those illustrations intent was to represent human anatomy, they often included illustrators' artistic liberties. For example, those early illustrations often portrayed the female form as standing or sitting in a natural position as if alive, with the midsection exposed to reveal the uterus and fetus. While providing an anatomical reference to the shape and location of the uterus, those images also included references to the sanctity of life, motherhood, and childbirth.

In contrast, Hunter hired artists to complete anatomically accurate illustrations during the process of dissection. He did not allow them to illustrate from memory, instead requiring anatomical drawing directly from the dissections. In *The Human Gravid Uterus*, Hunter argues for the importance of such requirements, as they rendered the cadaver as an objective anatomical form. The images portrayed in *The Human Gravid Uterus* generally contain only the trunk and partial thigh of the cadavers, allowing for focus on the anatomical components of the uterus.

Hunter then transitions to the introduction of *The Human Gravid Uterus*. He argues that anatomists had studied and mastered much of human anatomy while paying little attention to the pregnant womb. Hunter notes that most anatomists were limited by the lack of pregnant cadavers and emphasized the importance of completing thorough and precise anatomical work when given the op-

portunity to study the human gravid uterus.

He then transitions into describing plates one through fifteen, which included five subjects, all in the ninth month of pregnancy at the time of death. Plates sixteen through thirty-four include the remaining nine complete subjects, three cadavers from abortions, and eight figures of a gravid uterus at an estimated five weeks of gestation. Hunter ordered the collection of plates in reverse of chronological development. He begins with subjects who died at nine months gestation, followed by subjects who died at eight months gestation, seven months gestation, six months gestation, five months gestation, four months gestation, three months gestation, and five weeks gestation.

The engravings include alphabetical labels on tissues and organs and a corresponding legend describing those tissues and organs. Hunter also provides a brief introduction before various sets of figures. The introduction generally contains information on the subject, the context of developmental stage and gestational age, and a description of any experiments completed during the dissection. Several times, Hunter references the process of injecting colored wax into the vessels of the placenta and uterus. While completing *The Human Gravid Uterus*, Hunter and his brother also used those anatomical subjects to explore the fetal and maternal blood systems. Their additional work enabled researchers to infer the function of the placenta and to describe the process by which the developing fetus received its blood supply.

*The Human Gravid Uterus* completed during a period in the eighteenth century when the study of human anatomy was becoming more prominent in England and other European countries. At the time, scientists compiled numerous anatomical works and illustrations for those studying medicine or working within the natural sciences. Although Hunter and his colleagues focused on completing accurate anatomical work, *The Human Gravid Uterus* was not easily accessible for study by anatomy students or those working in midwifery. *The Human Gravid Uterus* was a specialty item, unlike other anatomical works completed at the same time.

The original edition of *The Human Gravid Uterus* is a large atlas of copper plates, approximately 62 x 45 cm in size. Hunter elected to have the anatomical depictions engraved onto copper plates as opposed to printing the illustrations on paper.

A company specializing in non-traditional printing techniques in Birmingham, England printed a limited number of copies of *The Human Gravid Uterus*. According to shop records, *The Human Gravid Uterus* was the most expensive item printed at this specialized shop at the time. While working to compile the plates for *The Human Gravid Uterus*, Hunter also hired artists to create elaborate plaster casts of the completed dissections. The artists formed molds of various tissues and sections of the bodies and then created plaster casts from those molds. Unlike the print editions of *The Human Gravid Uterus*, Hunter opted to have the plaster casts painted in color.

Some of Hunter's contemporaries in the fields of anatomy and medicine argued that though Hunter's work was laudable, a thorough anatomical knowledge was unnecessary to facilitate safe pregnancies. Others championed Hunter's work as one of the greatest contributions to anatomy in the eighteenth century. Due to the limited production of *The Human Gravid Uterus* and the expense of acquiring a copy, few could access it. As with much anatomical work done during the eighteenth century, this work mainly circulated within the medical community.

Though *The Human Gravid Uterus* was not included in the collection, in the early decades of the twenty-first century, the plaster casts of the same work were later displayed in the Hunterian Museum in Glasgow, Scotland, for the general public.

## Sources

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