

The life and times of

Thomas Bartholin

Thomas Bartholin was one of the greatest anatomists of the 17th century. His anatomic discoveries, research and publications are with their almost playful speculations, vivid investigation of the world and strive for wisdom still alluring and interesting for a modern public.

Traveller, polyhistor and renaissance man

Thomas Bartholin (1616-1680) is with his widely publicized illustrated anatomy and his discovery of the lymphatic system the most well known of the Bartholin family. Several of his anatomical treatises became very popular textbooks and were translated into several languages. He was a productive man, with a broad perspective not only in the field of medicine, anatomy and science but also in theology and the history of books. Accordingly he was not in favor of specialized studies – it created ignorance and made man unaware of other fields of knowledge.

As the second of professor Caspar Bartholin's six sons, Thomas Bartholin was born into a highly academic family. His mother Anna was the daughter of another professor in medicine, Thomas Fincke (1561-1656), and Thomas' brother in law, Ole Worm (1588-1654) was also an esteemed professor in medicine. Thomas' father died when he was only 16 years old and Ole Worm took over the custody of the young man and encouraged him to concentrate on anatomy.

In 1634 Thomas Bartholin entered the University of Copenhagen as a student of theology. In

Thomas Bartholin published a series of extraordinary clinical and anatomical cases in the work "Historiarum Anatomicarum Rariorum" (issued in 3 volumes from 1654-1661). The work contains several amusing illustrations, including this "Plague-doctor" in his special dress.



Illustration from Thomas Bartholin's first illustrated edition of his father's anatomy (1641). Several of the illustrations were probably drawn by Karel van Mander and engraved by Albert Haelwegh.

1637 King Christian IV awarded him with a scholarship and he was able to study at the best universities in Europe. He spent close to 10 years studying medicine in Paris, Leiden, Padua and other prominent universities, but his field of interests was still very varied and he continued to study law, philosophy, archaeology and other philological and humanistic subjects, as it was custom in his family.

The birth of the illustrated anatomy

In Leiden he decided to publish a new, improved and illustrated edition of his father's textbook of anatomy, "Institutiones anatomicae" (first published in 1611). The new edition was published by Thomas Bartholin in 1641 and included the work of William Harvey's (1578-1657) theory on the circulation of the blood. In 1645 and 1651 he also published revised editions of the "Institutiones Anatomicae", and especially the third edition was superior in text and illustrations.

In 1646 he returned to Copenhagen to teach and to continue his studies of anatomy. Among his pupils were esteemed scientists such as Nicolaus Steno, Ole Borch and Holger Jacobæus. It was during this period that Thomas Bartholin made his largest achievements.

The discovery of the lymphatic system

When in 1649 the French anatomist Jean Pecquet discovered the thoracic duct in a dog, it triggered a series of important anatomical discoveries. Thomas Bartholin was allowed by the king to in-

Illustration from Thomas Bartholin's work on the crucifixion of Christ, which was first issued in 1651 and with illustrations in 1670.



investigate the matter further in the cadavers of two executed criminals. Bartholin found the thoracic duct in humans and described the discovery in "De lacteis thoracis in homine [...]" (1652). On 28 February 1652 Bartholin made his most important contribution to physiology. Bartholin and his prosector Michael Lyser (1626-1659) found that the lymphatic glands were parts of a separate physiological system. The discovery was described in "Vasa lymphatica nuper hafniae in animalibus inventa et hepatis exsequiae" (1653), and in 1654 he gave a more thorough description of the lymphatic system in humans in "Vasa lymphatica in homine nuper inventa" (1654).

The important discovery of the lymphatic system was however also the center of a bitter and savaged academic fight. Olof Rudbeck (1630-1702), a Swedish anatomist, claimed to be the first to have discovered the new anatomical system. Today there is however little doubt of Bartholin's priority.

The late years of Thomas Bartholin

A generally bad health forced Bartholin to give up his anatomical work in 1656. He then concentrated on a wider range of medical problems. He was elected professor honorarius in 1661 and was freed from all academic duties. He bought the estate of Hagestedgaard close to Copenhagen, and retired. He spent his time devoted to literature, history and medico-philosophical studies. Bartholin's large production of publications has a vast and varied range of topics that often mix the fields of science with the fields of humanities and theology as is the case in his works on the crucifixion and wounds of Christ ("De cruce Christi", 1651, and "De latere Christi", 1646) as well as his work on unusual birth stories ("De insolitis partus humani", 1664).

In 1670 his house Hagestedgaard was destroyed in a fire. It was a tragic event where a large number of books and manuscripts were destroyed. Christian V freed the estate of all taxes and appointed him his personal physician. One year later Thomas Bartholin was appointed vice chancellor and librarian to the University of Copenhagen. During



This illustration of a "Norwegian monster" was issued in one of the world's first medical periodicals "Acta medica et philosophica hafniensa" (1673-1680).

his last years he was, as he had been throughout his life, a very enterprising man. By the time he passed away he had even initiated the publication of one of the first scientific journals in the world, "Acta medica et philosophica hafniensa", which he edited until his death in 1680. ■

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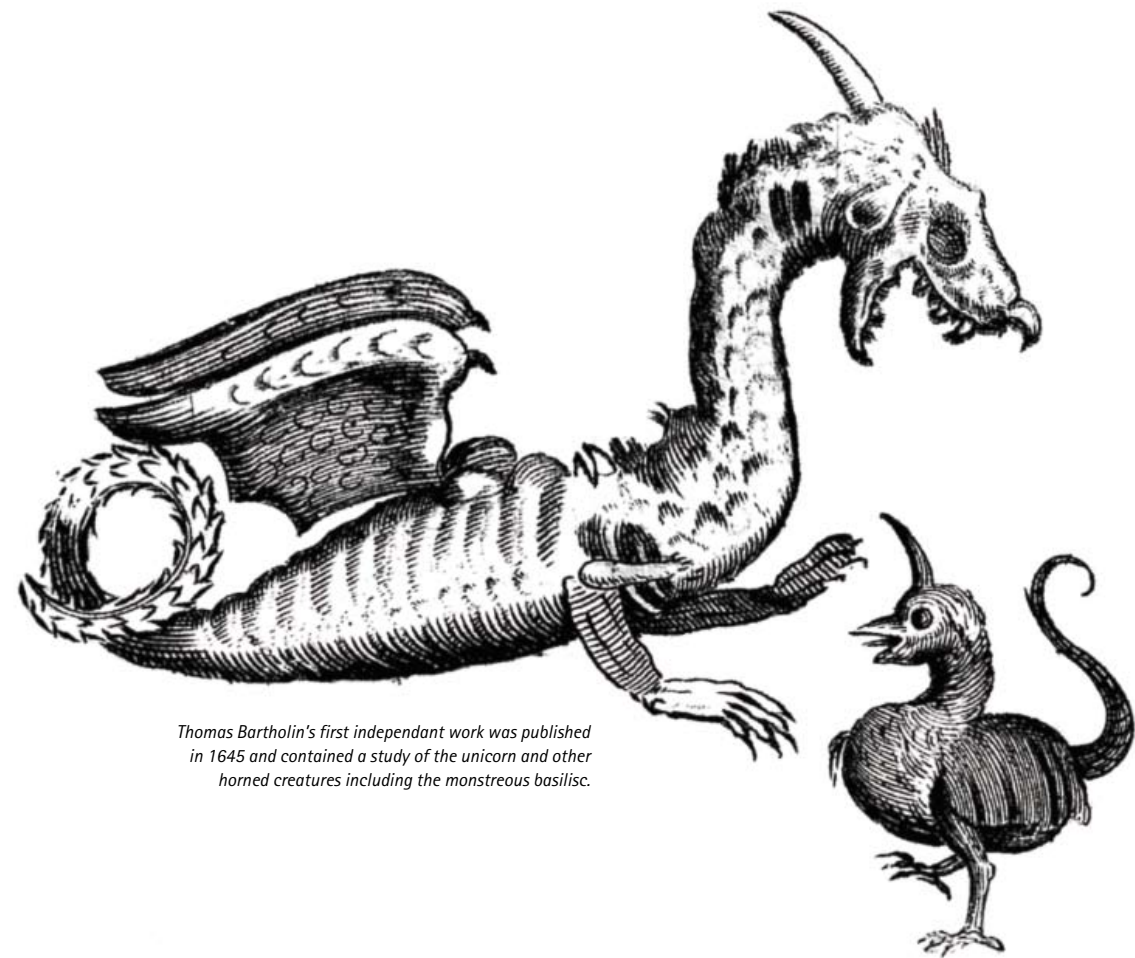
Further reading:

Axel Garboe: "Thomas Bartholin". 2 vols. Cph. 1949-50.

Ballhausen & Johansen: "Thesaurus Librorum Danicorum". Cph. 1990.

Helge Kragh (ed.): "Fra Middelalderlærdom til den Ny Videnskab, ca. 1000-1730". Århus: Institut for Videnskabshistori 2001-2006.

[Anon.]: "Thomas Bartholin" [n.d.] in Enersen (ed.): who named it.com



Thomas Bartholin's first independant work was published in 1645 and contained a study of the unicorn and other horned creatures including the monstrous basilisc.