Juan Valverde de Amusco

Subjects: Anatomy & Morphology

Contributor: Luis Alfonso Arráez-Aybar

renaissance anatomy | 16th-century anatomists | history of anatomy | anatomical terminology | carotid circulation | extraocular rectus muscles | oculomotor muscles | pulmonary circulation

Basic Information

Name: Juan Valverde de Amusco (Jan 1525–Jan 1587)

Birth Location:	Amusco (Palencia, Spain)
Title:	Anatomist
Affiliation:	Unknown
Honor:	Leading Spanish anatomist of the 16th century, pioneering the transfer of Post-Vesalian Anatomy

1. Life

Juan Valverde de Amusco (**Figure 1**) was born in 1525 in the town of Hamusco (now Amusco) in the shire of Tierra de Campos (Crown of Castile, presently Palencia, Spain). There are few precise records of his life. The safest ones come from small comments disseminated throughout his books. The details regarding his childhood and youth remain unconfirmed. His probable Jewish origin has been suggested.

Figure 1. Line drawings of Juan Valverde de Amusco (c. 1525–c. 1587). The original portrait is in the book Anatomia del corpo umano, Venetia, Giunti (1586), the first Italian edition of Valverde's HISTORIA de la composición del cuerpo humano

In the year 1542, Valverde was around 17 years old when he left for Italy Valverde studied in Padua, Pisa, and Rome, under the guidance of (Matteo) Realdo Colombo (1516–1559) and Bartolomeo Eustachi (1500 up to 1510–1574). It is assumed that Valverde's move to Padua was due to the renowned *Studi Paduani* (currently known as the University of Padua), where anatomy and surgery were taught by Vesalius. A further highlight was the clinical teaching provided by Giovanni Battista da Monte (1489–1551) at the *Ospedale di San Francesco Grande*.

Valverde was interested in Vesalius but met Colombo in Padua. At that time—the academic course of 1542–1543 was beginning—Vesalius was involved in the composition of the De humani corporis fabrica libri septem (". . .Fabrica. . ." henceforth). For the duration of the course, the chancellor of *Studi Paduani* arranged for Pamphilius Montius to be the reader of Mondino de Luzzi's *Anathomia corporis humani* (a book written in 1316), R. Colombo to be the *sector* (i.e the surgeon in charge of dissecting the human body), and Paulus de Crassis to be the *ostensor* responsible for displaying the organs of the human body.

Vesalius resigned his chair at Padua after publishing "*…Fabrica…*" to become Emperor Charles V's *archiater*. Colombo officially assumed the Vesalius' chair of surgery and anatomy at *Studio Paduani* during the academic years 1543–1544 and 1544–1545. For the subsequent courses (1545 up to 1548), the Duke of Tuscany, Cosimo I de Medici, appointed Colombo as the chair of surgery and anatomy at Pisa University. Valverde, who always acknowledged Colombo as his exemplary teacher, was at Colombo's side as a student and, presumably, as an

assistant dissector. At Pisa, Valverde assisted Colombo in investigating the minor (pulmonary) circulation of blood, among other matters. With Valverde, Colombo dissected not only human bodies but also vivisected animals to study the functioning of the voice; the movement of the lungs, heart, and arteries; the dilation and contraction of the brain; variations in pulse; and other physiological functions. Because of his discoveries, Colombo criticized Vesalius, and they engaged in resentful polemics with each other.

In August 1547, Colombo requested a license from the Duke of Tuscany and relocated to Rome. Pope Paul III appointed Colombo to chair the anatomy course at the *Archigimnasio della Sapienza* (also named *Studium Urbis;* presently, *Sapienza-Università di Roma*). Colombo became the first Chair of Anatomy at the *Studium Urbis* in 1552.

While assisting Colombo in Rome, Valverde actively participated in the cultural and scientific life of the Metropolis. Thanks to the recommendation of Cardinal J. Álvarez de Toledo, Valverde was appointed physician at the *Ospedale di Santo Spirito in Sassia* in Rome in 1555. There Valverde honed his clinical skills and devoted himself to teaching and conducting anatomical research. He also embalmed human bodies in Rome, first with Colombo, then by himself. Under Colombo's direction, Valverde autopsied Cardinal Innocenzo Cybo (1550) and Ignatius of Loyola (1556). Valverde was a highly esteemed physician among the nobility and the affluent. Discrepancies exist regarding whether he was a physician at the court of Pope Paul IV. In the final months of 1557 or early in 1558, Valverde acted as a private messenger between King Philip II of Spain, who at that time was residing at Brussels, and Duke Cosimo I de Medici at Firenze, possibly in connection with the invasion of the Pope's states by the King Philip II of Spain.

In the year 1558, Valverde may have returned briefly to his home place in Spain carrying with him a papal bull given by Pope Paul IV for the *Cofradía-Hospital de San Sebastián* ("Brotherhood-Hospital of Saint Sebastian") in Amusco . Valverde's date of death is unknown, but he died in Rome, probably circa 1587.

2. Scientific Work

Valverde published two books, one in 1552 and another in 1556. Both books were intended to disseminate medical and anatomical knowledge to scholars and non-scholar people. One of the books was titled *De animi et corporis sanitate tuenda libellus* and focused on hygiene. The other is *HISTORIA de la composición del cuerpo humano* and targeted on anatomy.

2.1. De animi et Corporis Sanitate Tuenda Libellus ("A Pamphlet on the Preservation of Mental and Physical Health")

This book deals with hygienic and sanitary issues frequently discussed by medical writers during the 16th century. The book is a work in the Latin language, printed in Paris in February 1552. Two editions were published. The initial edition was prepared in *Octavo* by Charles Estienne, a renowned printer and physician also known as Carolus Stephanus (1504–1564). In 164 pages, the book proposes secrets for health conservation and illness

evasion. The book's small format, and therefore probable low-cost selling, possibly favored rapid dissemination among scholars but also those affluent curious who paid in exchange for learning the secrets of human nature.

The book's second edition was released in Rome the following year and printed at Domenico Giglio's print house in Venice (also known as Dominicus Lilius). This edition features updates such as a new frontpage, an index, a revised pagination system, and a list of typos. The author dedicated the book to Cardinal Girolamo Verallo (1497–1555), expressing gratitude with the words "*Vale mi Princeps studiosorum Patrone"*, which translates to "Farewell, my Prince, Patron of the studious".

2.2. HISTORIA de la Composición del Cuerpo Humano ("HISTORY of the Composition of the Human Body")

It is an opus written in the Castilian Spanish language. It provides accurate descriptions of human anatomy and explains the functions of the body and its parts. The overall organization of the book responds to a strict functional (Galenic) criterion. The author aimed to not only educate on human anatomy but also to make the information widely available. *HISTORIA de la composición del cuerpo humano* ("*HISTORIA…*" henceforth) was the most broadly distributed anatomical publication after Vesalius during the *Cinquecento*. It was the culmination of Valverde's research and the knowledge he acquired from Colombo and collaborators. The opus includes a cover, dedication, preface to readers, two indexes (one of the chapters and one thematic), seven books (each divided into chapters), and forty-two illustrated plates with figures. Following the princeps edition, many more editions were published (**Table 1**).

Table 1. Editions and reprinting of Valverde's *HISTORIA de la composición del cuerpo humano*

Year	Language	Title	Print House/Publisher	Place
1556	Spanish	*HISTORIA de la composición del cuerpo humano*	A. Martínez de Salamanca and A. Lafréry	Rome
1559	Italian	*Anatomia del corpo umano*	Nicolò Bevilacqua	Venice
1560	"	"	Giunta	"
1586	"	"	"	"
1596	"	"	"	"
1606	"	"	"	"

1607	“	“	“	“
1608	“	“	“	“
1657	“	“	“	“
1682	“	“	Giunta / Niccolò Pezzana	“
1589	Latin	*Anatome corporis humani*	Michele Colombo	Venice
1607	“	“	“	“
1566	Latin	*Viuæ imágenes partium corporis humani æreis formis expressæ*	Christophe Plantin	Antwerp
1572	“		“	“
1579	“		“	“
1568	Dutch	*Anatomie*, *oft levende beelden vande deelen des menschelicken lichaems: met de verclaringhe van dien*, *inde Neder-duytsche spraecke*	Christophe Plantin	Antwerp
1583	“		“	“
1583	Dutch	*Bedieninghe der anatomien*	David van Mauden	Antwerp
1646	“	“	“	“

2.2.1. Princeps Edition

The opening publication of “*HISTORIA…*” originated from the presses of the Spaniard Antonio Martínez de Salamanca (c. 1478–1562) and the Frenchman Antoine Lafréry or Lafrerij (1512–1577) in Rome in the year 1556. A. Martínez de Salamanca was instrumental in spreading Spanish culture in Rome. He was concurrently a partner in the printing of “*HISTORIA...*” and Lafréry’s primary adversary in the Roman publishing industry.

Books and Chapters. According to Renaissance criteria, “*HISTORIA…*” is divided into books, each divided into chapters. “*HISTORIA…*” encompasses seven books, akin to Vesalius’ “*…Fabrica…*”, but the topics of the books are different in the two opuses. “*HISTORIA…*” and “*…Fabrica…*” do not share either the descriptive order or the

conceptual idea instilling it. "*…Fabrica…*" clearly demonstrates a constructing sequence comprising supporting structures, union elements, organs, and entrails, according to their importance categorization. The order in "*HISTORIA…*" varies from book to book. It is imperative to emphasize again that "*HISTORIA...*" is an opus that served as both an anatomy book and a popularizing science book, with a significant degree of overlap; in it, there are chapters intended for general notions. Valverde constructed the general notions produced in "*HISTORIA...*" by abstracting from observation as detailed as possible of anatomical structures, with a rigorous realist criterion. Such a criterion is like that of Vesalius, but distinct from that of Galen and their followers, for whom the form, function, and teleological reasons of the form regarding function are inseparable.

Books I and II are concerned with body structure, and their descriptive order is morphological. In Books III–V, however, following the Platonic doctrine, the organic cavities are categorized according to their functional order, specifically the rational/cranial, vital/thoracic, and vegetative/abdominal, which would be the respective locations of the three souls: immortal (*tò logistikón*), irascible (*tò thymoeidēs*), and concupiscible (*to epithymētikón*) . In Books VI–VII, ducts, which include veins, arteries, and nerves, are elucidated. Here, Valverde disagreed with Galenic theory. Galen's theory correlates veins, arteries, and nerves with the three spirits (pneuma natural, pneuma vital, and pneuma animal) and the spirit generator organs (liver, heart, and encephalon). Galen's theory proposes that pneuma flows mixed with blood through the pulmonary artery and veins. Valverde adhered to Colombo's concepts, positing that only blood flows through arteries and veins. Precisely, Valverde described the pulmonary circulation of blood (while acknowledging Colombo as the author of the discovery). Valverde considered that the function of the lungs is to receive air and obtain it for the fabrication of life spirits. Furthermore, the lungs refresh the heart of excessive heat by blasting fresh air. In 1553, three years before the publication of "*HISTORIA…*", the Aragonese Michael Servetus (Villanueva de Sigena, Crown of Aragon, presently Spain; 1511–1553), in his theological treatise *Christianismi restitutio*, had described, for the first time, the pulmonary or minor circulation in the Christian West.

Valverde was not interested in the philosophical discussion of nature, even though Galen's theory was a part of his physiological thinking. He was interested in revealing the body structures that serve as a substrate for the function and its diffusion throughout the body. This view distinguished Valverde from other anatomists and medicine theorists—for instance, Thomas Willis (1621–1675).

Illustrations. "*HISTORIA…*" was the first anatomy book to use illustrations created with a burin-over-copper technique, which allowed for increased precision and elegance in tracing. The opus contains 42 anatomical plates consisting of 214 numbered images that have caught the attention of historians for their beauty and execution. While some argue that these illustrations tarnish Valverde's reputation for originality, he publicly acknowledged that he derived complete inspiration from "*...Fabrica...*" for their conception. Nonetheless, the opus includes 15 new illustrations, 42 corrections, and 9 clarifications to "*...Fabrica...*". The artists in charge of drawing and engraving the illustrations in "*HISTORIA...*" are not credited in the opus.

Novel anatomical contributions.

Osteology and Myology. Valverde initially described the vomer bone in a written text in "*HISTORIA…*". The discovery probably came out from dissections performed by Colombo's school members, of which Valverde was part. Valverde states in Book I of "HISTORIA…", "The vomer is between the cuneal bone and the palate bones. This bone looks like a plow, Vesalius does not mention it because it lacked, to him, momentum". In the Castilian Spanish language, the term "*Arado*", or "*Reja del Arado*", refers to the plow. In the Latin language, vomer means plow. R. Colombo wrote about this bone in his book *De re anatomica libri XV* (1559).

Valverde presented a detailed analysis of the teeth and their supporting structures, vascularization, and innervation in "*HISTORIA…*". He also described techniques for reducing mandibular dislocation.

The print of the stapes ossicle appeared in "*HISTORIA…*" for the first time. Valverde wrote of it, "…which nobody before me has even mentioned" (Book I, Table V, Figure IIII). It appears that Giovanni Filippo Ingrassia (1510–1580) was the first to name stapes this ossicle as early as 1546, but this remained unknown until the publication of *In Galeni librum of doctissima ossibus et expertissima commentaria* in 1603. B. Eustachi (c. 1500–1574) also named stapes the ossicle in his magnificent book titled *Tabulae anatomicae* (completed in 1552 yet published in 1714). However, in any case, the first published book in which the term stapes appears for naming the ossicle is the book *Cl. Galeni Pergameni liber de ossibus ad tyrones […] Medicae doctore* (1555) by Luis. Collado (c. 1520–c. 1589).

Regarding muscles, there are thirty-two corrections to Vesalius in "*HISTORIA…*". They concern oculomotor muscles, facial muscles, throat muscles, and muscles of the palm and plant . In Book II, Chapter VII, Valverde wrote, "The eye muscles are four in number, with a fine consistency, and arranged in four directions. This allows the eye to move in four directions.". Valverde categorically affirmed the nonexistence of what Vesalius calls the "coanoid muscle" or *retractor bulbi*. Galen also mentioned this muscle. Valverde argued that Vesalius found this muscle in dissections of animals, but not human bodies.

Neurology and Angiology. In Table I of Book V, the brain is depicted together with the dura mater. The name dura mater originates from the Greco-Latin Antiquity and Islamic Golden Age literatures, but it was first used in Christendom in "*HISTORIA…*". In addition, Valverde elucidated, for the first time, the commencement of the intracranial course of cerebral arteries. He, however, maintained that there is minimal distinction between arterial vessels and veins. G. Falloppio later corrected this error in his *Observationes anatomicae* (1561).

First post-Vesalian anatomical publication in a Romance language. Besides his anatomical contributions, Valverde played a noteworthy role in developing and disseminating anatomical terminologies written in Castilian Spanish, a vernacular Romance language. Hence, he pioneered this practice, which remains associated with the official *Terminologia anatomica* until today.

Vesalius' "*…Fabrica…*" was intended for physicians and Latin surgeons and was written in a dark style of the Latin language that is difficult to comprehend even by scholars. Valverde penned his "*HISTORIA…*" in the Castilian Spanish language of the era. It was for physicians, Latin surgeons, barber surgeons, midwives, and algebraists

(bonesetters) in Spain and its territories, as well as for paramedic practitioners without university education, who had difficulty understanding most anatomy texts written in Latin, but who were “those who most need to understand”, as Valverde wrote in “*HISTORIA…*”.

It is worth noting that Valverde was not the only anatomist to write in Castilian Spanish in the 16th century. Luis Lobera de Ávila (c. 1480–1551) and Bernardino Montaña de Monserrate (c. 1480–1558), two physicians in Emperor Charles V’s House, had already started that venture a little earlier. However, Valverde named more parts of the human anatomy in Castilian Spanish than the other authors and even changed some of the names they used.

Valverde was concerned with form, function, and position to coin the Castilian Spanish term for an anatomical part . In the book “*HISTORIA…*”, Valverde elucidated anatomical terminologies using words derived from vulgar discourse. Valverde also enriched the anatomical vocabulary with synonyms. Despite losing some rigor, Valverde’s terminology gained much for paramedic practitioners and the public to understand. Many of Valverde’s terms have been used in classical literary works, such as Don Quixote by Miguel de Cervantes (published in 1605 and the second part in 1615).

2.2.2. Diffusion of the Work

Later editions gave “*HISTORIA…*” and its figures even broader access than that of the works of Vesalius and Colombo to readers in Catholic and Reform countries.

Nine complete editions in Italian (1559 up to 1682). “*HISTORIA…*”, or its figures, accumulated 18 editions in several languages following the princeps edition (Table 1). The initial nine were in Italian, translated by Antonio Tabo de Albenga, complete, and particularly well known. The title was *Anatomia del Corpo Umano* and the dedication to King Philip II of Spain. The first one of the nine, although printed in Venice, appeared in Rome in 1559 from the same publishers as the princeps edition. The 1586 edition was the most famous of these nine Italian editions. This 1586 edition has 46 plates with 253 figures, of which 4 are new and interpolated according to the 42 plates of previous editions. All these new plates depict “muscle men”.

Two complete editions in Latin (1589 and 1607). In 1589, Michaele Colombo released a whole Latin version of “*HISTORIA…*”, reprinted in 1607 (Table 1). M. Colombo was a son of R. Colombo and physician, philosopher, and translator of some works of Girolamo Mercuriale. The dedicatory is to the Duke of Savoy in this 1589 edition. Such an honoring appears to be very unlikely to have occurred in Valverde’s life, which strongly suggests that Valverde died before 1589.

Seven editions of “*HISTORIA…*” figures as a part of other books (1566 up to 1646). *Viuæ imagenes partium corporis humani æreis formis expressae* (“Realistic figures of the human body parts from brass molds outputs”) is a medley book in Latin published by Christophe Plantin (c. 1520–1589) in Antwerp three times from 1566 up to 1579. The authorship of the book is currently credited to Valverde de Amusco, J. Grévin, and Vesalius, in that order, The figures are from “*HISTORIA…*” by Valverde. The main text is from Vesalius’ book *Andrea Vesalii suorum de humani*

corporis fabrica librorum epitome of 1564 ("*…Epitome*" henceforth). Figure legends were translated from the Castilian Spanish language into Latin by the French physician J. Thorius. Yet, the medley lacks commentary on the figure legends that precede every book in whole editions of "*HISTORIA…*". No text written by Valverde appears in the miscellany. With this, any of Valverde's recognition of Vesalius' merit as an anatomist, or the initial Vesalius influence of many of the images in "*HISTORIA…*" disappears. Valverde's authorship is not credited on the frontpage of the Plantin medley. There is also no author list in it. Valverde's authorship of the medley images is only recognized in the dedication that C. Plantin makes to the Senate of Antwerp. Moreover, the medley dedicatory details the steps C. Plantin undertook to obtain the permission of Andreas Wechelus (died 1581) for reproducing the text of the Paris edition of 1564 of the Vesalius' "*… Epitome*". There is no mention of a printing permit issued by Valverde or his editors.

Plantin's medley featuring Valverde's "*HISTORIA…*" figures is among the first books printed with copperplate-engraved figures by Plantin Print House. The result was an anatomy synthesis with a practical goal: to satisfy the demand of physicians, Latin surgeons, and medical students. It is undeniable that the understanding of the anatomy of the human body possessed and possesses a large and competitive market. A brief dedicatory from C. Plantin to those who study medicine *("Artis medicae studiosis")* underlines the utilitarian approach of the edition.

Anatomie, *oft levende beelden vande deelen des menschelicken lichaems: met de verclaringhe van dien*, *inde Neder-duytsche spraecke*. ("Anatomy, or living images of the parts of the human body: with the explanation thereof, in the Dutch language") is the same miscellany as above, but in Dutch, and published twice (1568 and 1583; Table 1). The favorable reception received by the publication of the medley *Viuæ imagenes partium corporis humani æreis formis expressae* prompted C. Plantin to translate the complete version of the book into the Dutch language. Current references to this book place Valverde de Amusco as the author.

Bedieninghe der anatomien ("Operation of anatomy") (1583 and 1646; Table 1). Other medleys of anatomy (collected from texts by Galen, Vesalius, Falloppio, and Arantius and accompanied by anatomical plates by Vesalius and Colombo) appeared in Antwerp. David van Mauden (c. 1538–c. 1597) was the author of the book, in Dutch, entitled *Bedieninghe der anatomien*, with explicit reference to Valverde as the author of Figures. Plantin Print House published it in 1583 and again in 1646.

Unpublished Greek language complete edition. In the 18th century, Kousis translated the book "*HISTORIA...*" into Greek, though he did not make it to print.

3. Reservations

Due to the wide use of the Castilian Spanish and Italian Romance languages and the beauty and anatomical detail of the images, Valverde's "*HISTORIA…*" had a broad impact. Nevertheless, the images of "*HISTORIA…*" have been regarded as a copying of Vesalius' "*…Fabrica…*". The following examines the authorship of these illustrations to discuss whether there is innovation or plagiarism in them.

3.1. Illustrations

A highly influential factor in the success of Valverde's "*HISTORIA…*" was the splendorous 214 numbered figures it contains; furthermore, these images are an essential support for the main text. Vesalius' "*…Fabrica…*" has 379 Figures in its princeps edition (1543) and 4 more in the second edition (1555). The resemblance between the "*HISTORIA…*" figures and the "*…Fabrica…*" figures holds the attention of most historians who have discussed Valverde's book. Some authors have marked the "*HISTORIA…*" figures with the stigma of plagiarism.

Comparative studies of "*…Fabrica…*" and "*HISTORIA…*" have shown that many of the images in "*HISTORIA…*" that are similar to the matching ones in "*…Fabrica…*" contain significant variations that not only improve the quality and clarity but also illustrate more anatomy particulars for the first time. Not least, there are, in "*HISTORIA…*", 15 wholly original anatomy figures. In other words, "*HISTORIA…*" holds 15 plates (out of 42) that are entirely or partially non-Vesalian (**Figure 2**).

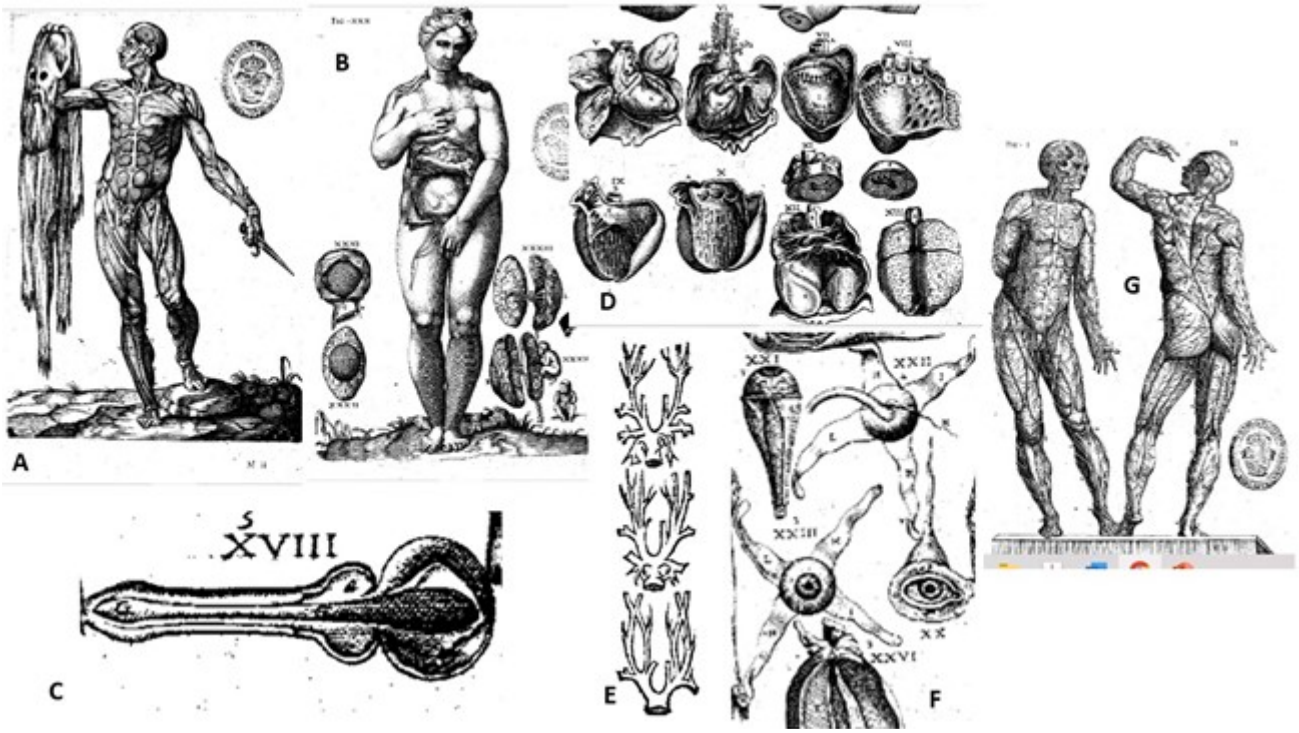

Figure 2. Anatomical illustrations in Valverde's "*HISTORIA de la composición del cuerpo humano*" about which there is consensus on originality. (**A**) An écorché with its skin hanging from the right hand and wielding a dagger with the left as if the écorché has inflicted upon itself the skinning (Book II, Plate I, Fig I). (**B**) A Venus with an open abdomen and a detached fetus in the lower right-hand corner of the same plate (Book III, Plate VI, Figure XXX). (**C**) A longitudinal section of the urinary bladder, prostate, urethra, and penis (Book II, Plate XVI, Fig XVIII). (**D**) Images depicting the opened heart (Book II, Plate XV, Figure XX to XXIII). (**E**) A marginal illustration, a diagram, on Book VI, page 87 (reverse side) of the princeps edition and page 123 (obverse side) of the first Italian edition. It depicts the origin of great vessels from the heart. (**F**) An eyeball with its fascial sheath, optic nerve and palpebral fissure, and the extraocular, recti eye muscles (Book II, Plate XV, Figure XX, and Figures XXI to XXIII,

respectively). (**G**) Two-skinned standing men (front and back views) with visible subcutaneous veins (Book VI, Plate I, Figures I and II).

3.2. Innovation or Plagiarism

The initial opus “HISTORIA…” came out of the presses in 1556. Vesalius accused “HISTORIA…” of plagiarism in a posthumously published book (1564), titled Anatomicarum Gabrielis Fallopii observationum examen—where Vesalius criticized en passant the scientific ambiance of Charles V’s court. Vesalius stated in the book that he did not understand how Falloppio could consider Valverde a great anatomist. Vesalius added regarding Valverde: “Qui manus sectioni nunquam adhibuit, & medicinae, viti & primarum disciplinarum, est ignarus, & in Hispanam linguam interpretis tantum in nostra hac arte munus, turpis quaestus causa obit” (“He, who never used his hands for cutting or for medicine, and not for the vines, is ignorant of the main disciplines. And he practices the job of translator into the Hispanic language in this our art only because of filthy lucre”). In the interim, Colombo and Vesalius had become bitter rivals by 1555. Colombo had censured Vesalius for the same thing that Vesalius did later concerning Valverde, that is, avoiding the dissection of human bodies by himself, thus depicting the anatomy of animals instead of humans in his books. Meanwhile, Vesalius severely criticized the findings and merits of Colombo in the same way and for the same reason. In the book “HISTORIA...”, Valverde criticized Vesalius precisely for an equal cause.

All the above suggests that Vesalius’ unforgiving criticism of Valverde was plausibly directed also towards Colombo and those who had dissented from some of Vesalius’ findings and techniques. It is reasonable to think too that Vesalius’ hostility was venomously aimed at Valverde because “HISTORIA…” was the first post-Vesalius book—one in which Vesalius’ influence is candidly acknowledged besides—but also the first one that explicitly corrected Vesalius, and many times. To make matters worse, “HISTORIA…” was a successful book written in a widespread common language and promptly translated into Italian. All this probably irritated Vesalius because he thought it damaged his authority.

Subsequent high appreciation of Vesalius’ works by traditional historiography makes that his critical reference to Valverde stays as “the” truth”. It might well be that the Black Legend helped do it. Some factors are to be thought of here, such as (A) Valverde’s recognition of Vesalius’ initial authorship of many images of “HISTORIA…” is suppressed in the miscellanies published by C. Plantin in Antwerp and (B) the rebellion against the rule of King Philip II of Spain in the Seven Provinces, and Spain as a global power in many other places, may have prevented Valverde from defending his author’s morality and copyrights. They were times of war, with all the consequences.

Therefore, Vesalius’ derogatory opinion is the one that most frequently has prevailed. Still, consideration of “HISTORIA…” just as a mere translated copy of Vesalius’ “…Fabrica…” or respect for Valverde as a contributor and diffuser of the Vesalius revolution always remained. Thus, Johann Gottfried von Berger (1659–1736) declared: “Fama itaque meritissima Valverdus frueatur, livore etiam frustra obnubilante” (“Valverde has great fame, despite envy that in vain beclouds”). Albert von Haller (1708–1777) asserted: “Minorem sanguinis circulationem non ignoravit” (“He was not ignorant of minor circulation of blood”). Remarkably, figures from “…Fabrica…” and

“HISTORIA…” were precedents of equal merit to Figures in Teşrih-ül Ebdan ve Tercümânı Kıbale-i Feylesûfan, the first illustrated anatomy book written in the old Turkish Ottoman language. This book was handwritten in the 17th century and reproduced many times in the 18th century, always during the long-lasting rivalry between the Ottomans and Christians. The authorship of Vesalius and Valverde is unacknowledged in the book.

For all the above, plagiarism cannot describe Valverde’s work. Plagiarism applies to publishing data that belong to someone else—including applications for grants and a publication submitted in a different language—yet, notably, without precise reference to the genuine author. Other acts of plagiarism are paraphrasing without crediting the source, using “blanket” references, “second-generation” references, and duplicating or repetitive publication of one’s own previously published work. A significant historical example was the one by the renowned William Cowper (c. 1666–1709), one of the most extraordinary plagiarisms in the entire history of medicine”.

On the contrary, in the princeps and subsequent full editions of “HISTORIA…” (besides those medleys published by C. Plantin in Antwerp), Valverde recognized Vesalius’ initial authorship and why Valverde wished to take advantage of the images of “…Fabrica…”. In addition, explicit acknowledgment of the debt of knowledge that the student (Valverde) has with the teacher (Colombo) appears in the book. Valverde assigns Colombo authorship in discovering pulmonary circulation and other anatomical and physiological facts. Again, in the dedicatory to King Philip II of Spain in the first Italian edition of “HISTORIA…” (1559), Valverde states that, “seruitomi in essa per la maggior parte delle figure del Vessalio, per parermi più degne d’imitatione, che di biasimo: Successe dapoi, che molti non intendendo la lingua Spagnuola, & vedendo le mie figure non-molto diuerse da quelle, cominciarono à dire ch’io hauea tradotta l’historia del Vessalio” (“making the best use of Vesalius’ figures because I find them worthy of imitation more than of censorship, it happened since that moment that many of those who did not understand Spanish, seeing my figures not very different from his, started saying that I had translated my history from Vesalius”).

In conclusion, it is unwise and unfair to say Valverde’s “HISTORIA…” is plagiarism. That the book ended up being a selling success must be entirely attributed to the science and judgment of Valverde, who published with practical purposes in two widely spoken Romance languages a popularizer anatomical work that was well founded, timely, and with appropriate references to authorship of others. Secondly, due to his activities as a dissector and author, Juan Valverde de Amusco pioneered the implementation and transfer of post-Vesalian anatomical scientific knowledge.

Further Reading

https://www.mdpi.com/2813-0545/2/4/33