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# JOHANN BACHOVEN VON ECHT (1515–1576) AND HIS WORK ON SCURVY: AN OMEN OF VESALIUS' DEATH?

## JOHANN BACHOVEN VON ECHT (1515. – 1576.) I NJEGOV RAD NA BOLESTI SKORBUTA: PREDVIĐANJE VESALIUSOVE SMRTI?

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#### Summary

A discussion is given of the figure of Johann Bachoven von Echt and his family, and on his work on scurvy. The disease is evaluated as a possible cause of the death of Andreas Vesalius. Echt's relationship with Jan Wier and his connections with Vesalius and Metellus are illustrated. A historical overview of the literature on scurvy is provided highlighting the importance of the work of Echtius and Ronsse for the early knowledge of that disease. A report by Metellus on the circumstances of Vesalius' death is added.

Keywords: Echtius, Vesalius, scurvy, Metellus, Ronsse, Wier

#### INTRODUCTION

We know why Vesalius undertook his fatal journey to Jerusalem. The reason was both religious and diplomatic. This is clear from the correspondence between Philip II, King of Spain, and Garcihernández, the deputy ambassador in Venice about Vesalius, which was found by José Baron Fernandez in

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Simancas. The many legends on the subject are now a thing of the past.<sup>1</sup> We now also know where he died and was buried. From the letters of Metellus to Cassander and Birckmann, among other sources, it is clear that his final resting place is on Zakynthos, in the *Santa Maria delle Grazie*. The travel accounts of Fürer von Haimendorf, Jean Zuallart and Filippo Pigafetta are also clear on this issue.<sup>2</sup>

But we still lack certainty as to the cause of death. This is usually attributed to the effects of a shipwreck in a heavy storm. However, the possibility that Vesalius was involved in a shipwreck has been ruled out, and he therefore cannot have lost his life in this way. The clearest proof of this is that the letter he had with him from Bonifacius de Ragusa, custodian (*custos*) of the Holy Places in Jerusalem, addressed to the king of Spain, actually arrived and has been preserved virtually intact.<sup>3</sup> Therefore, this definitively excludes a scenario in which Vesalius' ship sank with all hands, because, if he had gone down with the ship, the letter would have been lost too. However, there is a real chance that Johann von Echt (1515-1576), hitherto an illustrious but unknown figure, knew more on the subject. As we shall see, Pavlos Plessas has recently developed a very interesting hypothesis on this matter.<sup>4</sup>

<sup>&</sup>lt;sup>1</sup> Biesbrouck, Maurits and Steeno, Omer, "The last months of Andreas Vesalius. Part I -From Monzon (Aragon) to Jerusalem", *Vesalius - Acta Internationalia Historiae Medicinae*, 2010, 16 (no. 2): 100-106, ill.

<sup>2</sup> Fürer von Haimendorf, Christoph, Reis-Beschreibung..., Nürnberg, Endter, 1646; see pp. 7-8: "Gegen dem Abend kamen wir zu der Insul Zante... In dieser Insul ist ein Closter S. Maria della Gracia genannt, darinnen ligt Vesalius der weltberühmte Medicus und Anatomicus begraben, mit einem Epitaphio samt seinem Wappen, in welchem drey gelbe Windspiel in einem rohten Feld, und auff dem Helm ein gelber Adler mit zweyen Köpffen und Cronen, darauff diese Uberschrift: Andreae Vesalii Bruzellensis tumulus, qui obiit Anno Domini M.C.LXIV. 10. Octobris cum ex Hierosolyma rediisset, anno aetatis suae LVIII." See also Zuallart, Jean, Il devotissimo viaggio di Gerusalemme ... dal Sigr. Giovanni Zuallardo, Roma, F. Zanetti & Gia. Ruffinelli, 1587; and Il devotissimo viaggio di Gierusalemme ... in sei libri, Roma, Domenico Basa, 1595; reissued in French: Le tresdevot voyage de Iervsalem, auecq les figures des lieux saincts, & plusieurs autres, tirées au naturel, Anvers, Arnovld s'Conincx, 1608; later translated into German: Deliciae Hierosolomytanae & totius Palestinae. Das ist Pilgerfahrt in das heilige Land (Gerhardus Greuenbruch, 1606). Jean Zuallart made his journey in 1586, and from 1584 until his death he was also mayeur of Ath. Also Pigafetta, Filippo, Teatro del Mondo di Abramo Ortelio dal medesimo poco innanzi la sua morte riveduto, e di tavole nuove, e commendi adorno, e arrichito; Con la Vita dell'Autore traslata in Lingua Toscana da Filippo Pigafetta, Anversa nella Plantiniana, 1612. We wish to thank Pavlos Plessas (London) for this last reference.

<sup>&</sup>lt;sup>3</sup> Baron Fernandez, José, Andrés Vesalio: su vida y su obra, Madrid, Consejo Superior de Investigaciones Cientificas, Instituto "Arnaldo de Villanova", 1970; see pp. 243-245 and apéndice xi. Also Biesbrouck, Maurits and Steeno, Omer, "The last months of Andreas Vesalius. Part II - From Jerusalem to Zakynthos (Zante)", Vesalius - Acta Internationalia Historiae Medicinae, 2011, 17 (no. 1): 30-34, ill.

<sup>&</sup>lt;sup>4</sup> Plessas, Pavlos, "Death of Vesalius: more evidence points to scurvy", Pampalaia Zakunthinès, May 22nd, 2013, 25 pp., ill; see <a href="http://pampalaia.blogspot.com">http://pampalaia.blogspot.com</a>> and Idem,

#### JOHANN BACHOVEN VON ECHT

Regarding Johann Bachoven von Echt (the name is also written as Echtius, Echthius and Echtis), only a few pieces of biographical information exist, and they contradict one another in important respects.<sup>5</sup> The most comprehensive biography is that which derives from Heinricus Pantaleon (1522-1595) in his *Prosopographia* (Basel: 1566), which was later reproduced by Melchior Adam (1575-1622). (Fig. 1) This short biography was published while Echt was still alive, and mentions just one year, next to the title with his name: *Clar sub ann.* 1554 ('he became famous in 1554'):

Johannes Echtius came from the Netherlands. After first learning



Fig. 1. Portrait of Johann Echtius in H. Pantaleon's *Prosopographia* (Basel, 1566)

the rudiments of the noble arts at home, he studied at several universities, but began his studies at Wittenberg. He then moved to Italy and attended classes in different places with the most famous philosophers as well as physicians, and made such progress that he obtained doctoral honours with the consent of his professors.

Having returned to Germany, he began to practise medicine in Cologne, and met with such success that he became famous far and wide. Together with the physicians Hubert Faber, Bernard Cronenburg and Theodor Birckmann, he wrote a pharmacopoeia for the city of Cologne. We are unable to find most of what he is supposed to have written.

He sought to restore the proper knowledge of herbs to honour, gathered from the work of Dioscorides and Galen. To this end he established a superb

<sup>&</sup>quot;Andreas Vesalius – The Life: Powerful indications that Vesalius died from scurvy", Vesalius – Acta Internationalia Historiae Medicinae – Special Issue for the Vesalius Continuum commemorating the 500th Anniversary of Andreas Vesalius, Zakynthos, Greece, September 4th-8th 2014, 2014, 20 (no. 1): 17, ill.

<sup>&</sup>lt;sup>5</sup> On just one occasion, Echtius was also called *Echter*, by Ludeking (as a literal translation from the Latin), while Vesalius gave his name as *Eccius* in his *China Root Letter* (p. 177). *Echt* (in Guelders) is today a town of about 17,000 inhabitants in the Dutch province of Limburg, between the River Maas, the German border, Sittard and Roermond. He should not be confused with a namesake who was an 18th century theologian.

spacious garden with beautiful exotic plants in Cologne. For his goal was to omit nothing that might contribute to the absolute perfection of medicine. He therefore collected strange seeds from Italy, France, England and all over Germany for many years, with much effort and cost, so that what was previously doubtful or unknown would be known in living form and in all respects. He lived in the utmost unity with his colleagues, by far the most important of whom was Cronenburg, with whom he was wont to confer at a high level about their reputation and works, which very few do.

He led a moderate lifestyle, but at the slightest pungent odour he suffered a serious nasal discharge [lit.: brain damage], and surprisingly, the smell of red roses provoked persistent sneezing in him. Cronenburg himself attributes the cause of this (in Book 10 on the composition of medicines) of the 'warm nature of his brain' both to the peculiarity of his sense of smell and to certain subtleties in terms of bitterness and the heat from certain parts of the rose, with which a certain constriction is associated. (Thus far Pantaleon in Book 3 of his Prosopographia and Bernardus Cronenburg in his work on the composition of medicines.)<sup>6</sup>

The passage about his strange hypersensitivity to roses is reproduced in full here from Echtius' friend, Bernardus Dessenius Cronenburgius

Adam, Melchior, Vitae Gemanorum medicorum: qui seculo superi, et quod excurrit, claruerunt, congestae et ad annum usque 1620 deductae, Haidelbergae, impensis heredum Jonae Rosae, 1620, pp. 72-73: "Joannes Echtius patriam fuit Belga: qui primis bonarum artium elementis domi perceptis, varias ad Academias accessit ac Wittembergae inprimis operae studiique precium fecit. Inde in Italiam profectus; celeberrimos quosque in iis locis philosophos iuxta et medicos audivit: tantumque profecit, ut doctoralia insignia, consentientibus Professorum votis, consecutus sit. In Germaniam reversus, Coloniae Agrippinae medicinam exercere cepit: idque felicitate tantam: ut late virtus eius dimanarit. Conscripsit cum Huberto Fabro, Bernardo Cronenburgio, et Theodoro Burckmanno, medicis, Senatus Coloniensis iussu dispensatorium pro pharmacopaeis suis. Plura quae scripserit, non reperimus. Exactam simplicium cognitionem dudum collapsam ad Dioscoridis ac Galeni doctrinam restituere in integrum conatus est: apparato ad id horto spatioso, quem exoticis elegantibusque herbis sumtuose Coloniae instruxit. Hoc enim animo fuit; nihil, ut quod ad absolutam medicinae perfectionem faceret, praetermitteret. Quamobrem quotannis magno labore atque aere, ex Italia, Gallia, Anglia, et universa Germania semina peregrina conquisivit: ut quod ambiguum, aut ignotum ante fuerat, viva ab omnibus facie cognosceretur. Cum collegis coniunctissime vixit: inter quos Cronenburgius facile princeps, cum quo ingenue, quod paucissimi faciunt, honorem et opera artis solitus fuit communicare. Corporis temperatura fuit aequabili: sed qui ex levissima calidi odorati occasione, in gravem cerebri affectum, venerit: et quod mirandum ex rosae rubrae olfactu, continuo in sternutationem fuerit provocatus. Causam Cronenburgius (Lib. 10. de medicam. composit.) assignat proprio ipsius cerebri temperamento calido, sensusque odoris raritati, et subtilibus quibusdam ab amaritudine, ac caliditate, rosae inditis partibus, cui adstrictio quaedam coniuncta. Tantum de Echtio Pantaleon lib. 3. Prosopogr. Bernardus Cronenburgius in opere de composit. medicamentorum."

(Bernard Cronenburg), who was the first to have reported on the matter in his *De Compositione Medicamentorum* (1556). He refers to him as *Doct. Ioan. Echtius, amicus noster* ('Doctor Johann Echt, our friend').<sup>7</sup> His hypersensitivity to roses is frequently mentioned.<sup>8, 9, 10</sup> Some writers claimed that this quirk even led to his death, although this could not be confirmed.<sup>11</sup> Because of his interest in plants, he was also in regular contact with Conrad Gesner, who tried to persuade him in Cologne to collaborate with him on his edition of Dioscorides.<sup>12</sup>

There were frequent bouts of the plague at this time. During one such outbreak in 1564, Echtius urged Petrus Ximenius (Pedro Jimeno, 1515-1595) and Georg Cassander (1513-1566) to move to his vineyard for the sake of safety.<sup>13</sup>

In the Acta Nationis Germanicae (official records of the German nation), under the heading of philosophy and medicine, there is a mention in Padua for the year 1561 of the costs on the death of a young Echtius from Cologne, who died on 29 August. The first name 'Ioannis' which was added in a different hand between the lines was later deleted, however.<sup>14</sup> This cannot be 'our' Johann von Echt, as these reports do not start until 1553 and he had been back in Cologne for several decades by then, as we will see.

Although little reliable biographical information about Echtius can be found, there are quite a few anecdotes about him. Echtius is mentioned

<sup>&</sup>lt;sup>7</sup> Bernardus Dessenius Cronenburgius, De Compositione Medicamentorum..., Libri X, Lugduni apud Gulielmum Rouilium, 1556, liber X, p. 881.

<sup>&</sup>lt;sup>8</sup> Adam, Melchior, Op. cit.

<sup>&</sup>lt;sup>9</sup> Hartzheim, Josephus, Bibliotheca Coloniensis, Coloniae Augustae Agrippinensium: Thomas Odendall, 1747, p. 169.

<sup>&</sup>lt;sup>10</sup> "Echt (Jean)", *Biographie médicale*, tome quatrième, Paris: C.L.F. Panckoucke, [no year], p. 6.

<sup>&</sup>lt;sup>11</sup> Moreri, Louis, Le grand dictionnaire historique ou le mélange curieux de l'histoire sacrée et profane, tome quatrième, Paris: les Librairies Associées, 1759; see p. 16. See also Theoph. De Meza, *Tentamen Historiae Medicinae*, pars altera, Hafniae, apud C.G. Proft, fil.et soc., 1795; see pp. 44-45.

<sup>&</sup>lt;sup>12</sup> Gesnerus, Conradus, "Epistola XXXV Georgio Cassandro… Tiguri [Zurich], 9 april 1562", Pieter Burman, Sylloges epistolarum a viris illustribus scriptarum, Tomus II, 1727; see p. 256. See also Heuser, Arnold Peter, "Gicht- und Syphilistherapie in Köln um 1560. Ein Beitrag zur Frühgeschichte der Sarsaparillakur in Europa", Rheinisch-westfälische Zeitschrift für Volkskunde, 2001, 46: 67-197; see p. 170.

<sup>&</sup>lt;sup>13</sup> "Epistola XLVIII. Petrus Ximenius Georgio Cassandro", Sylloges epistolarum a viris illustribus scriptarum, tomus II; see pp. 273-274: Propter hunc ipsum metum pestis D. Echtius coëgit nos ad se, hoc est in vineam suam migrare...; dated 6 May [1564]. Pedro Jimeno was professor of medicine in Valencia and a former student of Vesalius in Padua.

<sup>&</sup>lt;sup>14</sup> Favaro, Antonio, "Acta Nationis Germanicae Philosophorum et Medicorum in Studio Patavino. Consiliario Paulo Constantino Phrygioni Tubingensi. Anno MDLXI ac LXII", Atti della Nazione Germanica Artista nello Studio di Padova, vol. I, 1911, Venezia: Prem. Tipografia Emiliana, pp. 39-44.

several times by Reiner Solenander (1524-1601) in his *Consiliorum Medicinalium Sectiones quinque*. Of interest is the section on the preparation of fluids for embalming corpses, in which he indicates that Echtius saw this method being used in Bologna on 2 January 1538, during the embalming of Bishop Megalotta Scaevola.<sup>15</sup> Echtius was barely 23 years old at the time, and was probably there during his studies.

Another consilium, addressed personally to Echt in Cologne (scriptum ad Clariss. Virum D. Ioannem Echtium, Coloniensem Medicum), concerns the state of health of Wilhelm ab Orsbek Iuliacensium (Jülich), the Duke's chancellor, and discusses the medicinal properties of the sources of Spa. The consilium is dated 24. Iunii, Anno 70. Dusseldorpii. This patient also complained of loose teeth.<sup>16</sup>

In yet another, *consilium LX*, *sectio III* for Merheim, a citizen of Cologne with swellings and palpitations, Solenander goes through the medicines that the patient had previously been prescribed by Echtius. This is dated 7 July 1574 (*Signatum 7. Iulii, Anno, &c, 74*).<sup>17</sup> In still another, Solenander submits to Echtius a case of peculiar symptoms that had occurred in a girl from the nobility in the women's house (*Gynaeceion*) of Jülich, who suffered severe pain from urinary stones. It is not dated, but the opening phrase of this *consilium* indicates that Echtius and Solenander were in frequent contact: *Apart from a single letter, I have sent you nothing else this month, because there has been nothing worth writing about.*<sup>18</sup>

In section five of his work, Solenander briefly discusses three other cases in *pro consilio* XV, such as the case in which on 5 May 1562, Echtius, together with the doctor Faber and the surgeon Cosma, encountered a creature 'the size of a caterpillar that had crawled out of a woman', and which they dissected after it had died several days later. This story is also mentioned by Hoorens.<sup>19</sup> Again, Solenander learned from Echtius of the case of a young

<sup>&</sup>lt;sup>15</sup> Solenander, Reinerus, Consiliorum Medicinalium Sectiones Quinque, Francofurti apud Andreae Wecheli heredes, Claudium Marnium, & Ioan. Aubrium, 1596 (reissued Hanoviae, 1609); see pp. 486-487.

<sup>&</sup>lt;sup>16</sup> Solenander, Reinerus, Op. cit.; see pp. 264-265 and pp. 288-289: Wilhelmus ab Orsbek, Iuliacensium, etc. Illustriss. Ducis Cancellarius. Wilhelm von Orsbeck, Herr zu Wensberg, was chancellor of Jülich for Duke Wilhelm of Cleves-Jülich and Berg. See Ignaz Görtz, Burg und Herrschaft Wensberg in <http://www.kreis-ahrweiler.de/kvar/VT/hjb1967/ hjb1967.9.htm>

<sup>&</sup>lt;sup>17</sup> Solenander, Reinerus, *Op. cit*; see pp. 241-244.

<sup>&</sup>lt;sup>18</sup> Solenander, Reinerus, Op. cit; see pp. 310-312: Hoc mense praeter unas literas, nullas ad te dedi, quod nihil fuit interea ad te scriptione dignum.

<sup>&</sup>lt;sup>19</sup> Solenander, Reinerus, Op. cit.; see p. 488 (case II); quoted by Vera Hoorens, Een ketterse arts voor de heksen. Jan Wier (1515-1588), Amsterdam: Bert Bakker, 2011, 634 pp., ill.; see p. 139.

son of Johannes Michelbach who secreted hairs in his faeces (trichobezoar).<sup>20</sup> He also recounts the story, from a colleague named Gisbertus, of a man whom he believed to be dead, who was lowered into the grave after the funeral ceremony, and who only when they were tossing earth onto him began to call out loudly that he was alive; he survived this experience and outlived everyone else. Echt's name is not mentioned by Solenander in this last case, but he was linked with it by Johannes Laurentius Bauschius, who repeated the story later.<sup>21</sup>

Others mention Echtius' name too. Hieronymus Jordanus from Brunswick, a doctor of medicine and physician in Göttingen, mentions in his *De eo quod Divinum aut Supernaturale est in morbis humani corporis, eiusque curatione liber* (Book on the divine or supernatural in human diseases and how to cure it), in the chapter on the obsessions, the case of a young patient of Johannes Echtius who suffered from narcolepsy: J.E., a physician from Cologne, was also deceived by 'swan's tongue pills', which he gave to a girl, of whom it was not known that she was possessed by sleep. When she had swallowed one of them and he closed one eye of the patient with his finger, the demon said, 'Look how beautifully I'm sleeping now!<sup>22</sup>

Johannes Wier who, as we shall see, was related by marriage to Echt, mentions in his *De Praestigiis Daemonum* (Basel: Oporinus, 1564) the case of a thirteen-year-old girl, a nun at the convent near Susato, whom famous jurists believed to be bewitched and who was healed of a swollen abdomen after passing urinary stones with great pain, through the intervention of Johann von Echt and Hubert Faber.<sup>23</sup> It is not clear whether this is the same case as that mentioned by Solenander. These works come from the age of witch trials, and are steeped in that atmosphere. Wier was the first to oppose such persecutions seriously. This last case is also discussed by Vera Hoorens.<sup>24</sup>

<sup>&</sup>lt;sup>20</sup> Solenander, Reiner, Op. cit; see p. 488 (case III).

<sup>&</sup>lt;sup>21</sup> Solenander, Reiner, Op. cit; see p. 489 (case XVIII); cf. Joh. Laurentius Bauschius, Schediasma posthumum de Coeruleo & Chrysocolla, Jenae impensis Viti Jacobi Trescher, 1658; see p. 13. Presumably Gisbertus here is Gisbertus Horstius, see Solenander, Op. cit., p. 491, XXXIII.

<sup>&</sup>lt;sup>22</sup> Iordanus, Hieronymus, De eo quod Divinum aut Supernaturale est in morbis humani corporis, eiusque curatione liber, Francofurti ad Moenum, impensis Joan. Godofredi Schönwetteri, 1651; see p. 162. The story was taken up by Johannes Christianus Frommann, Tractatus de Fascinatione novus et singularis, Norimbergae, sumtibus Wolfgangi Mauritii Endteri Haeredum, 1675; see p. 913.

<sup>&</sup>lt;sup>23</sup> Wier, Joannes, De Praestigiis Daemonum, Bazel, Ioannes Oporinus, 1564; see p. 420. Later also in his Opera omnia, Amstelodami apud Petrum vanden Berge, 1660, see p. 394; but also mentioned by Reiner Solenander, Op. cit.

<sup>&</sup>lt;sup>24</sup> Hoorens, Vera, Op. cit.; see pp. 119-120.

Almost everyone agrees that Echt was born in 1515, although Lindeboom states that according to a certain Banga he was born much earlier, in the closing years of the 15th century.<sup>25</sup> He came from a wealthy Cologne family of councillors who were engaged in commerce. He matriculated in Cologne on 5 October 1528, gaining a bachelor's degree there on 28 November 1531 and a *licence* degree on 15 March 1533. He then studied in Italy, together with Bernhard Dessen von Cronenburg, who would later persuade him to return to Cologne.<sup>26</sup> His death has been put in 1545, 1554 or 1564. But given that, as we shall see, he discussed the death of Vesalius (Zakynthos, 15 October 1564) with Metellus and an eyewitness, he must have still been alive on that date. Therefore, the death date of 10 January 1576, as reported by the chronicler Hermann Weinsberg, is more credible. This date is given in his work *Die autobiographischen Aufzeichnungen Hermann Weinsbergs*, and he adds the detail that Echt was no more than 61 years old at the time:

On 10 January 1576, Doctor Johann von Echt, a physician from Cologne, died. He fell sick with fever on his way to Hambach to see the lord of Jülich. The latter gave him 300 gold guilders, and had his body brought home. He is buried in St Alban. He was no more than 61 years old, was not grey of hair or beard, and was frugal in his food and drink. He was my brother-in-law, was my physician for a while and was greatly celebrated. <sup>27, 28</sup>

<sup>&</sup>lt;sup>25</sup> Lindeboom, G.A., Dutch Medical Biography. A biographical Dictionary of Dutch Physicians and Surgeons 1475 - 1975, Amsterdam, Rodopi, 1984.

<sup>&</sup>lt;sup>26</sup> Heuser, Peter Arnold, 'Gicht- und Syphilistherapie in Köln um 1560. Ein Beitrag zur Frühgeschichte der Sarsaparillakur in Europa' in Rheinisch-westfälische Zeitschrift für Volkskunde, 2001, 46: 67-197; for J. Echtius see pp. 166-179, for his studies see p. 167 n 329. Also Georg Edmund Dann, Das Kölner Dispensarium von 1565, Teil I, Erläuterungen, Stuttgart, Wissenschaftliche Verlagsgesellschaft, 1969, pp. 62-63.

<sup>&</sup>lt;sup>27</sup> Weinsberg, Hermann, Die autobiografischen Aufzeichnungen Hermann Weinsbergs, manuscript with transcript found on 4 August 2013 at <www.weinsberg.uni-bonn.dessee "anno 1576 den 10. Jan.": Anno 1576 den 10. jan. starb doctor Johan Acht, medicus uff der Santkuilen; wart uff dem weg nach Hambach zum fursten van Gulch am feber krank, der im 300 goltgl. schenkte und in heim leis foeren; licht zu s. Alban begraben; war sins alters nit uber 61 jar, nit greis van haren oder bart, lebt sober mit essen und drinken, war min swager und zu zeiten min medicus gewest, seir vernoimt. This was partly quoted by Vera Hoorens. Op. cit.; see p. 293. Weinsberg also mentions the death of his brother Heinrich on 19 September 1587, with details about the family: Anno 1587 den 19ten Septembris starb Henrich Backhoffen, der bontworter Bannerherr, synesz alterz von 77 jaren, ein son wilant Fridrichen von Echt zum bonten Esel Under Wapenstickern und broder doctoris Johannes von Echt medici und doctoris Friedrichen von Echt juristen. Und ob sich diesze nit Backhoffen nannten, dan Echt, so war doch Backhoffen ir rechte zuname, dan Echt war nomen patriae patris im lande von Geller.</p>

<sup>&</sup>lt;sup>28</sup> Santkuilen: 'sandpits': presumably Santkuil was a district of Cologne. Weinsberg from Cologne spent his childhood there, and Johann von Echt must have lived there too. We have been unable to locate Santkuil anywhere in old Cologne. Perhaps it was a (now vanished) village near Cologne, where sandpits had been formed by the extraction of sand or peat. Presumably Echt was summoned to Wilhelm, Duke of Cleves, Jülich and Berg,

Ludeking states that 'Echter' (Echt) was in fact the physician of the Duke of Jülich.<sup>29</sup> However, the Duke of Jülich, Duke of Berg, Duke of Cleves, Count of Mark, Count of Ravensberg and Lord of Ravenstein was one and the same person, namely Wilhelm V, who reigned from 1539 to 1592. For a short period (1539 to 1543) he was also Duke of Guelders, when Charles V brought him to his knees with his expedition to Düren and the destruction of that town. Vesalius was also present there, on his return from Italy via Basel. Wier and Solenander were the official physicians of this Wilhelm. Echt was sometimes consulted, as on his last trip to Hambach, where Wilhelm had a castle and a country retreat. Echt was summoned on that occasion because Wilhelm was sick with a fever.

Solenander also writes about Echtius in a lengthy *consilium* for Gotschalcus von Frechen, a lawyer in Cleves who had a tongue and lip problem; this is dated 13. *Iulii, Anno, &c.* 76: *... desiderium D. Ioannis Echtii, celeberrimi Medici, piae memoriae.* This addition indicates that he had recently died, which corresponds to the date of death given by Weinsberg.<sup>30</sup>

After his studies in Wittenberg and Italy, Echtius had a thriving practice as a physician in Cologne, as we have seen. He lived right in the city centre, in the house *zur Stessen* on Laurenzplatz.<sup>31</sup> Along with Hubertus Faber, Bernhardus Croneburgius and Theodorus Birckmannus, he wrote the *Pharmacopoeia sive Dispensatorium Coloniense* there, having been commissioned by the city of Cologne. The work was published in 1565 and later reissued in Cologne by Birckmann in 1627.<sup>32</sup> <sup>33</sup> The year 1565 is listed for the first edition of the *Pharmacopoeia* in the *Historische Studien und Skizzen* 

due to sickness with fever. Echt probably travelled from Cologne in the direction of Jülich. Hambach lies in the municipality of Niederzier in the state of North Rhine-Westphalia, on the road between Aachen and Cologne, an area known for its lignite mining. Was the Duke there, or did Echt succumb there on the way to Jülich?

<sup>&</sup>lt;sup>29</sup> Ludeking, W.E., 'Johannes Echter' in Idem, Levensberigten en lettervruchten van Nederlandsche geneeskundigen, van de vroegste tijden tot op onze dagen, vol. I, Brielle, C.G. De Graaff, 1897, pp. 91-92.

<sup>&</sup>lt;sup>30</sup> Solenander, Reinerus, Op. cit; see p. 143.

<sup>&</sup>lt;sup>31</sup> von Mering, Fried. Ev. and Reischert, Ludwig, Zur Geschichte der Stadt Köln am Rhein, Köln, Joh. Wilh. Diesz, Erster Band, 1838; see p. 232.

<sup>&</sup>lt;sup>32</sup> Van der Linden, De Scriptis Medicis libri duo, Norimbergae, Johannis Georgius Endterus, 1686, p. 574; and Hartzheim, Josephus, Op. cit.

<sup>&</sup>lt;sup>33</sup> There exists an anastatic reprint: Dispensarium usuale pro pharmacopoeis inclytae reipub. colonien. Coloniae, Apud heredes Arnoldi Birckmani, 1565. This reprint was published by Georg Edmund Dann, Das Kölner Dispensarium von 1565, Teil I, Erläuterungen, Teil II, Tekst (Faksimile), Stuttgart 1969, in the series: Veröffentlichungen der Internationalen Gesellschaft für Geschichte der Pharmazie.

(Düsseldorf, 1898).<sup>34</sup> Caspar Peucer (1525-1602) refers to Echtius in his Silva medicamentorum.<sup>35</sup>

Johann von Echt was the son of Friedrich Bachoven von Echt (+ 1553) and Cathringin von Rennen, and was married to Catharina Herel (Catheringin Herl), daughter of Georg, a patrician from Augsburg, and Gertrude von Reidt. Johann von Echt had eleven children. Six of these were with Catharina Herel: Clara, who married Werner Schenck; Margaretha, who married Heinrich Wier, and died before 1583; Friedrich, a physician, who married Anna von Krebs and died in 1597; Anna (1561- before 23 June 1635), who married Philipp von Brackel; Gertrude, who died young; Albert, a physician, who married Margarethe Boese von Halteren. With Gertrude von Mühlheim he had another five children: Berthold, *canon. ss. apost.*; Johann, also a physician, who married Barbara Helmans; Kaspar (+ 23 June 1631 in Leipzig), who was council chairman of the city of Cologne and married Gertrude Broelman (° 1575); Werner and Cathringin.

Heinrich, whom Margaretha married before 1569, was a son of the famous Jan Wier (Johan Weyer, 1515-1588). Heinrich was a doctor in Koblenz and personal physician to the Elector of Trier. Margaretha inherited several houses in 1577 and died before her husband. In a deed of 3 January 1583, Heinrich, as guardian of his minor children Cathringin (who married Marquart Freher) and Justina (who married Peter Gornitz von Stiesz), together with his von Echt sisters-in-law and his brothers-in-law Friedrich von Echt, Werner Schenck and Philipp von Brackel, was granted power of attorney to represent the family at the *Reichskammergericht* before several lawyers. During a visit to Cologne, Heinrich died there on 16 September 1591. Their possessions were eventually inherited by their children Cathringin and Justina.<sup>36</sup>

Jan Echt had three brothers and a sister: Heinrich (1510-1587), who was married three times, first to Gertraud Hack(en) in 1541, then to Anna Mehlen

<sup>&</sup>lt;sup>34</sup> Historische Studien und Skizzen zu Naturwissenschaft, Industrie und Medizin am Niederrhein. Der 70. Versammlung der deutschen Naturforscher und Aerzte gewidmet von dem naturwissenschaftlichen Verein, dem Architekten- und Ingenieur-Verein, dem Geschichts-Verein und dem Verein der Aerzte Düsseldorfs, Düsseldorf: Bergisch-Rheinische Verlags-Anstalt und Druckerei, 1898, pp. 35-36, see <a href="http://www.biodiversitylibrary.org/">http://www.biodiversitylibrary.org/</a> item/120481#page/5/mode/1up>

<sup>&</sup>lt;sup>35</sup> Fischer, Hans, Die lateinischen Papierhandschriften der Universitätsbibliothek Erlangen, Erlangen: Universitätsbibliothek, 1936; see p. 529.

<sup>&</sup>lt;sup>36</sup> Bachofen von Echt, Karl Adolf, "Bachoven von Echt auch Bachofen und Bachoff von Echt", Beiträge zur Geschichte der Familie Bacoven v. Echt, 3. Auflage, Wien, 1904, pp. 4-15. Cf. Carl Binz. Doctor Johann Weyer ein rheinischer Arzt, der erste Bekämpfer des Hexenwahns. Ein Beitrag zur Geschichte der Aufklärung und der Heilkunde, Berlin, August Hirschwald, 1896.

and later to an unknown woman; Friedrich (+ 1577), a doctor of civil and canon law, who was married to Christine Boese von Halteren; Agnes, who was married to Michael Magnus Gesper and died before 2 June 1553; and Reinhart. Jan's oldest brother Heinrich had a son Richard, a licentiate of civil and canon law who married Sophia Stephens. Their son Johann married Anna, daughter of Laurenz Richwein and Cath. von Culenburg, in 1613.<sup>37, 38</sup> (Fig. 2)

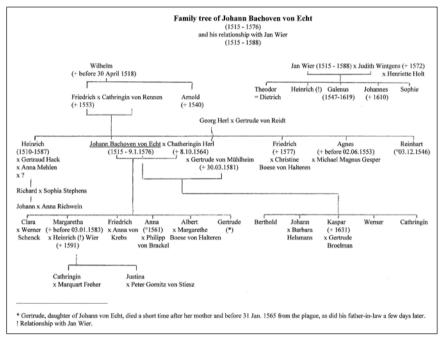


Fig. 2. Family tree of Johann Bachoven von Echt

On 18 August 1550, one *Fredericus Bachonius Echtis* of Cologne, a *j.u.dr.* (a doctor of civil and canon law), was one of four witnesses in Padua to the promotion of *Hupertus Faber*, also of Cologne, to the degree of master of arts and philosophy.<sup>39</sup> The fact that Frederik Echt(ius) took the trouble to attend this promotion indicates that he knew Faber or his family. Incidentally, this must

<sup>&</sup>lt;sup>37</sup> Heuser, Peter Arnold, "Gicht- und Syphilistherapie in Köln um 1560. Ein Beitrag zur Frühgeschichte der Sarsaparillakur in Europa", Rheinisch-westfälische Zeitschrift für Volkskunde, 2001, 46: 67-197.

<sup>&</sup>lt;sup>38</sup> Steimel, Robert, *Mit Köln versippt*, Band I, Köln-Zollstock, Steimel-Verlag, 1955, Tafel 7, p. 22.

<sup>&</sup>lt;sup>39</sup> Martellozzo Forin, Elda, Acta Graduum Academicorum ab anno 1538 ad annum 1550, Istituto per la Storia dell'Universita di Padova, Padova, Antenore, 1971; see deed 3861, p. 408: Bachonius Fredericus Echtis Coloniensis scol. art. med. et i. u. The 'n' in Bachonius should be read as a 'v': Bachovius. In written hands there is sometimes no difference between n, v and u.

be the same Faber who published the *Pharmacopoeia* together with Echt and Cronenburg. However, in view of the timing, this Fredericus is more likely to have been the brother of Echtius rather than his son.

The two brothers Friedrich and Arnold Echt, the father and uncle of Johann von Echt respectively, obtained imperial letters patent issued by Emperor Charles V on 24 March 1532. There was also a coat of arms: *d'azur à un agneau de sable, passant sur une terrasse de sinople*. Johann von Echt is not listed in Lothar Gross' *Die Reichsregisterbücher Kaiser Karls* V. Johann von Echt was 61 when he died, which means he was born in 1515, as is commonly said. In 1532 he was 17 years old. In 1683, through the descendants of his brother Heinrich, the family was ennobled, more than a century after the death of Johann von Echt.

A letter of 11 October 1564 from Metellus to Cassander from Cologne reveals that Echt lost his wife to the plague on 8 October, causing him great grief. She was trying to escape from the disease, and had fallen sick three days earlier. She was buried at St Alban. Before 31 January 1565, he also lost his daughter Gertrude, and a few days after her his father-in-law. This Gertrude may have died as a child, which is why she was not mentioned by name by the genealogists.<sup>40</sup> On 14 October 1564, Echtius also became very ill with the plague. Despite the risks, Metellus visited him from the start and remained at his bedside. On 18 October Metellus received the good news that Echtius, although still in bed, was starting to feel a little better. Eventually he would recover. This shows the extent of Metellus' devotion to Echtius. During this period of illness, Echtius also had to deal with an unscrupulous priest who was after his money.<sup>41</sup>

<sup>&</sup>lt;sup>40</sup> Illustrium et clarorum virorum epistolae selectiores, Leyden, 1617, Epistola 68, from Metellus to Cassander, dd. 11 oktober 1564, p. 351: Ex familiaribus tuis, Echtius, uxorem amisit. viii Idus Octobris... Tertio nonas aegrotare coepit. Also Epistola 65, from Metellus to Cassander, dated 31 January 1565, p. 344: Echtius, praeter uxorem, amisit & Gertrudim filiam, ac paucis ab hinc diebus, socerum. On the plague in 1564 see G. Rath. Pestepidemien des ausgehenden Mittelalters und der Neuzeit, found on 23 August 2013 at <htps://www.amuseum.de/ medizin/PDF/CZ73.1955/Pestepidemien%20des%20ausgehenden%20Mi\_2.pdf>

<sup>&</sup>lt;sup>41</sup> Pieter Burman. Sylloges epistolarum a viris illustribus scriptarum, tomus II, 1727, Epistola 60 from Cologne, dated 18 October 1564, from Metellus to Cassander; see p. 290: "Echtius enim, jam quintum diem, peste gravissime decumbit. Eum invisi, sub initium morbi, ac sum coram lectulo fixum decumbentem allocutus. Hodie, qui meus est natalis dies, adhuc in lecto jacens, accepi felicius nuntium. Nempe, meliuscule eum habere..." (For it is already five days that Echtius has lain very sick in bed with the plague. I visited him at the onset of his illness and remained at his bedside. Today [on 18 Oct.], on my birthday, I received the better news that, although still in bed, he is nevertheless beginning to feel a little better.) Also in Rheinisch-westfälische Zeitschrift für Volkskunde, 2001, vol. 46, p. 174: "Wenig später erkrankte Echtius selbst an der Pest, überlebte aber. Matal besuchte

After the death of his wife Jan Echt remarried to Gertrude von Mühlheim, who died of the same disease on 30 March 1581. Johann von Echt became a personal physician to the Duke of Berg and Jülich-Cleves, and to the Elector of Trier. In 1573 he was invited to move to the court in Vienna to take up a position as imperial physician, but he turned down the offer. Vesalius had been dead nine years by this time.<sup>42, 43</sup>

Jan Wier thought highly of Echtius. He called him 'equal in worth to many others together and known for his erudition, integrity and experience'.<sup>44</sup> We also have an Echt's letter to Philipp Melanchthon in Wittenberg from 1559, which is preserved in the *Landeshauptarchiv* of Saxony-Anhalt.<sup>45</sup> In addition, there is a letter to Carolus Clusius (1526-1609) from a Johann von Echt, but this is dated 1591 and was probably written by his son, also a doctor. <sup>46</sup> On the other hand, a letter to Echtius from Metellus (Cologne, 1 July 1564) is preserved in the Biblioteca Apostolica Vaticana (Pal. Val. Lat. 1564, fol. 150v). We learn from the letter that Echtius owned a valuable Carolingian manuscript, a copy of a Roman codex on *agrimensura* (surveying), which Metellus,

ihn trotz der Ansteckungsgefahr am Krankenbett". See further in Illustrium & clarorum virorum epistolae selectiores, Leiden, apud Ludovicum Elzevirium, 1617, Epistola 65, dated 31 Jan, 1565, also from Cologne; see p. 332: "Qui Alban gregi praeest, scelus in Echtium admisit. Peste laborantentem [i.e. laborantem], ac fere animam agentem, non vocatus, invisit: ac tum, graviter, & supra quam dici potest, iracunde, in eum invectus est, propter calicem. Neque Echtius, moribundus, hominem cohibere potuit, ulla ratione, a quo, se rectius institui, Christiane petebat, quin prope fureret. Itaque, proximo sequenti die, Echtio significavit: se, eum non permissurum tradi sacrae sepulturae. Putabat enim, non convaliturum, & pecuniam, ea arte, ab Echtii propinquis, emungere volebat: sed Deus, hominem servavit." (The man who was head of the parish of St Alban, committed a crime against Echtius. The latter was sick with the plague and almost dying. Uninvited, he came to visit him and then flew into a rage with him, faster than I can say, with the chalice in his hand. The dying Echtius was unable to calm the man, who was completely out of his mind, at which, the better to make him understand, he asked him in a Christian manner exactly why he was angry. Then, the next day, Echtius indicated that he would not allow him to give him communion. For the man thought that he would not recover and wanted in this way to cheat the family of Echtius out of money. But God spared the man.)

<sup>&</sup>lt;sup>42</sup> Bachofen von Echt, Karl Adolf, Op. cit., p. 14.

<sup>&</sup>lt;sup>43</sup> 'Heinrich Weyer (Arzt)' in Wikipedia, found on 7 August 2013, see <de.wikipedia.org/ wiki/Heinrich\_Weyer\_(Arzt)>

<sup>&</sup>lt;sup>44</sup> Wier, Jan, Op. cit., p. 420: "Hunc insignis doctrinae, integritatis atque usus vir D. Ioannes Echtius,..."

<sup>&</sup>lt;sup>45</sup> Echtius, Johannes, "Brief an Philipp Melanchthon in Wittenberg 1559", in Landeshauptarchiv Sachsen-Anhalt, Z 6, no. 325, film signature 4731.

<sup>&</sup>lt;sup>46</sup> Echtius, Johannes, "Brief aan Carolus Clusius (1526-1609)", found on 30 July 2013 in de Virtual International Authority File, see <viaf.org/viaf/280102989>

being a cartographer, studied.<sup>47</sup> Metellus was not just a friend of Echtius, he was close to his family and was practically a member of the household.

Aretius from Marburg was also among his acquaintances, and he received a visit from Echtius, which is mentioned in a letter dated 1 March 1572, as a preface to Wigand Happelius for a work about Paracelsus published by him. This letter is about botanical excursions in Marburg.<sup>48</sup> There is also a remarkable letter sent from Cologne by Oporinus to Wier, in which he adopts a position in a dispute between the doctors Jan Wier, Reinerus Solenander, Johann von Echt and Bernard Dessenius Cronenburg (the so-called 'antispagyrists') on the one side, and Georg Fedro, a follower of Paracelsus, on the other; this is cited by Eduard Schubert and Karl Sudhoff in their *Paracelsus-Forschungen.*<sup>49</sup>

#### JOHANN VON ECHT AND VESALIUS

Vesalius mentions him as *Ioannes Eccius* in his *China Root Letter*, where he describes their meeting in Cologne in August 1545.<sup>50</sup>

... Therefore I could not have been more amazed by the letter from Dryander, shown to me in Cologne when I travelled there recently by Johann von Echt, the distinguished physician, in which he complains that I have given no list of the famous anatomists of our time and that, as well as some others of whom I do not even know whether they were ever born, I fail to acknowledge Johannes Guinterius in this way as my teacher, a man whom in truth I greatly respect and openly mention in my writings as my teacher in medicine.

<sup>&</sup>lt;sup>47</sup> Thulin, C., Die Handschriften des Corpus Agrimensorum Romanorum, Berlin, Verlag des Königl. Akademie der Wissenschaften, 1911, 56-57. See also Peter Arnold Heuser, "The correspondence and Casual Poetry of Jean Matal (c. 1517 – 1597). A Preliminary Inventory", Lias. Sources and Documents 30, 2003; no. 119.

<sup>&</sup>lt;sup>48</sup> "Aretius, Benedikt: Portrait, Brustbild...", Zvab, see <www.zvab.com/buch-suchen/ textsuche/das-ist-floristiek> found on 30 July 2013.

<sup>&</sup>lt;sup>49</sup> Schubert, Eduard and Sudhoff, Karl, Paracelsus-Forschungen. Handschriftliche Documente zur Lebensgeschichte Theophrasts von Hohenheim, Zweites Heft, Frankfurt a. M., Reitz & Koehler, 1889; see p. 81. For Dessenius see Alexander Chalmers. 'Dessenius (Bernard)' in Idem, The General Biographical Dictionary, vol. XIII, London, J. Nichols and son, etc., 1813, pp. 2-3; also van der Aa, 'Cronenburg Bernard Dessenius (van)' in Idem, Biografisch woordenboek, 3 and Vera Hoorens, Op. cit., pp. 214-219; and also Fried. Ev. von Mering and Ludwig Reischert. Op. cit., pp. 230-233.

 $<sup>^{50}</sup>$   $\,$  Charles V was in Cologne from 10 to 16 August with Vesalius in his entourage.

and then a little further on: ... [Dryander] told Eccius in the same letter what he needed to do, especially if he wished to be counted among the anatomists and surgeons.<sup>51</sup> Apparently Dryander enjoyed giving other people a lecture.

This passage proves that Vesalius and Echtius knew each other. As mentioned earlier, in Cologne Echtius had, together with Metellus, met the man from Nuremberg who had buried Vesalius' body on Zakynthos.<sup>52</sup> They discussed Vesalius' death. Metellus passed on the story in a letter dated 17 April 1565 to Arnold Birckmann.<sup>53</sup> This letter is on the front cover of a copy of the *De Humani Corporis Fabrica* from 1555 which is currently in private owner-

- <sup>52</sup> Johannes Metellus (1520-1597) was born in Burgundy as Jean Matal (Matalius), also known as Sequanus, but spent most of his life in Leuven, where, as a cartographer, he knew Gemma Frisius and Gerardus Mercator. Towards the end of his life he lived in Cologne, where in 1598 his maps of America were published posthumously. Together with Matthias Flacius, Achilles Gasser, Conrad Gessner, Joris Cassander, John Bale and Cornelius Wouters he formed the humanist group around Kaspar von Niedbruck. He was friends with the Portuguese author Hieronymus Osorius. See R.W. Truman. Jean Matal (Johannes Matalius Metellus), ami fidèle de Jeronimo Osorio et son 'De rebus Emmanuelis à Cologne', found in August 2012 at <http://www.uc.pt/fluc/eclassicos/publicacoes/ ficheiros/humanitas43-44/19.Truman.pdf>; also Idem. Jean Matal and his relations with Antonio Agustin, Jeronimo Osorio da Fonseca, and Pedro Ximenes.
- <sup>53</sup> Franz and Arnold Birckmann from the Duchy of Guelders, who were acquaintances of Erasmus, bought a house in Cologne in 1511, which was named 'Zur fetten Henne'; this also became their printer's mark. They first established an international reputation as booksellers, and later also turned to printing. Franz died in 1530, and his brother continued until his death in 1541. After this, his widow Agnes (+1580) ran the business until 1561. The two sons then took over, Arnold the Younger (1523-1574) and Johann II (1527-1572). A third brother, Theodor Birckmann (+1586) was a physician and follower of Paracelsus, and the press thus obtained a monopoly over the printing of works of Paracelsus. After the death of the two printer brothers, Theodor transferred the business in 1585 to his brother-in-law Arnold Mylius. Metellus' letter will thus have been addressed to Arnold Birckmann the Younger. See Arnold Birckmann found in August 2012 at <de.wikipedia. org/wiki/Arnold\_Birckmann>

Vesalius, Andreas. Epistola, rationem modumque propinandi radicis Chynae decocti, Basileae, ex officina Ioannis Oporini, 1546, p. 177: "Quare etiam non potui satis mirari Dryandri literas, Coloniae, quum nuper illac iter facerem, mihi a communi nostro amico Ioanne Eccio insigni medico exhibitas, quibus ille conquerebatur, a me nostrae aetatis celebrium dissectionis professorum nullam esse factam enumerationem, ac me praeter aliquot alios (qui num nati usquam fuerint, haud scio) Ioannem Guinterium hac in parte praeceptorem non cognovisse, quem ego sane multis nominibus colo, & in medicina praeceptoris loco publicis scriptis habeo." And somewhat further at p. 178: "... [Dryander] id enim iisdem ad Eccium literis indicabat, quod ab illo potius, qui inter anatomicos & manus operi adhibentes connumerari studet, erat faciendum." Dutch translation by Pinkhof, "Andreae Vesalii Epistola de radicis Chynae decocto", Opuscula selecta Neerlandicorum de arte medica, Fasciculus tertius quem curatores miscellaneorum quae vocantur Nederlandsch Tijdschrift voor Geneeskunde collegerunt et ediderunt, Amstelodami, apud F. van Rossen, 1915; see p. 170. English translation by Daniel H. Garrison, Vesalius: The China Root Epistle. A New Translation and Critical Edition. Andreas Vesalius, edited and translated by Daniel H. Garrison, Northwestern University, with added illustrations from the 1543 and 1555 De humani corporis fabrica, New York, Cambridge University Press, 2015, 263 pp.

ship.<sup>54</sup> Two days earlier (on 15 April 1565), Metellus had already written on the same subject to Cassander, but that letter contains fewer details. Echtius was also a friend of Cassander.<sup>55</sup> In view of the interest in the circumstances of Vesalius' death, we reproduce the full text of the letter to Birckmann in an addendum. (Fig. 3)

In his second book of letters Secunda Epistolarum Medicinalium miscellanea, first published in Basel in 1560 (Basileae, ex officina Nicolai Brylingeri, expensis Ioan. Oporini, Anno Salutis humanae M.D.LX.

de Morte Andrea 12 Suide A. the re · population pofuil. Turnel agood in the owner was some to be the p Echo ming would . Ever igher the me walter example jutarum. Vale. XV. Kal. Maj. M3/22

Fig. 3. Letter (Ms.) from Metellus to Birckmann about Vesalius' death (We thank Dr. Stephen N. Joffe for giving a copy of this Ms.)

*Mense Martio*), Ioannes Lange wrote in Letter XIII that Joh. Echtius had told him that 'the disease of the Danes and Norwegians', namely *Scherbock*, had now also started to take hold in Cologne as a new disease.<sup>56</sup> This letter dates from before the meeting of the threesome Echtius, Metellus and Boucher, and before the death of Vesalius.<sup>57</sup> They can therefore hardly have avoided discussing, in part at least, this scurvy 'epidemic'. It would then have been very strange if none of the three had drawn a link with Vesalius' situation

<sup>&</sup>lt;sup>54</sup> This was the personal copy of Nicolas Senn (1844-1908), which ended up via the John Crerar Library in Chicago at the University of Illinois. When the university sold this duplicate copy of their *Fabrica* 1555 in a Christie's auction on 31 March 1995, it ended up in the collection of Stephen Joffe, where it still resides. See Peter Arnold Heuser, *Op. cit.*, no. 152.

<sup>&</sup>lt;sup>55</sup> Schoor, Rob van de, "Georgius Cassander: Searching for Religious Peace in his Correspondence (1557-1565)", Jeanine De Landtsheer and Henk Nellen, Between Scylla and Charybdis. Learned Letter Writers Navigating the Reefs of Religious and Political Controversy in Early Modern Europe, Leiden, Brill, 2011; see pp. 133-134. Georg Cassander (Pittem, 1513 - Cologne, 3 February 1566) was a Flemish theologian who studied in Leuven. He first taught in Bruges and Ghent, but moved to Cologne in 1549, where after a thorough study of the differences between Catholicism and Reformation thinking he devoted himself to the cause of reunification. His collected works were published in Paris in 1616.

<sup>&</sup>lt;sup>56</sup> Langius, Ioannes, Secunda Epistolarum Medicinalium miscellanea, Basileae, ex officina Nicolai Brylingeri, expensis Ioan. Oporini, Anno Salutis humanae M.D.LX. Mense Martio; see pp. 70-71. Later also in Epistolarum medicinalium volumen, Hanoviae, typis Wechelianis, apud Claudium Marnium en haeredes Ioann. Aubrii, 1605, book II, letter XIII, p. 555.

<sup>&</sup>lt;sup>57</sup> Georges Boucher or Georg Buchner (Schwabach, 1536 - Nuremberg, 4 October 1598) was the son of Hans, a knifesmith from Schwabach. He himself became a goldsmith, jeweller, merchant and Spitalmeister in Nuremberg. He was buried on 6 October 1598 at the Rochus Cemetery, grave no. 478. The epitaph is still extant. See Manfred H. Grieb (Hrsg.). "Buchner, Georg", Idem, Nürnberger Künstlerlexikon, München, 2007, Bd. 1, p. 195.

or if Echtius, as a specialist in *scorbut*, had refrained from putting specific questions about the matter to Boucher, especially as he had just written his treatise on this disease.<sup>58</sup> A meeting of Echtius with Metellus was not so exceptional, but that Boucher was there on this occasion was probably unusual. That Echtius and Metellus saw each other regularly is clear from the latter's letter sent from Cologne to the sick Andreas Masius the day before Christmas Day in 1565. In it he shares with Masius some additional treatment recommendations from Echtius, with whom he 'dined a few days ago and will do again shortly'.<sup>59</sup> Boucher, who was apparently the goldsmith from Nuremberg and an eyewitness, also told the story of Vesalius' death to Petrus Bizarus in the presence of Julius Borgarucius.<sup>60</sup> Metellus himself introduced Echtius to Hubert Languet, a physician and political agent of the Elector Augustus of Saxony, by means of a letter dated 15 May 1569, more than four years after the latter had himself sent Caspar Peucer a note (Paris, 1 January 1565) about the circumstances of Vesalius' death.<sup>61</sup>

#### ECHTIUS' WORK ON SCURVY

Joannes Echtius is assumed to have been the first physician to have written a treatise on scurvy. But as far as we have been able to ascertain, this

<sup>&</sup>lt;sup>58</sup> Ronsseus, Balduinus, De magnis Hippocratis lienibus, Plinii'que stomacace, ac sceletyrbe, seu vulgo dicto Scorbuto, Libellus, Antverpiae, Apud Viduam Martini Nutij., 1564; with the treatise on ff. 26-31 De Scorbuto, sive scorbutica passione, epitome, wrongly under the name of Joannes Wierus, and actually by Jan Echt.

<sup>&</sup>lt;sup>59</sup> Lossen, Max (ed.), "Jo. Metellus an Masius. Köln, 1565 Dezember 24", Idem, Briefe von Andreas Masius und seinen Freunden 1538 bis 1573, Leipzig, Verlag von Alphons Dürr, 1886, pp. 1565-1565: Echtius noster, dum superioribus diebus ac proxime apud eum pranderem, me hortatus est ut aliquid novarum rerum ad te perscriberem, quo lenirem morbum tuum familiari nostro sermone, ... Echtius abest civitate.

<sup>&</sup>lt;sup>60</sup> Bizarus, Petrus, Historia della guerra fatta in Ungheria dall'invittissimo Imperatore de Christiani, contra quello de Turchi: con la narratione di tutte quelle cose che sono avvenute in Europa, dall'anno 1564, insino all'anno 1568, Lyon, Guliel. Rovillio, 1568; see pp. 178-180. This, probably the first printed account of Vesalius' death, differs in some details from that in the later Latin version: his Pannonicum bellum, sub Maximiliano II. Rom. et Solymano Turcar. imperatoribus gestum: Cumque Arcis Sigethi expugnatione ... descriptum... Una, cum Epitome illarum rerum, quae in Europa insignoriores gestae sunt: et praesertim de Belgarum motibus, ab anno LXIIII, usque ad LXXIII, Basileae, per Sebastianum Henricpetri [1573], 27 11., 322 pp.; see pp. 284-285. Also in Alphonse Guillaume Ghislain Wauters, 'Quelques mots sur André Vésale, ses ascendants, sa famille et sa demeure à Bruxelles nommée la maison de Vésale' in Mémoires couronnés et autres mémoires ..., [Bruxelles], Académie Royale des Sciences, des Lettres et des Beaux-Arts de Belgique, 1897, 55: 1-74; see pp. 32-37.

<sup>&</sup>lt;sup>61</sup> Heuser, Op. cit., pp. 175-175. Also Maurits Biesbrouck, Theodoor Goddeeris, Omer Steeno, "Post Mortem Andreae Vesalii (1514-1564). Deel I: De laatste reis van Andreas Vesalius en de omstandigheden van zijn dood", A. Vesalius, KULeuven Faculteit Geneeskunde -Permanente Vorming, 2015, 27 (no. 3): 154-161, ill.

twelve-page treatise was never published separately. Its first publication is frequently put in 1541. It is currently impossible to find, but according to Th. Blondin, Albrecht von Haller (1708-1777) held a copy in his hands. However, Haller himself merely writes that he had read that the work had appeared in 1541.<sup>62</sup> James Lind (1716-1794) was the first to date the work to that year. He mentions it in his *A Treatise on the Scurvy* (1757), briefly summarising the contents.<sup>63</sup> But the first to mention the presence of the work in 1541 convincingly is Petrus Forestus in his fairly extensive letter from 1590 *De Scorbuto malo cognoscendo et curando...* ('The diagnosis and treatment of scurvy'), addressed to Jordanus Forestus and Adamus Forestus:

"...On this, consider the treatise of my old friend and very learned doctor Boudewijn Ronsse, published as 'De scorbutu'. It is sufficient that we know that the name 'scorbut' is essentially a disease caused by a disorder of the spleen, which sometimes becomes congested or indisposed by an incipient scirrus, which hinders its power of attraction and the usual removal of the excess of black bile from the liver and the veins of the peritoneum, as a result of which the body becomes damaged, being flooded by this coloured moisture. But in particular, the legs are contaminated by the thicker dregs and the gums by the volatile astringency. Thus Echtius also reports in his 'Epitome' which he [= Ronsse] added to the book just mentioned. Previously, in 1541, he wrote almost the same word for word in a letter to Blyenburg, a physician in Utrecht, which the most learned doctor from Cologne, my dear friend Cronenburg, sent to me at about the same time, together with two other letters from Blyenburg written to Johannes Echtius, one from the fifth Sunday after Easter 1541 [which fell on May 22, 1541] from Utrecht, and the other on 5 September 1541. Earlier, in 1558, I wrote certain extracts from these letters

<sup>&</sup>lt;sup>62</sup> von Haller, Albertus, Bibliotheca medicinae practicae, Tomus II ab anno 1534 ad a. 1647, Bernae apud Em. Haller, & Basiliae apud Joh. Schweighauser, 1777; see p. 59: "J. Echtius medicus Coloniensis, Botanices peritus. Ej. de scorbuto vel scorbutica passione epitome. Lego prodiisse jam 1541..." Also Th. Blondin. Oeuvres médico-philosophiques et pratiques de G.-E. Stahl, Tome IV, Paris, J.-B. Baillière et fils, 1863; see pp. lxix-lxx: "Le premier auteur qui ait écrit sur le scorbut, c'est Jean Echtius (de scorbuto, vel scorbutica passione, epitome, 1541, livre rare que Haller dit avoir lu)."

<sup>&</sup>lt;sup>63</sup> Lind, James, A Treatise on the Scurvy, London, A. Millar, 1757; see pp. 305-307. James Lind (Edinburgh, 4 October 1716 - Gosport, 13 July 1794) was a Scottish physician and pioneer of hygiene at sea in the Royal Navy. In 1739 he began his naval service in the Mediterranean, off the coast of West Africa and in the West Indies. In 1747 he was appointed surgeon on *HMS Salisbury* in the Channel fleet. During a mission in the Bay of Biscay, he conducted his clinical experiment on scurvy. He discovered that citrus fruits can cure scurvy, called for improved hygiene on board and suggested that drinking water should be produced by distilling sea water. He subsequently wrote a doctoral thesis on venereal diseases and taught in his hometown.



Fig. 4. Title page of Ronsse's compilation on scurvy

to your uncle and now I send you the same again. There are also quotations in them from the two letters on scurvy of Blyenburg, which I certainly could not omit, and also from the letter of Echtius which were subsequently (as I have said) included in the Epitome and were also printed at the end of Ronsse's book." <sup>64</sup>

The *Epitome* of Echtius was subsequently always issued together with another work: it appeared as a part of compilations on scurvy a total of four times. The first time was in the work of Balduinis Ronsseus, *De magnis Hippocratis lienibus*, *Pliniique stomacace* (Antwerp, 1564), with the contribution of 'Ioannis Wieri' (in fact Echtius) on ff. 26r-31v, followed by its second edition in Wittenberg in 1585, this time with

Petrus Forestus. 'De scorbuto malo cognoscendo et curando ...' in M.A. van Andel, Consultationes medicae, Opuscula selecta Neerlandicorum de arte medica, Fasciculus tertius decimus quem curatores miscellaneorum quae vocantur Nederlandsch Tijdschrift voor Geneeskunde collegerunt et ediderunt, Amstelodami, sumptibus Societatis, 1935, 17-93; see p. 35: "Videte de his BALDUINUM RONSSEUM, medicum doctissimum, veterem nostrum amicum, in commentario suo edito De scurbuto. Satis est quod nomen ab essentia cognoscimus, scurbutum morbum esse ex vitio splenis aliquando obstructi, aut intemperati; aliquando etiam cum incipiente scirrho, qui praepedit eius attractionem, ac consuetam sequestrationem atrabiliariae redundantiae, ex hepate venisque mesaraicis: eoque vitiante corpus, coloris humore aspergit. Sed peculiariter crassiore faeculentia, crura; et evaporante acredine, gingivas contaminat; ut ECHTIUS addit in sua epitome eidem libello adiuncta: cum et eadem olim fere ad verbum in epistola scripserat ad BLIENBURCHI-UM, medicum Traiectensem, anno 1541, quam et eodem fere tempore eruditissimus ille medicus Coloniensis, nostri amantissimus CRONENBURCHIUS ad me misit, et simul alias duas epistolas BLIENBURCHII ad JOHANNEM ECHTIUM scriptas, unam dominica post Cantate, anno 1541 ex Traiecto: alteram 5 Septemb. anno 1541. Ex quibus epistolis quaedam decerpta, olim ad patruum vestrum anno 1558. scripsi, et nunc iterum eadem ad vos mitto, cum quaedam et hic referuntur ex duabus epistolas illis BLIENBURCHII de scurbuto, quae neguaquam omittenda esse duximus: et etiam ex epistola ECHTII: quae postea in epitomen (ut diximus) redacta sunt, et in fine libri RONSSEI etiam impressa." (Dutch translation after M.A. van Andel). This letter was also previously published in Opera Omnia Observationum et Curationum, Tomus Secundus, Libri decem posteriores (XI-XX), Rothomagi [Rouen], 1653, p. 419, Petrus van Foreest.

the correct author's name: Ioannis Echtii *De scorbuto, vel scorbutica passione, epitome* (pp. 98-214 [114]).<sup>65, 66</sup> (Fig. 4) It was published for a third time by Daniel Sennertus in his *De scorbuto tractatus* (Wittenberg, 1624) with the *epitome* of Echtius on pp. 299-310, and then finally in its second edition with the same title (Frankfurt & Wittenberg, *editio secunda*, 1654), in which Echtius' treatise appears on ff. 181-186.<sup>67</sup> (Fig. 5) In his edition of 1564, Ronsse must

- <sup>66</sup> Jan Wier apparently sent a copy of this letter to Ronsse, who included it in his work of 1564. Wier also said that his son had transcribed the letter, but had done so carelessly. This may explain why Foreest writes "he wrote the same almost word for word back in 1541 to the Utrecht physician Blienburch". Pieter van Foreest received this letter from Cronenburg at about the same time. Did this letter perhaps later end up in Wier's hands? Or did Wier have a copy of it?
- <sup>67</sup> Echtius, Ioannes, "De scorbuto, vel Scorbutica passione Epitome", Daniel Sennert, De scorbuto tractatus, ... cui accesserunt ejusdem argumenti Tractatus & Epistolae Balduini Ronssei, Johannis Echthii, Johannis Wieri, Johannis Langii, Salomonis Alberti, Matthaei Martini,

Boudewijn Ronsse (probably Ghent, 1525 - Gouda, 12 February 1597) enrolled as a student at the University of Leuven in 1541 and after completing his studies set up as a doctor in Veurne. In 1551 he was appointed city physician of Gouda, where three doctors had died in rapid succession and the city authorities were desperately looking for a suitable candidate. Ronsse was by now married and had a son. In Gouda he set up on the Gouwe (opposite St. Joos Bridge). After fourteen years, however, he was appointed as personal physician to Duke Erik II of Brunswick, who served as commander of a mercenary army under Charles V and King Philip II of Spain. The Duke was lord of Liesveld, where he stayed when he was in the Netherlands. In early 1569 Boudewijn Ronsse returned to Gouda and was reappointed as city physician for the same annual salary of 50 Carolus guilders. In subsequent years Ronsse requested and obtained regular increases in his annual salary. The city authorities made his pay increases conditional on his continuing to work in Gouda, but that did not prevent him from entering the service of the Duke of Brunswick again in 1577. In 1582, however, he returned to Gouda. The city authorities wished to bind him expressly to Gouda and offered him a ten-year contract for 204 Carolus guilders per year; in addition he received a certain amount per transaction, and was also exempt from both military service and tax. Ronsse, who now apparently wanted to settle permanently in Gouda, bought an orchard on the Fluwelensingel. Ronsse published various works on subjects including obstetrics and scurvy, a compilation of essays on the subject of hygiene and nutrition and a poem about medicines. He was closely involved in raising the standards of the medical profession in Gouda, campaigned for the creation of a surgeons' guild, actively promoted a scheme for the sale of medicines by pharmacists and surgeons, fought quackery and made an unselfish offer to train Gouda's surgeons. One of his most famous patients was Dirck Volkertszoon Coornhert, who died in Gouda on 29 October 1590. After the death of his first wife, Ronsse married for a second time, to Adriaentje van Neck. Several children were born from this marriage. In 1591 his contract was extended for a period of six years. However, he died before his contract had expired, on 12 February 1597. Out of respect and appreciation for his services to the citizens of Gouda, the city paid for his funeral in full. (Found on 10 August 2013 in Wikipedia). See also Leon Elaut, "Boudewijn Ronsse, dekadentie van de humanistische geneeskunde tijdens de zestiende eeuw in Noord-Nederland", Tijdschrift voor Geschiedenis, 1972, pp. 410-417, summarised in Nationaal Biografisch Woordenboek, vol. 6, 1974, col. 817-820. Also F.W.T. Hunger, "Boudewijn Ronsse (Balduinus Ronsseus, 1525?-1597)", Nederlandsch Tijdschrift voor geneeskunde, 1930, 2887-2905, ill., which states that Ronsse was a student of Triverius "D. Hieremia Drivero, quondam praeceptore meo" (Miscellanea, epist. XX., 1590, p. 62) and that he himself had already written a letter about scurvy in 1555.

have become confused, because at the end of his own contribution he writes that he has obtained a certain letter [about scurvy] from 'the very learned doctor Ian Wier'. despite the fact that, just before his contribution, he prints Wier's letter of 6 November 1563, in which Wier communicated his text in order to impart to Ronsse the opinion of Jan Echt (and others) on the subject; Ronsse was to correct this rather confusing situation later on. The misunderstanding may also indicate that Ronsse had no idea at that time that Echt had written about this subject, and hence that it had probably not yet appeared in print.



Fig. 5. Title page of Sennert's compilation on scurvy

Although no systematic search has been conducted of all existing copies, it is clear that these editions are rare. The K. K. Hofbibliothek of the Austrian Nationalbibliothek has a copy of Ronsseus' first edition (Antwerp, 1564). There is a copy of the second edition in the library in Erlangen (Bibliotheksverbund Bayern). Durling mentions the inclusion in the compilation of Baudouin Ronsse (1525-1597) from 1585.<sup>68</sup> A copy of the edition of Daniel Sennert (1572-1637) from 1624 can be found in the Yale University Library.<sup>69</sup> There is also a copy in the Bayerische Stadtsbibliothek München, which can be accessed via books.google. Other copies can be found in the British Library (London) and

Wittebergae apud Zachariam Schurerum, 1624, pp. 299-310. See also Bernard Quaritch, Medicine. Catalogue 1332, London, Bernard Quaritch Ltd., 2005, lot 109.

<sup>&</sup>lt;sup>68</sup> Durling, Richard J. (Comp.), A Catalogue of Sixteenth Century Printed Books in the National Library of Medicine, Bethesda (Maryland), U.S. Department of Health, Education, and Welfare. Public Health Service. National Library of Medicine, 1967, pp. 590-591; see no. 3937 "De scorbuto epitome Ioannis Echtii", Boudewijn Ronsse, De magnis Hippocratis lienibus, Pliniique stomacace, ac sceletyrbe ..., seu vulgo dicto scorbuto, libellus, ..., Witebergae, Clemens Schleich, 1585.

<sup>&</sup>lt;sup>69</sup> See: <http://orbis.library.yale.edu/vwebv/search?searchArg1=Echtius&argType1=all&searchCode1=GKEY&combine2=and&searchArg2=&argType2=all&searchCode2=GKEY&combine3=and&searchArg3=&argType3=all&searchCode3=GKEY&year=2012-2013&fromYear=&toYear=&location=all&place=all&type=all&medium=all&language=all&recCount=50&searchType=2&page.search.search.button=Search>

the university libraries of Göttingen, Kiel and Erfurt, among other places. All of these are of the 1624 edition. A copy of Sennert's second edition is mentioned by Hans Sallander in the Waller Collection.<sup>70</sup>

It is also mentioned in several bibliographical surveys of scurvy. The oldest is – as mentioned – that of James Lind in the last part of his A Treatise on the Scurvy. After an overview of passages in Greek and Roman writers who probably discuss this subject, he provides a comprehensive annotated list of sources from more recent times. Among those from the 16th century, he refers to the work of Echtius De scorbuto, vel scorbutica, epitome (1541), which Lind describes as the very first description of scurvy by a physician. He then briefly mentions two letters from Jo. Langius,<sup>71</sup> before discussing in detail Balduinus Ronsseus De magnis Hippocratis lienibus, Pliniique stomacace ac sceletyrbe, seu vulgo dicto scorbuto, commentarius. Ejusdem epistolae quinque ejusdem argumenti from 1564; Jo. Wierus Medicarum observationum hactenus incognitarum lib. I. de scorbuto from 1567; Rembert Dodoens Praxeos medic. lib. 2. cap. 62. Ejusdem medicinalium observationum exempl. rar. cap. 33. scorbuto from 1581; Henricus Brucaeus De scorbuto propositiones de quibus disputatum est publice Rostochii, sub Henrico Brucaeo from 1589; Balthazarus Brunerus De scorbuto tractatus duo; Solomanus Albertus Scorbuti historia proposita in publicum from 1593; Petrus Forestus Observationum et curationum medicinalium lib. 20. obs. 11. de scorbuto malo cognoscendo et curando; obs. 12. ibid. de quinque aegris a scorbuto curatis van 1595 and finally Hieronymus Reusnerus Diexodicarum exercitationem liber de scorbuto from 1600.72

Lind's bibliographical survey is not quite complete. Rudolph Krebel remedied this later on. Krebel also mentions Echt's publication of 1541, as well as that of 1564 (in Ronsse). As the place of printing/publication he gives '*Wittenberg* 1541. 1624<sup>',73,74</sup> If a publication had existed in 1541, Ronsse would have known

<sup>&</sup>lt;sup>70</sup> Sallander, Hans, Bibliotheca Walleriana, a catalogue of the Erik Waller collection, Stockholm, Almqvist & Wiksell, 1955, 2 vols.: I, 471 pp + 48 plates, II, 494 pp.; see no. 8855, edition of Daniel Sennert, Francofurti & Wittebergae, Haered. D.T. Mevii & E. Schumacher, 1654.

<sup>&</sup>lt;sup>71</sup> Johann Lange (1485 - 21 June 1565) wrote two letters about scurvy which first appeared in Ronsse's work in 1585. They are not to be found in his own Medicinalium epistolarum miscellanea (1554), but they do appear in his Epistolarum medicinalium volumen tripartitum (1589, see vol. II, letters 13 and 14, pp. 610-619), with a fine portrait and his biography. He reached the age of 80 and died in Heidelberg.

<sup>&</sup>lt;sup>72</sup> James Lind. *Op. cit.*; see pp. 305-323.

<sup>&</sup>lt;sup>73</sup> Krebel, Rudolph, "Chronologische Uebersicht der Gesammt-Literatur des Scorbuts", idem, Der Scorbut in geschichtlich-literarischer, pathologischer, prophylactischer und therapeutischer Beziehung, Leipzig, Rudolph Hartmann, 1862; see pp. 30 and 35. Krebel may have meant by Wittenberg 1541. 1624 that he saw Echtius' work in Sennert 1624, which was printed in Wittenberg.

<sup>&</sup>lt;sup>74</sup> In Krebel's survey, incidentally, an inaccuracy has crept in regarding Lange. Three volumes of Lange's *Epistolarum Medicinalium* were issued. According to Krebel, the first

this, as he himself was already writing about scurvy in 1559.<sup>75</sup> It was Wier who spoke to him for the first time about Echt, and if he was referring to a letter, Ronsse cannot have known this. As he is not the only one to link the text of 1541 to Wittenberg, a printed publication from that year cannot be definitely ruled out.

A remarkable amount was published about scurvy or scorbut after Vesalius' death. We may wonder whether this was a coincidence, or whether it was brought about by the correlation with his death. If Echtius still enjoys any fame, then this is mainly due to his treatise on the disease. Lind already knew that his long letter was first forwarded by Petrus Forestus from Alkmaar (1521-1597) to his brother in 1558 and later in 1590 to his two nephews, who were students of medicine. The supposed 1541 edition was apparently nothing more than this long letter about scurvy by Echtius, which was passed from hand to hand. This would explain why this 'edition' cannot be found. In this case, it must – with a great deal of luck – be held in private ownership somewhere at the moment. Forestus already had this letter in the same year 1541, and wrote about it to his brother Jacob in 1558 and sent (a copy of) the same letter in modified form to his two nephews Jordanus and Adam in 1590. Meanwhile, Forestus had also been able to find this letter in the two editions of Ronsse of 1564 and 1585. He says that these editions differ only slightly from the actual letter that he has. Either this letter had already accidentally ended up in Wier's hands, or Wier merely had a copy, which he had carelessly transcribed by his son for Ronsse in 1563 (i.e. possibly a copy of a copy), who apparently did not realise that it was a work by Echt and not Wier, as he falsely implied in his first edition of 1564, but corrected in his second edition, to which he also added texts by Wier and Lange. Sennert simply used Ronsse's texts in his two editions of 1624 and 1654, in addition to his own contribution and the texts of Albertus and Martinus. A copy of this last edition is preserved in the Otto von Guericke University in Magdeburg.

volume was published by Oporinus in Basel in 1554, and a second volume was issued in 1560, also in Basel, having been outsourced by Oporinus (see above). But it is only in this second volume that the two letters about scurvy appear. The third volume was published posthumously together with the previous two volumes in Frankfurt in 1589 by the Heirs of Andreas Wechel, and reprinted in Hanau in 1605 at the Wechel press by Claude Marne and the heirs of Johan Aubry. It must therefore have been 1560 rather than 1554.

<sup>&</sup>lt;sup>75</sup> Ronsse was already working on scurvy in 1555: in his first printed work from 1559, a letter from 1555 is added: Balduini Ronssei Gandensis, Medici Goudani de hominis primordiis hystericisque affectibus centones. Eiusdem de Hippocratis magnis lienibus, Pliniique stomacace seu sceletyrbe epistola, Leuven, Antonius Maria Bergainge, 1559, pp. 152-172. This letter was addressed to Henricus Ruys from Veere and dated 29 October 1555: De magnis lienibus Hippocratis, Pliniique stomacacae seu sceltyrbe Epistola.

The treatise of Echt from 1541 was thus subsequently published four times (including once under the wrong name).

#### Scurvy

In the view of Echtius – and his contemporaries – *scorbut* was a chronic disease of the spleen, consisting of (1) an obstruction of the spleen; (2) an excess of 'melancholic humour' (lit.: black bile), which was expressed in various ways by a feeling of tightness in the chest, defecation problems, pallor coupled with red, itchy and sore gums and weak legs; and (3) loss of self-control with a varying degree of reckless behaviour. These are the three main symptoms, according to him, to which a number of others may be added. Even then, the disease had various names: *scorbutus, scorbuck, gingipedium, stomacace, sceletyrbe*.<sup>76</sup>

The causes he cites are, firstly, unripe and spoiled foods, and on Dutch and Frisian ships the use of tainted water, the lack of fresh water, especially in hot weather, which caused the water to spoil quickly, bad meat, rancid bacon, spoiled fish, bread or beer, etc. The second cause was the ambient air, which could have a bad influence on the properties of the blood, as well as lack of sleep, overwork, anxieties, and, finally, prior fevers. The conclusive symptoms, however, were bad breath, flabby, bloody and swollen gums, loose teeth, dark purple spots on the legs, and numerous spots (lentigines), sometimes only round the mouth, and sometimes only on the legs. Eventually, the patient became unable to move, experiencing laboured breathing with wheezing, especially when moving or standing up, and he who after standing upright attempts to sit down stops breathing and falls down dying. If a patient had fallen down, then came to and was able to breathe freely again, he assumed he was well again, but being unable to do anything and lying motionless, he would waste away. He also mentions many other problems such as appetite disorders, intestinal problems, problems with bowel movements, fever,

<sup>&</sup>lt;sup>76</sup> The terms used for the disease in most Western languages, including Greek and Russian, are etymologically related. The 13th century Old Norse term *skyrbjúgr* is thought to derive from *skyr* (sour milk) and *bjúgr* (tumour), because the disease was attributed to the prolonged consumption of *skyr*, used by the Vikings as ship's provisions on long voyages; in Old Swedish, the term is *skörbiûgh* (ca. 1330). See <www.etymologiebank.nl/trefwoord/ scheurbuik> Echtius in his treatise (1541) is apparently the first to use the Latin term *scorbutus*, derived from *scorbuck*, a Danish name (so he had been told), which was also used in Saxony. Ronsse himself still used the terms *stomace* and *sceletyrbe*; see ff. 28r-v in Echt's text (incorrectly published under Wier's name) in Ronsseus' *De magnis Hippocratis lienibus*, *Plinique stomace, ac sceletyrbe, seu vulgo dicto Scorbuto*, Libellus (Antverpiae apud Viduam Martini Nutii, 1564) or e.g. pp. 303-304 in Sennert's *De Scorbuto Tractatus* (Wittenberg, 1624).

swellings in the legs reminiscent of elephantiasis, etc. In the eyes of Echtius and many of his contemporaries, scurvy was a contagious disease.

The treatment consisted mainly of general recommendations on how to avoid or eliminate the causes and of symptomatic treatment. The use of fresh vegetables and fruits, especially citrus fruits, still lies in the distant future. Our modern concept of a vitamin C deficiency was still remote. Nutritional deficiencies were not associated with scurvy. That citrus fruit was the solution to the problem was only realised thanks to James Lind (1716-1794). Not until the end of the 18th century did the use of lemon become standard, and even then this was based on empirical observations. The term 'vitamin' only originated from 1911, and in 1937 A. Szent-Györgyi (1893-1986) finally received the Nobel Prize in Medicine for the discovery of, among other things, the role of vitamin C in cellular metabolism.

Thus Echtius himself already mentions the occurrence of behavioural or emotional instability under the symptoms of scurvy in his treatise. We come across this regularly, though not always, in later works, such as the brief reference in the travel account of George Anson (1748), and increasingly in theses, such as those of the British writer David Stuart (1770) and Josephus Demschick (1816).<sup>77 78 79</sup> Nevertheless, we can assume that Echtius, at his meeting with Metellus and Boucher – the eyewitness from Nuremberg – in Cologne shortly after Vesalius' death, must have had scurvy in mind as a possible cause of Vesalius' death or that they must have talked about it. Echtius' description of the terminal stages, which he gives towards the end of his work under *Signa propinquiora*, & certiora ('More reliable and certain symptoms'), bears a striking resemblance to the eyewitness account in the letter of Metellus (addendum).

However, the first person to have thought of scurvy as the possible cause of death of Andreas Vesalius very recently was Pavlos Plessas. He devoted a thoroughly substantiated study to the question, and although it is not conclusive his conclusion is fairly convincing. Vesalius himself did not discuss the terms *scorbut* or spleen scirrus or any of the synonyms common at that time either in his *Paraphrasis* or in his *Fabrica*.

<sup>&</sup>lt;sup>77</sup> Anson, Georg, A Voyage Around the World in the Years MDCCXL, I, II, III, IV, London, John and Paul Knapton, 1748.

<sup>&</sup>lt;sup>78</sup> Stuart, David, Dissertatio Medica inauguralis de Scorbuto, Edingurgi apud Balfour, Auld, et Smellie, 1770.

<sup>&</sup>lt;sup>79</sup> Demschick, Josephus, Dissertatio de Scorbuto; quam annuente sectione regia medica in alma Universitate R. Ludovico-Maximilianea disquisitioni publicae eruditorum submittit, ..., Landishuthi Bavarorum typis Francisci Seraphi Storno, 1816.

Research has already been done in humans into the relationship between behavioural disorders and a lack of ascorbic acid (vitamin C).<sup>80</sup> Very recently, Fiona E. Harrison was able to demonstrate that even in mice, behavioural disorders can occur as a result of a vitamin C deficiency, which may suggest that fatigue and emotional and personality changes have a physiological rather than a psychological basis in patients with scurvy.<sup>81</sup>

### VESALIUS' DEATH

If we consider the now familiar differential diagnostic possibilities of Vesalius' death, we must first firmly reject the long-held hypothesis of a shipwreck – in many people's minds still regarded as a certainty – for the reasons mentioned at the outset. The possibility still remains that he died of deprivation, through lack of food and especially of drinking water. As they were at sea for forty days longer than expected, this seems the obvious cause of his death. Some reports from that time do indeed suggest this, and Solenander also writes that he had not brought enough supplies with him. But on closer consideration it seems in that case very unlikely that his fellow travellers would have left someone so important, and moreover, a wealthy man, without assisting him - to the point of allowing him to die! To all appearances, some of those on board, both crew members and fellow passengers, remained in good health until the end of the journey. The merchant from Nuremberg was obviously one of them. He recounts the terrible events on board, but at no point does he give the impression that he himself was in any danger. He makes it appear perfectly normal that he took the initiative of providing Vesalius with a decent burial, without mentioning any personal problems. What is more, keeping a ship afloat represented strenuous physical exercise for the crew. 'Throwing bodies regularly overboard' would not have been light work either.

Now that Pavlos Plessas has convincingly shown that vitamin C deficiency could have been a problem and that it was also possible at that time – even in the Mediterranean - scurvy turns out to be a third plausible explanation for Vesalius' death (as well as some other disease or exhaustion due to lack of water and food). It would explain why some died while others remained

<sup>&</sup>lt;sup>80</sup> Kinsman, Robert A. and James Hood, "Some behavioral aspects of ascorbic acid deficiency", *The American Journal of Clinical Nutrition*, 1971, 24: 455-464. We wish to thank Theo Dirix, the former Belgian consul in Athens, now in Copenhagen, for this article.

<sup>&</sup>lt;sup>81</sup> Harrison, Fiona E., "Behavioural and neurochemical effects of scurvy in gulo knockout mice", *Journal for Maritime Research*, 2013, 15 (no. 1): 107-114.

healthy. Their different itineraries, and hence the diet that each of them had in the period prior to sailing, might account for a vital difference in bodily reserves of vitamin C.

Although scurvy has not been established with scientific certainty as the cause of Vesalius' death – as his body tissues cannot be tested for vitamin C – it now at least seems to be an interesting working hypothesis.

### Curriculum vitae of Johann von Echt

1515	year of birth (in Cologne)
1528	matriculates in Cologne on 5 October
1531	obtains bachelor's degree on 28 November
1533	obtains licence degree on 15 March
1538	present in Bologna at the embalming of Bishop Megalotta Scaevola
	on 2 January
1541	writes his treatise <i>De Scorbuto Epitome</i> (not extant today)
1545	meets Vesalius in Cologne in August
1564	loses his first wife Catheringin to the plague on 8 October
1564	falls very ill with the plague himself on 14 October, but starts to
	gradually recover after about five days
1565	discusses Vesalius' death with Metellus and Georg Boucher in
	April
1565	publication of the Pharmacopoea
1570	Solenander writes him a consilium for Wilhelm ab Orsbek
	Iuliacensium (Jülich) on 24 June
1573	offered the position of physician to the Imperial Court in Vienna
1576	dies in Cologne on 10 January.

### Addendum - Transcript and translation of Metellus' letter to Birckmann about Vesalius' death.<sup>82</sup>

De Morte Andreae Vesalii anno 1565.

- Metellus Arnoldo Birckmanno S.P.D. Nurembergensis / quidam refert, proximo mense Octobri, Andream Vesalium Hieroso / lymis redeuntem obiisse, quod ita acciderit: quum Vesalius lucri cu / piditate incensus, minima pecunia data, maximam post suum reditum /
- 5 accepturus, a multis, cum quibus ea de re sponsione quadam convenerat, / iter eo suscepisset; sese navi peregrinorum, nimia avaritia, non mercatorum /

Venetiis, ubi literis Philippi commendatur, perquam tamen hoc aes fave fuit /

acceptus, commisit, et avare quoque sibi perquam tenuiter de annona providit. In /

reditu incidit in hunc Nurembergensem ex Aegypto Venetias cogitantem, quem /

10 induxit, ut sese comitem relicta sua navi conjungeret, quod lubens homo est /

eoque propter linguae communionem fecit. Et hinc iterum Vesalius sordide sibi /

providit: ad totos quadraginta dies acti tempestatibus, quum terram appellere non /

possent, inopia partim panis bis cocti, partim aqua presto, aliquot inde aegritudi /

nes hauserint, ac mortui, in mare projecti. Qua res tantopere Vesalii mentem /

<sup>&</sup>lt;sup>82</sup> We would like to thank Stephen Joffe for his photographs of the manuscript in the relevant copy of *Fabrica* 1555. Our transcript and translation are based on this and an older copy of the same manuscript, obtained through Yale University; see <http://hdl. handle.net/10079/bibid/1913884>. This Ms. is probably not the original, but was copied from it, as it is in a different hand from that of Metellus himself. The copy of this Ms. in Yale is located in the folder: *De morte Andreae Vesaliii anno* 1565 (http://orbexpress.library. yale.edu/vwebv/holdingsInfo?bibId=1913884). The folder also contains a transcript of it by O'Malley, together with his English translation (ca. 1949), as well as a translation by Edward Clark Streeter. O'Malley changed his translation several times (in 1954 and 1964).

15 peredit ut animi angoribus, tum timore inciderit in morbum, saepe rogavit /

ne, si moreretur, esca piscibus, ut ceteri, exhiberetur. Navis tandem Zacynthum /

vecta est; postea paulo in mare depressa, Vesalius ut primum ex ea desiliit /

et ad urbis portam vestigia fixit, plane mortuus in terram concidit. Et la / pidem Nurembergensis ille comes pro sepulchro posuit. Haec vero idem iste /

20 coram Echtio mihique retulit. Ecce igitur tibi miserabilem hominis praeclari /

obitum, multis exempla futurum. Vale. XV. Kal. Maj. MDLXV. Coloniae.

On the death of Andreas Vesalius in the year 1565  $^{\rm 83}$ 

Metellus sends Arnold Birckmann his warmest greetings.

A certain Nuremberger relates how Andreas Vesalius died last October, on his return from Jerusalem. This is said to have happened as follows.

When Vesalius undertook the journey there, having spent very little money because he was inflamed by lust for profit, although on his return he was to receive a lot of money from many people with whom he had entered into an agreement to this effect, through excessive meanness he entrusted himself to a pilgrims' ship, not a merchant ship from Venice, for which he had a letter of recommendation from Philip [II] and with whom a request for credit would have been accepted, and, likewise from greed, took very meagre provisions.

On his return, he fell in with this man from Nuremberg, who was travelling from Egypt to Venice, and persuaded him to leave his company and join his ship, which the man willingly did, on account of their common language. Again, Vesalius made too little provision for himself. Buffeted by storms for a whole forty days, unable to reach land, having run short of both hard tack

<sup>&</sup>lt;sup>83</sup> O'Malley published an English translation of this letter in his Vesalius biography from 1964 (pp. 310-311), and mentions the name of Georg Boucher as 'the man from Nuremberg'. He refers on this point to *Illustrium et clarorum virorum epistolae selectiores*, Leyden, 1617, p. 372; reprint by Niceron, *Memoires*, X, pt. 2, Paris, 1731, pp. 153-154, briefly paraphrased by Wauters, p. 33. This shorter account of Vesalius' death is an excerpt from a longer letter that Metellus wrote to Cassander on xvii Cal. Maias, 1565 from Cologne. In it he mentions the name of the man from Nuremberg: Inde rediens, a quodam Georgio Bouchero Nurembergense, ex Aegypto, civitateque Cayro redeunte, in itinere repertus fuit,....

and water, many fell ill and their bodies were thrown into the sea.<sup>84</sup> Vesalius was so afflicted in his mind by this that he fell sick from anguish and then from fear, and often asked that, if he should die, he should not become food for the fish like the others.

At length, the ship reached Zakynthos and shortly after having been almost perished at sea Vesalius was among the first to leave the ship, and started towards the city gate, where he fell to the ground, quite dead. This travelling companion from Nuremberg set up a stone for his grave. He told me this in the presence of Echtius. Behold the miserable death of a great man, which will serve as an example to many. I wish you well.

Cologne, 17 April 1565.

<sup>&</sup>lt;sup>84</sup> Metellus' source says that Vesalius' ship drifted at sea for 'a full forty days'. Solenander's source – who was presumably the same, i.e. Georg Boucher or Buchner, the merchant (or goldsmith) from Nuremberg, who also buried Vesalius – referred to a period of several weeks (*aliquot septimanas*). See Reiner Solenander, "Kurze Nachricht von des Andreae Vesalii Todt und Begräbnisz - Historia de Obitu Andreae Vesalii ex Literis Reineri Solenandri ex Comitiis August. 1566. Mense Majo", Thomas Theodor Crusius, *Vergnügung müssiger Stunden, oder allerhand nützliche zur heutigen galaten Gelehrsamkeit dienende Anmerckungen*, Leipzig, M. Rohrlachs Wittib und Erben, 1722, pp. 483-490.

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#### Sažetak

U radu se raspravlja o Johannu Bachovenu von Echtu i njegovoj obitelji te o njegovu radu na bolesti skorbuta. Smatra se da je ta bolest bila mogući uzrok smrti Andreasa Vesaliusa. Prikazuje se odnos Echta s Jan Wierom i njegove veze s Vesaliusom i Metellusom. Dan je povijesni pregled literature o bolesti skorbuta, u kojoj se ističe važnost radova Echtiusa i Ronssea za početke razumijevanja te bolesti. Dodano je i Metellusovo izvješće o okolnostima Vesaliusove smrti.

Ključne riječi: Echtius; Vesalius; skorbut; Metellus; Ronsse; Wier