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The Venetian editions of Galen of the second half of 16th century as a source of information on the history of medicine

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Galen's legacy has been understood as, on the one hand, part of the formation of the general concept of the history of natural sciences and, on the other, part of the history of philosophy. In this regard, there is a need for a new analysis of Galen's scientific legacy and his observations in terms of the impact of his works on the formation of European science, as well as their distribution.

There are two ways to get an idea of the prevalence of certain medical works of the 12th–17th centuries: analyzing the number of published books by different authors or studying the works of a particular author published later as translations and publications of annotated editions.

The second method is applied to the two editions of the complete works of Galen in the Latin translation issued by the heirs of the Venetian publisher Luca Antonio Giunti in 1565 and 1609. A comparative analysis of these two editions of Galen leads to the conclusion that interest in the scientific heritage of Galen in the 16th-17th centuries was not only high, but also contributed to the search for and the publication of his works which were absent in the first edition. In 44 years more than 20 new texts were introduced into scientific use and an index was compiled for the entire collection of works. The team of translators and commentators consisted of more than 20 scientists from different European countries. Given sufficient materials to compare, such bibliographic analysis techniques allow for the state of research in a particular historical period to be adequately described.

***Keywords**: history of medicine, history of science books, early printed books, bibliological analysis, Galen*

No one has ever questioned Galen's role in the history of medical science as one of the founders of modern Western medicine. But, if up to a certain point in time, historians of medicine considered his work only from the perspective of his writings on medical science, then historians have recently begun to take a wider perspective. On the one hand, Galen's legacy has begun to be analyzed as the basis of a general concept for the history of the natural sciences; while on the other hand, historians have begun to analyze his work in terms of its relationship to the history of philosophy (in particular, regarding the study of the relationship between the religious systems of late antiquity and the early Middle Ages with the emergence of modern science) [1, 2]. This wider perspective has necessitated a new analysis of Galen's work and legacy, one from the perspective of its influence on the formation of Western science.

In the process of performing such an analysis, the researcher confronts an important problem – the necessity of accurately assessing the prevalence of particular written sources within a concrete period of time. Without such an appraisal, it is impossible to calculate a particular author's degree of influence within a given time period or to determine if such an influence existed in the first place.

For the modern researcher working with access to an excessive amount of information, it is often difficult to appreciate that the dissemination of information in the Middle Ages was governed by completely different principles. First of all, for almost a millennium, the task of maintaining and disseminating written literature was the exclusive domain of the church. This state of affairs was due to the small number of literate people among the laity, and the fact that only the clergy possessed the financial and technical resources necessary for disseminating written material. As a result, the written work of ancient scholars became concentrated within the walls of monastery

libraries, making it virtually inaccessible to educated citizens[1]. Moreover, a number of works written within the walls of monasteries were more than likely known to no one other than the authors themselves[2].

Secondly, because of the high price of handwritten manuscripts[3], their quantity was limited. Moreover, as orders were almost always for individual manuscripts, the future reader needed to know the nature of its contents before its commission for personal use. Beginning in the eleventh century, university repositories were practically the only place outside of monastery libraries where one had access to scientific texts; however, collections in these locations were limited. For example, at the beginning of the fifteenth century, the library at the Department of Medicine at The Paris Sorbonne University contained a total of twelve books. Of course, there were also the private libraries of doctors and philosophers; however, these collections were most likely not extensive.

By what means can we get a picture of the prevalence of a particular medical text between the twelfth and seventeenth centuries? Two possibilities are suggested below.

The first concerns the analysis of the process of book production at the beginning of the period in which book publishing was gaining prevalence. At present, it is usually forgotten that almost all of the handwritten manuscripts that had accumulated in Europe over the previous two millennia were not just collected, but were made available and published as a market commodity within the first one hundred years of the history of publishing [4]. It should be qualified here that the printing of books for which there was a high market demand was given precedence over the printing of fundamentally scientific works. Nonetheless, by estimating the number of published books based on a variety of authors, it is possible to reconstruct the basis of scientific knowledge, existing in the time period from the end of the fifteenth to the beginning of the sixteenth century.

Unfortunately, next to no research in this area has been conducted. Klebs [5] and Stillwell [6] have undertaken a corpus analysis of the abundant scientific literature in the areas of medicine, mathematics, and the natural sciences published in the first century after the advent of the printing press in Europe. However, in their analysis, the sources with medical content have not been isolated from the works as a whole. We conducted preliminary analysis of this material based on the main catalogues of the first printed book [7–9], which yielded some unexpected results. It turns out that sixty percent of incunabula about medicine (172 of 288 titles) were written by no more than ten authors. What is more, the majority of these texts (40 publications) are guides to herbal medicine, (i.e., reference material). The most popular authors are Arnaldus de Villanova (22 publications), Pietro d'Abano (20), Avicenna (15), Petrus de Crescentius (13), Mesa (10), Hippocrates and Albert the Great (up to 9), and "The Antidotary" of Nicholas of Salerno (8 publications). For the sake of comparison, we should mention that the works of Galen were published a total of two times. In the period from the beginning of book printing to the end of 1500, the works of a total of 65 authors were published. That was the total number of medical texts in demand by doctors at that time [10].

Does the given result suggest that the works of Galen at the end of the fifteenth century were unknown to doctors? From our point of view, it does not. It is more likely that the relative lack of texts by Galen can be explained by the fact that the market at that time was oversaturated with handwritten manuscripts from the previous period. Simply put, the works of Galen from previous periods existed in such large numbers

[1] Different estimates for the quantity of books in monastery libraries are given by various authors. The library reserve at the Vivarium, created by Cassiodorus in the sixth century contained around 250 works from 92 authors, and all the medical writings cited by Cassiodorus himself: five books without titles are indicated as written by Hypocrites, Galen, Celsus, Dioscorides, Caelius and Aurelianus [3].

[2] For example, although they are dated to the middle of the twelfth century, the treatises of Hildegard von Bingen "XXX" and "XX", to all appearances, seem to be discovered in the Rupertsberg Monastery only in the eighteenth century.

[3] The high cost of manuscripts is explained not so much by the process of their transcription (in monastery scriptoriums the issue of payment for the work of a scribe was basically nothing), as much as it was with the high cost of writing material. Before the advent of paper, parchment required lengthy processing and was expensive. As a result it was produced in small quantities. Even after the invention of technology allowing for the bifurcation of leather, there was not enough writing material to satisfy demand. Paper appeared in Europe in the tenth century, but parchment only decreased in price toward the middle of the thirteenth century.

that there was no necessity for supplementary editions.

It is possible to substantiate this interpretation by analyzing the way later editions of Galen's works were translated and annotated. If the works of Galen were used in this period by students of medicine, then subsequent publications should contain evidence of critical concepts from his scientific work[4].

As an example of an analysis, we will examine "The Complete Collection of The Works of Galen (translated in Latin)", published in 1609 in Venice in the publishing house of the heirs of Lucantonio Giunta [11].

The existing copy at our disposal is the eighth edition of Galen from this printing house[5]. In and of itself, such a quantity of printings testifies to the enduring interest in Galen's work. The text of the first edition (1541) was unavailable to us, but, if we use for the purposes of comparative analysis the text of the fourth edition (1565)[6] (taken from the digital version provided by the University of Maryland) [12–14], then we see that in the time that passed between the two editions, the text had been extensively altered.

Outwardly, both of these editions are primarily distinguishable by their typeface. The fourth edition consists of three bound folio volumes in brown leather. Each volume contains a number of different parts, comprising various quantities of works (see table). Only the pages in the main text have been enumerated. The forewords, introductions, biographical information, *et cetera* are given without numeration[7].

However, judging by the table of contents appearing at the beginning of the first volume of the fourth edition, the work should contain another two parts. In other words, the final volume is missing. The fact that the eighth edition begins with the second part testifies to the loss of the first volume. Hence, the fourth edition was published in four volumes, but the eighth edition included five.

The first volume of the fourth edition opens with a greeting from the publisher to the student of medicine[8]. After the greeting, follows a twenty-three page biography of Galen, based on the book of Conrad Gesner[9]. This is followed by a word of thanks to the publisher[10] and a greeting to the readers from the Veronese doctor Johannes Baptista Montanus. Just after the greeting to the readers, a list of the separate parts of the book appears, as well as their contents.

It is possible to say that the layout of the first volume fully corresponds to modern rules for putting together collections of scientific works, especially if we are to assume that Montanus was the scientific editor of the volume. However, considering the absence of a corresponding volume from the eighth edition, it remains impossible to draw any sort of conclusion.

A completely different situation occurs in the second volume, which appears in both the fourth and the eighth editions. In the case of the second volume, we can perform a comparative analysis of its contents to ascertain any changes that came about in the 44 years that had passed between editions.

Serious distinctions between the fourth and eighth editions are apparent in the first pages of the book. First of all, the three lines under the table of contents for Part I (fig. 1) testify to the fact that the text of the eighth edition was thoroughly checked against the manuscript, resulting in numerous mistakes being corrected[11].

In the eighth edition, the text is prefaced by a two page foreword by Aloysius Alatini[12], in which

[4] The first publications of Galen in printed form appeared in Europe only at the beginning of the sixteenth century. "Editio princeps" was published from the printing house of Aldo Manuzio (transferred after his death to his father-in-law, Andrea Torresani) in 1525. It was published in the language of the original (in Greek). The first Latin translation was completed from this edition in 1541 for the publisher Lucantonio Giunta.

[5] Octava hac nostra edition.

[6] Quarta hac nostra edition.

[7] It was characteristic for the pages of books of this period to be numbered only on the front side (pagination), as opposed to both sides, as is typical for us. The use of the Arabic system for page numbers began to take hold in the seventeenth century. When a text was divided to include work from another author, these pages were distinguished from the rest of the text through the use of Roman numerals, after which the original pagination would continue. In the fourth part of both editions of the given work, the pages containing the text of "Synopsis Librorum suorum sexdecim de pulsibus" are enumerated in this way in the fourth part of both editions of the given work.

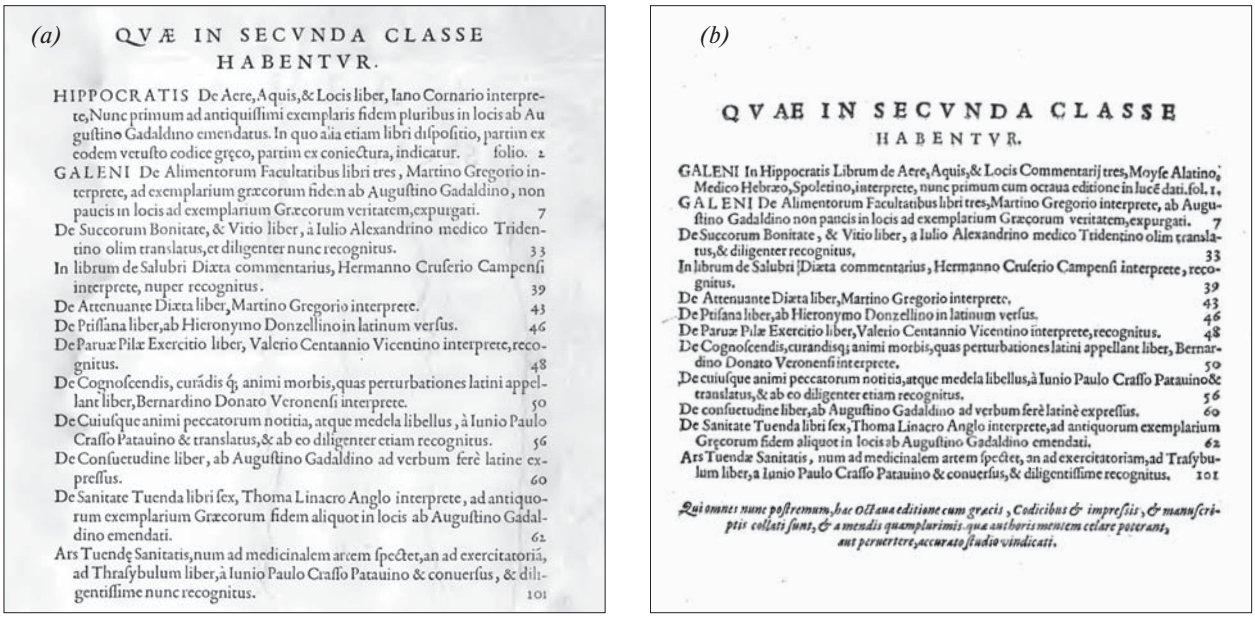
[8] Thomas Iunta medicinae studiosis.

[9] Galeni vita ex Conradi Gesneri Prolegomenis in Galenum.

[10] Here we are referring to the first publisher, Lucantonio Giunta, who had passed away by the time the fourth edition was published.

[11] Qui omnis nunc postremum, hac octaua editione cum graecis, Codicibus & impressis, & manuscriptis collati sunt, & a mendis quamplurimis quae authoris mentem celare poterant, aut peruertere, accurato studio vindicati.

[12] Aloisis Alatini ad Lectorem praefatio.



(a)

QVÆ IN SECVNDA CLASSE HABENTVR.

HIPPOCRATIS De Aere, Aquis, & Locis liber, Iano Cornario interprete, Nunc primum ad antiquissimi exemplaris fidem pluribus in locis ab Augustino Gadaldino emendatus. In quo alia etiam libri dispositio, partim ex eodem vetusto codice græco, partim ex coniectura, indicatur. folio. 2

GALENI De Alimentorum Facultatibus libri tres, Martino Gregorio interprete, ad exemplarium græcorum fidem ab Augustino Gadaldino, non paucis in locis ad exemplarium Græcorum veritatem, expurgati. 7

De Succorum Bonitate, & Vitio liber, à Iulio Alexandrino medico Tridentino olim translatus, et diligenter nunc recognitus. 33

In librum de Salubri Diæta commentarius, Hermanno Cruserio Campensi interprete, nuper recognitus. 39

De Attenuante Diæta liber, Martino Gregorio interprete. 43

De Ptisana liber, ab Hieronymo Donzellino in latinum versus. 46

De Paruæ Pilæ Exercitio liber, Valerio Centannio Vicentino interprete, recognitus. 48

De Cognoscendis, curandisq; animi morbis, quas perturbationes latini appellant liber, Bernardino Donato Veronensi interprete. 50

De Cuiusque animi peccatorum notitia, atque medela libellus, à Iunio Paulo Crasso Patauino & translatus, & ab eo diligenter etiam recognitus. 56

De Consuetudine liber, ab Augustino Gadaldino ad verbum ferè latine expressus. 60

De Sanitate Tuenda libri sex, Thoma Linacro Anglo interprete, ad antiquorum exemplarium Græcorum fidem aliquot in locis ab Augustino Gadaldino emendati. 62

Ars Tuendæ Sanitatis, num ad medicinalem artem spectet, an ad exercitatoriã, ad Thrasybulum liber, à Iunio Paulo Crasso Patauino & conuersus, & diligentissime nunc recognitus. 101

(b)

QVAE IN SECVNDA CLASSE HABENTVR.

GALENI In Hippocratis Librum de Aere, Aquis, & Locis Commentarij tres, Moyse Alatino, Medico Hebræo, Spoletino, interprete, nunc primum cum octaua editione in lucẽ dati. fol. 1.

GALENI De Alimentorum Facultatibus libri tres, Martino Gregorio interprete, ab Augustino Gadaldino non paucis in locis ad exemplarium Græcorum veritatem, expurgati. 7

De Succorum Bonitate, & Vitio liber, a Iulio Alexandrino medico Tridentino olim translatus, & diligenter recognitus, 33

In librum de Salubri Diæta commentarius, Hermanno Cruserio Campensi interprete, recognitus. 39

De Attenuante Diæta liber, Martino Gregorio interprete. 43

De Ptisana liber, ab Hieronymo Donzellino in latinum versus. 46

De Paruæ Pilæ Exercitio liber, Valerio Centannio Vicentino interprete, recognitus. 48

De Cognoscendis, curandisq; animi morbis, quas perturbationes latini appellant liber, Bernardino Donato Veronensi interprete. 50

De cuiusque animi peccatorum notitia, atque medela libellus, à Iunio Paulo Crasso Patauino & translatus, & ab eo diligenter etiam recognitus. 56

De consuetudine liber, ab Augustino Gadaldino ad verbum ferè latinè expressus. 60

De Sanitate Tuenda libri sex, Thoma Linacro Anglo interprete, ad antiquorum exemplarium Græcorum fidem aliquot in locis ab Augustino Gadaldino emendati. 62

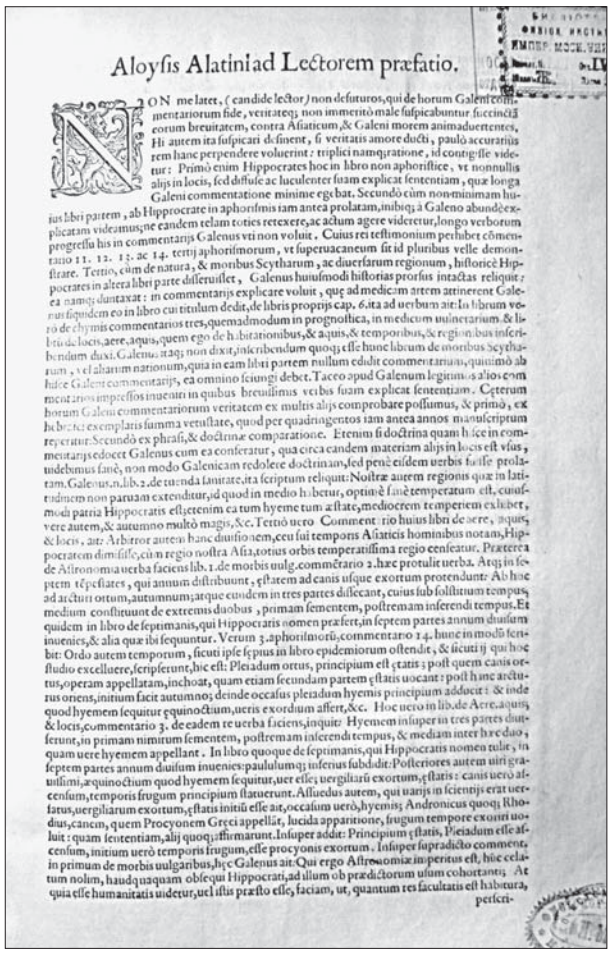
Ars Tuendæ Sanitatis, num ad medicinalem artem spectet, an ad exercitatoriam, ad Trasybulum liber, a Iunio Paulo Crasso Patauino & conuersus, & diligentissime recognitus. 101

Qui omnes nunc postremum, hac octaua editione cum græcis, Codicibus & impressis, & manuscriptis collati sunt, & a mendis quamplurimis, quæ authoris mentem celare poterant, aut peruertere, accurato studio vindicati.

Fig. 1. Contents from Part II of the 1565 (a) and 1609 (b) editions.

he enumerates the changes introduced in the new translation (fig. 2). For example, the newly added commentary from Galen on Hippocrates' treatise *On Airs, Waters and Places*[13] had been newly translated by another translator (fig. 3): in the fourth edition, this translation had been done by Iano Cornario[14], whereas in the eighth edition, the translation is accredited to Moyse Alatino[15]. In comparing the two translations, it becomes clear that the character of the presented material in each work is markedly distinct from one another. In Cornario's translation, there are references to the primary source and commentary in the margins, whereas Alatino's translation lacks references and commentary, but is more complete. Alatino's translation consist of 12 pages to Cornario's 9.5)[16].

Traces of proofing and editing are evident throughout the volume. In particular, in the



Aloysis Alatini ad Lectorem præfatio.

NON me latet, (candide lector) non defuturos, qui de horum Galeni commentariorum fide, veritateq; non immeritò male suspicabuntur succinctè eorum breuitatem, contra Asiaticum, & Galeni morem animaduertentes. Hi autem ita suspicari desinent, si veritatis amore ducti, paulò accuratius rem hanc perpendere voluerint: triplici namq; ratione, id contigisse videtur: Primò enim Hippocrates hoc in libro non aphoristice, vt nonnullis aliis in locis, sed diffuse ac luculenter suam explicat sententiam, quæ longa Galeni commentatione minime egebat. Secundò cùm non minimam huius libri partem, ab Hippocrate in aphorismis iam antea prolatam, inibiq; à Galeno abundè explicatam videamus; ne eandem etiam toties retexere, ac actum agere videretur, longo verborum progressu his in commentarijs Galenus vti non voluit. Cuius rei testimonium perhibet cõmentario 11. 12. 13. ac 14. tertij aphorismorum, vt superuacaneum sit id pluribus velle demonstrare. Tertio, cùm de natura, & moribus Scytharum, ac diuersarum regionum, historicè Hippocrates in altera libri parte disseruisset, Galenus huiusmodi historias prorsus intactas reliquit; ea namq; duntaxat: in commentarijs explicare voluit, quę ad medicam artem attinerent Galenus siquidem eo in libro cui titulum dedit, de libris propriis cap. 6. ita ad verbum ait: In librum vero de chymis commentarios tres, quemadmodum in prognostica, in medicum ministerium, & libro de locis, aere, aquis, quem ego de habitationibus, & aquis, & temporibus, & regionibus inscribendum duxi. Galenus itaq; non dixit, inscribendum quoq; esse hunc librum de moribus Scytharum, vel aliarum nationum, quia in eam libri partem nullum edidit commentarium, quinimò ab hoc Galeni commentarijs, ea omnino seiungi debet. Taceo apud Galenum legimus alios commentarios imperfectos inueniri in quibus breuissimus verbis suam explicat sententiam. Cęterum horum Galeni commentariorum veritatem ex multis alijs comprobare possumus, & primò, ex hoc libro: exemplaris summa vetustate, quod per quadringentos iam antea annos manuscriptum reperiatur. Secundò ex phrasi, & doctrinæ comparatione. Etenim si doctrina quam hoc in commentarijs docet Galenus cum ea conferatur, qua circa eandem materiam alijs in locis est vsus, iudebimus fanè, non modo Galenicam redolere doctrinam, sed penè eisdem verbis fuisse prolatam. Galenus n. lib. 2. de tuenda sanitate, ita scriptum reliquit: Nostræ autem regionis quæ in latitudinem non paruam extenditur, id quod in medio habetur, optimè sanè temperatum est, cuiusmodi patria Hippocratis est; etenim ea tum hyeme tum æstate, mediocrem temperiem exhibet, vere autem, & autumno multò magis, &c. Tertiò uero Commentario huius libri de aere, aquis, & locis, ait: Arbitror autem hanc diuisionem, ceu sui temporis Asiaticis hominibus notam, Hippocratem dimisisse, cùm regio nostra Asia, totius orbis temperatissima regio censeatur. Præterea de Astronomia uerba faciens lib. 1. de morbis uulg. commẽtario 2. hæc protulit uerba. Atq; in septem cẽspitates, qui annum distribuunt, est autem ad canis usque exortum protendunt: Ab hoc ad arcturi ortum, autumnum; atque eundem in tres partes diuidunt, cuius sub solstitium tempus, medium constituunt de extremis duobus, primam fementem, postremam inferendi tempus. Et quidem in libro de septimanis, qui Hippocratis nomen præfert, in septem partes annum diuisum inuenies, & alia quæ ibi sequuntur. Verum 3. aphorismorũ, commentario 14. hunc in modũ scribit: Ordo autem temporum, sicuti ipse sepius in libro epidemiorum ostendit, & sicuti ij qui hoc studio excelluere, scripserunt, hic est: Pleiadum ortus, principium est ętatis; post quem canis ortus, operam appellatam, inchoat, quam etiam secundam partem ętatis uocant: post hunc arcturus oriens, initium facit autumnos; deinde occasus pleiadum hyemis principium adducit: & inde quod hyemem sequitur æquinoctium, ueris exordium affert, &c. Hoc uero in lib. de Aere, aquis, & locis, commentario 3. de eadem re uerba faciens, inquit: Hyemem insuper in tres partes diuiserunt, in primam nimirum fementem, postremam inferendi tempus, & mediam inter hæc duo, quam uere hyemem appellant. In libro quoque de septimanis, qui Hippocratis nomen tulit, in septem partes annum diuisum inuenies: paululumq; inferius subdidit: Posteriores autem uiri grauissimi, æquinoctium quod hyemem sequitur, uer esse; uergiliarũ exortum, ętatis: canis uero arcensum, temporis frugum principium statuerunt. Alludens autem, qui uarijs in scientijs erat uersatus, uergiliarum exortum, ętatis initiũ esse ait, occasum uerò, hyemis; Andronicus quoq; Rhodius, cancri, quem Procyonem Græci appellãt, lucida apparitione, frugum tempore exoriri uoluit: quam sententiam, alij quoq; affirmarunt. Insuper addit: Principium ętatis, Pleiadum esse arcensum, initium uerò temporis frugum, esse procyonis exortum. Insuper supradicto comment. in primum de morbis uulgaribus, hęc Galenus ait: Qui ergo Astronomiæ imperitus est, hoc celatum nolim, haud quaquam obsequi Hippocrati, ad illum ob prædictorum usum cohortanti; At quia esse humanitatis uidetur, uel istis præsto esse, faciam, ut, quantum res facultatis est habitura, perscri-

Fig. 2. Preface addressed to the reader from the 1609 edition.

[13] Galeni in Hippocratem De aere, aquis, et locis commentarius primus.

[14] The famous doctor from Zwickau, Janus Cornarius.

[15] Moyse Alatino, Spoletino, Medico Hebraeo.

[16] An extra page was inserted in order to preserve the numeration of pages during printing. Whereas in the first edition the text begins from page 2 (the first page being the title page), in the eight edition the title page and the page with the foreword lack numeration altogether, and the text of the "Commentary" begins from page 1.

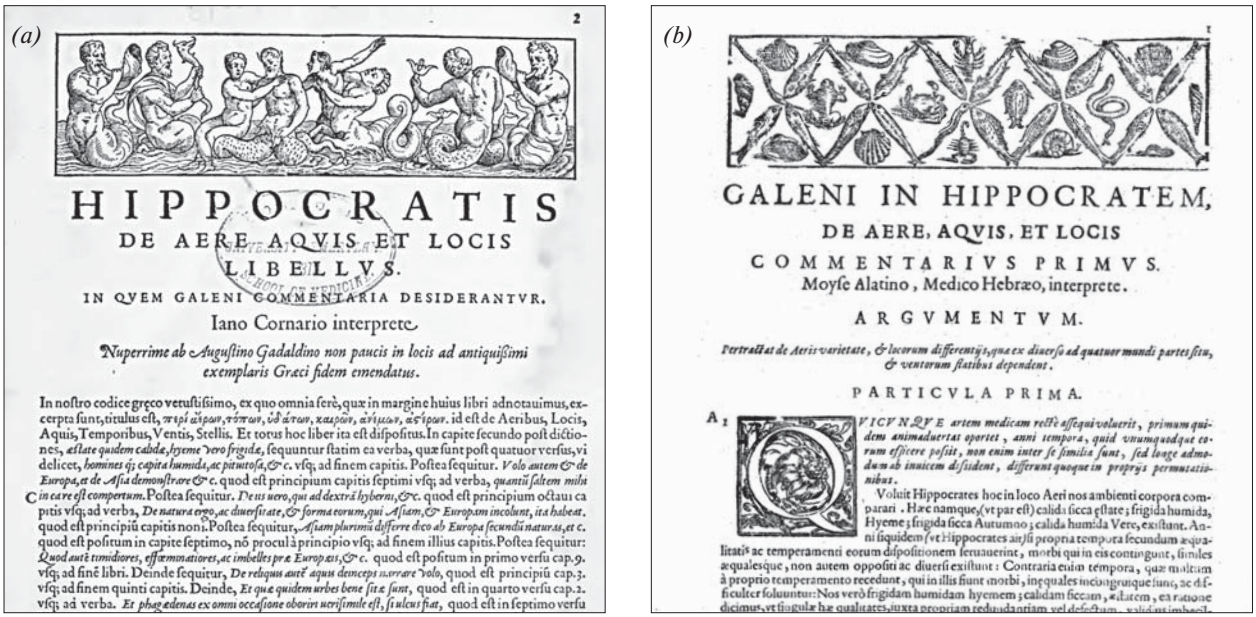


Fig. 3. The first page of "Galen's Commentary on Hippocrates's On The Airs, Waters, and Places from the 1565 (a) and 1609 (b) editions.

second part of the volume[17] where the text has increased by 69 pages (from 197 to 266), and where two commentaries to the second and sixth books of Hippocrates *De morbis Vulgaribus* and a text of three commentaries by Galen to Hippocrates's treatise *On the Fluids*[18] (all in the translation of Johannes Baptista Rosario) have been added.

The third volume of the eighth edition includes two parts[19]. In the fourth edition, the first of these two parts (or fourth in the shared numeration of the collection) appears in the second volume, and in the second (or fifth in the shared numeration) it appears in the third volume together with the sixth and the seventh, which, in the eighth edition appear in the fourth volume. Dissimilarities between the two editions exist in these parts as well (primarily the numerous commentaries in the eighth edition, which do not appear in the fourth). For example, in the added pages that include notes on Galen's book *On the Pulse*[20], additional commentary appears on the very first page (fig. 4).

The fourth volume of the eighth edition includes five parts[21], the largest being the seventh, which contains numerous illustrations. This corresponds to the last two parts of the third and

[17] The first volume includes two parts: "Galeni librorum secunda classis materiam sanitatis conseruatricem tradit: quae circa aerem, cibum & potum, somnum & vigiliam, motum & quietem, inanitionem & repletionem, animi denique affectus versatur" and "Galeni librorum tertia classis signa quibus tum dignoscere morbos, et locos affectos, tum praescire futura possimus, docet".

[18] Galeni in librum Hippocratis De humoribus commentarii tres.

[19] "Galeni librorum quarta classis signa quibus tum dignoscere morbos, et locos affectos, tum praescire futura possimus, docet" and "Galeni librorum quinta classis eam medicinae partem, quae ad Pharmaciam spectat, exponens; simplicium medicamentorum, substitutorum, purgantium, antidotorum, componendorum tam per locos quam per genera medicamentorum, ponderum denique, ac mensurarum doctrinam comprehendit".

[20] Galeni Synopsis librorum suorum de pulsibis, номера листов CXXIII–CXXXIIII.

[21] Accordingly: 1. "Galeni librorum sexta classis de cucurbitulis, scarificationibus, hirudinibus & phlebotomia praecipuo artis remedio tradit", 2. "Galeni librorum septima classis curativium metodum tum diffuse tum breuiter descriptam, victus rationem in morbis acutis, fingulorum morborum facile paranda remedia, priuatam quorundam morborum curationem, chirurgiae constitutionem, fracturarum ac luxationum sanationem, fasciarum deniq; & laqueorum, & machinamentorum tractatum continet", 3. "Galeni Extra ordinem Classium Libri in quibus breves rerum determinationesuntur, quarum perseptio, superiorum librorum lectionem requirit", 4. "Spurii Galeno ascripti libri, qui variam artis medicae farraginem ex varijs auctoribus exerptam continentes, optimo, quo fieri potuit, ordine sunt dispositi, & in unum corpus redacti", 5. " Galeni operum Quorundam, quae aliquo modo mutilata ad nos peruenere, fragmenta".

Fig. 4. The first page of notes from Galen's On the Pulse from the 1565 (a) and 1609 (b) editions.

fourth volume (consisting of two parts). Thus, in comparison to the fourth edition, 18 new texts appear: two texts in two parts of *Surii Libri*[22] and 16 texts in the final part.

Finally, the structure of the eight edition incorporates a separate volume consisting of a 546-page alphabetic index[23], composed by the doctor from Ferrara, Antonio Brazavolo.

Thus, even cursory comparative analysis of the two editions of Galen allows us to draw the following conclusions:

A high level of interest in the scientific works of Galen continued throughout the sixteenth and seventeenth centuries. The constant reprinting of Galen's books at a single printing house testifies to this high level of interest. Considering that 1,000 copies were an average quantity of printings for a given work, the fact that 8,000 copies of Galen's collected works were printed in Venice alone demonstrates a continued interest in the work of Galen during this time period.

Furthermore, there was strong interest in locating, translating and annotating the work of Galen during this period. If we consider Giunta's edition to be the first complete printed edition of Galen's work in Europe, then we can say that over 20 new texts (not to mention the compilation of an index for the entire collection) were introduced over a period of 44 years of scientific revolution. Scholars from all over Europe participated in this work. In total, over 20 individuals contributed translations to the project, many of whom came from areas of Europe outside of the Italian peninsula, such as England, Poland and Germany.

A comparison of the fourth and eighth edition shows that, during preparations for publication, translations were not simply refined, but, in some circumstances, completely changed. Additionally, the quantity of commentaries and references to primary sources were increased, and new sections were added. Unfortunately, the absence of material for comparing other editions of Galen's work does not allow us to draw any conclusions regarding the character of changes to illustrative material, though we can say that some of the illustrations were undoubtedly designed specifically for the given collection of Galen's works.

Given the availability of material for purposes of comparison, similar literary analysis allows us to more or less fully characterize the state of scientific research in a concrete historical period.

[22] De Incantatione, Adiuratione, & Suspesione liber, Galeno falso adscriptus, grece non habet и De Clysteribus, & colica libellus iterato nunc in lucem datus.

[23] Antonii Musae Brasauoli medici ferrariensis index refertissimus in omnes Galeni libros, Qui ex Octaua Iunctarium edicione extant.

In conclusion, a few words are in order regarding the copy of the book used for analysis.

The four volumes of Galen are located in the library of the Department of the History of Medicine, National History and Culturology at the I.M. Sechenov First Moscow State University. Identifying the first Russian owner of the volumes presented no difficulty, as the books were marked with the proprietary symbol (*ex libris*) of Nikolai Sergeyevich Vsevolozhsky (fig. 5), a historian, printer and bibliophile who was closely connected to the medical faculty at the Moscow Imperial University [15]. In 1808, Vsevolozhsky became the vice president of the Moscow division of the Academy of Medicine and Surgery, and in 1809 he purchased printing equipment in Paris and began to print books on commission. Among his clients were professors of the Moscow Imperial University, such as E.O. Mukhin, F.F. Reiss and others. Vsevolozhsky's printing house mainly produced historical and medical literature. Vsevolozhsky amassed a large library of anciently printed books from Europe on historical and medical topics. After his death, a part of Vsevolozhsky's collection was distributed to libraries in Moscow. The edition considered above comes from this collection and bears a stamp that reads "Ceded to the Museum of Medical History at the Moscow Imperial University".

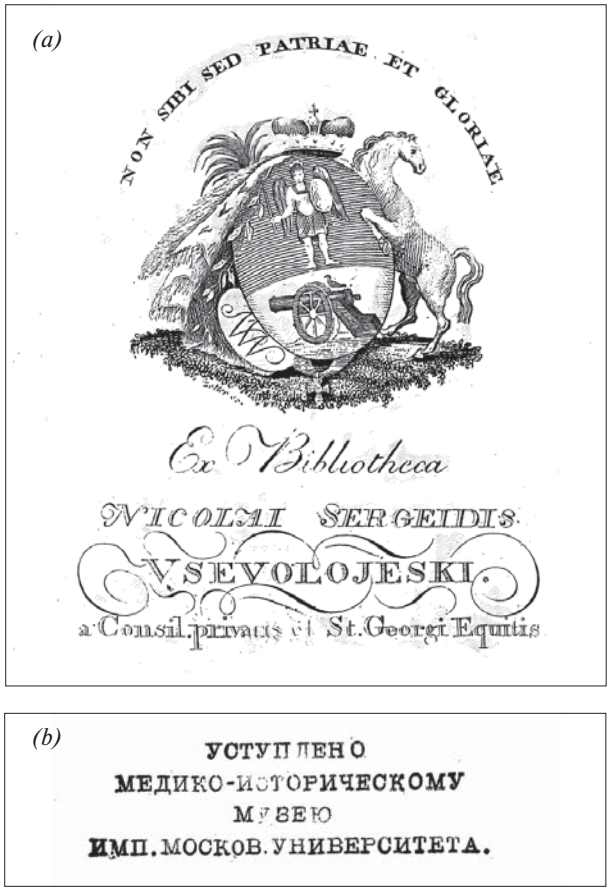


Fig. 5. Ex Libris N. S. Vsevolozhsky (*a*) and stamp regarding the transfer of the publication to the Museum of Medical History at the Moscow Imperial University (*b*)

Comparison of the contents of the fourth and eight editions of the Collected Works of Galen

Title	1565 Edition			1609 Edition		
	Volume	Part	Quantity of Included Texts	Volume	Part	Quantity of Included Texts
Isagogici Libri	1	0	15 texts	1	0	15 texts
Primae Classis Libri		1	31 texts		1	31 texts
Secundae Classis Libri	2	2	12 texts	2	2	12 texts
Tertiae Classis Libri		3	17 texts		3	20 texts
Quartae Classis Libri		4	14 texts	3	4	14 texts
Quintae Classis Libri	3	5	10 texts		5	10 texts
Sextae Classis Libri		6	5 texts	4	6	5 texts
Septimae Classis Libri		7	18 texts		7	18 texts
Extra Ordinem Classium Libri	4	8	4 texts		8	4 texts
Spurii Libri		9	33 texts		9	35 texts
Galeni Operum Quorundam, quae aliquo modo mutilata ad nos peruenere, fragmenta	Missing from the 1565 Edition				10	16 texts
Antonii Musae Brasauoli Medici Ferrariensis Index Refertissimus in omnes Galeni libros, Qui ex Octaua Iunctarium edicione extant	Missing from the 1565 Edition			5		

Note: Sections that are indicated in the table of contents but missing from the studied copies are given in italics.

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