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Articoli/*Articles*

THE DIFFUSION OF ANCIENT MEDICINE IN THE RENAISSANCE

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SUMMARY

Ancient Greek medicine was largely transmitted in the Renaissance in the form of Latin translations. Recent scholarship has carefully delineated the sources used, and the printing history of many texts, but, save for anatomy, less has been done to elucidate how their message was received, and how that message itself changed during the sixteenth century.

Few Library School theses have had as much impact on wider scholarship than Richard Durling's 1959 survey of the Renaissance editions and translations of Galen. In its original form, and in its slightly different and now far more familiar publication in the *Journal of the Warburg and Courtauld Institutes* for 1961, it marked both an end and a beginning[1]. Although minor additions and corrections can still be made, Durling's catalogue settled effectively once and for all a disputed question: how was Galen made available to the reader in the late 15th and 16th centuries? Not only did it lay down new standards for the bibliography of an ancient author in the Renaissance, but for the first time it allowed the medical historian to build on firm foundations.

It might be true that, as Jan Van de Velde, doctor to Maximilian of Burgundy, put it in 1527, without Greek all knowledge of medicine was a mere imposture, but what Durling showed was the overwhelming importance of the Latin translations of ancient authors in spreading the new learning, both before and af-

Key words: Ancient medicine – Renaissance – Latin translations

ter 1525-26, when the Aldine edition of the Greek Galen was published[2]. Studies of other ancient Greek medical authors since 1961 have only confirmed that general picture[3]. There was now an answer to the complaint of the Salzburg doctor Leonhard Schmaus in 1519 that the claims for the new Greek learning were effectively worthless because it had not, as yet, been made available to most doctors, who could neither read Greek nor acquire the necessary treatises, even if they could[4]. In the thirty years that followed the Aldine edition, more Galenic editions and translations were published than ever before or since. But it is not just the numbers that are impressive. They brought about a change in Galenism. Before 1525, with the exception of the versions of Thomas Linacre, what was translated into Latin was more accurate renderings of Galenic texts that were already in the university medical syllabus[5]. Indeed, in printed editions of the *Articella* the new translations from the Greek often accompanied the earlier ones from the Arabic, so that the student could follow whatever version his teacher chose for his lectures[6]. But, with the publication of the Aldine Galen and the many versions that flowed from it, renaissance doctors found a largely new Galen, that was reflected in the subsequent pattern of renaissance Galenism.

Hippocrates had a slower but a steadier success. Calvo's translation of the Corpus in 1525, and the Aldine Greek edition of 1526, inspired a smaller number of imitators, hardly surprising since Hippocrates was far more difficult to understand and use. Hippocratic printings lagged a decade or so behind Galen in their growth, but from the 1560s on they overtook Galen and remained at a steady five a year until the end of the century[7]. This pattern may represent a decline in hard-line Galenism less than the rise of the Paris school and of a shift towards viewing Hippocrates as the sole giver of authoritative precepts - and precepts that could be interpreted flexibly to fit modern notions.

That this was a movement primarily dependent on Latin can also be seen by the fate of other Greek writers. The Aldine press broke off its series of printings of Greek doctors half way through Aetius in 1534, in a manner reminiscent of what had happe-

ned forty years earlier with its plans for a complete Galen in Greek and with the rival enterprise of Callierges and Vlastos, which went bankrupt after their initial publication of the two Galenic *Methods of Healing*[8]. There was only a limited market for Greek books, even after Greek became commonly taught in gymnasia and grammar schools: the 1557 Paris edition of Johannes Actuarius marks the end of an era[9]. Galen and Hippocrates in Greek required an accompanying version into Latin - or a captive market. Rabelais' edition of Hippocrates' Aphorisms, 1532, is tagged on to the back of a selection of the new Latin versions of Articella texts: the volume became a best-seller in France, but the Greek in most copies shows little sign of being read, and was dropped entirely in the third priting of 1545[10]. Most doctors, if they were interested in lesser authors, read them in translation in such collections as the *Medici antiqui graeci* of Junius Paulus Crassus, a large volume incorporating many of Crassus' earlier versions[11]. I doubt whether William Harvey was the only Galenist who, faced with a bilingual edition, chose to annotate the Latin rather than the Greek[12]. The passing comment of a Dutch preacher in 1627 rings true: scarcely one in a thousand physicians could read their Galen in the original Greek[13].

I stress the importance of Latin because it is often forgotten in the face of the many new discoveries made by philologists and editors of Greek texts. Thanks to their labours we now have a much clearer understanding of the relationship between renaissance printed texts and their manuscript sources. We can follow a Galdaldino or a Caius on their hunts for manuscripts, and we can pursue the big collectors, in Italy or France, as they sent out agents to beg, borrow, or copy Greek manuscripts for their collections, or to be the basis for a future edition[14]. We know the names of some of the middle-men, supplying doctors to order with copies of rare texts, and we can track certain manuscripts as they pass from hand to hand among friends and colleagues[15]. We can experience something of the thrill of discovering a totally new text from Antiquity - and the frustration of hearing about potential survivals in remote or vanished libraries[16]. We can trace, quire by quire, if not page by page, the methods of the Aldi-

ne editors of Galen and Hippocrates as they strove to set their manuscripts up in print[17]. Is it coincidence that the Aldine Galen appeared in 1525, a year when the Venetian fleet was not fighting and where there was enough metal in the city to be bought up to be cast as type in one of the largest of all publishing enterprises, ampounting to more than two and a half million words? Above all, we can now appreciate the importance of scholars like Giorgio Valla and Niccolò Leoniceno, whose collections of manuscripts of Greek science were, at least from time to time, made available to form the basis of the printed tradition of Greek medicine[18].

If we are now well informed about the arrival of Greek medicine in the Renaissance, and the transition from manuscript to print, what followed is still a matter for considerable debate. It is no longer possible to attribute the decline of Galenic printing largely to a reaction to the criticism of Galen by Vesalius and others. It is also part of a wider development in which the productions of living authors gradually came to outnumber the dead on the shelves of a medical library, a stage reached perhaps only as late as the 1570s[19]. The big *Omnia Opera* remained, expensive tomes beyond the pocket of many doctors, but they competed against smaller volumes, often of one or two tracts at most, deliberately aimed at an individual, and even a student, market. Where Venice led, Basle and Paris followed - and above all Lyons, where the Rouille press put out a series of individual Latin translations in a tiny and cheap format, perhaps to allow a student to build up his library as he went along. This was a publishing success, although not entirely an intellectual one: several of the copies of these editions I have examined in the Wellcome Library show the signs of waning enthusiasm, as early annotations give way to pristine pages, and finally to leaves that have never been cut or opened.

Despite claims to the contrary, the precise role of the printing press in the spread of medical ideas in the 15th and 16th centuries still requires careful investigation. The famous thesis of Elisabeth Eisenstein that sets the impact of printing as the crucial element in the transformation of renaissance medicine into modernity is demonstrably false. Her great examples, the

Fabrica of Vesalius, and Paracelsus, come late into the story of the printing press[20]. What the early printers chose to publish was what made money, university set texts, the *Articella* above all; and practical medicine, whether in the form of compendia, health guides, plague tractates or self-help remedies[21]. In Germany, the medical best seller was written by a leading member of the Vienna medical faculty from 1433 to 1473, Michael Puff von Schrick, whose *Useful Little book on Distillations* went through at least 38 printings between 1476 and 1501. But which of us is truly familiar with Dr. Puff or with that other international best-selling author, Alexius of Piedmont and his book of *Secrets*[22]?

But to talk about books, or to follow the philologists of another age in their hunt for manuscripts that would help bring light to medieval darkness, and reveal purer springs of learning, is to concentrate on only one aspect of the transmission of ancient medical ideas to the renaissance. It is a first step, no more, towards answering the far more complex and difficult question of how these ideas were assimilated and understood. When Leoniceno delivered his challenge to those who put their faith in Pliny and other doctors (and one must not forget these 'other doctors' in a wish to see a controversy solely over Pliny or over botany), how was that challenge answered or developed[23]? Leoniceno's views we know: he roundly rejected everything in Latin in favour of a correct interpretation of the original Greek sources[24]. But it should not be forgotten that, because of his remarkable collection of Greek manuscripts, he was unique in his ability to know what those sources contained. Politian in Florence or Urceus Codrus in Bologna might agree in general with Leoniceno, but even they had not the wide acquaintance with Greek medical texts that he had[25]. Secondly, Leoniceno adopted such an uncompromising stand that all who opposed him, not least Antonio Benedetti, could be tarred with the same brush as being anti-Hellenists.

Leoniceno's challenge was in part philological, the proper determination of the meaning of words. His demonstration that Latin terms in common use were often incorrect could not be gainsayed. One response was to say that these confusions did

not matter in practice, either because the words complained of rarely overlapped or because the therapies based on them remained effective, even if, from the point of view of their Greek originals, they were applied wrongly. The other response, favoured by those who had Greek, was to embark on a clarification of terms, to create a new medical lexikon. Benedetti in anatomy, Manardi for a variety of diseases, and a whole tribe of botanists from Leoniceno himself to Marcellus Vergilius, Fuchs, Brasavola, Matthioli and beyond, endeavoured to clear away the confusion of terms through deeper scholarship and broader experience[26]. The first printing of a classical medical text North of the Alps, the 1499 Erfurt printing of Giorgio Valla's version of the *De victu humano* ascribed to Psellus, comes accompanied by an *Interpretamentum leve* setting out the meaning of the new Latin terms in German and occasionally in Greek. This unusual book, intended for university students, was the result of collaboration between Georg Eberbach, the professor of medicine, and Nicolaus Marschalk, the professor of arts at the university of Erfurt. It is a work of practical medicine, but how many of the *pueri* could really grasp its message is far from clear. Rather, it might best be seen as a banner proclaiming the participation of the university in the new humanist movement[27].

This philological strain can be followed in tracts and commentaries throughout the century, and woe betide those, like Vesalius, whose skill in translation was not always equal to the task they set themselves. But it was only one way of approaching the ancients. Their message could be also transmitted independently of the ancient texts themselves. For example, Giorgio Valla's large encyclopedia, *De expetendis et fugiendis rebus*, served as a major repository of such information, and, when broken down into shorter volumes, circulated widely[28]. Its anatomical section, *De humani corporis partibus*, was separately reprinted several times, particularly in Germany, and as late as 1585. Melanchthon's *De anima*, a hugely influential survey of both body and soul, contained a similarly large anatomical lexikon[29]. But one must be careful to distinguish this new vocabulary from changes in medical language and style developing in the fifteenth century as a result of changes in humanist education and perhaps, although this is far from certain, as a result of the rediscovery of the Cicero of ancient medicine, Cornelius Celsus[30].

Some inconsistencies in medical texts were treated in a slightly different form, one favoured by other humanists for dealing with problems of interpretation in literary texts. The short essay, as composed by Politian in his *Silvae* or Caelius Rhodiginus (1453-1525) in his *Lectiones antiquae*, could be imitated by doctors in an *Epistula medicinalis*, which might often be an actual letter or a *consilium*. Although the individual topic might not arise directly from a classical text, in the hands of a Manardi, a Mondella or a Teodosi, it could be developed with a whole range of learning, both ancient and modern[31]. Johannes Lange (1485-1565), for instance, discussed the 'Scherbock', a form of scurvy, alongside other epidemic diseases of antiquity, and quoted the very recent version of Hippocrates' *Diseases of Women* to explain the illness of a friend's daughter[32]. The words of a modern author might even become the object of similar scrutiny. In the second half of the century, the Dutch physician, Pieter van Foreest, 'the Dutch Hippocrates' (1522-1597), produced volume after volume of *Observationes*, Hippocratic case histories, each accompanied by an even more extensive commentary in the manner of Galen or a commentator on a classical text[33].

Particularly in the first half of the sixteenth century, using the Greek Galen or Dioscorides to demonstrate the errors of one's medieval predecessors was one way of showing the superiority of the new physicians. The controversy over the appropriate site for letting blood occupies the same position in the history of medicine that the identification of rhubarb does in the history of pharmacy. Both topics were pursued with considerable vigour by scholars across Europe, and both can be seen as emblematic of the new medical learning in their emphasis on the folly of those who stuck blindly to what they had learned from Pliny or Avicenna[34].

But reading ancient texts, and particularly Galen, had a broader impact than this, for the 'new' Galen, the texts that were either unknown or unfamiliar to the Middle Ages, brought a new appreciation of what he had achieved, and not only at the level of theory or academic commentary. Galen's enormous expertise,

and his insistence on personal investigation, stood out as never before. The Nova Academia Galenica in Florence, a shortlived group of young physicians in the early 1530s, emphasised the new methodologies that they derived from their master[35]. It is no coincidence that its members, like their patron Matteo Corti (1475-1544), became enthusiasts for anatomy, for it was Galen's demonstrative anatomy, not least as revealed in *Anatomical procedures, On the use of parts*, and *On the opinions of Hippocrates and Plato*, and, later, *On bones*, that inspired them to follow his example. The constant repetition in these texts of the injunctions to see, touch, and dissect was highly influential. Corti, Sylvius, Vesalius, Caius, and many others like them, eagerly followed Galen's advice, even when, in their formal university teaching, they kept to the older division of labour between lector, ostensor and dissector[36]. Anatomy became the shibboleth that distinguished the old-fashioned from the new physician, and those who failed to move with the times, like Professors Noot and Willemmers at Louvain, were roundly disliked by their students[37]. But there was a price to pay. Many of those who introduced the new anatomy into their medical schools, even when, like Sylvius, they carried out their own anatomies of animals, remained in awe of Galen. Although they were well aware that he had not systematically dissected human corpses, they believed (rightly) that he had seen inside a human body from time to time in the course of his long life, not least as a surgeon, and that this guaranteed his accuracy. Their reaction to Vesalius' claim that Galenic anatomy was not that of humans, but that of animals, and that he, Vesalius, was the first to recover the lost human anatomy of the Alexandrians, was understandably sharp - and often accurate. Vesalius had misunderstood Galen on many points; he had misrepresented Galen; particularly in the later books, he had taken over large sections from him without acknowledgment; and in suggesting that Galen did not know that his anatomy was that of animals, he was just plain wrong[38]. That other explanations could be found for those places where Galen seemed to be wrong only confirmed Sylvius and Caius in their hostility to what seemed an act of gross impiety, and this hostility lasted for several decades.

But that is not the whole story, and modern historians have been wrong to conclude that most supporters of the revived ancient medicine were antagonistic to Vesalius. Many of them appreciated that Vesalius was following Galen's advice and methodology. Hieronymus Gemusaeus, one of the editors of the Basel Galen, foretold, only a few days before its publication in 1543, that the *Fabrica* would be a masterpiece, an opinion he reiterated a few weeks later after he had seen the book[39]; Leonhard Fuchs and Philip Melanchthon eagerly siezed on the *Fabrica* as an up-to-date rendering of Galenic anatomy, more accurate but also following Galen's example and advice[40]. Matthioli in the preface to his 1544 commentary on Dioscorides included Vesalius among those who had, like Leoniceno, Manardi, Sylvius and Fracastoro, restored ancient medicine to life[41]. Even the grumpy Niccolo Massa, in a review of the *Fabrica*, was forced to admit that this was a work worthy of Galen and fully in the Galenic tradition - although of course he himself could have done a better job, had he not been encumbered by other tasks[42].

This generally favourable reaction to Vesalius typifies a further development in reactions and responses to ancient medicine in the sixteenth century. By the 1540s many of the leading physicians were beginning to use the information provided by their ancient sources and build on it to put forward their own syntheses or ideas. Led by Giambattista da Monte at Padua, they saw in the Galenic Corpus a new method of healing that combined the authority of past successes with the flexibility needed to deal with the individual patient. The comment of Luigi Mondella was typical:

> *The Arabs have discovered many valuable medicaments unknown to Galen, but they would have fared still better if they had not wandered in so many ways away from the truth and the unimpeachable methods of Galen*[43].

The newly recovered medicine from the past was now a resource of information that the truly erudite could exploit in their own practice. The writings of the Paris school, as Iain Lonie showed, take up a variety of texts from the Hippocratic Corpus to provide the basic precepts for their own syntheses. Guillaume

de Baillou, for example, in his *Ephemerides* developed ideas from *Airs, Waters, and Places* to promote his own views on meteorological medicine and the environment[44]. In Italy, Girolamo Mercuriale, editor of Hippocrates, and an owner and investigator of medical manuscripts, used his very considerable knowledge of the ancient texts as a basis for his lectures on paediatrics, dermatology or the plague[45]. His *De arte gymnastica*, at least in its first edition of 1569, had a clearly medical aim: to reintroduce into practical medicine the physical exercises and training of the ancient Greeks and Romans. In collecting this information, explaining technical terms, and listing ancient recommendations, Mercuriale was breaking new ground - and preaching to his fellow doctors, with some success, since three more editions followed during his lifetime. But the emphasis in them switched gradually to antiquarianism, particularly in the two posthumous editions of 1644 and 1672. Lavishly illustrated with engravings based on coins and sculptured reliefs, with added plans taken from other students of antiquity, the book then served as a compendium of information on the past, aimed at the wealthy connoisseur, not the practising doctor.

Others took the message to those whose grasp of Latin was not as strong as they might wish, to the apothecaries and surgeons. Although his translation of Dioscorides was not the first into Italian, Matthioli's 1544 commentary gained its reputation precisely because it made available in the vernacular the conclusions of scholars that had previously circulated only in Latin[46]. Jacques Daléchamps in his *Chirurgie francoise* of 1569 made similar claims for its new information provided by classical texts, particularly Paul of Aegina, and, like Matthioli, he also turned into the vernacular large sections of the learned commentaries of others[47]. He intended to show the '*compagnons et maistres Chirurgiens*' that there was agreement between the great names of the past and the leading surgeons of his own day, and also that many successful operations from the past had been neglected, misunderstood or dropped because patients, possessed of a '*si mignarde et délicate complexion*', had shrunk from submitting themselves to the knife. In this Daléchamps was following in the footsteps of the ambitious Florentine Vidus Vidius, whose *Chi-*

rurgia e Graeco in Latinum conversa of 1544 had reproduced many of the texts and illustrations from the famous Codex Nicetas[48]. Not only did Vidius bring to wider notice the techniques advocated by Oribasius or Paul, but he also emphasised the value of some ancient instruments, some redrawn for his book from ancient illustrations, others created specially with the help of model-makers. Similarly in the 1530s and 1540s Lyons surgeons and publishers collaborated in translating Galenic books on surgery to provide latin-less surgeons with the 'chirurgie theoretique' that would, it was hoped, raise them above the empirics, '*circulateurs, basteleurs, theriacopoles, vulgairement triacleurs, ou imposteurs et abuseurs*'. A generation later, a similar group of surgeons in England, around George Baker and Thomas Gale, turned these French versions into English with a similar intent.

How far these partisans of the ancient texts succeeded in their aims, remains still to be properly investigated. The participants in the vigorous debates over the proper identification of plants in Dioscorides were certainly convinced that in this way they could render even more effective their traditional herbal therapeutics, and it is not fanciful to link the rediscovery of Dioscorides with the popularity of herborizing expeditions and the setting up of botanical gardens and chairs of pharmacology[49]. It is also easy to see how the scholarly methodologies adopted for studying ancient pharmacological texts were taken over into other areas of the study of natural history: two of the editors of the Aldine Dioscorides, for instance, are more famous for their work on other aspects of natural history, Edward Wotton in zoology and Georg Agricola in mineralogy[50]. But we lack any detailed examination of the ideas and practices of many of the leading physicians of the 16th century, Fracastoro and Mercuriale among them, and the study of annotations and *marginalia* to show how renaissance doctors read their texts is only beginning[51]. To assume from the start the notion of a unified Galenic approach to medicine in the sixteenth century may obscure what was actually studied, far more than it clarifies[52]. Certainly Paracelsianism from the 1560s onwards served as one boundary that defined Galenists or traditional physicians, but even here

attitudes varied over the extent to which Paracelsianism was compatible with earlier theories. The view from Montpellier was very different to that from Padua[53].

But to concentrate on the method of transmission of ancient ideas, or on the disputes of professors over this or that passage in Galen is far from being the whole story. What was introduced from the classical world changed the wider view of what being a doctor entailed. Winfried Schleiner and Thomas Rütten have both pointed to developments in medical ethics as a result of the classical revival[54]. Even Galen could be held up as an example of the cardinal virtues, *'to serve as an example to those who desire to lead a virtuous life, based on good morals and sound learning'*[55]. Furthermore, the revived Galenic image of the doctor not only imposed new skills and interests on the sixteenth-century practitioner, but it also banished two of the standard procedures of medieval medicine to the margins of the medical profession. Learned doctors from Johannes Lange to Pieter van Foreest now denounced the use of uroscopy as the major guide to diagnosis[56]. They followed Galen, who had insisted that uroscopy was only one element in the proper examination of the patient. By itself it was extremely fallible, and the claims of its practitioners that they could thereby find out unaided both past and present were deeply flawed.

The decline of astrology was more complex, if no less marked. If at the beginning of the sixteenth century university medical faculties like those of Vienna and Louvain enjoyed a great reputation for astrology, by the end of the century this was rarely, if ever, studied in medical courses. The writers of astrological handbooks and prognostications were no longer drawn from the higher ranks of the medical profession, - Cardano is a rare exception - but from provincials or those like Simon Forman, whose university education was at best fitful. Patients still sought out eagerly medical astrologers, and read their almanacs, just as they imposed uroscopy on unwilling Galenists, for failure to respond to these requests could be interpreted as rejecting the patient[57]. But it is hard to imagine that an editor or publisher in 1600 would have followed Struthius in his claims for his Galenic translations of the *Astrologia Galeni*, the *Liber de urinis*,

and the *Antidotarius* in 1536 – *'a work greatly and universally desired for centuries and now available again in pristine Latin'*[58]. It is not only that all three works are far from authentic, but that the type of medicine that they represent had by 1600 become the province of the quack[59].

The transmission of ancient medical texts to the Renaissance is a complex process. It is not only the transmission of words, whether in manuscript or in print, that matters, but the way in which those words are then utilised either to defend the past or to present something that is largely new. Change is not always in one direction, and the pace of change varies from country to country, if not from university to university, or professor to professor. The main outlines of how ancient medicine reached the sixteenth century are now clear. But how its ideas were understood, assimilated and developed needs far more investigation, and far more thought, before we can be as confident in tracing a transformation of ancient medicine within a new social, intellectual, and global environment[60].

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portance largely as a guide to the climate that followed the movements of the heavens.

60. Research has concentrated largely upon the introduction of new drugs from India and the New World (often described according to methodologies developed by commentators on Dioscorides), and less upon new therapeutic practices or the wider changes in medical perceptions.

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Articoli/*Articles*

AFFLIZIONE E SCETTICISMO: MONTAIGNE E LA LETTERATURA CONTRA MEDICOS

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SUMMARY

AFFLICTION AND SKEPTICISM: MONTAIGNE AND ANTI-MEDICAL LITERATURE

The essay II, 37 De la ressemblance des enfans aux pères, *written by Montaigne between 1579 and the first months of 1580, is a merciless critique of doctors, doctoring and medicine in general. This Essay, as much as a large number of other texts, of archival records, of iconographic materials produced during the Early Modern period, testifies a wide spread skeptical attitude toward medicine across Europe. This is an important aspect of Early Modern culture. Despite its relevance it has been often neglected by medical historians. This paper aims to show how a literary text can contribute to the understanding of the rise of some aspects of these critical attitudes towards medicine and medics. In Montaigne's text, these attitudes appear to be generated by his personal experiences of suffering and disillusion deeply entangled with a long tradition of philosophical skepticism to which some of his favorite readings belong. Both these elements seem to have also contributed to bring Montaigne in 1580 to the definition of the poetic project of the Essays as a self-portrait: a project in which the bodily presence of the author, with his humors, passions and sufferings, is self-consciously part of the writing process and of the intellectual enterprise.*

Nella *Storia del pensiero medico occidentale* curata da Mirko Grmek per Laterza e per Seuil, il nome di Montaigne ricorre soltanto due volte. È normale, si dirà. Anzi, è quasi un'esagerazione: si tratta di una storia del pensiero medico e non di una sto-

Key words: Skepticism - Medical uncertainty - Baths