STUDI E TESTI

MISCELLANEA
GIOVANNI MERCATI

PUBBLICATA SOTTO GLI AUSPICI DI
SUÀ SANTITÀ PIO XII

IN OCCASIONE DELL’OTTANTESIMO NATALIZIO
DEL’E.MO CARDINALE BIBLIOTECARIO E ARCHIVISTA
DI SANTA ROMANA CHIESA

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al punctures (near the center of the folios) demanded by the two columns of text on folios 2 and 2' of a quire whose other leaves have only one column are punched through all the leaves; this is a timesaving operation. Again, if some or all of the original prickings are misplaced, corrections are made, frequently by the use of prickings of a contrasting type.31 Other equally profitable observations can easily be made.

31 Thus, in the last quire (14) of Morgan 764 the first set of prickings (round holes) was slightly misplaced and a second set (nearly vertical slits) was placed in the proper position and used for the ruling.

THE PROBLEM OF THE COMPOSITE MANUSCRIPT

In the making and copying of medieval Latin manuscripts two opposite processes may be distinguished. Standard works of considerable length, which were used as textbooks in the universities or in the convent schools of the friar orders, needed to be multiplied in many copies, but at the same time the original text should be preserved unaltered. Accordingly an exemplar or standard text was maintained in an unbound, loose-leaf state consisting of sections of eight pages each. A student or copyist could borrow one of these peciae for a small fee and get the next one when he returned the former. Thus approximately one hundred persons could be making copies of one text of 800 pages at the same time.1

The other process of manuscript making was that of the individual who desired to copy or to have copied for him in a single volume a number of relatively brief treatises by different authors of his own selection. Since this was his own affair, he might alter the word order or even the wording of his authors to make the meaning clearer or the style more acceptable to himself, or just because he was a bit careless and indifferent as to such matters. He might purposely omit some of the text which did not seem to him worth the trouble of copying, or condense it a little, or expand it a little, or embody a previous marginal note in the text, or add a new note of his own, or make such other alterations as he chose. He might

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know the authors and titles of the works which he was copying so well that he would not bother to record them. He might insert anonymously a composition of his own.

So, while the exemplar was a single text, which aimed to be standard divided into handy pieces, the ordinary learned Latin manuscript is often a composite of different treatises in all sorts of permutations and combinations, not merely of selection and arrangement of the component treatises, but in the characteristics and particularities of the text of each. This situation raises several questions. What do such composite manuscripts reveal apart from their particular constituents? How may they best be classified and catalogued? How was the choice of the component treatises exercised, limited and determined, especially in the case of those bearing upon a common topic or field? What scope was possible in the selection?

The problem of the cataloguing and analysis of complex scientific manuscripts may be illustrated by the example of Sloane 3457, an important alchemical collection in the British Library.2 The old long hand catalogue of the Sloane manuscripts 3 divided this manuscript into 62 component parts, whereas Mrs. Singer’s more recent catalogue 4 distinguished 91 items, some of which, however, combined items which had been listed separately before. Even so, both cataloguers left large stretches of the text virtually uncatalogued and unidentifiable. These portions consist in the main of numerous recipes, operations, extracts and passages which would require several hundred separate entries for their complete and satisfactory description. It took Mr. W. J. Wilson 42 pages thus to catalogue the single Lehigh University alchemical manuscript of Arnold of Brussel 5 and almost two hundred pages to describe it more fully.6 Therefore this would be a colossal task, if undertaken for a large number of manuscripts. But it is doubtful whether such material could be adequately catalogued in any other way. For in the past history of chemistry, metallurgy and technology, or of medicine, surgery and pharmacy, the particular process or operation, secret or recipe or cure, may have as great importance as a longer theoretical treatise or an unoriginal compilation from previous authors. Cataloguers of manuscripts have long since been accustomed to itemize state papers in detail, or, in the case of a series of sermons or collection of poems to list each homily or sonnet separately with its incipit. It is high time that they recorded in at least equal detail the learned and scientific writing of the past which possesses some real content and is not mere words.

If a composite manuscript is all written in the same hand, or if it is clear from colophon or note that all the component parts were copied for the use of a single individual, the codex obviously reflects the personal interest and knowledge of its maker or orderer, and also those of a particular period. We have, for instance, the handbooks of practising physicians and alchemists, such as that of Leonard of Mauperg described by Professor Corbett, containing not merely medical or alchemical tracts but, as already noted, innumerable recipes taken from a multiplicity of sources and perhaps including some experiences or experiments or discoveries of the writer. Such manuscripts combine within one cover a working library with a laboratory notebook or a clinical record of cases. Or they may reflect the personal interests of a lawyer or logician or theologian or astronomer and astrologer. Others are commonplace books displaying a miscellaneous literary interest. In all these instances what is left out may be as significant and revealing as what is included. The personal liberties which the maker of the new manuscript has taken with the old texts also have their import. There is a field open to conjecture not only why certain treatises have been included but why this or that particular extract from a past work was made. If the manuscript was not put together for professional purposes and does not deal with any one special field of knowledge exclusively, its combination of subjects provides further food for thought as to the type of mind back of this conglom-

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1. For a fuller discussion of it see LENN THORNSIKE, A Study in the Analysis of Complex Scientific Manuscripts, June, XXIX (1939), 377–82.
5. AN ALCHEMICAL MANUSCRIPT by Arnoldus de Brussel, Ottawa, II (1929), 229–65.
Illustrated by a number of manuscripts, for the most part of the thirteenth and fourteenth centuries, containing works of Galen in Latin translation. Each such work is indicated by a capital or small letter of the alphabet as follows:

A De utilitate pulvis
B De voce et anhelitu
C Anathomia
D Megatenei
E De interioribus
F Secreta
G De differentiis februm
H De utilitate respirationis
I De causis respirationis
J De eteri cura
K De dispensantibus
L De bono habitu
M De dignitione in somniis
N De noceola portis
O De marisco
P De rigore et tremore
Q Liber pharmacorum
R De febris
S Optima constructio
T De secretis secretorum
U De sententia
W De temporibus
X De temporibus paroxismorum
Y Megapulsum
Z Peri crasseos
& Podagra

They occur in the order indicated in the following manuscripts:

EJDZ Boulogne-sur-Mer 193, 12th century
beystetn carriers of deuipuyP Bourges 290, 14th century
comhEijkhvGpmyekyki2F Breslaw University IV. F. 25
ltnvqwyy28 Cesena dextr. XXIII, 1, 13th century
abedevghbiJ Cesena dextr. XXV, 1, 12th century
lempodqpsj Cesena dextr. XXV, 2, 13th century
ceudmlfrkyhrgs20508 Cesena dextr. XXV, 1, 13th century
jEdiajehhiFk1KLMSWX Chartres 284, 13th century

They occur in the order indicated in the following manuscripts:

EJDZ Boulogne-sur-Mer 193, 12th century
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ceudmlfrkyhrgs20508 Cesena dextr. XXV, 1, 13th century
jEdiajehhiFk1KLMSWX Chartres 284, 13th century
ved. Or at least what seem to us anomalies and inconsistences creep in, but they should perhaps warn and inform us of a different mental outlook then. A fourteenth century manuscript at Erfurt \footnote{Amplon, f. 387.} is in the main a collection of mathematical, astronomical, physical and optical treatises of a high order. It has a Latin translation of Archimedes on burning mirrors, two tracts on weights by Jordanus, the work on the magnet of Petrus Peregrinus, the \textit{Perspectiva communis} of John Pecham, the works on mirrors ascribed to Enclid and to Polonius, Thomas Bradwardine on proportions, an \textit{Algorismus de integris}, the \textit{Canons of John of Saxony on the Alfonnine Tables}, an anonymous \textit{Theoria planetarum}, a table by Petrus de Vaila of the positions of the moon, and a little known treatise by a James of Naples for the students of the Augustinian convent there. So far the contents would seem to reflect the purely scientific interests of some forerunner of modern specialization in the exact sciences. But we have not yet seen the whole picture. Between the work of Bradwardine on proportion and three books of Enclid's \textit{Elements} with the commentary of Campanus of Novara come a table of interpretation of dreams and a tract on judging horses. Between Peregrinus on the magnet and the \textit{Theoria planetarum} occur tables of conjunctions of the planets suggestive of astrology.

At the Bodleian in Oxford a manuscript which is mostly of the early fourteenth century \footnote{Dugby 28. The first eight leaves, containing the \textit{Messa comuni} of Alexander of Villa Del, are early 12th century.} has scattered among its 27 items, besides Latin poems—three of which are of a religious turn—and theological treatises, an arithmetical, several works on computus, others on the calendar and astronomy, Peregrinus on the magnet, \textit{Secreta secretorum} of pseudo Aristotle, the alchemical \textit{Speculum secretorum} variously ascribed to Roger Bacon or Albertus Magnus, the astrological medicine of pseudo Hippocrates, the long passage on weather prediction from the 18th book of Pliny's \textit{Natural History}, \footnote{It is found separately and anonymously in most MSS as a \textit{Liber de propiginis temperatione} without Pliny's opening paragraph and was so printed by error in Appendix 35 to vol. III of \textit{A History of Magic and Experimental Science}. Dugby 176, fol. 69r has the opening paragraph.} the \textit{Physiognomy of Polonius}, the prophecies of Merlin, Marhed on gemm, Pecham's \textit{Perspectiva}, and Messalina, the
Arabic astrologer, on the astrolabe. These works of experimental and occult science constitute the fifth, tenth, eleventh, thirteenth, nineteenth and last six pieces in the manuscript. The two exclusively theological tracts are the twelfth and twentieth items. Sandwiched in between these and one another come the other 14 works indicative of a poetical or mathematical bent. Thus a broad mental outlook is suggested and the combination of varied modes of thought, but withal considerable curiosity as to the occult.

From what diverse sources a composite manuscript might have been gathered may be illustrated from an astronomical and astrological collection covering 119 leaves and including 32 items. It dates from the fourteenth century, when it belonged to William Rede, bishop of Chichester. A note on the verso of the first leaf records that he was given part of it by master Nicholas of Sandwich; purchased part of it from the executors of Thomas Bradwardine, archbishop of Canterbury, who died in 1349; bought another section of it from the executors of Richard Cansale; wrote part of it with his own hand and had a portion of it copied off for him from other manuscripts. 16 It was a good thing that William Rede formed this composite manuscript, for it alone has preserved and transmitted to posterity what seems our earliest known detailed and systematic record of the weather over a considerable period, namely, seven years.17

How much time and pains the putting together of a single composite manuscript might take is further shown by another codex of the last decade of the fourteenth century,18 much of which seems to have been written out with his own hand by Donatus de Monte di Chiari. On May 3, 1390 at the nineteenth hour he began to copy a question by the famous doctor of medicine, Marsilius de Sancta Sophia, as to the multiplication of species, a topic treated by Roger Bacon in the previous century. Donatus did not finish copying it until the 27th of the month. On August 27 he completed a question by Albertimus of Piacenza on the contact of solid bodies, and on September 3 at Padua the treatise on the first and last instant which John of Holland had composed at the university of Prague in 1369. During the next year, 1392, Donatus finished copying the work of Gregory of Rimini, general of the Augustinian order, who had died in 1358, on infusion and remission of forms, and on December 29 he brought to a close the discussion of the same topic by Basilius of Parma, who was still living and not to die until 1416. At the time of copying this treatise Donatus was already a doctor in arts and was studying medicine. On March 4, 1393, which was the first Sunday of Lent, he completed another treatise, on the theme of augmentation and diminution. The next recorded addition to the manuscript by him was on December 29, 1395, at Chiusi, whither he had returned to spend the Christmas holidays with his father and where he enriched his collection with the work on proportions of Thomas Bradwardine. On February 12, 1396, during very heavy rains at Padua, where he had now become a doctor of medicine as well as of arts, he finished copying a treatise on maximum and minimum, "subtly composed," he says, "by Limeria or Subieth or Rosetus at some English university." From October 15 to 19 he wrote down a question on the elements by Marsilius de Sancta Sophia which bore upon the topic of infusion and remission. This copying was done in the house of Jacobus de Vellegio, while Donatus was waiting to go to Venice to take a house there, and during heavy rains and a lunar eclipse. On February 4, 1399 he copied another treatise on the first and last instant, this time by Walter Burley, the English schoolman. The last record in this manuscript of works copied by Donatus was on January 29, 1401, when he completed the questions of John of Casali on action, of which the first dealt with the velocity of the motion of alteration. He adds that he began to copy them fourteen years ago at Padua "in the time of my youth." He completed them at the turn of the century in Chiusi.

The remaining treatises in the manuscript, interspersed between those already mentioned, are not specifically signed and dated by Donatus and are usually not in his handwriting. But they are on similar topics and sometimes are the compositions of professors at Padua, so that they may well have been collected by him or copied for him. At first glance it might seem dubious whether the present manuscript is his original, since the treatises with his colophons do not occur in strictly chronological order of their copying.
As at present constituted, the codex begins with works which he copied in 1396 and 1399. It appears, however, from the table of contents that it originally opened with two treatises by Jean Buridan and ended at leaf 213 with the table of contents. The works copied in 1396 and 1399 have somehow been substituted for those by Buridan, whereas they would more properly be added after leaf 213 as are the questions by John de Casali which Donatus finished in 1401.

If space permitted, I might go on to describe other manuscripts that include a number of the works which Donatus thus put together. But not precisely the same selection would be found in any two of them. All display a similar specialized interest, but it is expressed differently in each individual case.22

This grouping of several specialized treatments of the same field or related topics continued to be manifest in early printed collections, which indeed perhaps sometimes simply reproduced the treatises in a single composite manuscript such as we have been describing. For example, the edition of Venice, 1565, which opens with Basanus Pollini De modulis, also contains a treatise on proportion introductory to the Calculations of Snellius, further the works on proportion of Bradwardine and Oresme, those on the latitude of forms of Oresme and of Blasius of Parma, an anonymous Tractatus sex inconveniencium, the Ques­tio of John of Casali on the velocity of the motion of alteration, and that of Blasius of Parma as to lifting two solid bodies which are in contact.

In a period when Latin was the universal language of learning and culture, and, aside from its employment in the church service, was used almost exclusively by intellectuals, and when manuscripts were guarded more closely by their possessors than printed books are today even by professional librarians, we find many a striking continuity of tradition in subject of author, and many a concatenation of distinguished ownership of a given codex. John of Gmunden, the Vienna mathematician in the early fifteenth century, was still interested to compose a work on the instrument known as Albion, of which Richard of Wallingford had written early in the previous century. Gmunden's treatise passed into the hands of Johann Viirdung de Hassfurt, another mathematician, astronomer and astrologer of the early sixteenth century.

A final question which suggests itself is: Why does the same work recur a number of times in the extensive libraries of men like Ampholius Ratinek de Berka (1369-1355) and Hartmann Scheel of Nürnberg (1440-1514), whose manuscripts are, or were, preserved at Erfurt and Munich respectively?23 These men were not mere book collectors but learned physicians who acquired manuscripts with the aim of using them for professional and scholarly purposes. They were not princes or prelates whose books were selected and ordered for them; they purchased these themselves, often abroad, and sometimes made their copies with their own hands. One reason why the same treatise recurs so many times is that it is found in different combinations with other tracts, and that the manuscript was presumably acquired for the sake of what was new in it, despite the fact that much of its contents was already in the acquirer's library. However, the combinations, too, are in considerable measure duplications. And not only may there be several separate copies of the same single work, but in a single manuscript the same treatise may occur twice, sometimes even written in the same hand. It is hard to believe that a scholar or professional man who had laboriously copied off a text for his own use would forget that he had done so and begin over again. But a professional copyist who executed a multiplicity of such orders without interest in the content might do so, either inadvertently or fraudulently. Sometimes the second version breaks off after a page or two has been written, indicating that the duplication had been discovered.

With regard to the larger question it may be surmised that the acquirer either was interested in preserving different versions of a text which he might compare, or that he was after all more or

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22 Venet. Patrit. lat. 1396, 1414 A, fol. 176v. What may be an older copy than this which passed into Viirdung's possession is at Munich, cod. lat. 13583, to 15th century, fols. 340-418, De compositione et divisione Albion a. 1430 edition. Concerning Viirdung's MSS see further ibid. xxx (1906), 361-71; xxxiv (1908), 366-72.

less a promiscuous collector. As time went on, he may have
developed a passion for gathering as many copies as he could of certain
favorite works. Or it may be that, after his library had attained
a certain size, the law of diminishing returns began to operate so
far as the obtaining of new works was concerned, and that he had
either to cease adding to his collection of manuscripts or be satis-
fied for the most part with further copies of texts already in his
possession.

If this supposition be true, we would have some measure of the
extent and limits of the literary output in various fields at various
times in various areas, and, against the impression that much has
been lost or has not yet been discovered, which we get by inference
from the survival in so many cases of only one manuscript of a
given work, could set the failure to include such material by the
most assiduous manuscript collectors of the medieval period itself.
This would also have an important bearing on the fundamental
problem whether the extant manuscript remains are too scanty a
percentage of what once existed to draw satisfactory conclusions
from them, or whether they are by and large fairly representative
of the thought and science, learning and letters, of that period,
and this quantitatively as well as qualitatively.

MEDEA NORSA

ANALOGIE E COINCIDENZE

TRA SCRITTURE GRECHE E LATINE NEI PAPIRI

È ovvio e naturale che un reciproco influsso e interferenze visi-
bili tra le forme delle scritture latine e delle greche si possano ri-
scontrare in Egitto, dove per più secoli l'uso delle due lingue e
delle due scritture fu contemporaneo, quantunque di fronte al
greco, che era la parlata di tutti, la lingua ufficiale e popolare così
dei greci come degli egiziani ellenizzati e degli asiatici, il latino
rimanesse limitato alla cerchia militare e alle cancellerie di ordine
superiore, a un numero dunque relativamente esiguo di individui.
È noto che le legioni romane stanziate in Egitto furono dapprima
tre, ridotte poi a due, se non proprio ad una sola, che la massima
parte dei documenti latini provengono appunto dalla cerchia mili-
tare e che ben rari sono i documenti delle alte sfere amministra-
tive di Alessandria dove’era usato il latino sebbene gli editi impe-
riali e le ordinanze dei prefetti fossero diffuse nel paese in lingua
greca. Il greco era la lingua ufficiale delle cancellerie delle metrop-
poli dei vari nomi e tutti gli impiegati statali e comunali, dallo
stratego in giù, ignoravano il latino. Essendo quindi tanto inade-
giunto il campo delle due lingue e per conseguenza il numero delle
scritture latine rispetto alle greche, il confronto non è facile né

1 La cancelleria del prefetto, dell'ippehronik, dell'has keryg, del ibarion e
quelle degli epistatebghi.
2 A. SEEL, Untersuchungen zur Geschichte und Verwaltung Aegyptens unter
Römischen Herrschaft, pp. 119 seg., 126 seg.; U. WILKERS, Ueber den Zustand der
lateinischen Papiere, in Atti del IV Congresso internazionale di Paleografia (Vi-
3 Si contano a decine di migliaia i papiiri greci; quelli latini invece sono appen-
date 200-250; cfr. MAX IAN, Bestandsblatt für Bibliotheken, XVI, 1908; H. R.
VAN HOEGER, Roman carotic Writing, Princeton, 1915, a questi si devono aggiungere